

Application 19-08-

Application of Southwest Gas Corporation (U 905 G) For Authority to Increase Rates and Charges for Natural Gas Service in California, Effective January 1, 2021

Volume II-B

NORTHERN CALIFORNIA RATE JURISDICTION RESULTS OF OPERATIONS Test Year 2021 Post-Test Years 2022 through 2025

SOUTHWEST GAS CORPORATION (U 905 G)

VOLUME II-B

NORTHERN CALIFORNIA RATE JURISDICTION RESULTS OF OPERATIONS Recorded Years 2012 through 2018 Estimated Years 2019 and 2020 Test Year 2021 Post-Test Years 2022 through 2025

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CHAPTER 1

Introduction and Description of Company Operations

Company Witness: Valerie J. Ontiveroz

SOUTHWEST GAS CORPORATION (U 905 G) NORTHERN CALIFORNIA INTRODUCTION

A. Purpose of Report

This report provides the California Public Utilities Commission information regarding the operations and earnings of Southwest Gas Corporation (Southwest Gas or the Company). This report is presented with and in support of Southwest Gas' application for authority to change rates.

B. Scope of Report

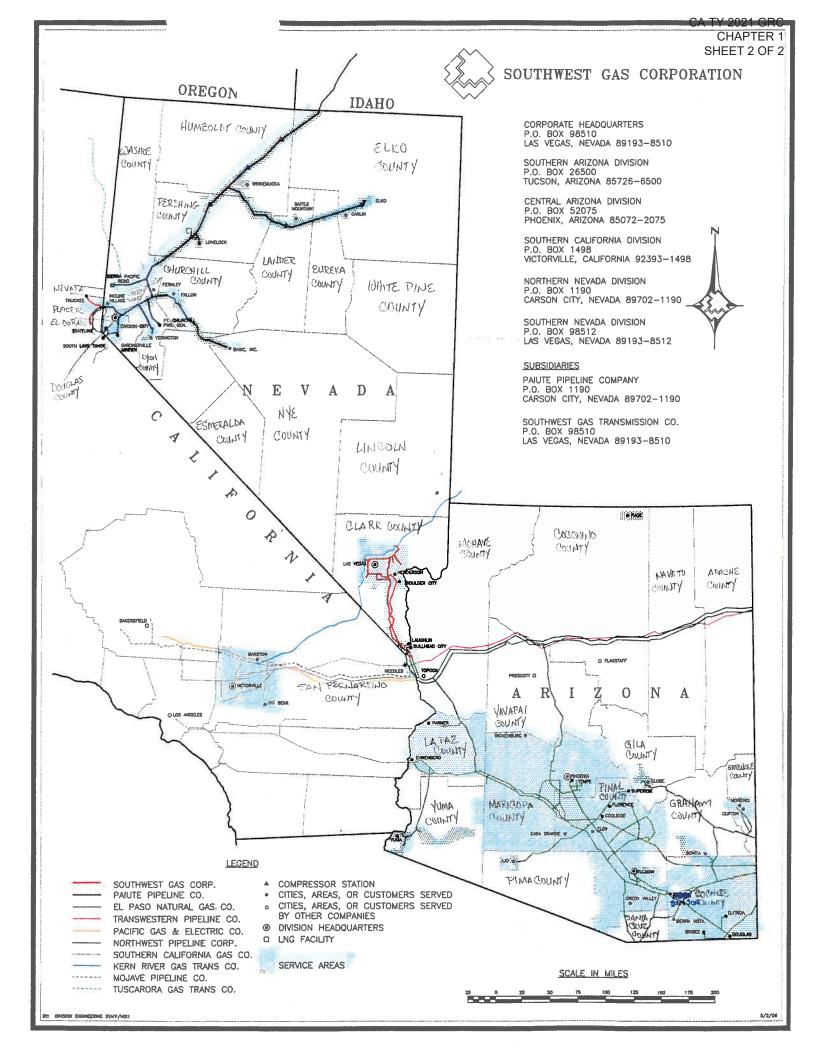
This report includes operating and financial data for the recorded period January 1, 2012 through December 31, 2018, estimated data through yearend 2019 and 2020, and the test year 2021.

C. General Information Regarding the Company

Southwest Gas is a natural gas company (as defined in the Natural Gas Act) engaged in the transmission and sale of natural gas at wholesale, and is a public utility engaged in the transmission, distribution, and sale of natural gas to retail customers for domestic, commercial, agricultural, and industrial uses in California, Arizona, and Nevada.

Southwest Gas currently serves over 2 million customers in the states of California, Arizona and Nevada. Southwest Gas has three service territories in California. The Southern California jurisdiction is located in San Bernardino County. The Northern California jurisdiction serves communities in Placer, El Dorado, and Nevada counties. The South Lake Tahoe jurisdiction serves a portion of El Dorado County. In total the Company serves approximately 200,000 California customers.

A map is attached showing the communities served in each respective service territory.



CHAPTER 2 Consolidated Balance Sheets

Company Witness: Theodore K. Wood

SOUTHWEST GAS HOLDINGS, INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

(Thousands of dollars, except par value)

December 31,	2018	2017
ASSETS		
Utility plant:		
Gas plant	\$ 7,134,239	\$ 6,629,644
Less: accumulated depreciation	(2,234,029)	(2,231,242)
Construction work in progress	193,028	125,248
Net utility plant	5,093,238	4,523,650
Other property and investments	623,551	428,180
Current assets:		
Cash and cash equivalents	85,361	43,622
Accounts receivable, net of allowances	413,926	347,375
Accrued utility revenue	77,200	78,200
Income taxes receivable, net	14,653	7,960
Deferred purchased gas costs	4,928	14,581
Prepaid and other current assets	243,701	165,294
Total current assets	839,769	657,032
Noncurrent assets:		
Goodwill	359,045	179,314
Deferred income taxes	1,264	1,480
Deferred charges and other assets	440,862	447,410
Total noncurrent assets	801,171	628,204
Total assets	\$ 7,357,729	\$ 6,237,066

December 31,	2018	2017
CAPITALIZATION AND LIABILITIES		
Capitalization:		
Common stock, \$1 par (authorized – 60,000,000 shares; issued and outstanding – 53,026,848 and		
48,090,470 shares)	\$ 54,656	\$ 49,720
Additional paid-in capital	1,305,769	955,332
Accumulated other comprehensive income (loss), net	(52,668)	(47,682)
Retained earnings	944,285	857,398
Total Southwest Gas Holdings, Inc. equity	2,252,042	1,814,768
Noncontrolling interest	(452)	(2,365)
Total equity	2,251,590	1,812,403
Redeemable noncontrolling interest	81,831	_
Long-term debt, less current maturities	2,107,258	1,798,576
Total capitalization	4,440,679	3,610,979
Commitments and contingencies (Note 10)		
Current liabilities:		
Current maturities of long-term debt	33,060	25,346
Short-term debt	152,000	214,500
Accounts payable	248,993	228,315
Customer deposits	67,940	69,781
Income taxes payable, net	1,083	5,946
Accrued general taxes	43,560	43,879
Accrued interest	21,369	17,870
Deferred purchased gas costs	79,762	6,841
Other current liabilities	290,878	203,403
Total current liabilities	938,645	815,881
Deferred income taxes and other credits:		
Deferred income taxes and investment tax credits, net	529,201	476,960
Accumulated removal costs	383,000	315,000
Other deferred credits and other long-term liabilities	1,066,204	1,018,246
Total deferred income taxes and other credits	1,978,405	1,810,206
Total capitalization and liabilities	\$7,357,729	\$6,237,066

The accompanying notes are an integral part of these statements.

CHAPTER 3

Consolidated Statements of Income

Company Witness: Theodore K. Wood

SOUTHWEST GAS HOLDINGS, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF INCOME

(In thousands, except per share amounts)

Year Ended December 31,	2018	2017	2016
Operating revenues:			
Gas operating revenues	\$1,357,728	\$1,302,308	\$1,321,412
Utility infrastructure services revenues	1,522,285	1,246,484	1,139,078
Total operating revenues	2,880,013	2,548,792	2,460,490
Operating expenses:			
Net cost of gas sold	419,388	355,045	397,121
Operations and maintenance	406,393	392,763	381,964
Depreciation and amortization	249,212	250,951	289,132
Taxes other than income taxes	59,898	57,946	52,376
Utility infrastructure services expenses	1,387,689	1,148,963	1,024,423
Total operating expenses	2,522,580	2,205,668	2,145,016
Operating income	357,433	343,124	315,474
Other income and (expenses):			
Net interest deductions	(96,671)	(78,064)	(73,660)
Other income (deductions)	(17,426)	(6,030)	(10,291)
Total other income and (expenses)	(114,097)	(84,094)	(83,951)
Income before income taxes	243,336	259,030	231,523
Income tax expense	61,684	65,088	78,468
Net income	181,652	193,942	153,055
Net income (loss) attributable to noncontrolling interests	(625)	101	1,014
Net income attributable to Southwest Gas Holdings, Inc.	\$ 182,277	\$ 193,841	\$ 152,041
Basic earnings per share	\$ 3.69	\$ 4.04	\$ 3.20
Diluted earnings per share	\$ 3.68	\$ 4.04	\$ 3.18
Average number of common shares	49,419	47,965	47,469
Average shares (assuming dilution)	49,476	47,991	47,814

The accompanying notes are an integral part of these statements.

SOUTHWEST GAS HOLDINGS, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Thousands of dollars)

Year Ended December 31,	2018	2017	2016
Net Income	\$181,652	\$193,942	\$153,055
Other comprehensive income (loss), net of tax			
Defined benefit pension plans:			
Net actuarial gain (loss)	(15,524)	(32,701)	(14,118)
Amortization of prior service cost	1,015	828	828
Amortization of net actuarial loss	25,549	15,776	16,781
Regulatory adjustment	(6,257)	12,590	(3,462)
Net defined benefit pension plans	4,783	(3,507)	29
Forward-starting interest rate swaps ("FSIRS"):			
Amounts reclassified into net income	2,541	2,073	2,075
Net forward-starting interest rate swaps	2,541	2,073	2,075
Foreign currency translation adjustments	(3,010)	1,771	161
Total other comprehensive income, net of tax	4,314	337	2,265
Comprehensive income	185,966	194,279	155,320
Comprehensive income (loss) attributable to noncontrolling interests	(625)	112	1,019
Comprehensive income attributable to Southwest Gas Holdings, Inc.	\$186,591	\$194,167	\$154,301

The accompanying notes are an integral part of these statements.

CHAPTER 4

Consolidated Statements of Cash Flows

Company Witness: Theodore K. Wood

SOUTHWEST GAS HOLDINGS, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS

(Thousands of dollars)

Year Ended December 31,	2018	2017	2016
CASH FLOW FROM OPERATING ACTIVITIES:			
Net Income	\$181,652	\$193,942	\$153,055
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	249,212	250,951	289,132
Deferred income taxes	51,041	63,389	68,732
Changes in current assets and liabilities:			
Accounts receivable, net of allowances	(15,862)	(40,947)	30,096
Accrued utility revenue	1,000	(2,000)	(1,500)
Deferred purchased gas costs	82,574	(95,608)	45,858
Accounts payable	11,778	19,961	21,695
Accrued taxes	(11,955)	2,112	26,340
Other current assets and liabilities	(54,073)	(8,203)	(27,432)
Gains on sale	(1,703)	(4,196)	(7,148)
Changes in undistributed stock compensation	6,111	10,888	5,456
AFUDC	(3,627)	(2,296)	(2,289)
Changes in other assets and deferred charges	(5,738)	(22,269)	16,960
Changes in other liabilities and deferred credits	38,446	4,231	(18,447)
Net cash provided by operating activities	528,856	369,955	600,508

Year Ended December 31,	2018	2017	2016
CASH FLOW FROM INVESTING ACTIVITIES:			
Construction expenditures and property additions	(765,914)	(623,649)	(529,531)
Acquisition of businesses, net of cash acquired	(251,373)	(94,204)	(17,000)
Changes in customer advances	13,463	323	7,900
Miscellaneous inflows	4,341	16,645	13,039
Net cash used in investing activities	(999,483)	(700,885)	(525,592)
CASH FLOW FROM FINANCING ACTIVITIES:			
Issuance of common stock, net	354,402	41,155	472
Dividends paid	(100,240)	(92,130)	(83,317)
Centuri distribution to redeemable noncontrolling interest	_	(204)	(439)
Issuance of long-term debt, net	565,172	407,063	423,946
Retirement of long-term debt	(237,758)	(338,969)	(255,273)
Change in credit facility and commercial paper	—	145,000	(145,000)
Change in short-term debt	(62,500)	214,500	(18,000)
Principal payments on capital lease obligations	(648)	(980)	(1,354)
Redemption of Centuri shares from noncontrolling parties	—	(23,000)	
Withholding remittance – share-based compensation	(3,110)	(3,176)	(2,119)
Other	(2,744)	(3,074)	(1,569)
Net cash provided by (used in) financing activities	512,574	346,185	(82,653)
Effects of currency translation on cash and cash equivalents	(208)	301	(194)
Change in cash and cash equivalents	41,739	15,556	(7,931)
Cash and cash equivalents at beginning of period	43,622	28,066	35,997
Cash and cash equivalents at end of period	\$ 85,361	\$ 43,622	\$ 28,066
Supplemental information:			
Interest paid, net of amounts capitalized	\$ 86,562	\$ 71,943	\$ 67,440
Income taxes paid (received)	\$ 1,221	\$ 5,673	\$ (19,032)

The accompanying notes are an integral part of these statements.

CHAPTER 5 Notes to Consolidated Financial Statements

Company Witness: Theodore K. Wood

Notes to Consolidated Financial Statements

Note 1 – Background, Organization, and Summary of Significant Accounting Policies

Nature of Operations. This is a combined annual report of Southwest Gas Holdings, Inc. and subsidiaries (the "Company") and Southwest Gas Corporation and its subsidiaries ("Southwest" or the "natural gas operations segment"). The Notes to the Consolidated Financial Statements apply to both entities. Southwest Gas Holdings, Inc. is a holding company, owning all of the shares of common stock of Southwest and all of the shares of common stock of Centuri Construction Group, Inc. ("Centuri" or the "utility infrastructure services" segment). Prior to August 2017, 96.6% of Centuri's shares were owned by the Company. During August 2017, the Company acquired the remaining 3.4% equity interest in Centuri that was held by the previous owners. Refer to Note 17 – Utility Infrastructure Services Noncontrolling Interests for additional information.

Southwest is engaged in the business of purchasing, distributing, and transporting natural gas for customers in portions of Arizona, Nevada, and California. Public utility rates, practices, facilities, and service territories of Southwest are subject to regulatory oversight. The timing and amount of rate relief can materially impact results of operations. Natural gas purchases and the timing of related recoveries can materially impact liquidity. Results for the natural gas operations segment are higher during winter periods due to the seasonality incorporated in its regulatory rate structures.

Centuri is a comprehensive utility infrastructure services enterprise dedicated to delivering a diverse array of solutions to North America's gas and electric providers. Centuri derives revenue from installation, replacement, repair, and maintenance of energy distribution systems, and developing industrial construction solutions. Centuri operations are generally conducted under the business names of NPL Construction Co. ("NPL"), Canyon Pipeline Construction, Inc. ("Canyon"), NPL Canada Ltd. ("NPL Canada"), W.S. Nicholls Construction, Inc. ("W.S. Nicholls"), and Canyon Special Projects, Inc. ("Special Projects," formerly Brigadier Pipelines Inc.). Utility infrastructure services activity is seasonal in most of Centuri's operating areas. Peak periods are the summer and fall months in colder climate areas, such as the northeastern and midwestern United States ("U.S.") and in Canada. In warmer climate areas, such as the southwestern and southeastern U.S., utility infrastructure services activity continues year round. Centuri acquired New England Utility Constructors, Inc. ("Neuco") in November 2017, thereby expanding its core services in the northeast region of the U.S. Additionally, in November 2018, Centuri expanded its operations in the southeast region of the U.S. through the acquisition of an 80% interest in a privately held utility infrastructure services business, Linetec Services, LLC ("Linetec"). See Note 19 – Business Acquisitions for more information.

Basis of Presentation. The Company follows accounting principles generally accepted in the United States ("U.S. GAAP") in accounting for all of its businesses. Unless specified otherwise, all amounts are in U.S. dollars. Accounting for natural gas utility operations conforms with U.S. GAAP as applied to rate-regulated companies and as prescribed by federal agencies and commissions of the various states in which the utility operates. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. In connection with a holding company reorganization in January 2017, Centuri ceased to be a subsidiary of Southwest and became a subsidiary of the Company. To give effect to this change, the separate consolidated financial statements related to Southwest, which are included in this annual report, depict Centuri-related amounts for periods prior to January 2017 as discontinued operations which are detailed in **Note 18 – Reorganization Impacts – Discontinued Operations Solely Related to Southwest Gas Corporation**.

Consolidation. The accompanying financial statements are presented on a consolidated basis for Southwest Gas Holdings, Inc. and all subsidiaries and Southwest Gas Corporation and all subsidiaries as of December 31, 2018 (except those accounted for using the

equity method as discussed further below). All significant intercompany balances and transactions have been eliminated with the exception of transactions between Southwest and Centuri in accordance with accounting treatment for rate-regulated entities.

Centuri, through its subsidiaries, historically held a 65% interest in a venture to market natural gas engine-driven heating, ventilating, and air conditioning technology and products. During the second quarter of 2018, an additional \$1 million of capital was contributed, thereby increasing Centuri's ownership to 95%. The carrying amount of the noncontrolling interest has been adjusted with a corresponding charge to Additional paid-in capital on the Company's Consolidated Balance Sheet.

Centuri, through its subsidiaries, holds a 50% interest in W.S. Nicholls Western Construction LTD. ("Western"), a Canadian infrastructure services company that is a variable interest entity. Centuri determined that it is not the primary beneficiary of the entity due to a shared-power structure; therefore, Centuri does not consolidate the entity and has recorded its investment, and results related thereto, using the equity method. The investment in Western totaled \$11.2 million and \$12.7 million at December 31, 2018 and 2017, respectively. Both periods include the impacts of foreign currency exchange translation adjustments. Centuri received \$1 million in dividends from Western for the year ended December 31, 2018 and no dividends for the year ended December 31, 2017.

The equity method investment in Western is included in Other property and investments in the Consolidated Balance Sheets of the Company. Centuri's maximum exposure to loss as a result of its involvement with Western was estimated at \$44.9 million as of December 31, 2018. The estimated maximum exposure to loss represents the maximum loss that would be absorbed by Centuri in the event that all of the assets of Western were deemed to be worthless. Centuri recorded earnings of approximately \$500,000 from this investment in 2018, which is included in Other income (deductions) in the Consolidated Statements of Income.

Fair Value Measurements. Certain assets and liabilities are reported at fair value, which is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

U.S. GAAP states that a fair value measurement should be based on the assumptions that market participants would use in pricing the asset or liability and establishes a fair value hierarchy that ranks the inputs used to measure fair value by their reliability. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to fair values derived from unobservable inputs (Level 3 measurements). Financial assets and liabilities are categorized in their entirety based on the lowest level of input that is significant to the fair value measurement. The three levels of the fair value hierarchy are as follows:

Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities that a company has the ability to access at the measurement date.

Level 2 – inputs other than quoted prices included within Level 1 that are observable for similar assets or liabilities, either directly or indirectly.

Level 3 – unobservable inputs for the asset or liability. Unobservable inputs are used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The Company primarily used quoted market prices and other observable market pricing information in valuing cash and cash equivalents, derivatives, long-term debt outstanding, and assets of the qualified pension plan and the PBOP required to be disclosed at fair value.

Net Utility Plant. Net utility plant includes gas plant at original cost, less the accumulated provision for depreciation and amortization, plus the unamortized balance of acquisition adjustments. Original cost includes contracted services, material, payroll,

and related costs such as taxes and certain benefits, general and administrative expenses, and an allowance for funds used during construction, less contributions in aid of construction.

Other Property and Investments. Other property and investments on Southwest's and the Company's Consolidated Balance Sheets includes (thousands of dollars):

	2018	2017
Net cash surrender value of COLI policies	\$ 114,405	\$ 117,341
Other property	1,741	1,773
Total Southwest Gas Corporation	116,146	119,114
Centuri property, equipment, and intangibles	792,191	554,730
Centuri accumulated provision for depreciation and amortization	(298,939)	(258,906)
Other property	14,153	13,242
Total Southwest Gas Holdings, Inc.	\$ 623,551	\$ 428,180

Intangible Assets. Intangible assets (other than goodwill) are amortized using the straight-line method to reflect the pattern of economic benefits consumed over the estimated periods benefited. The recoverability of intangible assets is evaluated when events or circumstances indicate that a revision of estimated useful lives is warranted or that an intangible asset may be impaired. Non-utility intangible assets are associated with utility infrastructure services businesses acquired through 2018, including the Linetec acquisition. All have finite lives. These intangible assets are included in Other property and investments on the Company's Consolidated Balance Sheets. Centuri has \$159.8 million and \$80.7 million of intangible assets at December 31, 2018 and 2017, respectively, as detailed in the following table (thousands of dollars):

December 31, 2018	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	\$152,533	\$(11,716)	\$140,817
Trade names and trademarks	23,013	(5,234)	17,779
Customer contracts backlog	270	(3)	267
Noncompete agreements	2,022	(1,064)	958
Total	\$177,838	\$(18,017)	\$159,821
December 31, 2017			
Customer relationships	\$ 76,254	\$ (6,743)	\$ 69,511
Trade names and trademarks	13,754	(4,080)	9,674
Noncompete agreements	2,060	(543)	1,517
Total	\$ 92,068	\$(11,366)	\$ 80,702

Amortization expense for the acquired intangible assets listed above for the years ended December 31, 2018, 2017, and 2016 was \$7.6 million, \$4.1 million, and \$3.2 million, respectively.

The estimated future amortization of the intangible assets for the next five years and thereafter is as follows (in thousands):

2019	\$ 10,622
2020	10,634
2021	10,214
2022	10,127
2023	10,127
Thereafter	108,097
Total	\$159,821

See Note 2 – Utility Plant and Leases for additional information regarding natural gas operations intangible assets. Note 19 – Business Acquisitions includes detailed information about intangible assets purchased in the Linetee acquisition.

Cash and Cash Equivalents. For purposes of reporting consolidated cash flows, cash and cash equivalents include cash on hand and financial instruments with maturities of three months or less. Such investments are carried at cost, which approximates market value. Cash and cash equivalents for Southwest and the Company also include money market fund investments totaling approximately \$18 million and \$59.9 million, respectively at December 31, 2018, and \$20.8 million and \$22.2 million, respectively, at December 31, 2017, which fall within Level 2 of the fair value hierarchy, due to the asset valuation methods used by money market funds.

Typical non-cash investing activities for Southwest include customer advances applied as contributions toward utility construction activity and capital expenditures that were not paid as of year end that are included in accounts payable. Amounts related to such activities were immaterial for the periods presented herein. Non-cash investing activities for Centuri included \$75.6 million of purchase consideration related to the Linetec acquisition in the form of liabilities incurred that remained unpaid as of December 31, 2018; such amounts are included in Other current liabilities on the Consolidated Balance Sheets of the Company. See **Note 19** – **Business Acquisitions**.

Income Taxes. The asset and liability method of accounting is utilized for the recognition of income taxes. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date. For regulatory and financial reporting purposes, investment tax credits ("ITC") related to gas utility operations are deferred and amortized over the life of related fixed assets. As of December 31, 2018, the Company had cumulative book earnings of approximately \$25 million in its foreign jurisdiction. Management previously asserted and continues to assert that all the earnings of Centuri's Canadian subsidiaries will be permanently reinvested in Canada. As a result, no U.S. deferred income taxes have been recorded related to cumulative foreign earnings.

In 2017, the Tax Cuts and Jobs Act (the "TCJA") was enacted. The TCJA had significant impacts on the taxation of business entities, including specific provisions related to regulated public utilities. The more significant changes that impacted the Company include the reduction in the corporate federal income tax rate from 35% to 21%, and limiting the utilization of net operating losses ("NOLs") to 80% of taxable income, with the ability to indefinitely carryforward unutilized NOLs to reduce future taxable income.

The Financial Accounting Standards Board (the "FASB") issued guidance to allow an accounting policy election of either (i) treating taxes attributable to future taxable income related to Global Intangible Low-Taxed Income ("GILTI") as a current period expense when incurred or (ii) recognizing deferred taxes for temporary differences expected to reverse as GILTI in future years. The Company

has elected to treat GILTI as a current period cost when incurred and has considered the estimated 2018 GILTI impact in its 2018 tax expense.

Deferred Purchased Gas Costs. The various regulatory commissions have established procedures to enable Southwest to adjust its billing rates for changes in the cost of natural gas purchased. The difference between the current cost of gas purchased and the cost of gas recovered in billed rates is deferred. Generally, these deferred amounts are recovered or refunded within one year.

Prepaid and other current assets. Prepaid and other current assets for Southwest and the Company include gas pipe materials and operating supplies of \$56 million in 2018 and \$33 million in 2017 (carried at weighted average cost), and also include \$74 million in 2018 and \$40 million in 2017 related to a regulatory asset associated with the Arizona decoupling mechanism (an alternative revenue program). In the 2017 Arizona general rate case decision, the decoupled rate design was approved to continue, excluding a winterperiod adjustment to rates, making the mechanism fundamentally similar to that which exists in Nevada. This change from a combination of monthly winter-period adjustments to bills (coupled with an annual rate adjustment) to an annual rate adjustment resulted in an increase in the associated regulatory asset noted above.

Goodwill. As required by U.S. GAAP, goodwill is assessed for impairment annually, or more frequently, if circumstances indicate impairment to the carrying value of goodwill may have occurred. The goodwill impairment analysis is conducted as of October 1st each year and may start with an assessment of qualitative factors (commonly referred to as Step 0) to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the qualitative factors, management determines that it is more likely than not that the fair value of a reporting unit assessment, a Step 1 impairment test will be performed. Management considered the qualitative factors and the evidence obtained and determined that it is not more likely than not that the fair value of the reporting units are less than their carrying amounts in either 2017 or 2018. Thus, no impairment was recorded in either year. The Linetec acquisition in 2018 (see further discussion in **Note 19 – Business Acquisitions**) was considered an asset purchase for tax purposes. As a result, goodwill associated with Linetec is expected to be deductible for those same purposes.

	Utility			
	Natural Gas Operations	Infrastructure Services	Total Company	
(In thousands of dollars)				
Balance, December 31, 2016	\$10,095	\$129,888	\$139,983	
Goodwill from Neuco acquisition		32,028	32,028	
Foreign currency translation adjustment		7,303	7,303	
Balance, December 31, 2017	10,095	169,219	179,314	
Additional goodwill from Neuco acquisition		182	182	
Goodwill from Linetec acquisition		188,494	188,494	
Foreign currency translation adjustment		(8,945)	(8,945)	
Balance, December 31, 2018	\$10,095	\$348,950	\$359,045	

Other Current Liabilities. Management recognizes in its balance sheets various liabilities that are expected to be settled through future cash payment within the next twelve months, including certain regulatory liabilities (refer to **Note 5 – Regulatory Assets and Liabilities**), customary accrued expenses for employee compensation and benefits, and declared but unpaid dividends. As of December 31, 2018, this caption on the Company's Consolidated Balance Sheet also included \$75.6 million in unremitted amounts associated with the Linetec acquisition note above.

Accumulated Removal Costs. Approved regulatory practices allow Southwest to include in depreciation expense a component intended to recover removal costs associated with utility plant retirements. In accordance with the Securities and Exchange Commission ("SEC") position on presentation of these amounts, management reclassifies estimated removal costs from accumulated depreciation to accumulated removal costs within the liabilities section of the Consolidated Balance Sheets. Management regularly updates the estimated accumulated removal costs as amounts fluctuate between periods depending on the level of replacement work performed, the estimated cost of removal in rates, and the actual cost of removal experienced.

Gas Operating Revenues. Southwest recognizes revenue when it satisfies its performance by transferring gas to the customer. Natural gas is delivered and "consumed" by the customer simultaneously. Revenues are recorded when customers are billed. Customer billings are substantially based on monthly meter reads and include certain other charges assessed monthly, and are calculated in accordance with applicable tariffs and state and local laws, regulations, and related agreements. An estimate of the margin associated with natural gas service provided, but not yet billed, to residential and commercial customers from the latest meter read date to the end of the reporting period is also recognized as accrued utility revenue. Revenues also include the net impacts of margin tracker/ decoupling accruals based on criteria in U.S. GAAP for rate-regulated entities associated with alternative revenue programs. All of Southwest's service territories have decoupled rate structures, which are designed to eliminate the direct link between volumetric sales and revenue, thereby mitigating the impacts of unusual weather variability and conservation on margin. See **Note 3 – Revenue** for additional information regarding Gas operating revenues.

Utility Infrastructure Services Revenues. The majority of Centuri contracts are performed under unit-price contracts. Generally, these contracts state prices per unit of installation. Typical installations are accomplished in a few weeks or less. Revenues are recorded as installations are completed. Revenues are recorded for long-term fixed-price contracts in a pattern that reflects the transfer of control of promised goods and services to the customer over time. The amount of revenue recognized on fixed-price contracts is based on costs expended to date relative to anticipated final contract costs. Changes in job performance, job conditions, and final contract settlements are factors that influence management's assessment of total contract value and the total estimated costs to complete those contracts. Revisions in estimates of costs and earnings during the course of work are reflected in the accounting period in which the facts requiring revision become known. If a loss on a contract becomes known or is anticipated, the entire amount of the estimated ultimate loss is recognized at that time in the financial statements. Some unit-price contracts contain caps that if encroached, trigger revenue and loss recognition similar to a fixed-price contract model. See **Note 3 – Revenue** for additional information regarding Utility infrastructure services revenues.

Utility Infrastructure Services Expenses. Utility infrastructure services expenses in the Statements of Income includes payroll expenses, office and equipment rental costs, subcontractor expenses, training, job-related materials, gains and losses on equipment sales, and professional fees of Centuri.

Net Cost of Gas Sold. Components of net cost of gas sold include natural gas commodity costs (fixed-price and variable-rate), pipeline capacity/transportation costs, and actual settled costs of natural gas derivative instruments. Also included are the net impacts of purchased gas adjustment ("PGA") deferrals and recoveries, which by their inclusion, result in net cost of gas sold overall that is comparable to amounts included in billed gas operating revenues. Differences between amounts incurred with suppliers, transmission pipelines, etc. and those already included in customer rates, are temporarily deferred in PGA accounts pending inclusion in customer rates.

Operations and Maintenance Expense. Operations and maintenance expense includes Southwest's operating and maintenance costs associated with serving utility customers and maintaining its distribution and transmission systems, uncollectible expense, administrative and general salaries and expense, employee benefits expense excluding relevant non-service cost components (see **Note 11 – Pension and Other Postretirement Benefits**), and legal expense (including injuries and damages).

Depreciation and Amortization. Utility plant depreciation is computed on the straight-line remaining life method at composite rates considered sufficient to amortize costs over estimated service lives, including components which compensate for removal costs (net of salvage value), and retirements, as approved by the appropriate regulatory agency. When plant is retired from service, the original cost of plant, including cost of removal, less salvage, is charged to the accumulated provision for depreciation. Other regulatory assets, including acquisition adjustments, are amortized when appropriate, over time periods authorized by regulators. See also discussion regarding Accumulated Removal Costs above. Non-utility and utility infrastructure services-related property and equipment are depreciated on a straight-line method based on the estimated useful lives of the related assets. Costs and gains related to refunding utility debt and debt issuance expenses are deferred and amortized over the weighted-average lives of the new issues and become a component of interest expense.

Allowance for Funds Used During Construction ("AFUDC"). AFUDC represents the cost of both debt and equity funds used to finance utility construction. AFUDC is capitalized as part of the cost of utility plant. The debt portion of AFUDC is reported in the Company's and Southwest's Consolidated Statements of Income as an offset to Net interest deductions and the equity portion is reported as Other income. Utility plant construction costs, including AFUDC, are recovered in authorized rates through depreciation when completed projects are placed into operation, and general rate relief is requested and granted.

	2018	2017	2016
(In thousands)			
AFUDC:			
Debt portion	\$3,264	\$1,666	\$1,175
Equity portion	3,627	2,296	2,289
AFUDC capitalized as part of utility plant	\$6,891	\$3,962	\$3,464
AFUDC rate	5.85%	6 5.95%	6 7.35%

Other Income (Deductions). The following table provides the composition of significant items included in Other income (deductions) on the Consolidated Statements of Income (thousands of dollars):

	2018	2017	2016
Southwest Gas Corporation – natural gas operations segment:			
Increase (decrease) in COLI policies	\$ (3,200)	\$ 10,300	\$ 7,400
Interest income	6,020	2,784	1,848
Equity AFUDC	3,627	2,296	2,289
Non-service post-retirement benefit cost	(21,059)	(19,424)	(19,760)
Miscellaneous income and (expense)	(2,628)	(2,344)	(3,261)
Southwest Gas Corporation – total other income (deductions)	(17,240)	(6,388)	(11,484)
Utility infrastructure services segment:			
Interest income	88	3	1
Foreign transaction gain (loss)	(222)	(754)	(22)
Equity in earnings of unconsolidated investment – Western	531	1,052	69
Miscellaneous income and (expense)	(635)	44	1,145
Centuri – total other income (deductions)	(238)	345	1,193
Corporate and administrative	52	13	
Consolidated Southwest Gas Holdings, Inc. – total other income (deductions)	\$(17,426)	\$ (6,030)	\$(10,291)

Included in the table above is the change in cash surrender values of company-owned life insurance ("COLI") policies (including net death benefits recognized). These life insurance policies on members of management and other key employees are used by the Company and Southwest to indemnify against the loss of talent, expertise, and knowledge, as well as to provide indirect funding for certain nonqualified benefit plans. Current tax regulations provide for tax-free treatment of life insurance (death benefit) proceeds. Therefore, changes in the cash surrender value components of COLI policies, as they progress towards the ultimate death benefits, are also recorded without tax consequences.

Foreign Currency Translation. Foreign currency-denominated assets and liabilities of consolidated subsidiaries are translated into U.S. dollars at exchange rates existing at the respective balance sheet dates. Translation adjustments resulting from fluctuations in exchange rates are recorded as a separate component of accumulated other comprehensive income within stockholders' equity. Results of operations of foreign subsidiaries are translated using the monthly weighted-average exchange rates during the respective periods. Gains and losses resulting from foreign currency transactions are included in Other income (expense) of the Company. Gains and losses resulting from intercompany foreign currency transactions that are of a long-term investment nature are reported in Other comprehensive income, if applicable.

Earnings Per Share. Basic earnings per share ("EPS") in each period of this report were calculated by dividing net income attributable to Southwest Gas Holdings, Inc. by the weighted-average number of shares during those periods. Diluted EPS includes additional weighted-average common stock equivalents (stock options, performance shares, and restricted stock units). Unless otherwise noted, the term "Earnings Per Share" refers to Basic EPS. A reconciliation of the denominator used in the Basic and Diluted EPS calculations is shown in the following table.

	2018	2017	2016
(In thousands)			
Average basic shares	49,419	47,965	47,469
Effect of dilutive securities:			
Stock options	_	_	1
Management Incentive Plan shares	25	8	124
Restricted stock units (1)	32	18	220
Average diluted shares	49,476	47,991	47,814

(1) The number of securities granted for 2018 and 2017 includes 23,000 and 7,000 performance shares, respectively, the total of which was derived by assuming that target performance will be achieved during the relevant performance period.

Recent Accounting Standards Updates.

Accounting pronouncements adopted in 2018:

Effective January 2018, the Company and Southwest adopted the FASB update, Accounting Standards Codification ("ASC") Topic 606 "Revenue from Contracts with Customers." The update replaced much of the prior guidance regarding revenue recognition including most industry-specific guidance. See **Note 3 – Revenue** for more information regarding the adoption of the update.

In January 2018, the FASB issued Accounting Standards Update ("ASU") No. 2018-02 "Income Statement – Reporting Comprehensive Income (Topic 220) – Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." The update addressed issues resulting from the enactment of the TCJA. Stakeholders raised a narrow-scope financial reporting issue that arose as a consequence of the TCJA related to the fact that when deferred tax balances were remeasured in

December 2017, those deferred tax balances were to be reduced, but related amounts historically accumulated in Accumulated Other Comprehensive Income ("AOCI") prior to the enactment of the TCJA, were required to be recognized as income tax expense rather than being relieved from AOCI. The amendments in this update allowed a reclassification from AOCI to retained earnings for those otherwise "stranded" tax effects in AOCI following enactment of the TCJA. The Company and Southwest adopted this update effective January 2018. Accordingly, approximately \$9.3 million of previously stranded tax effects resulting from the TCJA were reclassified to retained earnings form AOCI on the Consolidated Balance Sheets of Southwest and the Company during the first quarter of 2018.

In March 2017, the FASB issued ASU 2017-07 "Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." The new guidance related to the income statement presentation of net periodic benefit cost for an entity's sponsored defined benefit pension and other postretirement plans. The Company and Southwest adopted this update effective January 2018. See **Note 11 – Pension and Other Postretirement Benefits** for additional information.

Accounting pronouncements that will be effective in 2019:

In February 2016, the FASB issued the update "Leases (Topic 842)." Under the update, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date:

- A lease liability for the obligation to make lease payments, measured on a discounted basis; and
- A right-of-use asset for the right to use, or control the use of, a specified asset for the lease term.

Under the new guidance, lessor accounting is largely unchanged. Certain targeted improvements were made to align, where necessary, lessor accounting with the lessee accounting model and Topic 606, "Revenue from Contracts with Customers." Though companies have historically been required to make disclosures regarding leases and associated contractual obligations, leases with terms longer than a year will no longer exist off-balance sheet. In July 2018, the FASB issued narrow-scope improvements to the standard, which include, among other things, guidance on lease classification reassessment and certain circumstances surrounding remeasurement. Also included was clarification that lessor-controlled options to terminate a lease are considered in the lease term.

Management expects to elect various practical expedients and accounting policies regarding the transition method used to implement Topic 842. The Company and Southwest plan to elect the new optional transition method included within the recent FASB update "Leases – Targeted Improvements", also issued in July 2018, which allows for comparative periods not to be restated. In conjunction with this decision, management currently expects that no retained earnings adjustment will be necessary due to the adoption of Topic 842. At a minimum, management expects the following regarding Topic 842 practical expedients and accounting policy elections:

- To elect to use the "package", which is a set of three practical expedients that must be elected as a package and applied consistently to all of the Company's and Southwest's leases. These include: not reassessing whether any expired or existing contracts are or contain leases; not reassessing the lease classification for expired or existing leases (that is, existing operating and capital leases in accordance with current lease guidance will in each case be classified as operating and finance leases, respectively, under the updated guidance); and not reassessing initial direct costs for any existing leases.
- To elect to adopt the practical expedient to exclude all easements in place prior to January 1, 2019 from treatment under Topic 842. However, the Company and Southwest will evaluate any new easements entered into after the effective date of the standard to determine if the arrangements should be accounted for as leases.
- To make an accounting policy election by asset class to include both the lease and non-lease components (as defined in the guidance) as a single component.
- To make an accounting policy election to not apply Topic 842 to short-term leases, as permitted.

• To not elect to use hindsight in determining the lease term and in assessing impairment of right-of-use assets.

Southwest's leases are comprised primarily of operating leases of buildings, land, and equipment. At this time, Southwest has no finance leases. Centuri leases buildings, land, fleet equipment, and other equipment. The majority of Centuri's leases are operating leases. The Company and Southwest are currently not the lessor in any significant lease arrangements.

Management has implemented new software systems (one for Southwest and one for Centuri) to facilitate compliance with Topic 842. Management will adopt the update in the first quarter of 2019, as required. Management is finalizing its evaluation of the impact of the adoption on the consolidated financial statements and related disclosures.

Recently issued accounting pronouncements that will be effective after 2019:

In June 2016, the FASB issued ASU 2016-13 update "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." The update requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. The inputs currently used to estimate credit losses will still be used, however they may be adapted to reflect the full amount of expected losses. The update is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. All entities may adopt the amendments in this update earlier as of fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Management is evaluating what impact, if any, this update might have on the Company's and Southwest's consolidated financial statements and disclosures.

In January 2017, the FASB issued ASU 2017-04 "Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment." Currently, unless meeting the criteria for qualitative assessment only, an entity is required to perform a two-step test to determine the amount, if any, of goodwill impairment. In Step 1, an entity compares the fair value of a reporting unit with its carrying amount, including goodwill. If the carrying amount of the reporting unit exceeds its fair value, the entity performs Step 2 and compares the implied fair value of goodwill with the carrying amount of that goodwill for that reporting unit. An impairment charge equal to the amount by which the carrying amount of goodwill for the reporting unit. Under the update, an entity will apply a one-step quantitative test and record the amount of goodwill allocated to the reporting unit. The new guidance does not amend the optional qualitative assessment of goodwill impairment. The amount of any goodwill impairment calculated under the update could vary from the calculation under the existing guidance. The amendments should be applied on a prospective basis. The update is effective for fiscal and interim periods beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. Management is evaluating the impacts this update might have on the Company's and Southwest's consolidated financial statements and disclosures.

In August 2018, the FASB issued ASU 2018-15 "Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The update generally aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement (that is a service contract) with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The update also requires the entity to expense the capitalized implementation costs of such hosting arrangements over the term of the hosting arrangement, including reasonably certain renewal periods. The update is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption of the amendments in this update is permitted for interim and related annual fiscal periods after December 15, 2018. Management is evaluating the impacts this update might have on the Company's and Southwest's consolidated financial statements and disclosures. In August 2018, the FASB issued ASU 2018-14 "Compensation – Retirement Benefits – Defined Benefit Plans – General (Subtopic 715-20): Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans." This update removes disclosures that are no longer considered cost-beneficial, clarifies the specific requirements of disclosures, and adds disclosure requirements identified as relevant. The update applies to all employers that sponsor defined benefit pension or other post-retirement plans. The update is effective for fiscal years ending after December 15, 2020. Early adoption is permitted. Management is evaluating the impacts this update might have on its disclosures.

In August 2018, the FASB issued ASU 2018-13 "Fair Value Measurement: Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement." The update is intended to improve the effectiveness of fair value measurement disclosures and removes the following disclosure requirements: the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy; the policy for timing of transfers between levels; and the valuation processes for Level 3 fair value measurements. The update also modifies or clarifies for investments in certain entities that calculate net asset value, a requirement to disclose the timing of liquidation of an investee's assets and the date when restrictions from redemption might lapse (in cases when the timing has been communicated or announced publicly). It also clarifies communication requirements about measurement uncertainty as of the reporting date. For certain unobservable inputs, an entity may disclose other quantitative information in lieu of the weighted average if it would be a more reasonable and rational method to reflect the distribution of inputs to the measurements. Management is evaluating the impacts this update might have on its disclosures.

Subsequent Events. Management monitors events occurring after the balance sheet date and prior to the issuance of the financial statements to determine the impacts, if any, of events on the financial statements to be issued or disclosures to be made, and has reflected them where appropriate.

Note 2 – Utility Plant and Leases

Net utility plant as of December 31, 2018 and 2017 was as follows (thousands of dollars):

December 31,	2018	2017
Gas plant:		
Storage	\$ 26,825	\$ 25,019
Transmission	386,159	363,396
Distribution	6,049,380	5,600,769
General	416,643	396,252
Software and software-related intangibles	241,158	230,030
Other	14,074	14,178
	7,134,239	6,629,644
Less: accumulated depreciation and amortization	(2,234,029)	(2,231,242)
Construction work in progress	193,028	125,248
Net utility plant	\$ 5,093,238	\$ 4,523,650

Utility plant depreciation is computed on the straight-line remaining life method at composite rates considered sufficient to amortize costs over estimated service lives, including components which are intended to compensate for removal costs (net of salvage value), and retirements, based on the processes of regulatory proceedings and related regulatory commission approvals and/or mandates. In 2018, annual utility depreciation and amortization expense averaged 2.7% of the original cost of depreciable and amortizable property. Average rates in 2017 and 2016 approximated 3.0%. Transmission and Distribution plant (combined), associated with core natural gas delivery infrastructure, constitute the majority of gas plant. Annual utility depreciation expense averaged approximately 3.0% of original cost of depreciable transmission and distribution plant during the period 2016 through 2018.

Depreciation and amortization expense on gas plant, including intangibles, was as follows (thousands of dollars):

	2018	2017	2016
Depreciation and amortization expense	\$185,719	\$187,075	\$214,037

Included in the figures above is amortization of utility intangibles of \$13.6 million in 2018, \$14.3 million in 2017, and \$14.8 million in 2016. Additionally, the amounts above exclude regulatory asset and liability amortization.

Operating Leases and Rentals. Certain land, buildings, and construction equipment is leased. The majority of these leases are short-term and accounted for as operating leases. For the natural gas operations segment, these leases are also treated as operating leases for regulatory purposes. Centuri has various short-term operating leases of equipment and temporary office sites. The table below presents Southwest's and Centuri's rental and lease payments that are included in operating expenses (in thousands):

	2018	2017	2016
Southwest Gas Corporation	\$ 4,556	\$ 4,926	\$ 4,357
Centuri	59,491	62,310	53,956
Consolidated rental payments/lease expense	\$64,047	\$67,236	\$58,313

The following is a schedule of future minimum lease payments for operating leases (with initial or remaining terms in excess of one year) as of December 31, 2018 (thousands of dollars):

	Southwest	Centuri	Conso To	olidated tal
2019	\$ 898	\$10,053	\$	10,951
2020	363	7,656		8,019
2021	299	5,760		6,059
2022	163	5,163		5,326
2023	79	3,681		3,760
Thereafter	177	10,511		10,688
Total minimum lease payments	\$1,979	\$42,824	\$	44,803

Capital Leases. Centuri leases certain construction equipment under capital leases arrangements which are not significant.

Note 3 – Revenue

Effective January 2018, the Company and Southwest adopted the FASB's Topic 606, "Revenue from Contracts with Customers", using the modified retrospective transition method. Under the modified retrospective approach, the information for periods prior to the adoption date has not been restated and continues to be reported under the accounting standards in effect for those periods (Topic 605, "Revenue Recognition"). As permitted under the standard, the Company and Southwest have elected to apply the guidance retrospectively only to those contracts that were not completed at January 1, 2018. Management assessed the effects the new guidance has on the Company's (and Southwest's, in the case of natural gas operations) financial position, results of operations, and cash flows. Based on these assessments, the adoption of Topic 606 had no material impact on any of the financial statements of Southwest or the Company and Southwest followed the guidance in Topic 605. As there were no material changes to the consolidated financial statements as a result of the adoption of Topic 606, as noted above, management elected to disclose information for 2017

and 2016, as the manner in which revenue is recorded has not changed and believes that including such disclosure provides useful information.

The following information about the Company's revenues is presented by segment. Southwest encompasses one segment – natural gas operations.

Natural Gas Operations Segment:

Southwest is engaged in the business of purchasing, distributing, and transporting natural gas for customers in portions of Arizona, Nevada, and California. Public utility rates, practices, facilities, and service territories of Southwest are subject to regulatory oversight. Southwest recognizes revenue when it satisfies its performance by transferring gas to the customer. Revenues also include the net impacts of margin tracker/decoupling accruals based on criteria in U.S. GAAP for rate-regulated entities associated with alternative revenue programs. Revenues from customer arrangements and from alternative revenue programs are described below.

Southwest acts as an agent for state and local taxing authorities in the collection and remittance of a variety of taxes, including sales and use taxes and surcharges. These taxes are not included in Gas operating revenues. Management uses the net classification method to report taxes collected from customers to be remitted to governmental authorities.

Southwest generally offers two types of services to its customers: tariff sales and transportation-only service. Tariff sales encompass sales to many types of customers (primarily residential) under various rate schedules, subject to cost-of-service ratemaking, which is based on the rate-regulation of state commissions and the Federal Energy Regulatory Commission (the "FERC"). Southwest provides both the commodity and the related distribution service to nearly all of its approximate 2 million customers, and only several hundred customers (who are eligible to secure their own gas) subscribe to transportation-only service. Also, only a few hundred customers have contracts with stated periods. Southwest recognizes revenue when it satisfies its performance requirement by transferring volumes of gas to the customer. Natural gas is delivered and consumed by the customer simultaneously. The provision of service is represented by the turn of the meter dial and is the primary representation of the satisfaction of performance obligations of Southwest. The amount billable via regulated rates (both volumetric and fixed monthly rates as part of rate design) corresponds to the value to the customer, and management believes that the amount billable under the "invoice practical expedient" (amount Southwest has the right to invoice) is appropriate to utilize for purposes of recognizing revenue. Estimated amounts remaining unbilled since the last meter read date are restricted from being billed due only to the passage of time and therefore are also recognized for service provided through the balance sheet date. While natural gas service is typically recurring, there is generally not a contract term for utility service. Therefore, the contract term is not generally viewed to extend beyond the service provided to date, and customers can generally terminate service at will.

Transportation-only service is also governed by tariff rate provisions. Transportation-only service is generally only available to very large customers under requirements of Southwest's various tariffs. With this service, customers secure their own gas supply and Southwest provides transportation services to move the customer-supplied gas to the intended location. Southwest concluded that transportation/transmission service is suitable to an "over time" model. Rate structures under Southwest's regulation for transportation customers include a combination of volumetric charges and monthly "fixed" charges (including charges commonly referred to as capacity charges, demand charges, or reservation charges) as part of the rate design of regulated jurisdictions. These types of fixed charges represent a separate performance obligation associated with standing ready over the period of the month to deliver quantities of gas, regardless of whether the customer takes delivery of any quantity of gas. The performance obligations under these circumstances are satisfied over the course of the month under an output measure of progress based on time, which correlates to the period for which the charges are eligible to be invoiced.

Under its regulation, Southwest enters into negotiated rate contracts for those customers located in proximity to another pipeline, which pose a threat of bypassing its distribution system. Southwest may also enter into similar contracts for customers otherwise able to satisfy their energy needs by means of alternative fuel to natural gas. Less than two dozen customers are party to contracts with rate components subject to negotiation. Many rate provisions and terms of service for these less common types of contracts are also subject to regulatory oversight and tariff provisions. The performance obligations for these customers are satisfied similarly to those for other customers by means of transporting/delivering natural gas to the customer. Many or most of the rate components; and the negotiated rates are within the parameters of the tariff guidelines. Management determined that these arrangements qualify for the invoice practical expedient for recognizing revenue. Furthermore, while some of these contracts include contract periods extending over time, including multiple years, as amounts billable under the contract are based on rates in effect for the customer for service provided to date, no significant financing component is deemed to exist.

As indicated above, revenues also include the net impacts of margin tracker/decoupling accruals. All of Southwest's service territories have decoupled rate structures (also referred to as alternative revenue programs) that are designed to eliminate the direct link between volumetric sales and revenue, thereby mitigating the impacts of unusual weather variability and conservation on margin. The primary alternative revenue programs involve permissible adjustments for differences between stated tariff benchmarks and amounts billable through revenue from contracts with customers via existing rates. Such adjustments are recognized monthly in revenue and in the associated regulatory asset/liability accounts in advance of rate adjustments intended to collect or return amounts recognized. Revenues recognized for the adjustment to the benchmarks noted are required to be presented separately from revenues from contracts with customers, and as such, are provided below and identified as alternative revenue program revenue (which excludes recoveries from customers).

Gas operating revenues on the Consolidated Statements of Income of both the Company and Southwest include revenue from contracts with customers, which is shown below disaggregated by customer type, and various categories of revenue:

	December 31,		,
(Thousands of dollars)	2018	2017	2016
Residential	\$ 887,220	\$ 857,204	\$ 895,330
Small commercial	255,083	243,513	251,092
Large commercial	53,192	52,379	53,582
Industrial/other	23,489	22,026	19,753
Transportation	86,990	87,759	87,106
Revenue from contracts with customers	1,305,974	1,262,881	1,306,863
Alternative revenue program revenues (deferrals)	45,979	35,347	12,530
Other revenues (a)	5,775	4,080	2,019
Total Gas operating revenues	\$1,357,728	\$1,302,308	\$1,321,412

(a) Includes various other revenues, and during the first six months of 2018, included \$12.5 million as a reserve against revenue associated with a tax reform savings adjustment. During the third quarter of 2018, amounts previously recognized were reclassified to the various categories of revenue from contracts with customers when incorporated in tariff rates.

Utility Infrastructure Services Segment:

The majority of Centuri contracts are performed under unit-price contracts. Generally, these contracts state prices per unit of installation. Typical installations are accomplished in a few weeks or less. Revenues are recorded as installations are completed.

Revenues are recorded for long-term fixed-price contracts in a pattern that reflects the transfer of control of promised goods and services to the customer over time. The amount of revenue recognized on fixed-price contracts is based on costs expended to date relative to anticipated final contract costs (a method of recognition based on inputs). Some unit-price contracts contain caps that if encroached, trigger revenue and loss recognition similar to a fixed-price contract model.

Centuri is required to collect taxes imposed by various governmental agencies on the work performed for its customers. These taxes are not included in Utility infrastructure services revenues. Management uses the net classification method to report taxes collected from customers to be remitted to governmental authorities.

Centuri derives revenue from the installation, replacement, repair, and maintenance of energy distribution systems, and in developing industrial construction solutions. Centuri has operations in the U.S. and Canada. The majority of Centuri's revenues are related to contracts for natural gas pipeline replacement and installation work for natural gas utilities. In addition, Centuri performs certain industrial construction activities for various customers and industries. Centuri has two types of agreements with its customers: master services agreements ("MSAs") and bid contracts. Most of Centuri's customers supply many of their own materials in order for Centuri to complete its work under the contracts.

An MSA identifies most of the terms describing each party's rights and obligations that will govern future work authorizations. An MSA is often effective for multiple years. A work authorization is issued by the customer to describe the location, timing, and any additional information necessary to complete the work for the customer. The combination of the MSA and the work authorization determines when a contract exists and revenue recognition may begin. Each work authorization is generally a single performance obligation as Centuri is performing a significant integration service. Centuri has elected to use the portfolio method practical expedient at the customer level as the terms and conditions of the work performed under MSAs are similar in nature with each customer but vary significantly between customers.

A bid contract is typically a one-time agreement for a specific project that has all necessary terms defining each party's rights and obligations. Each bid contract is evaluated for revenue recognition individually. Control of assets created under bid contracts generally passes to the customer over time. Bid contracts often have a single performance obligation as Centuri is providing a significant integration service.

Centuri's MSA and bid contracts are characterized as either fixed-price contracts or unit-price contracts for revenue recognition purposes. The cost-to-cost input method is used to measure progress towards the satisfaction of a performance obligation for fixedprice contracts. Input methods result in the recognition of revenue based on the entity's expended effort to satisfy the performance obligation relative to the total expected effort to satisfy the performance obligation. For unit-price contracts, an output method is used to measure progress towards satisfaction of a performance obligation. Also with regard to unit-price contracts, the output measurement will be the completion of each unit that is required under the contract.

Actual revenues and project costs can vary, sometimes substantially, from previous estimates due to changes in a variety of factors, including unforeseen circumstances. These factors, along with other risks inherent in performing fixed-price contracts may cause actual revenues and gross profit for a project to differ from previous estimates and could result in reduced profitability or losses on projects. Changes in these factors may result in revisions to costs and earnings, the impacts for which are recognized in the period in which the changes are identified. Once identified, these types of conditions continue to be evaluated for each project throughout the project term and ongoing revisions in management's estimates of contract value, contract cost, and contract profit are recognized as necessary in the period determined.

Centuri categorizes work performed under MSAs and bid contracts into three primary service types: gas construction, electrical construction, and other construction. Gas construction includes work involving previously existing gas pipelines and the installation

of new pipelines or service lines. Electrical construction includes work involving installation and maintenance of transmission and distribution lines and storm restoration services. Other construction includes all other work and can include industrial and water utility services.

Contracts can have compensation/consideration that is variable. For MSAs, variable consideration is evaluated at the customer level as the terms creating variability in pricing are included within the MSA and are not specific to a work authorization. For multi-year MSAs, variable consideration items are typically determined for each year of the contract and not for the full contract term. For bid contracts, variable consideration is evaluated at the individual contract level. The expected value method or most likely amount method is used based on the nature of the variable consideration. Types of variable consideration include liquidated damages, delay penalties, performance incentives, safety bonuses, payment discounts, and volume rebates. Centuri will typically estimate variable consideration and adjust financial information, as necessary.

Change orders involve the modification in scope, price, or both to the current contract, requiring approval by both parties. The existing terms of the contract continue to be accounted for under the current contract until such time as a change order is approved. Once approved, the change order is either treated as a separate contract or as part of the existing contract, as appropriate, under the circumstances. When the scope is agreed upon in the change order but not the price, Centuri estimates the change to the transaction price.

The following tables display Centuri's revenue from contracts with customers disaggregated by service type and contract type:

(Thousands of dollars)			D	ecember 31,	
		2018		2017	2016
Service Types:	<i>.</i>	1 1 9 9 (0 9	<i>.</i>	0.04.4.0.0	o. (
Gas infrastructure services	\$	1,123,682	\$	891,139	\$ 914,970
Electric power infrastructure services		32,629		18,114	27,915
Other		365,974		337,231	 196,193
Total Utility infrastructure services revenues	\$	1,522,285	\$	1,246,484	\$ 1,139,078
(Thousands of dollars)			D	ecember 31,	
		2018		2017	2016
Contract Types:					
Master services agreement	\$	1,102,412	\$	885,513	\$ 852,472
Bid contract		419,873		360,971	 286,606
Total Utility infrastructure services revenues	\$	1,522,285	\$	1,246,484	\$ 1,139,078
Unit priced contracts	\$	1,258,419	\$	968,856	\$ 886,919
Fixed priced contracts		117,298		127,497	95,494
Time and materials contracts		146,568		150,131	 156,665
Total Utility infrastructure services revenues	\$	1,522,285	\$	1,246,484	\$ 1,139,078

The following table provides information about contracts receivable and revenue earned on contracts in progress in excess of billings (contract assets), both of which are included within Accounts receivable, net of allowances, and amounts billed in excess of revenue

earned on contracts (contract liabilities), which are included in Other current liabilities as of December 31, 2018 and December 31, 2017 on the Company's Consolidated Balance Sheets:

(Thousands of dollars)	December 31, 2018	December 31, 2017
Contracts receivable, net	\$186,249	\$221,859
Revenue earned on contracts in progress in excess of billings	87,520	5,768
Amounts billed in excess of revenue earned on contracts	4,211	9,602

The revenue earned on contracts in progress in excess of billings (contract asset) primarily relates to Centuri's rights to consideration for work completed but not billed and/or approved at the reporting date. These contract assets are transferred to contracts receivable when the rights become unconditional. Upon adoption of Topic 606, the Company reclassified \$50.6 million to revenue earned on contracts in progress in excess of billings, and during the year ended December 31, 2018, recognized an increase of \$30 million, excluding the impact from the adoption, primarily related to normal operating and billing activities. The amounts billed in excess of revenue earned (contract liability) primarily relate to the advance consideration received from customers for which work has not yet been completed. The change in this contract liability balance from January 1, 2018 to December 31, 2018 is due to revenue recognized of \$9.6 million that was included in this balance as of January 1, 2018, after which time it became earned and the balance was reduced, and to increases due to cash received, net of revenue recognized during the period related to contracts that commenced during the period.

Prior to the adoption of Topic 606, revenue earned on contracts in progress in excess of billings was only used to recognize contract assets related to fixed-price contracts under previous accounting guidance. This balance now includes any conditional contract assets for both fixed-price contracts and unit-price contracts. Centuri considers retention and unbilled amounts to be conditional contract assets, as payment is contingent on the occurrence of a future event. Contracts receivable, net, includes only amounts that are unconditional in nature, which means only the passage of time remains and Centuri has invoiced the customer. Similarly, amounts billed in excess of revenue earned on contracts was only used to recognize contract liabilities related to fixed-price contracts under previous accounting guidance. This line item now includes contract liabilities related to both fixed-price contracts and unit-price contracts liability is expected to be recognized for greater than one year from the financial statement date, Centuri classifies those amounts as long-term contract assets or contract liabilities, included in Deferred charges and other assets or Other deferred credits and other long-term liabilities on the Company's Consolidated Balance Sheets.

For contracts that have an original duration of one year or less, Centuri uses the practical expedient applicable to such contracts and does not consider/compute an interest component based on the time value of money. Further, because of the short duration of these contracts, the Company has not disclosed the transaction price for the remaining performance obligations as of the end of each reporting period or when the Company expects to recognize the revenue.

As of December 31, 2018, Centuri has fifteen contracts that had an original duration of more than one year. The aggregate amount of the transaction price allocated to the unsatisfied performance obligations of these contracts as of December 31, 2018 is \$38.6 million. Centuri expects to recognize the remaining performance obligations over the next four years; however, the timing of that recognition is largely within the control of the customer, including when the necessary equipment and materials required to complete the work will be provided by the customer.

Utility infrastructure services contracts receivable consists of the following:

(Thousands of dollars)	December 31, 2018	December 31, 2017
Billed on completed contracts and contracts in progress	\$184,100	\$219,298
Other receivables	2,588	2,622
Contracts receivable, gross	186,688	221,920
Allowance for doubtful accounts	(439)	(61)
Contracts receivable, net	\$186,249	\$221,859

Note 4 – Receivables and Related Allowances

Business activity with respect to gas utility operations is conducted with customers located within the three-state region of Arizona, Nevada, and California. The table below contains information about the gas utility customer accounts receivable balance (net of allowance) at December 31, 2018 and 2017, and the percentage of customers in each of the three states, which was consistent with the prior year.

	December 31, 2018	December 31, 2017
Gas utility customer accounts receivable balance (in thousands)	\$138,149	\$119,444
		December 31, 2018
Percent of customers by state		
Arizona		53%
Nevada		37%
California		10%

Although Southwest seeks to minimize its credit risk related to utility operations by requiring security deposits from new customers, imposing late fees, and actively pursuing collection on overdue accounts, some accounts are ultimately not collected. Customer accounts are subject to collection procedures that vary by jurisdiction (late fee assessment, noticing requirements for disconnection of service, and procedures for actual disconnection and/or reestablishment of service). After disconnection, reestablishment of service requires both payment of previously unpaid balances and additional deposit requirements. Provisions for uncollectible accounts are recorded monthly based on experience, customer and rate composition, and write-off processes. They are included in the ratemaking process as a cost of service. The Nevada jurisdictions have a regulatory mechanism associated with the gas cost-related portion of uncollectible accounts are deferred and collected through a surcharge in the ratemaking process. Activity in the allowance account for uncollectibles is summarized as follows (thousands of dollars):

	Allowance for Uncollectibles
Balance, December 31, 2015	\$ 2,270
Additions charged to expense	3,264
Accounts written off, less recoveries	(3,010)
Balance, December 31, 2016	2,524
Additions charged to expense	2,310
Accounts written off, less recoveries	(2,723)
Balance, December 31, 2017	2,111
Additions charged to expense	2,959
Accounts written off, less recoveries	(2,902)
Balance, December 31, 2018	\$ 2,168

At December 31, 2018, the utility infrastructure services segment (Centuri) had \$273.8 million in combined customer accounts and contracts receivable. Both the allowance for uncollectibles and write-offs related to Centuri customers have been insignificant and are not reflected in the table above.

Note 5 - Regulatory Assets and Liabilities

Southwest is subject to the regulation of the Arizona Corporation Commission ("ACC"), the Public Utilities Commission of Nevada ("PUCN"), the California Public Utilities Commission ("CPUC"), and the FERC. Accounting policies of Southwest conform to U.S. GAAP applicable to rate-regulated entities and reflect the effects of the ratemaking process. Accounting treatment for rate-regulated entities allows for deferral as regulatory assets, costs that otherwise would be expensed, if it is probable that future recovery from customers will occur. If rate recovery is no longer probable, due to competition or the actions of regulators, Southwest is required to write-off the related regulatory asset. Regulatory liabilities are recorded if it is probable that revenues will be reduced for amounts that will be credited to customers through the ratemaking process.

The following table represents existing regulatory assets and liabilities (thousands of dollars):

December 31,	2018	2017
Regulatory assets:		
Accrued pension and other postretirement benefit costs (1)	\$ 383,170	\$ 391,403
Unrealized net loss on non-trading derivatives (Swaps) (2)	1,862	5,780
Deferred purchased gas costs (3)	4,928	14,581
Accrued purchased gas costs (4)	29,000	17,000
Unamortized premium on reacquired debt (5)	19,599	20,913
Accrued absence time (8)	14,126	13,870
Margin & interest-tracking (9)	88,290	42,354
Other (10)	32,616	25,997
	573,591	531,898
Regulatory liabilities:		
Deferred purchased gas costs (3)	(79,762)	(6,841)
Accumulated removal costs	(383,000)	(315,000)
Unrealized net gain on non-trading derivatives (Swaps) (2)	(144)	_
Unamortized gain on reacquired debt (6)	(8,717)	(9,253)
Regulatory excess deferred taxes and gross-up (7)	(458,834)	(433,908)
Other (10)	(19,911)	(33,184)
Net regulatory liabilities	\$(376,777)	\$(266,288)

 Included in Deferred charges and other assets on the Consolidated Balance Sheets. Recovery period is greater than five years. (See Note 11 – Pension and Other Postretirement Benefits).

- (2) Asset balance is included in Deferred charges and other assets and Prepaid and other assets on the Consolidated Balance Sheets. Liability balance is included in Other current liabilities and Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets. The actual amounts, when realized at settlement, become a component of purchased gas costs under Southwest's PGA mechanisms. (For specific details, see Note 14 Derivatives).
- (3) Balance recovered or refunded on an ongoing basis with interest.
- (4) Included in Prepaid and other current assets on the Consolidated Balance Sheets. Balance recovered or refunded on an ongoing basis.
- (5) Included in Deferred charges and other assets on the Consolidated Balance Sheets. Recovered over life of debt instruments.
- (6) Included in Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets. Amortized over life of debt instruments.
- (7) The TCJA required a remeasurement and reduction of the net deferred income tax liability. The reduction (excess deferred taxes) became a regulatory liability with appropriate tax gross-up. The excess deferred taxes reduce rate base. The tax benefit will be returned to utility customers in accordance with regulatory requirements. Included in Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets. This amount also includes a \$2.9 million gross-up related to contributions in aid of construction.
- (8) Regulatory recovery occurs on a one-year lag basis through the labor loading process. Included in Prepaid and other current assets on the Consolidated Balance Sheets.
- (9) Margin tracking/decoupling mechanisms are alternative revenue programs and revenue associated with under-collections (for the difference between authorized margin levels and amounts billed to customers through rates currently) are recognized as revenue so long as recovery is expected to take place within 24 months. Included in Prepaid and other current assets on the Consolidated Balance Sheets.
- (10) The following tables detail the components of Other regulatory assets and liabilities. Other regulatory assets are included in either Prepaid and other current assets or Deferred charges and other assets on the Consolidated Balance Sheets (as indicated). Recovery periods vary. Other

regulatory liabilities are included in either Other current liabilities or Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets (as indicated).

Other Regulatory Assets	2018	2017
State mandated public purpose programs (including low income and conservation programs) (a) (e)	\$ 6,253	\$ 4,832
Infrastructure replacement programs and similar (b) (e)	12,486	9,627
Environmental compliance programs (c) (e)	5,046	9,702
Other (d)	8,831	1,836
	\$32,616	\$25,997

a) Included in Prepaid and other current assets on the Consolidated Balance Sheets. See *Prepaid and other current assets* in **Note 1 – Background, Organization, and Summary of Significant Accounting Policies**.

- b) Included in Deferred charges and other assets on the Consolidated Balance Sheets.
- c) In 2018, approximately \$4.5 million included in Prepaid and other current assets and \$596,000 included in Deferred charges and other assets on the Consolidated Balance Sheets. In2017, \$9.2 million included in Prepaid and other current assets and \$527,000 included in Deferred charges and other assets on the Consolidated Balance Sheets.
- d) In 2018, \$197,000 included in Prepaid and other current assets and \$8.6 million included in Deferred charges and other assets on the Consolidated Balance Sheets. In 2017, \$531,000 included in Prepaid and other current assets and \$1.3 million included in Deferred charges and other assets on the Consolidated Balance Sheets. The balance in 2018 includes \$6 million authorized as part of the recently concluded Nevada general rate case associated with self-insurance cost.
- e) Balance recovered or refunded on an ongoing basis, generally with interest.

Other Regulatory Liabilities	2018	2017
State mandated public purpose programs (including low income and conservation programs) (a) (e)	\$ (8,598)	\$(10,213)
Margin, interest- and property tax-tracking accounts (b) (e)	(7,273)	(9,505)
Environmental compliance programs (e) (f)	—	(8,574)
Regulatory accounts for differences related to pension funding (c)	(3,221)	(3,178)
Other (d) (e)	(819)	(1,714)
	\$(19,911)	\$(33,184)

- a) Included in Other current liabilities on the Consolidated Balance Sheets.
- b) In 2018, \$(539,000) included in Other current liabilities and \$(6.7) million included in Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets. In 2017, \$(6.6) million included in Other current liabilities and \$(2.9) million included in Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets.
- c) Included in Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets.
- d) In 2018, \$(810,000) included in Other current liabilities and \$(9,000) included in Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets. In 2017, approximately \$(1.7) million included in Other current liabilities and \$(9,000) included in Other deferred credits and other long-term liabilities on the Consolidated Balance Sheets.
- e) Balance recovered or refunded on an ongoing basis, generally with interest.
- f) In 2018, included in Prepaid and other current assets on the Consolidated Balance Sheets. In 2017, included in Other current liabilities on the Consolidated Balance Sheets.

Note 6 - Other Comprehensive Income and Accumulated Other Comprehensive Income ("AOCI")

The following information provides insight into amounts impacting Other Comprehensive Income (Loss), both before and after-tax, within the Consolidated Statements of Comprehensive Income, which also impact Accumulated Other Comprehensive Income in the Consolidated Balance Sheets and Consolidated Statements of Equity of the Company and Southwest.

Related Tax Effects Allocated to Each Component of Other Comprehensive Income (Loss)

(Thousands of dollars)		2018			2017			2016	
	Before- Tax Amount	Tax (Expense) or Benefit (1)	Net-of- Tax Amount	Before- Tax Amount	Tax (Expense) or Benefit (1)	Net-of- Tax Amount	Before- Tax Amount	Tax (Expense) or Benefit (1)	Net-of- Tax Amount
Defined benefit pension plans: Net actuarial gain/(loss) Amortization of prior service cost Amortization of net actuarial (gain)/loss Regulatory adjustment	\$(20,426) 1,335 33,617 (8,233)	(320) (8,068)	\$(15,524) 1,015 25,549 (6,257)	\$(43,027) 1,335 25,445 12,340) \$10,326 (507) (9,669) 250	\$(32,701) 828 15,776 12,590	\$(22,770) 1,335 27,066 (5,584)	(507) (10,285)	\$(14,118) 828 16,781 (3,462)
Pension plans other comprehensive income (loss) FSIRS (designated hedging activities): Amounts reclassified into net income	6,293 3,345	(1,510) (804)	4,783 2,541	(3,907) 3,344	400 (1,271)	(3,507) 2,073	47 3,345	(18) (1,270)	
FSIRS other comprehensive income (loss)	3,345	(804)	2,541	3,344	(1,271)	2,073	3,345	(1,270)	2,075
Total other comprehensive income (loss) – South- west Gas Corporation	9,638	(2,314)	7,324	(563)	(871)	(1,434)	3,392	(1,288)	2,104
Foreign currency translation adjustments: Translation adjustments	(3,010))	(3,010)	1,771	_	1,771	161		161
Foreign currency other comprehensive income (loss)	(3,010))	(3,010)	1,771		1,771	161		161
Total other comprehensive income (loss) – South- west Gas Holdings, Inc.	\$ 6,628	\$(2,314)	\$ 4,314	\$ 1,208	\$ (871)	\$ 337	\$ 3,553	\$ (1,288)	\$ 2,265

(1) Tax amounts are calculated using a 24% rate following the December 22, 2017 enactment date of the TCJA. For periods prior to the enactment date, tax amounts were calculated using a 38% rate. At December 31, 2017, excess taxes related to pre-tax amounts which accumulated in AOCI prior to tax reform were required to remain in the account until the first quarter of 2018, when ASU 2018-02 was adopted, permitting previously stranded amounts to be released from AOCI and applied to Retained earnings (see table for Accumulated other comprehensive income (loss), including the balance, below). With regard to foreign currency translation adjustments, the Company has elected to indefinitely reinvest the earnings of Centuri's Canadian subsidiaries in Canada, thus preventing deferred taxes on such earnings. As a result of this assertion, the Company is not recognizing any tax effect or presenting a tax expense or benefit for the currency translation adjustment amount reported in Other comprehensive income (loss), as repatriation of earnings is not anticipated.

With regard to the table above and the roll-forward tables below, management recognizes tax impacts (associated with underlying before-tax amounts in AOCI) in both AOCI and in Deferred income taxes and investment tax credits, net on its balance sheets. U.S. tax reform of the TCJA was enacted on December 22, 2017. U.S. GAAP requires that deferred tax assets and liabilities be adjusted to reflect the effects of a change in tax laws and rates, and also requires that the effect be included in income from continuing operations for the period of enactment. As a result, when deferred tax balances on the balance sheet for the period ending December 31, 2017 were remeasured as a result of the TCJA to reflect the change in enacted rates, those adjustments were also reflected in income tax expense on the Consolidated Statements of Income, as required. However, excess amounts were not able to be released from AOCI until the first quarter of 2018, when upon adoption of ASU 2018-02, previously stranded amounts were released and reflected in Retained earnings on Southwest's and the Company's Consolidated Balance Sheets, as required by the ASU.

The estimated amounts that will be amortized from accumulated other comprehensive income or regulatory assets into net periodic benefit cost over the next year are summarized below (in thousands):

Retirement plan net actuarial loss	\$22,000
SERP net actuarial loss	1,000
PBOP prior service cost	1,300

Approximately \$2.5 million of realized losses (net of tax) related to the FSIRS, included in AOCI at December 31, 2018, will be reclassified into interest expense within the next twelve months as the related interest payments on long-term debt occur. The following table represents a rollforward of AOCI, presented on the Company's Consolidated Balance Sheets and its Consolidated Statements of Equity:

AOCI-Rollforward

(Thousands of dollars)

	Defin	ed Benefit I	Plans		FSIRS		Foreig	gn Currenc	y Items		
	Before-Tax	Tax (Expense) Benefit (5)	After-Tax	Before- Tax	Tax (Expense) Benefit (5)	After-Tax		Tax (Expense) Benefit	After-Tax	Other	AOCI
Beginning Balance AOCI December 31, 2017	\$(61,520)	\$22,293	\$(39,227)	\$(12,655)	\$4,809	\$(7,846)	\$ (609)	\$—	\$ (609)	\$ —	\$(47,682)
Net actuarial gain/(loss) Translation adjustments	(20,426)	4,902	(15,524)		_	_	(3,010)	_	(3,010)	_	$(15,524) \\ (3,010)$
Other comprehensive income before reclassifications FSIRS amounts reclassified from	(20,426)	4,902	(15,524)	_	_	_	(3,010)	_	(3,010)	_	(18,534)
AOCI (1)	1 225	(220)	1.015	3,345	(804)	2,541	_	_	—	_	2,541
Amortization of prior service cost (2) Amortization of net actuarial loss (2) Regulatory adjustment (3)	1,335 33,617 (8,233)	(320) (8,068) 1,976	1,015 25,549 (6,257)					_			1,015 25,549 (6,257)
Net current period other comprehensive income (loss) attribut- able to Southwest Gas Holdings, Inc.	6,293	(1,510)	4,783	3,345	(804)	2,541	(3,010)	_	(3,010)		4,314
Reclassification of excess deferred taxes (4)										(9,300) (9,300)
Ending Balance AOCI December 31, 2018	\$(55,227)	\$20,783	\$(34,444)	\$ (9,310)	\$4,005	\$(5,305)	\$(3,619)	\$	\$(3,619)	\$(9,300)\$(52,668)

(1) The FSIRS reclassification amounts are included in the Net interest deductions line item on the Consolidated Statements of Income.

(2) These AOCI components are included in the computation of net periodic benefit cost (see Note 11 – Pension and Other Postretirement Benefits for additional details).

(3) The regulatory adjustment represents the portion of the activity above that is expected to be recovered through rates in the future (the related regulatory asset is included in the Deferred charges and other assets line item on the Consolidated Balance Sheets).

(4) Release of excess deferred taxes accumulated prior to December 22, 2017 (date of enactment of the TCJA), as a result of the adoption of ASU 2018-02 during the first quarter of 2018, which permitted such release.

(5) Tax amounts related to the before-tax balance are calculated using a 24% effective rate after the release of previously stranded excess deferred taxes existing as a result of the TCJA; amounts prior to the December 22, 2017 enactment of the TCJA were calculated using a 38% effective rate.

The following table represents a rollforward of AOCI, presented on Southwest's Consolidated Balance Sheets:

AOCI—Rollforward

(Thousands of dollars)

	Defir	ed Benefit P	lans	FSIRS				
	Before-Tax	Tax (Expense) Benefit (10)	After- Tax	Before- Tax	Tax (Expense) Benefit (10)	After- Tax	Other	AOCI
Beginning Balance AOCI December 31, 2017	\$(61,520)	\$22,293	\$(39,227)	\$(12,655)	\$4,809	\$(7,846)	\$ —	\$(47,073)
Net actuarial gain/(loss)	(20,426)	4,902	(15,524)	_			_	(15,524)
Other comprehensive income before reclassifications FSIRS amounts reclassified from AOCI (6) Amortization of prior service cost (7) Amortization of net actuarial loss (7) Regulatory adjustment (8)	(20,426) 1,335 33,617 (8,233)	(320) (8,068) 1,976	(15,524) 1,015 25,549 (6,257)	3,345	(804) 	2,541		(15,524) 2,541 1,015 25,549 (6,257)
Net current period other comprehensive income (loss) attributable to Southwest Gas Corporation	6,293	(1,510)	4,783	3,345	(804)	2,541		7,324
Reclassification of excess deferred taxes (9)	_	_	_	_	_	_	(9,300)) (9,300)
Ending Balance AOCI December 31, 2018	\$(55,227)	\$20,783	\$(34,444)	\$ (9,310)	\$4,005	\$(5,305)	\$(9,300)	\$(49,049)

(6) The FSIRS reclassification amounts are included in the Net interest deductions line item on the Consolidated Statements of Income.

(7) These AOCI components are included in the computation of net periodic benefit cost (see Note 11 – Pension and Other Postretirement Benefits for additional details).

(8) The regulatory adjustment represents the portion of the activity above that is expected to be recovered through rates in the future (the related regulatory asset is included in the Deferred charges and other assets line item on the Consolidated Balance Sheets).

(9) Release of excess deferred taxes accumulated prior to December 22, 2017 (date of enactment of the TCJA), as a result of the adoption of ASU 2018-02 during the first quarter of 2018, which permitted such release.

(10) Tax amounts related to the before-tax balances are calculated using a 24% effective rate after the release of previously stranded excess deferred taxes existing as a result of the TCJA; amounts prior to the December 22, 2017 enactment of the TCJA were calculated using a 38% effective rate.

The following table represents amounts (before income tax impacts) included in Accumulated other comprehensive income (in the table above), that have not yet been recognized in net periodic benefit cost as of December 31, 2018 and 2017:

Amounts Recognized in AOCI (Before Tax) (Thousands of dollars)

	2018	2017
Net actuarial (loss) gain	\$(435,364)	\$(448,555)
Prior service cost	(3,033)	(4,368)
Less: amount recognized in regulatory assets	383,170	391,403
Recognized in AOCI	\$ (55,227)	\$ (61,520)

See Note 11 – Pension and Other Postretirement Benefits for more information on the defined benefit pension plans and Note 14 – Derivatives for more information on the FSIRS.

Note 7 – Common Stock

On March 29, 2017, the Company filed with the SEC an automatic shelf registration statement on Form S-3 (File No. 333-217018), which became effective upon filing, for the offer and sale of up to \$150 million of common stock from time to time in at-the-market offerings under the prospectus included therein and in accordance with the Sales Agency Agreement, dated March 29, 2017, between

	Three Mo	onths Ended	Twelve Months Ended
	Decer	mber 31,	December 31,
	2018	2017	2018 2017
Gross proceeds	_	\$29,999,922	\$85,149,976 \$41,776,795
Less: agent commissions	_	299,999	851,500 417,768
Net proceeds		\$29,699,923	\$84,298,476 \$41,359,027
Number of shares sold	—	358,630	1,145,705 505,707
Weighted average price per share	_	\$ 83.65	\$ 74.32 \$ 82.61

the Company and BNY Mellon Capital Markets, LLC (the "Equity Shelf Program"). The following table provides the activity in the Equity Shelf Program for the three and twelve months ended December 31, 2018:

As of December 31, 2018, the Company had up to \$23,073,229 of common stock available for sale under the program. Net proceeds from the sale of shares of common stock under the Equity Shelf Program are intended for general corporate purposes, including the acquisition of property for the construction, completion, extension, or improvement of pipeline systems and facilities located in and around the communities served by Southwest. Net proceeds during the twelve months ended December 31, 2018 were contributed to, and reflected in the records of, Southwest (as a capital contribution from Southwest Gas Holdings, Inc.).

Aside from the automatic shelf registration, in December 2017, the Company and Southwest jointly filed with the SEC an automatic shelf registration statement (File No. 333-222047), which became effective upon filing and includes a prospectus detailing the Company's ability to offer and sell, from time to time in amounts at prices and on terms that will be determined at the time of such offering, any combination of common stock, preferred stock, debt securities (which may or may not be guaranteed by one or more of its directly or indirectly wholly owned subsidiaries if indicated in the relevant prospectus supplement), guarantees of debt securities issued by Southwest, depository shares, warrants to purchase common stock, preferred stock or depository shares issued by the Company or debt securities issued by the Company or Southwest, units and rights (the "Universal Shelf"). Additionally as part of the Universal Shelf, Southwest may offer and sell, from time to time in amounts at prices and on terms that will be determined at the time of such offering, any combination of debt securities (which may or may not be guaranteed by one or more of its directly or indirectly wholly owned subsidiaries if indicated in the relevant prospectus supplement). Additionally as part of the Universal Shelf, Southwest may offer and sell, from time to time in amounts at prices and on terms that will be determined at the time of such offering, any combination of debt securities (which may or may not be guaranteed by one or more of its directly or indirectly wholly owned subsidiaries if indicated in the relevant prospectus supplement) and guarantees of debt securities issued by the Company or by one or more of its directly or indirectly wholly owned subsidiaries if indicated in the relevant prospectus supplement) and guarantees of debt securities issued by the Company or by one or more of its directly or indirectly wholly owned subsidiaries if indicated in the relevant prospectus supplement).

In November 2018, the Company sold, through a prospectus supplement under the Universal Shelf, an aggregate of 3,565,000 shares of common stock, in an underwritten public offering, at \$75.50 per share, resulting in proceeds to the Company of \$260,073,524, net of \$9,083,976 underwriters' discount. The Company used a portion of the net proceeds from the offering to facilitate, in association with Centuri, the purchase of Linetec, to pay down outstanding borrowings under the Company's credit facility, and used the remaining amounts for general corporate purposes. Refer to **Note 19 – Business Acquisitions** regarding the acquisition of Linetec and **Note 9 – Short-Term Debt** for information on the Company's credit facility.

During 2018, the Company issued approximately 83,000 shares of common stock through the Restricted Stock/Unit Plan, and Management Incentive Plan.

Additionally during 2018, the Company issued 143,000 shares of common stock through the Dividend Reinvestment and Stock Purchase Plan ("DRSPP"), raising proceeds of approximately \$10.6 million.

As of December 31, 2018, there were 4.4 million common shares registered and available for issuance under the provisions of the various stock issuance plans, which does not include the amount of common stock available that is separately disclosed under the Equity Shelf Program above.

Note 8 – Long-Term Debt

Carrying amounts of long-term debt and related estimated fair values as of December 31, 2018 and December 31, 2017 are disclosed in the following table. Southwest's revolving credit facility (including commercial paper) and the variable-rate Industrial Development Revenue Bonds ("IDRBs") approximate their carrying values, as they are repaid quickly (in the case of credit facility borrowings) and have interest rates that reset frequently. These are categorized as Level 1 due to Southwest's ability to access similar debt arrangements at measurement dates with comparable terms, including variable/market rates. The fair values of Southwest's debentures, senior notes, and fixed-rate IDRBs were determined utilizing a market-based valuation approach, where fair values are determined based on evaluated pricing data, such as broker quotes and yields for similar securities adjusted for observable differences. Significant inputs used in the valuation generally include benchmark yield curves, credit ratings, and issuer spreads. The external credit rating, coupon rate, and maturity of each security are considered in the valuation, as applicable. The fair values of debentures and fixed-rate IDRBs are categorized as Level 2. The Centuri secured revolving credit and term loan facility and Centuri other debt obligations are categorized as Level 3, based on significant unobservable inputs to their fair values. Because Centuri's debt is not publicly traded, fair values for the secured revolving credit and term loan facility and other debt obligations were based on a conventional discounted cash flow methodology and utilized current market pricing yield curves, across Centuri's debt maturity spectrum, of other industrial bonds with an assumed credit rating comparable to the Company's. The fair value hierarchy is described in **Note 1 – Background, Organization, and Summary of Significant Accounting Policies**.

	December	December 31, 2017		
	Carrying Amount	Market Value	Carrying Amount	Market Value
(Thousands of dollars)				
Southwest Gas Corporation:				
Debentures:	¢ 105 000	¢12(212	¢ 125.000	¢100.050
Notes, 4.45%, due 2020			\$ 125,000	
Notes, 6.1%, due 2041	125,000	150,728	125,000	
Notes, 3.875%, due 2022	250,000	254,195	250,000	
Notes, 4.875%, due 2043 Notes, 3.8%, due 2046	250,000 300,000	268,985 267,030	250,000 300,000	283,243 302,970
Notes, 3.7%, due 2040	300,000	298,926	500,000	302,970
8% Series, due 2026	75,000	93,827	75,000	96,063
Medium-term notes, 7.78% series, due 2022	25,000	27,497	25,000	28,714
Medium-term notes, 7.92% series, due 2022	25,000	30,016	25,000	31,542
Medium-term notes, 6.76% series, due 2027	7,500	8,651	7,500	8,882
Unamortized discount and debt issuance costs	(11,807)		(9,350)	
	1,470,693		1,173,150	
Revolving credit facility and commercial paper	150,000	150,000	150,000	150,000
Industrial development revenue bonds: Variable-rate bonds:				
Tax-exempt Series A, due 2028	50,000	50,000	50,000	50,000
2003 Series A, due 2038	50,000	50,000	50,000	50,000
2008 Series A, due 2038	50,000	50,000	50,000	50,000
2009 Series A, due 2039	50,000	50,000	50,000	50,000
Unamortized discount and debt issuance costs	(2,024)		(2,119)	
	197,976		197,881	
Less: current maturities				
Long-term debt, less current maturities – Southwest Gas Corporation	\$1,818,669		\$1,521,031	
Centuri:	¢ 255.050	2(0.125	¢ 100 570	207 5 9 9
Centuri term loan facility Unamortized debt issuance costs	\$ 255,959		\$ 199,578	207,588
Unamortized debt issuance costs	(1,414)		(1,111)	
	254,545		198,467	
Centuri secured revolving credit facility			56,472	56,525
Centuri other debt obligations Less: current maturities	67,104 (33,060)	67,053	47,952 (25.346)	48,183
			(25,346)	
Long-term debt, less current maturities – Centuri	\$ 288,589		\$ 277,545	
Consolidated Southwest Gas Holdings, Inc.:	¢1.010.((0		¢1.521.021	
Southwest Gas Corporation long-term debt	\$1,818,669		\$1,521,031	
Centuri long-term debt	321,649		302,891	
Less: current maturities	(33,060)		(25,346)	
Long-term debt, less current maturities – Southwest Gas Holdings, Inc.	\$2,107,258		\$1,798,576	

Southwest has a \$400 million credit facility which expires in March 2022. Southwest designates \$150 million of capacity related to the facility as long-term debt and has designated the remaining \$250 million for working capital purposes. Interest rates for the credit facility are calculated at either the London Interbank Offered Rate ("LIBOR") or an "alternate base rate," plus in each case an applicable margin that is determined based on Southwest's senior unsecured debt rating. At December 31, 2018, the applicable margin

is 1% for loans bearing interest with reference to LIBOR and 0% for loans bearing interest with reference to the alternative base rate. Southwest is also required to pay a commitment fee, of 0.10% per annum, on the unfunded portion of the commitments, which was not significant for the year ended December 31, 2018. At December 31, 2018, \$150 million was outstanding on the long-term portion of the credit facility, \$50 million of which was in commercial paper (see commercial paper program discussion below). The effective interest rate on the long-term portion of the credit facility was 3.41% at December 31, 2018. Borrowings under the credit facility ranged from none at various times throughout 2018 to a high of \$378 million during the first quarter of 2018. With regard to the short-term portion of the credit facility, there was \$152 million outstanding at December 31, 2018 and \$191 million in borrowings outstanding at December 31, 2017. (See **Note 9 – Short-Term Debt**).

Southwest has a \$50 million commercial paper program. Any issuance under the commercial paper program is supported by Southwest's current revolving credit facility and, therefore, does not represent additional borrowing capacity. Any borrowing under the commercial paper program will be designated as long-term debt. Interest rates for the program are calculated at the then current commercial paper rate. At December 31, 2018, and as noted above, \$50 million was outstanding under the commercial paper program.

In March 2018, Southwest issued \$300 million in 3.7% Senior Notes at a discount of 0.185%. The notes will mature in March 2028. The proceeds were used to temporarily pay down, in full, the amount then outstanding under the revolving portion of the credit facility and the remainder to repay amounts then outstanding under the commercial paper program.

In November 2018, Centuri, in association with the acquisition of Linetec (refer to **Note 19 – Business Acquisitions**), amended and restated its senior secured revolving credit and term loan facility, increasing the borrowing capacity from \$450 million to \$590 million. The line of credit portion of the facility increased to \$325 million; amounts borrowed and repaid under the revolving credit facility are available to be re-borrowed. The term loan facility portion increased to \$265 million. The \$590 million credit and term loan facility expires in November 2023 and continues to be secured by substantially all of Centuri's assets except those explicitly excluded under the terms of the agreement (including owned real estate and certain construction and transportation equipment). Centuri assets securing the facility at December 31, 2018 totaled \$1.1 billion.

Interest rates for Centuri's \$590 million secured revolving credit and term loan facility are calculated at LIBOR, the Canadian Dealer Offered Rate ("CDOR"), or an alternate base rate or Canadian base rate, plus in each case an applicable margin that is determined based on Centuri's consolidated leverage ratio. The applicable margin ranges from 0.875% to 2.25% for loans bearing interest with reference to LIBOR or CDOR and from 0.00% to 1.25% for loans bearing interest with reference to the alternate base rate or Canadian base rate. Centuri is also required to pay a commitment fee on the unfunded portion of the commitments based on their consolidated leverage ratio. The commitment fee ranges from 0.125% to 0.35% per annum. Borrowings under the secured revolving credit facility ranged from a low of zero during December 2018 to a high of \$103 million during July 2018. At December 31, 2018 \$256 million in borrowings were outstanding under the combined secured revolving credit and term loan facility.

All amounts outstanding are considered long-term borrowings. The effective interest rate on the secured revolving credit and term loan facility was 4.1% at December 31, 2018.

The effective interest rates on Southwest's variable-rate IDRBs are included in the table below:

	December 31, 2018	December 31, 2017
2003 Series A	2.61%	2.44%
2008 Series A	2.52%	2.59%
2009 Series A	2.51%	2.40%
Tax-exempt Series A	2.53%	2.56%

In Nevada, interest fluctuations due to changing interest rates on Southwest's 2003 Series A, 2008 Series A, and 2009 Series A variable-rate IDRBs are tracked and recovered from ratepayers through a variable interest expense recovery mechanism.

None of Southwest's debt instruments have credit triggers or other clauses that result in default if bond ratings are lowered by rating agencies. Interest and fees on certain debt instruments are subject to adjustment depending on Southwest's bond ratings. Certain debt instruments are subject to a leverage ratio cap and the 6.1% note due 2041 is also subject to a minimum net worth requirement. At December 31, 2018, Southwest was in compliance with all of its covenants. Under the most restrictive of the financial covenants, approximately \$2.1 billion in additional debt could be issued while still meeting the leverage ratio requirement. Relating to the minimum net worth requirement, as of December 31, 2018, there is at least \$1.2 billion of cushion in equity. No specific dividend restrictions exist under the collective covenants. None of the debt instruments contain material adverse change clauses.

Certain Centuri debt instruments have leverage ratio caps and fixed charge ratio coverage requirements. At December 31, 2018, Centuri was in compliance with all of its covenants. Under the most restrictive of the covenants, Centuri could issue over \$101 million in additional debt and meet the leverage ratio requirement. Centuri has at least \$78 million of cushion relating to the minimum fixed charge ratio coverage requirement. Centuri's revolving credit and term loan facility is secured by underlying assets of the utility infrastructure services segment. Centuri's covenants limit its ability to provide cash dividends to Southwest Gas Holdings, Inc., its parent. The dividend restriction is equal to a maximum of 60% of its rolling twelve-month consolidated net income.

Estimated maturities of long-term debt for the next five years are (in thousands):

	Southwest	Centuri	Total
2019	\$	\$ 33,060	\$ 33,060
2020	125,000	38,296	163,296
2021	_	33,571	33,571
2022	425,000	35,515	460,515
2023	_	178,614	178,614

Note 9 – Short-Term Debt

In March 2017, Southwest Gas Holdings, Inc. entered into a credit facility with a borrowing capacity of \$100 million that expires in March 2022. The Company utilizes this facility for short-term financing needs. Interest rates for this facility are calculated at either LIBOR or the "alternate base rate," plus in each case an applicable margin that is determined based on the Company's senior unsecured debt rating. At December 31, 2018, the applicable margin is 1.125% for loans bearing interest with reference to LIBOR and 0.125% for loans bearing interest with reference to the alternative base rate. The Company is also required to pay a commitment fee, of 0.15% per annum, on the unfunded portion of the commitments, which was not significant for the period ended December 31, 2018. Borrowings under the credit facility ranged from none at various times throughout 2018 to a high of \$23.5 million during the first quarter of 2018. At December 31, 2017, there were no borrowings and \$23.5 million outstanding under this facility, respectively, with a weighted average interest rate of 2.65% at December 31, 2017.

At December 31, 2018, Southwest Holdings, Inc. was in compliance with all of its credit facility covenants. Interest and fees on the credit facility are subject to adjustment depending on its bond ratings. The credit facility is subject to a leverage ratio cap. No specific dividend restrictions exist under the collective covenants. The credit facility does not contain a material adverse change clause.

As discussed in **Note 8 – Long-Term Debt**, Southwest has a \$400 million credit facility that is scheduled to expire in March 2022, of which \$250 million has been designated by management for working capital purposes. Southwest had \$152 million of short-term

borrowings outstanding at December 31, 2018 and \$191 million short-term borrowings outstanding at December 31, 2017 with weighted average interest rates of 3.47% and 2.52%, respectively.

Note 10 - Commitments and Contingencies

The Company and Southwest are defendants in miscellaneous legal proceedings. The Company and Southwest are also parties to various regulatory proceedings. The ultimate dispositions of these proceedings are not presently determinable; however, it is the opinion of management that no litigation or regulatory proceeding to which the Company and Southwest are currently subject to will have a material adverse impact on their financial position, results of operations, or cash flows.

Southwest maintains liability insurance for various risks associated with the operation of its natural gas pipelines and facilities. In connection with these liability insurance policies, Southwest is responsible for an initial deductible or self-insured retention amount per incident, after which the insurance carriers would be responsible for amounts up to the policy limits. For the policy year August 2018 to July 2019, these liability insurance policies require Southwest to be responsible for the first \$1 million (self-insured retention) of each incident plus the first \$4 million in aggregate claims above its self-insured retention in the policy year. Through an assessment process, Southwest may determine that certain costs are likely to be incurred in the future related to specific legal matters. In these circumstances and in accordance with accounting policies, Southwest will make an accrual, as necessary.

Centuri maintains liability insurance for various risks associated with its operations. In connection with these liability insurance policies, Centuri is responsible for an initial deductible or self-insured retention amount per occurrence, after which the insurance carriers would be responsible for amounts up to the policy limits. For the policy year April 2018 to March 2019, Centuri is responsible for the first \$300,000 (self-insured retention) per occurrence under these liability insurance policies.

Note 11 - Pension and Other Postretirement Benefits

An Employees' Investment Plan is offered to eligible employees of Southwest through deduction of a percentage of base compensation, subject to IRS limitations. The Employees' Investment Plan provides for purchases of various mutual fund investments and Company common stock. One-half of amounts deferred by employees are matched, up to a maximum matching contribution of 3.5% of an employee's annual compensation. The cost of the plan is disclosed below (in thousands):

	2018	2017	2016
Employee Investment Plan cost	\$5,530	\$5,112	\$4,976

Centuri has a separate plan, the cost and liability of which are not significant.

A deferred compensation plan is offered to all officers of Southwest and a separate deferred compensation plan for members of the Company's Board of Directors. The plans provide the opportunity to defer up to 100% of annual cash compensation. One-half of amounts deferred by officers are matched, up to a maximum matching contribution of 3.5% of an officer's annual base salary. Upon retirement, payments of compensation deferred, plus interest, are made in equal monthly installments over 10, 15, or 20 years, as elected by the participant. Directors have an additional option to receive such payments over a five-year period. Deferred compensation earns interest at a rate determined each January. The interest rate equals 150% of Moody's Seasoned Corporate Bond Rate Index.

A noncontributory qualified retirement plan with defined benefits covering substantially all Southwest employees is available in addition to a separate unfunded supplemental executive retirement plan ("SERP") which is limited to Southwest's officers. Postretirement benefits other than pensions ("PBOP") are provided to qualified retirees for health care, dental, and life insurance benefits.

The overfunded or underfunded positions of defined benefit postretirement plans, including pension plans, are recognized in the Consolidated Balance Sheets. Any actuarial gains and losses, prior service costs and transition assets or obligations are recognized in Accumulated other comprehensive income under Stockholders' equity, net of tax, until they are amortized as a component of net periodic benefit cost.

A regulatory asset has been established for the portion of the total amounts otherwise chargeable to Accumulated other comprehensive income that are expected to be recovered through rates in future periods. Changes in actuarial gains and losses and prior service costs pertaining to the regulatory asset will be recognized as an adjustment to the regulatory asset account as these amounts are amortized and recognized as components of net periodic pension costs each year.

The qualified retirement plan invests the majority of its plan assets in common collective trusts which includes a well-diversified portfolio of domestic and international equity securities and fixed income securities, which are managed by a professional investment manager appointed by Southwest. The investment manager has full discretionary authority to direct the investment of plan assets held in trust within the specific guidelines prescribed by Southwest through the plan's investment policy statement. In 2016, Southwest adopted a liability driven investment ("LDI") strategy for part of the portfolio, a form of investing designed to better match the movement in pension plan assets with the impact of interest rate changes and inflation assumption changes on the pension plan liability. The implementation of the LDI strategy will be phased in over time by using a glide path. The glide path is designed to increase the allocation of the plan's assets to that of the plan liability. Pension plan assets are held in a Master Trust. The pension plan funding policy is in compliance with the federal government's funding requirements.

Pension costs for these plans are affected by the amount and timing of cash contributions to the plans, the return on plan assets, discount rates, and by employee demographics, including age, compensation, and length of service. Changes made to the provisions of the plans may also impact current and future pension costs. Actuarial formulas are used in the determination of pension costs and are affected by actual plan experience and assumptions about future experience. Key actuarial assumptions include the expected return on plan assets, the discount rate used in determining the projected benefit obligation and pension costs, and the assumed rate of increase in employee compensation. Relatively small changes in these assumptions, particularly the discount rate, may significantly affect pension costs and plan obligations for the qualified retirement plan. In determining the discount rate, management matches the plan's projected cash flows to a spot-rate yield curve based on highly rated corporate bonds. Changes to the discount rate from year-to-year, if any, are generally made in increments of 25 basis points.

There was a 75 basis points increase in the discount rate between years, as reflected below. The methodology utilized to determine the discount rate was consistent with prior years. The weighted-average rate of compensation increase remained the same (consistent with management's expectations overall). The asset return assumption (which impacts the following year's expense) remained unchanged. The rates are presented in the table below:

	December 31, 2018	December 31, 2017
Discount rate	4.50%	3.75%
Weighted-average rate of compensation increase	3.25%	3.25%
Asset return assumption	7.00%	7.00%

Pension expense for 2019 is estimated to be less than that experienced in 2018. Future years' expense level movements (up or down) will continue to be greatly influenced by long-term interest rates, asset returns, and funding levels.

	2018			2017			
	Qualified Retirement Plan	SERP	PBOP	Qualified Retirement Plan	SERP	PBOP	
(Thousands of dollars)							
Change in benefit obligations							
Benefit obligation for service rendered to							
date at beginning of year (PBO/PBO/							
APBO)	\$1,203,484	\$ 45,727	\$ 75,322	\$1,048,353	\$ 43,311	\$ 73,865	
Service cost	28,555	245	1,473	23,392	309	1,468	
Interest cost	44,174	1,658	2,748	46,083	1,883	3,232	
Actuarial loss (gain)	(102,919)	(3,940)	(6,020)	133,017	3,334	(71)	
Benefits paid	(57,280)	(3,087)	(3,567)	(47,361)	(3,110)	(3,172)	
Benefit obligation at end of year (PBO/							
PBO/APBO)	1,116,014	40,603	69,956	1,203,484	45,727	75,322	
Change in plan assets							
Market value of plan assets at beginning of							
year	871,665		54,608	738,962		48,113	
Actual return on plan assets	(67,771)		(3,061)	144,064	—	7,742	
Employer contributions	44,000	3,087	—	36,000	3,110	_	
Benefits paid	(57,280)	(3,087)	(4,206)	(47,361)	(3,110)	(1,247)	
Market value of plan assets at end of year	790,614		47,341	871,665		54,608	
Funded status at year end	\$ (325,400)	\$(40,603)	\$(22,615)	\$ (331,819)	\$(45,727)	\$(20,714)	
Weighted-average assumptions (benefit obliga-							
tion)							
Discount rate	4.50%	4.50%	4.50%	3.75%	3.75%	3.75%	
Weighted-average rate of compensation							
increase	3.25%	3.25%	N/A	3.25%	3.25%	N/A	

The following table sets forth the retirement plan, SERP, and PBOP funded statuses and amounts recognized on the Consolidated Balance Sheets and Consolidated Statements of Income.

Estimated funding for the plans above during calendar year 2019 is approximately \$55 million, of which \$52 million pertains to the retirement plan. Management monitors plan assets and liabilities and could, at its discretion, increase plan funding levels above the minimum in order to achieve a desired funded status and avoid or minimize potential benefit restrictions.

The accumulated benefit obligation for the retirement plan and the SERP is presented below (in thousands):

	December 31, 2018	December 31, 2017
Retirement plan	\$1,024,030	\$1,088,203
SERP	38,793	44,343

	2019	2020	2021	2022	2023	2024-2028
Pension	\$54.0	\$55.0	\$56.0	\$58.0	\$59.0	\$319.0
SERP	3.0	2.9	2.9	2.9	2.8	13.6
РВОР	4.5	4.6	4.6	4.6	4.5	20.9

Benefits expected to be paid for pension, SERP, and PBOP over the next 10 years are as follows (in millions):

No assurance can be made that actual funding and benefits paid will match these estimates.

For PBOP measurement purposes, the per capita cost of the covered health care benefits medical rate trend assumption is 6.0%, declining to 4.5%. Fixed contributions are made for health care benefits of employees who retire after 1988, but Southwest pays all covered health care costs for employees who retired prior to 1989. The medical trend rate assumption noted above applies to the benefit obligations of pre-1989 retirees only.

As of January 1, 2018, the Company adopted "Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." The update requires that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations and be appropriately described. The update also allows only the service cost component (and not the other components of periodic benefit costs) to be eligible for capitalization when applicable, making no exception for specialized industries, including rate-regulated industries. This guidance is required to be applied on a retrospective basis for the presentation of the service cost component of net benefit cost. Amounts capitalized as part of assets prior to the date of adoption were not adjusted through a cumulative effect adjustment. The guidance allows a practical expedient for the retrospective application that permits use of the amounts disclosed for the various components of net benefit cost in the pension and other postretirement benefit plans footnote as the basis for the retrospective application. This is in lieu of determining how much of the various components of net benefit cost were actually reflected in the income statement each period as a result of capitalization of certain costs into assets and their subsequent amortization. The Company and Southwest have elected to utilize the practical expedient.

Therefore, upon adoption of the update to Topic 715, amounts presented in the Company's and Southwest's Consolidated Statements of Income for the years ended 2017 and 2016 have been revised as required by the update, as follows (in thousands):

		December 31, 2017			December 31, 2016		
	As Reported	Reclassification	Revised	As Reported	Reclassification	Revised	
Southwest Gas Holdings, Inc.							
Operations and maintenance	\$412,187	\$(19,424)	\$392,763	\$401,724	\$(19,760)	\$381,964	
Other income (deductions) Southwest Gas Corporation	13,394	(19,424)	(6,030)	9,469	(19,760)	(10,291)	
Operations and maintenance	\$410,745	\$(19,424)	\$391,321	\$401,724	\$(19,760)	\$381,964	
Other income (deductions)	13,036	(19,424)	(6,388)	8,276	(19,760)	(11,484)	

Operating income increased by the same amounts that Operations and maintenance expense decreased as reflected in the table above; however, net income was not impacted by this reclassification for either the Company or Southwest.

The service cost component of net periodic benefit costs included in the table below is part of an overhead loading process associated with the cost of labor (refer to discussion above in association with the update to Topic 715). The overhead process ultimately results

in allocation of that portion of overall net periodic benefit costs to the same accounts to which productive labor is charged. As a result, service costs become components of various accounts, primarily Operations and maintenance expense, Net utility plant, and Deferred charges and other assets for both the Company and Southwest. Refer to the discussion above regarding the practical expedient elected related to amounts capitalized as part of assets prior to the adoption date.

Components of net periodic benefit cost:

	Qualified	l Retireme	nt Plan		SERP			PBOP	
	2018	2017	2016	2018	2017	2016	2018	2017	2016
(Thousands of dollars)									
Service cost	\$ 28,555	\$ 23,392 \$	\$ 22,833	\$ 245	\$ 309	\$ 331	\$ 1,473	\$ 1,468	\$ 1,499
Interest cost	44,174	46,083	46,027	1,658	1,883	1,859	2,748	3,232	3,180
Expected return on plan assets	(58,755)	(55,196)	(56,558)			_	(3,718)	(3,358)	(3,149)
Amortization of prior service cost	_		_	_		_	1,335	1,335	1,335
Amortization of net actuarial loss	32,115	24,004	25,266	1,502	1,441	1,383			417
Net periodic benefit cost	\$ 46,089	\$ 38,283	\$ 37,568	\$3,405	\$3,633	\$3,573	\$ 1,838	\$ 2,677	\$ 3,282
Weighted-average assumptions (net benefit cost)									
Discount rate	3.75%	6 4.50%	4.509	% 3.75%	% 4.50%	% 4.50%	% 3.75%	% 4.50%	6 4.50%
Expected return on plan assets	7.00%	6 7.00%	7.259	% N/A	N/A	N/A	7.00%	% 7.00%	6 7.25%
Weighted-average rate of									
compensation increase	3.25%	6 3.25%	3.259	% 3.25%	% 3.25%	% 3.259	% N/A	N/A	N/A

Other Changes in Plan Assets and Benefit Obligations Recognized in Net Periodic Benefit Cost and Other Comprehensive Income

		2018	3			2017	7			2016	5	
	Total	Qualified Retirement Plan	SERP	PBOP	Total	Qualified Retirement Plan	SERP	PBOP	Total	Qualified Retirement Plan	SERP	PBOP
(Thousands of dollars) Net actuarial loss (gain) (a) Amortization of prior	\$ 20,426	\$ 23,607	\$(3,940)	\$ 759	\$ 43,027	\$ 44,149	\$ 3,334	\$(4,456)\$	\$ 22,770	\$ 25,153	\$ 1,347	\$(3,730)
service cost (b) Amortization of net	(1,335)	—	_	(1,335)	(1,335)	—	_	(1,335)	(1,335)	—	_	(1,335)
actuarial loss (b) Regulatory adjustment	(33,617) 8,233	(32,115) 7,657	(1,502)	576	(25,445) (12,340)	(24,004) (18,131)		5,791	(27,066) 5,584	(25,266) 102	(1,383)	(417) 5,482
Recognized in other comprehensive (income)	(6,293)	(851)	(5,442)	_	3,907	2,014	1,893		(47)	(11)	(36)	
Net periodic benefit costs recognized in net income	51,332	46,089	3,405	1,838	44,593	38,283	3,633	2,677	44,423	37,568	3,573	3,282
Total of amount recognized in net periodic benefit cost and other comprehensive (income) loss	\$ 45,039	\$ 45,238	\$(2,037)	\$ 1,838	\$ 48,500	\$ 40,297	\$ 5,526	\$ 2,677	\$ 44,376	\$ 37,557	\$ 3,537	\$ 3,282

The table above discloses the net gain or loss and prior service cost recognized in other comprehensive income, separated into (a) amounts initially recognized in other comprehensive income, and (b) amounts subsequently recognized as adjustments to other comprehensive income as those amounts are amortized as components of net periodic benefit cost.

See also Note 6 - Other Comprehensive Income and Accumulated Other Comprehensive Income ("AOCI").

The following table sets forth, by level within the three-level fair value hierarchy, the fair values of the assets of the qualified pension plan and the PBOP as of December 31, 2018 and December 31, 2017. The SERP has no assets.

	Dece	ember 31, 2	018	December 31, 2017			
	Qualified Retirement Plan	PBOP	Total	Qualified Retirement Plan	PBOP	Total	
Assets at fair value (thousands of dollars):							
Level 1 – Quoted prices in active markets for identical financial assets Mutual funds	\$	\$25,299	\$ 25,299	<u>\$ </u>	\$27,020	\$ 27,020	
Total Level 1 Assets (1)	<u>\$ </u>	\$25,299	\$ 25,299	\$	\$27,020	\$ 27,020	
Level 2 – Significant other observable inputs Private commingled equity funds (2)							
International	\$309,745	\$ 8,484	\$318,229	\$340,217	\$10,577	\$350,794	
U.S. equity securities	147,693	4,045	151,738	165,937	5,158	171,095	
Emerging markets	50,817	1,392	52,209	56,259	1,749	58,008	
Private commingled fixed income funds (3)	274,062	7,506	281,568	301,217	9,364	310,581	
Pooled funds and mutual funds	5,198	610	5,808	4,676	735	5,411	
Government fixed income and mortgage backed securities	163	5	168	172	5	177	
Total Level 2 assets (4)	\$787,678	\$22,042	\$809,720	\$868,478	\$27,588	\$896,066	
Total Plan assets at fair value Insurance company general account contracts (5)	\$787,678 2,936	\$47,341	\$835,019 2,936	\$868,478 3,187	\$54,608	\$923,086 3,187	
Total Plan assets	\$790,614	\$47,341	\$837,955	\$871,665	\$54,608	\$926,273	

- (1) The Mutual funds category above is a balanced fund that invests in a diversified portfolio of common stocks, preferred stocks, and fixed-income securities. The fund seeks regular income, conservation of principal, and an opportunity for long-term growth of principal and income.
- (2) The private commingled equity funds include common collective trusts that invest in a diversified portfolio of domestic and international securities regularly traded on securities exchanges. These funds are shown in the above table at net asset value ("NAV"), which is the value of securities in the fund less the amount of any liabilities outstanding. Strategies employed by the funds include investment in:
 - International developed countries equities
 - Domestic equities
 - Emerging markets equities

Shares in the private commingled equity funds may be redeemed given one business day notice. While they are private equity funds and reported at NAV, due to the short redemption notice period, the lack of redemption fees, the fact that the underlying investments are exchange-traded, and that substantial liabilities do not exist subject to the NAV calculation, these investments are viewed as indirectly observable (Level 2) and are therefore not excluded from the body of the fair value table as a reconciling item.

Two funds are classified as international funds. One invests in international financial markets, primarily those of developed economies in Europe and the Pacific Basin. The fund invests primarily in equity securities issued by foreign corporations, but may invest in other securities perceived as offering attractive investment return opportunities. The other fund provides diversified exposure to global equity markets. The fund seeks to provide long-term capital growth by investing primarily in securities listed on the major developed equity markets of the U.S., Europe, and Asia, as well as within those listed on emerging country equity markets on a tactical basis.

The domestic equities securities funds include a large and medium capitalization fund and a small capitalization fund. The large and medium capitalization fund is designed to track the performance of the large and medium capitalization companies contained in the index, which represents approximately 90% of the market capitalization of the U.S. stock market. The small capitalization fund is designed to provide maximum long-term appreciation through investments that are well diversified by industry.

The emerging markets fund was developed to invest in emerging market equities worldwide. The purposes of the fund's operations, "emerging market countries," include every country in the world except the developed markets of the U.S., Canada, Japan, Australia, New Zealand, Hong Kong, and Singapore, and most countries located in Western Europe. Fund investments are made directly in each country or, where direct investment is inefficient or prohibited, through appropriate financial instruments or participation in commingled funds.

(3) The private commingled fixed income funds consist primarily of fixed income debt securities issued by the U.S. Treasury, government agencies, and fixed income debt securities issued by corporations. The fixed income fund investments may include the use of high yield, international fixed income securities and other instruments, including derivatives, to ensure prudent diversification over a broad spectrum of investments. The changes in the value of the fixed income funds are intended to offset the changes in the pension plan liabilities due to changes in the discount rate.

These funds are shown in the above table at NAV. Shares in the private commingled fixed equity funds may be redeemed given one business day notice. While they are private fixed income funds and reported at NAV, due to the short redemption notice period, the lack of redemption fees, the fact that the underlying investments are exchange-traded, and that substantial liabilities do not exist subject to the NAV calculation, these investments are viewed as indirectly observable (Level 2), and are also not excluded from the body of the fair value table as a reconciling item.

- (4) With the exception of items (2) and (3), which are discussed in detail above, the Level 2 assets consist mainly of pooled funds and mutual funds. These funds are collective short-term funds that invest in Treasury bills and money market funds and are used as a temporary cash repository.
- (5) The insurance company general account contracts are annuity insurance contracts used to pay the pensions of employees who retired prior to 1989. The balance of the account disclosed in the above table is the contract value, which is the result of deposits, withdrawals, and interest credits.

Note 12 - Share-Based Compensation

At December 31, 2018, three share-based compensation plans existed at Southwest: an omnibus incentive plan, a management incentive plan, and a restricted stock/unit plan. All previous grants under the stock option plan expired in 2016. The table below shows total share-based plan compensation expense which was recognized in the Consolidated Statements of Income (in thousands):

	2018	2017	2016
Share-based compensation plan expense, net of related tax benefits	\$4,644	\$6,751	\$7,185
Share-based compensation plan related tax benefits	1,467	4,137	4,404

Under the option plan, options to purchase shares of common stock at a stated exercise price were previously granted to key employees and outside directors. The last option grants were in 2006 and no future grants are currently anticipated. Each option had an exercise price equal to the market price of the Company's common stock on the date of grant and a maximum term of ten years. The final options were exercised in 2016.

	20	2018		2017		16
	Number of options	Weighted- average exercise price	Number of options	Weighted- average exercise price	Number of options	Weighted- average exercise price
Outstanding at the beginning of the year	_	N/A	_	N/A	17	\$31.64
Exercised during the year	_	_	—	—	(17)	31.64
Forfeited or expired during the year	_	_	_	—	_	—
Outstanding and exercisable at year end	_	N/A	_	N/A	_	N/A

The following tables summarize the stock option plan activity and related information (thousands of options):

The intrinsic value of a stock option is the amount by which the market value of the underlying stock exceeds the exercise price of the option. The aggregate intrinsic value of outstanding and exercisable options, and options that were exercised, are presented in the table below (in thousands):

		2018	2017	2016
Outstanding and exercisable		\$—	\$—	\$ —
Exercised		_		554
	December 31, 2018	December 31, 2017	Decembe	r 31, 2016
Market value of Company stock	\$76.50	\$80.48	\$76	5.62

In 2017, the Board of Directors of the Company and shareholders approved the omnibus incentive plan. The purpose of the omnibus incentive plan is to promote the long-term growth and profitability of the Company by providing directors, employees, and certain other individuals with incentives to increase shareholder value and otherwise contribute to the success of the Company. In addition, the plan will enable the Company to attract, retain, and reward the best available persons for positions of responsibility. The omnibus incentive plan provides for the grant of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, and other equity-based and cash awards. Employees, directors, and consultants who provide services to the Company or any subsidiary may be eligible under this plan.

Under the management incentive plan, awards were historically granted to encourage key employees of Southwest to remain as employees and to achieve short-term and long-term performance goals. Plan participants were eligible to receive a cash bonus (i.e., short-term incentive) and shares (i.e., long-term incentive). The shares granted vest three years after grant and are then issued as common stock. No new share grants will be made under the management incentive plan as all future incentive share compensation will be granted under the omnibus incentive plan.

Restricted stock/units under the restricted stock/unit plan were issued to attract, motivate, retain, and reward key employees of Southwest with an incentive to attain high levels of individual performance and improved financial performance. The restricted stock/units vest 40% at the end of year one and 30% at the end of years two and three and are issued annually as common stock in accordance with the percentage vested. The restricted stock/unit plan was also established to attract, motivate, and retain experienced and knowledgeable independent directors. Vesting for grants of restricted stock/units to directors occurred immediately upon grant. The issuance of common stock for directors currently occurs when their service on the Board ends. No new grants will be made under the legacy restricted stock/unit plan as all future incentive compensation, including restricted stock, will be granted under programs of the omnibus incentive plan. For grants under the omnibus incentive plan, directors continue to immediately vest in the shares upon grant but are provided the option to defer receipt of equity compensation until they leave the Board of Directors. With regard to management, grants of time-lapse restricted stock vest based on the same percentages indicated above under the legacy program.

Performance-based incentive opportunities under the omnibus plan were granted to all officers of Southwest in the form of performance shares and will be based on, depending on the officer, consolidated earnings per share, utility net income, and utility return on equity, with an adjustment based on relative total shareholder return, in each case, measured over a three-year performance period from January 1, 2018 to December 31, 2020 for the performance shares granted in 2018, and from January 1, 2017 to December 31, 2019 for the performance shares granted in 2017. Southwest recorded \$2.1 million and \$1.2 million of estimated compensation expense associated with these shares during 2018 and 2017, respectively.

The following table summarizes the activity of the management incentive plan shares and restricted stock/units as of December 31, 2018 (thousands of shares):

	Management Incentive Plan Shares	Weighted- average grant date fair value	Restricted Stock/ Units (1)	Weighted- average grant date fair value
Nonvested/unissued at December 31, 2017	127	\$63.98	305	\$57.41
Granted	—		77	69.16
Dividends	2		7	
Forfeited or expired	(1)	66.86	(1)	72.39
Vested and issued (2)	(63)	59.41	(65)	71.00
Nonvested/unissued at December 31, 2018	65	\$66.51	323	\$56.16

(1) The number of securities granted includes 34,000 performance shares, which was derived by assuming that target performance will be achieved during the relevant performance period.

(2) Includes shares for retiree payouts and those converted for taxes.

The weighted average grant date fair value of management incentive plan shares granted in 2017 and 2016 was \$85.44 and \$59.05, respectively. The weighted average grant date fair value of restricted stock/units granted in 2017 and 2016 was \$85.39 and \$60.39, respectively.

As of December 31, 2018, total compensation cost related to nonvested management incentive plan shares and restricted stock/units not yet recognized is \$4.0 million, which is expected to be recognized over a weighted average period of 1.5 years.

Note 13 – Income Taxes

On December 22, 2017, the TCJA was enacted. The majority of the provisions of the TCJA are effective for taxable years beginning after December 31, 2017. The TCJA significantly changes the taxation of business entities with specific provisions for regulated public utilities, such as Southwest.

The following are the major provisions (not all-inclusive) of the TCJA's impact on the Company and Southwest:

- Reduction of the federal income tax rate from 35% to 21%, effective January 1, 2018.
- Bonus depreciation considerations for utility property placed-in-service after September 27, 2017.
- 100% bonus depreciation for most non-utility property placed-in-service after September 27, 2017.
- Interest expense limitations for interest allocable to non-utility businesses. Interest expense allocable to utility businesses will have no limitation.

Under U.S. GAAP, specifically ASC Topic 740 "Income Taxes" ("ASC 740"), the tax effects of changes in tax laws must be recognized in the period in which the law is enacted. Therefore, the TCJA impacted the Company's and Southwest's financial

statements in the fourth quarter of 2017. ASC 740 also requires deferred tax assets and liabilities to be re-measured at the enacted tax rate expected to apply when temporary differences are to be realized or settled. Thus, at the date of enactment, the Company's deferred taxes were re-measured using the new federal income tax rate (21%). For regulated entities, the reduction in plant-related deferred tax liabilities is recorded as a regulatory liability to be refunded to customers. For unregulated operations, the change in deferred taxes is recorded as an adjustment to deferred tax expense.

The staff of the SEC recognized the complexity of determining the impact of the TCJA, and on December 22, 2017 issued guidance in Staff Accounting Bulletin 118 ("SAB 118"). SAB 118 provides that to the extent the accounting for certain income tax effects of the TCJA is incomplete, but a company can determine a reasonable estimate for those effects, the company may include in its financial statements the reasonable estimate that it had determined. The reasonable estimate would be reported as a provisional amount in the company's financial statements during a "measurement period", not to exceed one year from the date of enactment of the TCJA.

Southwest and the Company included provisional reasonable estimates for the measurement and accounting of the effects of the TCJA, which were reflected in the consolidated financial statements as of and for the year ended December 31, 2017. The Company and Southwest continued to analyze and refine the estimate and classification of all provisional items, during the measurement period, as additional accounting, regulatory, and U.S. Treasury guidance was provided. Adjustments made to the provisional amounts allowed under SAB 118 were identified and recorded as discrete adjustments during the year ended December 31, 2018. The accounting was completed in the fourth quarter of 2018.

Southwest Gas Holdings, Inc.:

The following is a summary of income before taxes and noncontrolling interest for domestic and foreign operations (thousands of dollars):

Year ended December 31,	2018	2017	2016
U.S.	\$235,120	\$246,131	\$218,810
Foreign	8,216	12,899	12,713
Total income before income taxes	\$243,336	\$259,030	\$231,523
Income tax expense (benefit) consists of the following (thousands of dollars):			
Year Ended December 31,	2018	2017	2016
Current:			
Federal	\$(13,476)	\$(1,316)	\$ 541
State	(3,219)	2,965	5,748
Foreign	2,563	5,203	4,298
	(14,132)	6,852	10,587
Deferred:			
Federal	67,784	58,443	68,270
State	8,901	1,837	140
Foreign	(869)	(2,044)	(529)
	75,816	58,236	67,881
Total income tax expense	\$ 61,684	\$65,088	\$78,468

Deferred income tax expense (benefit) consists of the following significant components (thousands of dollars):

Year Ended December 31,	2018	2017	2016
Deferred federal and state:			
Property-related items	\$ 94,899	\$44,516	\$ 76,217
Purchased gas cost adjustments	(3,507)	8,500	361
Employee benefits	(7,334)	(2,517)	(1,327)
Regulatory Adjustments	2,412	14,401	6,322
All other deferred	(10,041)	(5,935)	(12,854)
Total deferred federal and state	76,429	58,965	68,719
Deferred ITC, net	(613)	(729)	(838)
Total deferred income tax expense	\$ 75,816	\$58,236	\$ 67,881

A reconciliation of the U.S. federal statutory rate to the consolidated effective tax rate for 2018, 2017, and 2016 (and the sources of these differences and the effect of each) are summarized as follows:

Year Ended December 31,	2018	2017	2016
U.S. federal statutory income tax rate	21.0%	35.0%	35.0%
Net state taxes	2.9	1.1	1.4
Tax credits	(0.3)	(0.4)	(0.4)
Company owned life insurance	0.1	(1.6)	(1.2)
Change in U.S. Federal Income Tax Rate	_	(7.8)	_
All other differences	1.6	(1.2)	(0.9)
Consolidated effective income tax rate	25.3%	25.1%	33.9%

Deferred tax assets and liabilities consist of the following (thousands of dollars):

December 31,	2018	2017
Deferred tax assets:		
Deferred income taxes for future amortization of ITC and excess deferred taxes	\$105,791	\$ 98,912
Employee benefits	39,215	31,323
Alternative minimum tax credit	21,603	4,390
Net operating losses and credits	13,125	11,460
Interest rate swap	2,235	3,037
Other	17,215	13,870
Valuation allowance	(1,132)	(728)
	198,052	162,264
Deferred tax liabilities:		
Property-related items, including accelerated depreciation	678,307	598,371
Regulatory balancing accounts	6,097	6,067
Unamortized ITC	368	981
Debt-related costs	3,110	3,380
Intangibles	7,807	7,656
Other	30,300	21,289
	725,989	637,744
Net noncurrent deferred tax liabilities	\$527,937	\$475,480

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (thousands of dollars):

	2018	2017
Unrecognized tax benefits at beginning of year	\$1,430	\$1,231
Gross increases – tax positions in prior period	_	100
Gross decreases – tax positions in prior period	459	_
Gross increases – current period tax positions	_	99
Gross decreases – current period tax positions	_	_
Settlements	_	_
Lapse in statute of limitations		
Unrecognized tax benefits at end of year	\$ 971	\$1,430

Southwest Gas Corporation:

The following is a summary of income before taxes for continuing and discontinued operations (refer to **Note 1 – Background**, **Organization**, and **Summary of Significant Accounting Policies**) (thousands of dollars):

Year ended December 31,	2018	2017	2016
Income from continuing operations before income taxes	\$182,833	\$219,953	\$178,007
Income from discontinued operations before income taxes			53,516
Total income before income taxes	\$182,833	\$219,953	\$231,523

Income tax expense (benefit) consists of the following (thousands of dollars):

Year Ended December 31,	2018	2017	2016
Current:			
Federal	\$(17,584)	\$ 318	\$ (9,695)
State	(6,783)	1,420	2,510
	(24,367)	1,738	(7,185)
Deferred:			
Federal	58,136	60,662	66,037
State	10,222	735	(268)
	68,358	61,397	65,769
Total income tax expense from continuing operations	43,991	63,135	58,584
Discontinued operations			19,884
Total income tax expense	\$ 43,991	\$63,135	\$78,468

Deferred income tax expense (benefit) consists of the following significant components (thousands of dollars):

Year Ended December 31,	2018	2017	2016
Deferred federal and state:			
Property-related items	\$67,576	\$49,129	\$ 72,811
Purchased gas cost adjustments	(3,507)	8,500	361
Employee benefits	2,156	(5,707)	(139)
Regulatory Adjustments	2,412	14,401	6,322
All other deferred	334	(4,197)	(12,748)
Total deferred federal and state	68,971	62,126	66,607
Deferred ITC, net	(613)	(729)	(838)
Total deferred income tax expense	\$68,358	\$61,397	\$ 65,769

A reconciliation of the U.S. federal statutory rate to the consolidated effective tax rate for 2018, 2017, and 2016 (and the sources of these differences and the effect of each) are summarized as follows:

Year Ended December 31,	2018	2017	2016
U.S. federal statutory income tax rate	21.0%	35.0%	35.0%
Net state taxes	2.1	0.6	0.8
Tax credits	(0.4)	(0.4)	(0.5)
Company owned life insurance	0.3	(1.7)	(1.5)
Change in U.S. Federal Income Tax Rate		(3.6)	
All other differences	1.1	(1.2)	(0.9)
Effective income tax rate from continuing operations	24.1%	28.7%	<u>32.9</u> %

Deferred tax assets and liabilities consist of the following (thousands of dollars):

December 31,	2018	2017
Deferred tax assets:		
Deferred income taxes for future amortization of ITC and excess deferred taxes	\$105,791	\$ 98,912
Employee benefits	17,337	18,707
Alternative minimum tax credit	21,603	4,390
Net operating losses and credits	4,557	10,070
Interest rate swap	2,235	3,037
Other	9,386	8,820
Valuation allowance	(37)	(58)
	160,872	143,878
Deferred tax liabilities:		
Property-related items, including accelerated depreciation	614,205	561,493
Regulatory balancing accounts	6,097	6,067
Unamortized ITC	368	981
Debt-related costs	3,110	3,380
Other	27,550	17,200
	651,330	589,121
Net deferred tax liabilities	\$490,458	\$445,243

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (thousands of dollars):

	2018	2017
Unrecognized tax benefits at beginning of year	\$1,069	\$ 903
Gross increases – tax positions in prior period	_	67
Gross decreases – tax positions in prior period	98	
Gross increases – current period tax positions	_	99
Gross decreases – current period tax positions	_	_
Settlements	_	
Lapse in statute of limitations		
Unrecognized tax benefits at end of year	\$ 971	\$1,069

The Company's regulated operations accounting for income taxes is impacted by the FASB's ASC 980 – Regulated Operations. Reductions in accumulated deferred income tax balances due to the reduction in the corporate income tax rates to 21% under the provisions of the TCJA may result in a refund of excess deferred taxes to customers, generally through reductions in future rates. The TCJA includes provisions that stipulate how these excess deferred taxes may be passed back to customers for certain accelerated tax depreciation benefits. Potential refunds of other deferred taxes will be determined in conjunction with appropriate regulatory commissions. As part of the recently concluded Nevada general rate case, excess deferred taxes will begin being refunded to customers starting in January 2019. The December 31, 2018 balance sheets of Southwest and the Company reflect the impact of the TCJA with a recorded regulatory liability of \$456 million.

The Company and its subsidiaries file a consolidated federal income tax return in the U.S. and in various states, as well as in Canada. With few exceptions, the Company is no longer subject to U.S. federal, state and local, or Canadian income tax examinations for years before 2014.

The Company and each of its subsidiaries, including Southwest, participate in a tax sharing agreement to establish the method for allocating tax benefits and losses among members of the consolidated group. The consolidated federal income tax is apportioned among the subsidiaries using a separate return method.

At December 31, 2018, the Company has a federal net operating loss carryforward of \$62.5 million which may be carried forward indefinitely. The Company also has general business credits of \$3.5 million, which begin to expire in 2035. The Company has net capital loss carryforwards of \$107,000, which will begin to expire in 2019. At December 31, 2018, the Company has an income tax net operating loss carryforward related to Canadian operations of \$7.6 million, which begins to expire in 2034.

Management intends to continue to permanently reinvest any future foreign earnings in Canada.

In assessing whether uncertain tax positions should be recognized in its financial statements, management first determines whether it is more-likely-than-not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. In evaluations of whether a tax position has met the more-likely-than-not recognition threshold, management presumes that the position will be examined by the appropriate taxing authority that would have full knowledge of all relevant information. For tax positions that meet the more-likely-than-not recognition threshold, management measures the amount of benefit recognized in the financial statements at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement. Unrecognized tax benefits are recognized in the first financial reporting period, management applies a consistent methodology to measure unrecognized tax benefits, and all unrecognized tax benefits are reviewed periodically and adjusted as circumstances warrant. Measurement of unrecognized tax benefits is based on management's assessment of all relevant information, including prior audit experience, the status of audits, conclusions of tax audits, lapsing of applicable statutes of limitation, identification of new issues, and any administrative guidance or developments.

At December 31, 2018, the total amount of unrecognized tax benefits that, if recognized, would impact the effective tax rate was \$1 million individually for both the Company and Southwest. No significant increases or decreases in unrecognized tax benefit are expected within the next 12 months.

The Company and Southwest recognize interest expense and income and penalties related to income tax matters in income tax expense. There was no tax-related interest income for 2018, 2017, and 2016.

Note 14 - Derivatives

Derivatives. In managing its natural gas supply portfolios, Southwest has historically entered into fixed- and variable-price contracts, which qualify as derivatives. Additionally, Southwest utilizes fixed-for-floating swap contracts ("Swaps") to supplement its fixed-price contracts. The fixed-price contracts, firm commitments to purchase a fixed amount of gas in the future at a fixed price, qualify for the normal purchases and normal sales exception that is allowed for contracts that are probable of delivery in the normal course of business, and are exempt from fair value reporting. The variable-price contract qualify as derivative instruments; however, because the contract price is the prevailing price at the future transaction date, the contract has no determinable fair value. The Swaps' contract prices are determined at the beginning of each month to reflect that month's published first of month index price and are recorded at fair value. Southwest does not utilize derivative financial instruments for speculative purposes, nor does it have trading operations.

The fixed-price contracts and Swaps are utilized by Southwest under its volatility mitigation programs to effectively fix the price on a portion (up to 25% in the Arizona and California jurisdictions) of its natural gas supply portfolios. The maturities of the Swaps highly correlate to forecasted purchases of natural gas, during time frames ranging from January 2019 through October 2020. Under such contracts, Southwest pays the counterparty a fixed rate and receives from the counterparty a floating rate per MMBtu ("dekatherm") of natural gas. Only the net differential is actually paid or received. The differential is calculated based on the notional amounts under the contracts, which are detailed in the table below (thousands of dekatherms):

	December 31, 2018	December 31, 2017
Contract notional amounts	13,387	10,929

The following table sets forth the gains and (losses) recognized on Southwest's Swaps (derivatives) for the years ended December 31, 2018, 2017, and 2016 and their location in the Consolidated Statements of Income:

Instrument	Location of Gain or (Loss) Recognized in Income on Derivative	2018	2017	2016
Swaps	Net cost of gas sold	\$(2,113)	\$(11,572)	\$ 5,006
Swaps	Net cost of gas sold	2,113*	11,572*	(5,006)*
Total		\$	\$	\$

* Represents the impact of regulatory deferral accounting treatment under U.S. GAAP for rate-regulated entities.

No gains (losses) were recognized in net income or other comprehensive income during the periods presented for derivatives designated as cash flow hedging instruments. Previously, Southwest entered into two forward-starting interest rate swaps ("FSIRS"), both of which were designated cash flow hedges, to partially hedge the risk of interest rate variability during the period leading up to the planned issuance of debt. The first FSIRS terminated in December 2010, and the second, in March 2012. Losses on both FSIRS are being amortized over ten-year periods from Accumulated other comprehensive income (loss) into interest expense.

The following table sets forth the fair values of the Swaps and their location in the Consolidated Balance Sheets of Southwest and the Company (thousands of dollars).

Fair values of derivatives not designated as hedging instruments:

December 31, 2018 Instrument	Balance Sheet Location	Asset Derivatives	Liability Derivatives	Net Total
Swaps	Prepaid and other current assets	\$ 243	\$ 243 \$ (99)	
Swaps	Other current liabilities	1,595	(3,347)	(1,752)
Swaps	Other deferred credits	141	141 (251)	
Total		\$1,979	\$(3,697)	\$(1,718)
December 31, 2017 Instrument	Balance Sheet Location	Asset Derivatives	Liability Derivatives	Net Total
Swaps	Deferred charges and other assets	\$ 11	\$(4,468)	\$(4,457)
Swaps	Prepaid and other current assets	19	(1,342)	(1,323)
Total		\$ 30	\$(5,810)	\$(5,780)

The estimated fair values of the natural gas derivatives were determined using future natural gas index prices (as more fully described below). Master netting arrangements exist with each counterparty that provide for the net settlement (in the settlement month) of all contracts through a single payment. As applicable, management has elected to reflect the net amounts in its balance sheets. No outstanding collateral associated with the Swaps existed during any period presented in the above table.

Pursuant to regulatory deferral accounting treatment for rate-regulated entities, unrealized gains and losses in fair value of the Swaps are recorded as a regulatory asset and/or liability. When the Swaps mature, any prior positions held are reversed and the settled position is recorded as an increase or decrease of purchased gas under the related PGA mechanism in determining deferred PGA balances. Neither changes in fair value, nor settled amounts, of Swaps have a direct effect on earnings or other comprehensive income.

The following table presents the amounts paid to and received from counterparties for settlements of matured Swaps.

		Year ended December 31, 2017	Year ended December 31, 2016
(Thousands of dollars)			
Paid to counterparties	\$6,781	\$3,100	\$5,583
Received from counterparties	\$ 606	\$1,685	\$ 726

The following table details the regulatory assets/(liabilities) offsetting the derivatives at fair value in the Consolidated Balance Sheets (thousands of dollars).

December 31, 2018 Instrument	Balance Sheet Location	Net Total
Swaps	Other current liabilities	\$ (144)
Swaps	Prepaid and other current assets	1,752
Swaps	Deferred charges and other assets	110
December 31, 2017 Instrument	Balance Sheet Location	Net Total
Swaps	Prepaid and other current assets	\$4,457
Swaps	Deferred charges and other assets	1,323

Fair Value Measurements. The estimated fair values of Southwest's Swaps were determined at December 31, 2018 and December 31, 2017 using futures settlement prices, published by the CME Group, for the delivery of natural gas at Henry Hub adjusted by the prices of basis future settlements, which reflect the difference between the price of natural gas at a given delivery basin and the Henry Hub pricing points. These Level 2 inputs are observable in the marketplace throughout the full term of the Swaps, but have been credit-risk adjusted with no significant impact to the overall fair value measurement.

The following table sets forth, by level within the three-level fair value hierarchy that ranks the inputs used to measure fair value by their reliability, financial assets and liabilities that were accounted for at fair value:

Level 2 – Significant other observable inputs

	December 31, 2018	December 31, 2017
(Thousands of dollars)		
Assets at fair value:		
Prepaid and other current assets – Swaps	\$ 144	\$ —
Deferred charges and other assets – Swaps	—	_
Liabilities at fair value:		
Other current liabilities – Swaps	(1,752)	(4,457)
Other deferred credits – Swaps	(110)	(1,323)
Net Assets (Liabilities)	\$(1,718)	\$(5,780)

No financial assets or liabilities associated with the Swaps, which were accounted for at fair value, fell within Level 1 or Level 3 of the fair value hierarchy.

Note 15 - Segment Information

The Company's operating segments are determined based on the nature of their activities. The natural gas operations segment is engaged in the business of purchasing, distributing, and transporting natural gas. Revenues are generated from the distribution and transportation of natural gas. The utility infrastructure services segment is primarily engaged in the business of providing utility companies with trenching and installation, replacement, and maintenance services for energy distribution systems, and providing industrial construction solutions. Although our utility infrastructure services operations are geographically dispersed, they are aggregated and reported as a single segment as each reporting unit has similar economic characteristics. Over 99% of the total Company's long-lived assets are in the U.S.

The accounting policies of the reported segments are the same as those described within **Note 1 – Background, Organization, and Summary of Significant Accounting Policies.** Centuri accounts for the services provided to Southwest at contractual prices at contract inception. Accounts receivable for these services, which are not eliminated during consolidation, are presented in the table below (in thousands).

	December 31, 2018	December 31, 2017
Accounts receivable for Centuri services	\$18,830	\$12,987

The following table presents the amount of revenues for both segments by geographic area (thousands of dollars):

	December 31, 2018	December 31, December 31, 2018 2017	
Revenues (a)			
United States	\$2,664,670	\$2,345,134	\$2,256,600
Canada	215,343	203,658	203,890
Total	\$2,880,013	\$2,548,792	\$2,460,490

(a) Revenues are attributed to countries based on the location of customers.

The Company has two reportable segments: natural gas operations and utility infrastructure services. Southwest has a single reportable segment that is referred to herein as the natural gas operations segment of the Company. In order to reconcile to net income as disclosed in the Consolidated Statements of Income, an Other column is included associated with impacts related to corporate and administrative activities related to Southwest Gas Holdings, Inc. The financial information pertaining to the natural gas operations and utility infrastructure services segments for each of the three years in the period ended December 31, 2018 is as follows (thousands of dollars):

Utility

	Gas	Utility Infrastructure		
2018	Operations	Services	Other	Total
Revenues from unaffiliated customers Intersegment sales	\$1,357,728	\$1,386,371 135,914	\$	\$2,744,099 135,914
Total	\$1,357,728	\$1,522,285	\$	\$2,880,013
Interest revenue	\$ 6,020	\$ 88	\$	\$ 6,108
Interest expense	\$ 81,740	\$ 14,190	\$ 741	\$ 96,671
Depreciation and amortization	\$ 191,816	\$ 57,396	\$	\$ 249,212
Income tax expense	\$ 43,991	\$ 18,420	\$ (727)	\$ 61,684
Segment net income	\$ 138,842	\$ 44,977	\$(1,542)	\$ 182,277
Segment assets	\$6,141,584	\$1,215,573	\$ 572	\$7,357,729
Capital expenditures	\$ 682,869	\$ 83,045	\$	\$ 765,914
		Utility		
	Gas	Infrastructure		
2017	Operations	Services	Other	Total
Revenues from unaffiliated customers Intersegment sales	\$1,302,308	\$1,149,325 97,159	\$	\$2,451,633 97,159
Total	\$1,302,308	\$1,246,484	\$	\$2,548,792
Interest revenue	\$ 2,784	\$ 3	\$	\$ 2,787
Interest expense	\$ 69,733	\$ 7,986	\$ 345	\$ 78,064
Depreciation and amortization	\$ 201,922	\$ 49,029	\$	\$ 250,951
Income tax expense	\$ 63,135	\$ 2,390	\$ (437)	\$ 65,088
Segment net income	\$ 156,818	\$ 38,360	\$(1,337)	\$ 193,841
Segment assets	\$5,482,669	\$ 752,496	\$ 1,901	\$6,237,066
Capital expenditures	\$ 560,448	\$ 63,201	\$	\$ 623,649
			÷	
	0	Utility		
2017	Gas	Infrastructure	0.1	T 1
	Operations	Services	Other	Total
Revenues from unaffiliated customers Intersegment sales	\$1,321,412	\$1,040,957 98,121	\$	\$2,362,369 98,121
Total	\$1,321,412	\$1,139,078	\$	\$2,460,490
Interest revenue	\$ 1,848	\$ 1	\$	\$ 1,849
Interest expense	\$ 66,997	\$ 6,663	\$ _	\$ 73,660
Depreciation and amortization	\$ 233,463	\$ 55,669	\$	\$ 289,132
Income tax expense	\$ 58,584	\$ 19,884	\$	\$ 78,468
Segment net income	\$ 119,423	\$ 32,618	\$ —	\$ 152,041
Segment assets	\$5,001,756	\$ 579,370	\$ —	\$5,581,126
Capital expenditures	\$ 457,120	\$ 72,411	\$	\$ 529,531

	Quarter Ended			
	March 31	June 30	September 30	December 31
(Thousands of dollars, except per share amounts)				
2018				
Southwest Gas Holdings, Inc.:				
Operating revenues	\$754,330	\$670,883	\$668,146	\$786,654
Operating income (4)	129,560	53,338	39,681	134,854
Net income	78,294	21,551	12,331	131,160
Net income attributable to Southwest Gas Holdings, Inc.	79,091	21,551	12,331	69,304
Basic earnings per common share (1)	1.63	0.44	0.25	1.36
Diluted earnings per common share (1)	1.63	0.44	0.25	1.36
Southwest Gas Corporation:				
Operating revenues	\$494,313	\$275,679	\$217,523	\$370,213
Operating income (4)	141,173	24,675	3	115,962
Net income (loss)	90,349	2,622	(13,670)	59,541
2017				
Southwest Gas Holdings, Inc.:				
Operating revenues	\$654,737	\$560,469	\$593,153	\$740,433
Operating income (4)	124,347	48,265	34,988	135,524
Net income	69,005	18,121	10,420	96,396
Net income attributable to Southwest Gas Holdings, Inc.	69,308	17,864	10,204	96,465
Basic earnings per common share (1)	1.46	0.38	0.21	2.00
Diluted earnings per common share (1)	1.45	0.37	0.21	2.00
Southwest Gas Corporation:				
Operating revenues	\$462,602	\$260,162	\$213,059	\$366,485
Operating income (4)	135,922	32,346	9,921	117,885
Net income (loss)	76,938	9,522	(4,024)	74,382
2016				
Southwest Gas Holdings, Inc.: (2)				
Operating revenues	\$731,248	\$547,748	\$539,969	\$641,525
Operating income (4)	139,036	33,057	20,478	122,903
Net income (loss)	75,355	9,099	2,907	65,694
Net income attributable to Southwest Gas Holdings, Inc.	75,446	8,943	2,472	65,180
Basic earnings per common share (1)	1.59	0.19	0.05	1.37
Diluted earnings per common share (1)	1.58	0.19	0.05	1.36
Southwest Gas Corporation: (2) (3)				
Operating revenues				
Continuing operations	\$525,100	\$255,648	\$200,179	\$340,485
Discontinued operations – utility infrastructure services	206,148	292,100	339,790	301,040
Total	\$731,248	\$547,748	\$539,969	\$641,525

Note 16 – Quarterly Financial Data (Unaudited)

	Quarter Ended			
	March 31	June 30	September 30	December 31
Operating income (loss) (4)				
Continuing operations	\$140,885	\$20,210	\$ (5,292)	\$100,685
Discontinued operations – utility infrastructure services	(1,849)	12,847	25,770	22,218
Total	\$139,036	\$33,057	\$ 20,478	\$122,903
Net income (loss)				
Continuing operations	\$ 77,583	\$ 2,358	\$(12,405)	\$ 51,887
Discontinued operations – utility infrastructure services	(2,137)	6,585	14,877	13,293
Total	\$ 75,446	\$ 8,943	\$ 2,472	\$ 65,180

(1) The sum of quarterly earnings (loss) per average common share may not equal the annual earnings (loss) per share due to the ongoing change in the weighted-average number of common shares.

- (2) Refer to Notes 1 and 18. Effective 2017, Southwest Gas Holdings, Inc. ("Company) is the successor equity issuer to Southwest Gas Corporation ("Southwest"). Both Southwest and Centuri became subsidiaries of the Company.
- (3) Periods prior to 2017 depict Centuri amounts as discontinued operations of Southwest.
- (4) Periods prior to 2018 depict revised operating income for the reclassification of non-service components of net periodic benefit costs, associated with pensions and other post-retirement benefits, out of the operations and maintenance line item of both the Company's and Southwest's Condensed Consolidated Statements of Income due to the adoption of ASU 2017-07. The resultant figures for Operating income, but not Net income, were increased accordingly to reflect reclassification. See Note 11 Pension and Other Postretirement Benefits for further information relating to the adoption of this update.

The demand for natural gas is seasonal, and it is the opinion of management that comparisons of earnings for interim periods do not reliably reflect overall trends and changes in operations. Also, the timing of general rate relief can have a significant impact on earnings for interim periods.

Note 17 – Utility Infrastructure Services Noncontrolling Interests

In conjunction with the acquisition of the Canadian utility infrastructure services businesses in October 2014, the previous owners of the acquired companies retained a 3.4% equity interest in Centuri, which, subject to an eligibility timeline, would have been redeemable (in its entirety) at the election of the noncontrolling parties beginning in July 2022. In August 2017, in advance of when otherwise eligible, the parties agreed to a redemption. Southwest Gas Holdings, Inc. paid \$23 million to the previous owners, thereby acquiring the remaining 3.4% equity interest in Centuri. Accordingly, Centuri is now a wholly owned subsidiary of the Company.

In connection with the acquisition of Linetec in November 2018, the previous owner retained a 20% equity interest in Linetec, subject to certain rights based on the passage of time or upon the occurrence of certain triggering events. Effective January 2022, the Company has the right, but not the obligation, to purchase at fair value (subject to a floor) a portion of the interest held by the noncontrolling party, and in incremental amounts each year thereafter. The shares subject to the election cumulate (if earlier elections are not made) such that 100% of the interest retained by the noncontrolling party is subject to the election beginning in 2024. If the Company does not exercise its rights at each or any of the specified intervals, the noncontrolling party has the ability, but not the obligation, to exit their investment retained by requiring Centuri to purchase a similar portion of their interest up to the maximum cumulative amounts specified and at each interval discussed above. The outstanding noncontrolling interest is not subject to minimum purchase provisions and following the eligibility dates for the elections, they do not expire. The redemption price represents

the greater of fair value of the ownership interest to be redeemed on the redemption date or a floor amount under the terms of the agreement.

The Company has determined that this noncontrolling interest is a redeemable noncontrolling interest and, in accordance with SEC guidance, is classified as mezzanine equity (temporary equity) in the Company's Consolidated Balance Sheets. As of November 30, 2018, the redeemable noncontrolling interest was reported at its estimated fair value of \$81.7 million. The fair value was estimated using a market approach that utilizes certain financial metrics from guideline public companies of similar industry and operating characteristics; however, no significant change in the fair value occurred through December 31, 2018. Changes in the value of the redeemable noncontrolling interest will be recognized as they occur and the carrying value will be adjusted accordingly at each quarterly reporting date. Generally, adjustments to the redemption value are expected to impact retained earnings, but not net income.

The following depicts changes to the balance of the redeemable noncontrolling interest between the indicated periods.

	Redeemable Noncontrolling Interest
(Thousands of dollars):	
Balance, December 31, 2016	\$ 22,590
Net Income (loss) attributable to redeemable noncontrolling interest	248
Foreign currency exchange translation adjustment	11
Centuri distribution to redeemable noncontrolling interest	(204)
Adjustment to redemption value	355
Redemption of Centuri shares from noncontrolling parties	(23,000)
Balance, December 31, 2017	_
Redeemable noncontrolling interest acquired	81,659
Net income attributable to redeemable noncontrolling interest	172
Balance, December 31, 2018	\$ 81,831

Centuri also holds a 95% interest in a venture to market natural gas engine-driven heating, ventilating, and air conditioning technology and products. Centuri consolidates the entity (IntelliChoice Energy, LLC) as a majority-owned subsidiary. The interest is immaterial to the consolidated financial statements, but is identified as the Noncontrolling interest within Total equity on the Company's Consolidated Balance Sheets.

Note 18 - Reorganization Impacts - Discontinued Operations Solely Related to Southwest Gas Corporation

In association with the January 2017 holding company reorganization, no substantive change occurred with regard to the Company's business segments on the whole. Centuri operations remain part of continuing operations of the controlled group of companies, and financial information related to Centuri continues to be included in the consolidated financial statements of the Company. While Centuri has since expanded its footprint with the Linetec and Neuco acquisitions (See **Note 19 – Business Acquisitions**), its core business has remained consistent.

As part of the holding company reorganization, however, Centuri is no longer a subsidiary of Southwest; whereas historically, Centuri had been a direct subsidiary of Southwest. To give effect to this change, the consolidated financial statements related to Southwest, which are separately included in this report, depict Centuri-related amounts as discontinued operations for periods prior to January 2017.

Due to the discontinued operations accounting reflection, the following table presents the major income statement components of discontinued operations – utility infrastructure services reported in the Consolidated Income Statements of Southwest for the period prior to the beginning of 2017:

Results of Utility Infrastructure Services

	Year Ended December 31
	2016
(Thousands of dollars)	
Utility infrastructure services revenues	\$1,139,078
Operating expenses:	
Utility infrastructure services expenses	1,024,423
Depreciation and amortization	55,669
Operating income	58,986
Other income (deductions)	1,193
Net interest deductions	6,663
Income before income taxes	53,516
Income tax expense	19,884
Net income	33,632
Net income attributable to noncontrolling interests	1,014
Discontinued operations – utility infrastructure services – net income	\$ 32,618

Note 19 - Business Acquisitions

As indicated in **Note 1 – Background, Organization, and Summary of Significant Accounting Policies,** on November 30, 2018, the Company, through its subsidiaries, led principally by Centuri, completed the acquisition of an 80% interest in a privately held utility infrastructure services business, Linetec Services, LLC ("Linetec") for approximately \$326.6 million, with the remaining 20% retained by the seller. The above figure includes unremitted amounts as of the closing date as follows: \$30 million associated with the subsequent collection of Linetec unbilled customer receivable balances recorded at their estimated realizable values as of the acquisition date, \$29.6 million of seller liabilities related to future payments to certain Linetec employees, and \$16.9 million representing consideration held back for estimated purchase price and working capital adjustments to be paid during 2019. Additionally, \$24.1 million of consideration transferred related to future estimated tax payments related to a mutual 338(h)(10) election under U.S. Treasury regulations (deemed asset sale/purchase under those tax regulations). In December 2018, \$25 million of the \$29.6 million referred to above was paid to certain Linetec employees.

The acquisition will extend the utility services operations in the southeastern region of the U.S. and provide additional opportunities for expansion of the amount of work Centuri performs for electric utilities. Funding for the acquisition was provided by a portion of net proceeds from the Company's equity offering in November 2018 and from Centuri's \$590 million secured revolving credit and term loan facility, as amended, described below and in **Note** 7 – **Common Stock** and **Note** 8 – **Long-Term Debt**.

The Company is currently performing a detailed valuation analysis of the assets and liabilities of the acquired company, which was substantially completed during the fourth quarter of 2018. Certain payments were estimated as of the acquisition date and will be adjusted when finally paid in 2019. The necessary analysis will consider acquired intangibles including customer relationships, trade names, and customer contracts. Based on preliminary results, a substantial majority of the purchase price will be allocated to goodwill and other finite-lived intangible assets.

Assets acquired and liabilities assumed in the transaction were recorded, generally, at their acquisition date fair values. Transaction costs associated with the acquisition were expensed as incurred. The Company's allocation of the purchase price was based on an evaluation of the appropriate fair values and represented management's best estimate based on available data (including market data, data regarding customers of the acquired businesses, terms of acquisition-related agreements, analysis of historical and projected results, and other types of data). The analysis included consideration of types of intangibles that were acquired, including customer relationships, trade names, and customer contracts. The final purchase accounting has not yet been completed. Further refinement is expected to occur, including potential changes to income taxes and intangibles, as well as additional consideration payments held back.

The preliminary estimated fair values of assets acquired and liabilities assumed as of November 30, 2018, are as follows (in millions of dollars):

Cash and cash equivalents	\$ 3.9
Accounts receivable	32.8
Revenue earned on contracts in progress in excess of billings	21.6
Prepaid expenses and other current assets	1.1
Property and equipment	89.4
Intangible assets	89.3
Goodwill	188.5
Total assets acquired	426.6
Accounts payable	8.0
Accrued liabilities	6.9
Deferred compensation and related accrued taxes	3.4
Redeemable noncontrolling interest	81.7
Total liabilities assumed and noncontrolling interest	100.0
Net assets acquired	\$326.6

Goodwill consists of the value associated with the assembled workforce, consolidation of operations, and the estimated economic value attributable to future opportunities related to the transaction. As the business of Linetec was deemed an asset purchase for tax purposes, the \$188.5 million of tax-basis goodwill is expected to be deductible for tax purposes. As of the acquisition date, other intangible assets totaled \$89.3 million which will be amortized over a weighted-average life of 19 years. Of the \$89.3 million of intangible assets, \$79 million is attributable to customer relationships with an assigned life of 20 years, \$10 million is attributable to a trade name with a 15-year useful life, and \$300,000 is attributable to customer contracts with a useful life of one year. The intangible assets other than goodwill are included in Other property and investments in the Company's Consolidated Balance Sheets.

The unaudited pro forma consolidated financial information for fiscal 2018 and fiscal 2017 (assuming the acquisition of Linetec occurred as of the beginning fiscal 2017) is as follows (in thousands of dollars, except per share amounts):

	Year Ended December			mber 31,
		2018		2017
Total operating revenues	\$3,(037,209	\$2	,626,721
Net income attributable to Southwest Gas Holdings, Inc.	\$.	187,642	\$	192,368
Basic earnings per share	\$	3.80	\$	4.01
Diluted earnings per share	\$	3.79	\$	4.01

Acquisition costs of \$6.9 million that were incurred during 2018, and included in Utility infrastructure expenses in the Consolidated Statements of Income, were excluded from the 2018 unaudited pro forma consolidated financial information shown above and included in the 2017 amounts. No material nonrecurring pro forma adjustments directly attributable to the business combination were included in the unaudited pro forma consolidated financial information.

The pro forma financial information includes assumptions and adjustments made to incorporate various items including, but not limited to, additional interest expense and depreciation and amortization expense, and tax effects, as appropriate. The pro forma financial information has been prepared for comparative purposes only, and is not intended to be indicative of what the Company's results would have been had the acquisition occurred at the beginning of the periods presented or of the results which may occur in the future, for a number of reasons. These reasons include, but are not limited to, differences between the assumptions used to prepare the pro forma information, potential cost savings from operating efficiencies, and the impact of incremental costs incurred in integrating the businesses.

Actual results from Linetec operations, excluding transaction costs incurred by Centuri, included in the Consolidated Statements of Income since the date of acquisition are as follows (in thousands of dollars):

	Year ended December 31, 2018
Utility infrastructure services revenues	\$14,119
Net income attributable to Southwest Gas Holdings, Inc.	690

In November 2017, the Company, through its subsidiaries, led principally by Centuri, completed the acquisition of Neuco, a privately held utility infrastructure services business, for approximately \$99 million, less assumed debt. The acquisition extended the utility infrastructure services to the Northeastern region of the U.S., and provided additional opportunities for expansion. Funding for the acquisition was primarily provided by Centuri's revolving credit and term loan facilities, described in **Note 8 – Long-Term Debt**.

Assets acquired and liabilities assumed in the transaction were recorded, generally, at their acquisition date fair values. Transaction costs associated with the acquisition were expensed as incurred. The Company's allocation of the purchase price was based on an evaluation of the appropriate fair values and represented management's best estimate based on available data (including market data, data regarding customers of the acquired businesses, terms of acquisition-related agreements, analysis of historical and projected results, and other types of data). The analysis included consideration of types of intangibles that were acquired, including non-competition agreements, customer relationships, trade names, and work backlog. The final purchase accounting has been completed.

The fair values of assets acquired and liabilities assumed as of November 1, 2017, the acquisition date, were as follows (in millions of dollars):

Cash and cash equivalents	\$ 0.8
Contracts receivable	18.3
Other receivables	5.4
Property, plant and equipment	15.1
Prepaid expenses and deposits	1.6
Intangible assets	44.8
Goodwill	32.2
Total assets acquired	118.2
Current liabilities	(18.6)
Other long-term liabilities	(0.3)
Net assets acquired	\$ 99.3

The allocation of the purchase price of Neuco was accounted for in accordance with applicable accounting guidance. Goodwill, which is generally not deductible for tax purposes, consists of the value associated with the assembled workforce and consolidation of operations. However, as the business of Neuco was acquired via asset purchase for tax purposes, the approximately \$32 million of tax-basis goodwill is expected to be deductible for tax purposes. Following a one-year post-acquisition measurement period, the values were adjusted as reflected in the table above, with no significant overall impact to the Company's consolidated balance sheets.

The unaudited pro forma consolidated financial information for fiscal 2017 is as follows (in thousands of dollars, except per share amounts):

	Year Ended December 31,
	2017
Total operating revenues	\$2,639,452
Net income attributable to Southwest Gas Holdings, Inc.	\$ 203,245
Basic earnings per share	\$ 4.24
Diluted earnings per share	\$ 4.24

The pro forma financial information includes assumptions and adjustments made to incorporate various items including, but not limited to, additional interest expense and depreciation and amortization expense, and tax effects, as appropriate. The pro forma financial information has been prepared for comparative purposes only, and is not intended to be indicative of what the Company's results would have been had the acquisition occurred at the beginning of the periods presented or of the results which may occur in the future, for a number of reasons. These reasons include, but are not limited to, differences between the assumptions used to prepare the pro forma information, potential cost savings from operating efficiencies, and the impact of incremental costs incurred in integrating the businesses.

The Company incurred and expensed acquisition costs of \$2.6 million related to the acquisition. No acquisition-related costs were incurred during 2018.

CHAPTER 6 Summary of Earnings (Including Cost of Capital)

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA SUMMARY OF AUTHORIZED OVERALL RESULTS OF OPERATIONS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2021

Line No.	Description (a)	Reference (b)		Test Year 2021 (c)		Deficiency (d)	After Rate Relief (e) (c) + (d)	Line No.
1	Operating Revenue	Ln 2 + Ln 3	\$	34,725,462	\$	1,469,249 \$	36,194,711	1
2	Gas Cost	Ch 20	_	13,933,322		-	13,933,322	2
3	Operating Margin	Ch 10	\$_	20,792,140	\$	1,469,249 \$	22,261,389	3
						4.2%		
4	Operating Expenses	Ch 11D	¢	25 400	¢	\$	35,422	4
4	Other Gas Supply Distribution	Ch 11B	\$	35,422	φ	φ	,	4
5	Customer Accounts	Ch 11B Ch 12		2,573,370		727	2,573,370	5
6 7	Customer Service & Information	Ch 13		626,781		121	627,508	6 7
8	Sales	Ch 13 Ch 14		10,673			10,673	8
0	Administrative and General	Ch 14		-			-	0
9	Northern California Division	Ch 15		711,492		29,690	741,182	9
10	System Allocable	Ch 8A		2,170,901		29,090	2,170,901	10
10	Depreciation and Amortization	OILOY		2,170,901			2,170,901	10
11	Northern California Division	Ch 17		4,459,382			4,459,382	11
12	System Allocable	Ch 8B		410,117			410,117	12
13	Regulatory Amortization	Ch 17		(540,650)			(540,650)	13
14	Property and Payroll Taxes	Ch 16		1,487,292			1,487,292	13
14	Escalation	CITIO		1,407,232			1,407,232	14
15	Labor	WP Ch 6		156,820			156,820	15
16	Labor Loading	WP Ch 6		75,216			75,216	16
17	Materials and Expenses	WP Ch 6		143,830			143,830	17
17	Income Taxes	WI CITO		143,000			143,000	17
18	State	Ch 16		554,796		127,191	681,987	18
19	Federal	Ch 16		1,200,403		276,484	1,476,887	19
20	Excess Deferred Amortization	Ch 16		(9,685)		210,404	(9,685)	20
21	Total Operating Expenses		\$	14,066,160	\$	434,092 \$	14,500,252	21
22	Net Operating Income		\$		\$ _	1,036,195 \$	7,761,136	22
	···· • • • • • • • • • • • • • • • • •		- =	-,,	`=		.,	
	Rate Base							
	Gas Plant in Service							
23	Northern California Division	Ch 17	\$	185,080,793	\$	\$	185,080,793	23
24	System Allocable	Ch 17		6,648,825			6,648,825	24
25	Total Gross Plant		\$	191,729,618	\$	- \$	191,729,618	25
			-					
	Accumulated Provision for							
	Depreciation and Amortization							
26	Northern California Division	Ch 17	\$	62,640,210	\$	\$	62,640,210	26
27	System Allocable	Ch 17	_	4,141,364			4,141,364	27
28	Total Accum Prov for D&A		\$_	66,781,574	\$	- \$	66,781,574	28
00			•	101 010 011	•	*	404.040.044	00
29	Net Plant in Service		\$_	124,948,044	⇒	\$	124,948,044	29
	Other Rate Base							
30	Working Capital (add)	Ch 17	\$	2,253,972	¢	1,901 \$	2,255,873	30
31	Materials and Supplies (add)	Ch 8 & Ch 17	Ψ	623,704	Ψ	1,301 φ	623,704	31
32	Customer Advances (deduct)	Ch 8 & Ch 17 Ch 17		200,963			200,963	32
33	Deferred Taxes (deduct)	Ch 17		27,597,349			27,597,349	33
34	Total Other Rate Base	0.1.17	\$	(24,920,635)	s [—]	1,901 \$	(24,918,734)	34
54			Ψ_	(27,020,000)	¥—	φ	(27,010,707)	54
35	Rate Base		\$	100,027,409	\$	1,901 \$	100,029,310	35
			. =	,- ,		<u>,</u> *	,,	
36	Rate of Return			6.72%			7.76%	36
A TY202	1 vFinal.xlsx	6 De	= eficio	ency		:		
				-				

Line No.	- 0 0
Grossed-Up Return (g) (e) * (f)	2.19% 7.89% 10.09%
Tax Gross-Up Factor (f)	1.00000 1.41793
Weighted (e) (c) * (d)	2.19% 5.57% 7.76%
Weight (d)	47.00% 53.00% 100.00%
Rate (c)	4.67% 10.50%
Reference (b)	Ch 24A, Sch 1, Sh 1 Ch 24A, Sch 1, Sh 1 Ln 1 + Ln 2
Description (a)	Debt Common Equity Cost of Capital
Line No.	0 0 7

CA TY 2021 GRC CHAPTER 6 SHEET 2 OF 3

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA COMPUTATION OF GROSS REVENUE CONVERSION FACTOR TEST YEAR 2021

Line			Base			Line
No.	Description	Reference - Col (d)	Amount	Rate	Amount	No.
	(a)	(b)	(c)	(d)	(e)	
1	Gross Operating Revenues			\$	1,000.00	1
2	Less: Uncollectibles	WP Ch 6, Sh 3, Ln 6(c)	1,000.00	0.0495%	0.49	2
3	Subtotal			\$	999.51	3
4	Less: Franchise Taxes	WP Ch 15, Sh 9, Ln 10(c)	999.51	2.0218%	20.21	4
5	Subtotal			\$	979.30	5
6	Less: State Income Tax	WP Ch 16, Sh 6, Ln 2(b)	979.30	8.8400%	86.57	6
7	Subtotal			\$	892.73	7
8	Less: Federal Income Tax	WP Ch 16, Sh 6, Ln 1(b)	892.73	21.0000%	187.47	8
9	Total			\$_	705.25	9
10	Gross Revenue Conversion Factor	(Ln 1 / Ln 9)		=	1.41793	10

CHAPTER 7 Escalation

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA ESCALATION AND CONSTANT DOLLAR FACTORS CHAPTER 7

The labor escalation factor for 2019 was based on the actual wage increase granted during 2019. The 2020 and 2021 labor escalation factors were developed based on the actual, 7-year historical average of non-exempt wage increases granted at Southwest Gas Corporation. See Chapter 7 Workpapers, Sheet 1.

See Chapter 18 for the computation of the labor loading (pensions and benefits) escalation methodology and percentages for 2019, 2020, and 2021.

The non-labor escalation factor for 2019 utilized the forecasted inflation for nonlabor from the *Consumer Price Index – All Urban Consumers*. The forecast source is recent Blue Chip Economic Indicators and Blue Chip Financial Forecasts reports. See Chapter 7 Workpapers, Sheet 2.

The constant dollar factors were computed using the compounded escalation factors with 2018 as the base year. The source is the *Consumer Price Index – All Urban Consumers* from the U.S. Department of Labor Bureau of Labor Statistics. The indices were then recalculated to set 2018 as the base year (i.e. 2018 = 100). See Chapter 7 Workpapers, Sheet 3.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA ESCALATION PERCENTAGES

Line No.	Description (a)	Escalation Factor (b)	Compounded Escalation 2021 (c)	Line No.
	2018 Escalation Percentages			
1	Labor - Corporate		1.0000	1
2	Labor - Division		1.0000	2
3	Materials and Expenses		1.0000	3
	2019 Escalation Percentages			
4	Labor - Corporate	1.0230	1.0230	4
5	Labor - Division	1.0230	1.0230	5
6	Materials and Expenses	1.0180 [1]	1.0180	6
	2020 Escalation Percentages			
7	Labor - Corporate	1.0229	1.0464	7
8	Labor - Division	1.0229	1.0464	8
9	Materials and Expenses	1.0210 [1]	1.0394	9
	2021 Escalation Percentages			
10	Labor - Corporate	1.0229	1.0703	10
11	Labor - Division	1.0229	1.0703	11
12	Materials and Expenses	1.0210 [1]	1.0612	12

[1] WP Ch 7, Sh 1-2

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CONSTANT DOLLAR FACTORS

Line		Annual		Line
No.	Year	Avg CPI	Factor	No.
	(a)	(b)	(c)	
		[1]		
1	2012	229.594	0.91433	1
2	2013	232.957	0.92772	2
3	2014	236.736	0.94277	3
4	2015	237.017	0.94389	4
5	2016	240.007	0.95580	5
6	2017	245.120	0.97616	6
7	2018	251.107	1.00000	7

[1] Annual Average CPI - All Urban Customers

CHAPTER 8 System Allocable

Company Witness: Timothy S. Lyons

CHAPTER 8A Expenses

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA SYSTEM ALLOCABLE EXPENSES CHAPTER 8, TAB A

Chapter 8A contains System Allocable expenses, before and after allocation to Northern California, in nominal dollars and 2018 dollars. Labor, labor loading, and materials and expenses are provided by FERC account. Seven years of historical data are provided (2012 through 2018), as well as three years of projections (2019, 2020, and Test Year 2021). All amounts are rounded to the nearest dollar.

Projection Methodologies: The projections for system allocable expenses were developed on a total Company basis, to eliminate the impact that varying rates of growth amongst the Company's various ratemaking jurisdictions have on the amounts allocated to Northern California (this can be verified by analyzing the historical 4-factor allocation calculations provided in Chapter 8C).

The labor loading (pensions and benefits) percentage for each projected year is calculated in Chapter 18. This percentage is applied to each dollar of projected labor in each account in Chapter 8A workpapers. The labor loading required for each projected year is calculated in the Chapter 8A sheets 3-4 col(q), col(s), and col(u). The adjustments required to increase expenses each year is shown in Chapter 8A workpapers col(d).

The projected amounts for labor and non-labor are escalated based on the compounded escalation factors described in Chapter 7.

Account 920: These expenses have generally increased by an increase in staffing over the past 7 years. Specifically, Southwest Gas employees assigned to corporate have increase from 590 employees in 2011 to 902 employees in 2018. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Account 921: These expenses have generally increased over the past 7 years, approximately at the rate of inflation. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

<u>Account 922</u>: These credits have generally increased over the past 7 years, approximately at the rate of inflation. The 2018 credit level is expected to continue; thus, projections were based on 2018 expenses.

Account 923: These expenses have generally increased over the past 7 years, largely related to implementation and maintenance of additional technology at the Company. Specifically, the higher expenses are associated with outside contractor services to maintain software projects. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Account 924: These expenses have generally increased over the past 7 years, largely related to increases in plant investments. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Account 925: These expenses have generally increased over the past 7 years, approximately at the rate of inflation. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses. Self-insured retention was projected based on a 7-year average normalization of settlements.

<u>Account 926:</u> These expenses are higher in 2018 since the expenses were previously charged through labor loading. The projections were based on a seven-year normalization of 2013 through 2019 pension, post-employment benefits other than pension, and supplemental executive retirement plan costs for the projected periods.

Account 930.1: These expenses are zero since Southwest Gas charges all safety advertising expenses directly to each ratemaking jurisdiction.

<u>Account 930.2</u>: These expenses have generally fluctuated over the past 7 years. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

<u>Account 931</u>: These expenses have generally decreased over the past 7 years. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Account 935: These expenses have generally increased over the past 7 years, largely related to increases in plant investments. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Line No.	− 0 0 4	ŝ	9	7	8	6	10	11	12	13	15 16 17	18 20 21	54 53	25 28 28 29 29 29	30	31	
Projection Method (w)	hior year and Officer Comp Adjust. abor I oading adjustment hior year	Prior year	Prior year	Prior year	Prior year	hior Year and SIR normalization	Prior Year, and WP 8A Adjustment	Vo Allocable Costs	Prior year	Prior year	hior year abor I oading adjustment hior year						
21 Jocation (v)	923,284 F 402,215 L (60,604) F 1,264,895	254.018 F	(343,623) F	446,402 F	15,181 F	181,847 F	293,491 F		102,017 F	47,358 F	12.762 F 6.475 L 31.476 F 50.713	936,046 408,690 967,563 2,312,299	7.03% 50.74% 6.12%				
Test Year 20. Total [1] A Projected [4]	59,317,928 \$ 25,841,014 (3,893,598) 81,265,344 \$	16.319.810 \$	(13,584,235) \$	28,679,881 \$	647,035 \$	11,683,060 \$	19,724,517 \$	\$	6,554,262 \$	3,042,580 \$	819,916 \$ 416,001 2,022,249 3,258,167 \$	60,137,844 \$ 26,257,016 71,195,562 157,590,422 \$	7.03% 50.74% 6.12%	1.24% 2.35% 1.29% 1.34% 1.56%	2.53%		
020 All ocation (1)	902,652 \$ 393,414 (59,357) 1,236,708 \$	248.793 \$	(336,555) \$	437,221 \$	14,869 \$	178,107 \$	287,455 \$	\$	99,919 \$	47,358 \$	12,477 \$ 6,333 30,829 49,639 \$	915,128 \$ 399,747 948,637 2,263,512 \$	4.64% 50.76% 3.94%				
Projected 2 Total [1] (s) Projected [3]	57,992,387 \$ 25,275,532 (3,813,514) 79,454,405	15.984.143 \$	(13,304,834) \$	28,089,992 \$	633,727 \$	11,442,762 \$	19,318,822 \$	\$	6,419,453 \$	3,042,580 \$	801.594 \$ 406.895 1.980.655 3,189,145 \$	58, 793, 982 \$ 25, 682, 427 69, 793, 787 154, 270, 196 \$	4.64% 50.76% 3.94%	1.24% 2.35% 1.29% 1.34%	2.53%		
019 Allocation (r)	882,481 \$ 384,805 (58,136) 1,209,149 \$	243.676 \$	(329,633) \$	428,228 \$	14,563 \$	174,443 \$	281,542 \$		97,864 \$	47,358 \$	12,198 \$ 6,195 30,195 48,588 \$	894,679 \$ 390,999 930,099 2,215,777 \$	2.30% 50.78% 1.80%				
Projected 2 (q) Projected (2)	56,696,468 \$ 24,722,440 (3,735,078) 77,683,831 \$	\$ 15.655.380 \$	\$ (13,031,179) \$	\$ 27,512,235 \$	\$ 620,693 \$	\$ 11,207,406 \$	\$ 18,921,471 \$	\$	\$ 6,287,418 \$	\$ 3,042,580 \$	\$ 783,682 \$ 397,988 1,939,917 \$ 3,121,587 \$	57,480,150 \$ 25,120,429 68,420,843 151,021,422 \$	2.30% 50.78% 1.80%	1.24% 2.35% 1.29% 1.34% 1.56%	2.53%		
2018 Allocation (p)	961,407 570,981 (57,109) 1,475,280	239.367	(101,657) \$	420,656	14,305	181,987	258,693	2	96,133 (47,358	11.924 7,082 29.661 48,666	973,330 578,063 1,129,449 2,680,842	59.39%			1.0000	
Recorded Total [1] (0)	61,767,214 \$ 28,682,324 (3,669,035) 8,780,503 \$	5 15.378.566 \$	\$ (12,800,765) \$	\$ 27,025,771 \$	609,718 \$	3 11,692,075 \$	5 19,991,741 \$	3,450 \$	6,176,245 \$	3,042,580 \$	766.062 \$ 454,966 1,905.616	\$ 62,533,276 \$ 29,137,290 59,137,290 69,355,962 161,026,528 \$	59.39%	1.24% 2.35% 1.29% 1.34%	0.79%	1.0000	
2017 Allocation (n)	1,027,257 587,502 (63,685) 1,551,074	246.617	(161,395) \$	378,288 \$	7,177 \$	195,957	(21,500) \$		138,008 \$	58,561	3.843 1 2.198 23.136 29.177	1,031,100 1 589,700 801,165 2,421,964 1	57.19%			0.9762	
Recorded Total [1] (m)	62,226,929 \$ 25,935,696 (3,857,748) 84,304,877 \$	14.939.041 \$	(13,432,241) \$	22,915,087 \$	288,516 \$	11,870,269 \$	(1,638,558) \$	\$	8,359,932 \$	3,547,363 \$	232,794 \$ 133,138 1,401,493 1,767,426 \$	62,459,723 \$ 26,068,834 44,393,155 132,921,713 \$	57.19%	1.45% 2.49% 1.31% 1.35% 1.65%	1.20%	0.9762	
2016 Allocation (I)	845,259 \$ 500,885 (50,470) 1,295,673 \$	228,821 \$	(110,401) \$	352,794 \$	12,361 \$	174,257 \$	(1,112) \$		107,329 \$	47,838 \$	3,267 \$ 1,936 23,290 28,494 \$	848,526 \$ 502,821 784,706 2,136,054 \$	59.26%			0.9558	
Total [1] (k)	53,443,946 \$ 25,746,619 (3,191,130) 75,999,435 \$	14.467.877 \$	(12,472,764) \$	22,306,415 \$	475,704 \$	11,017,908 \$	(95,906) \$	\$	6,786,168 \$	3,024,676 \$	206.590 \$ 122,421 1,472,604 1,801,615 \$	53,650,536 \$ 25,869,040 43,791,552 123,311,128	59.26%	1.21% 2.60% 1.16% 1.36% 1.58%	0.89%	0.9558	
2015 All ocation (j)	796,233 \$ 468.789 (48.236) 1.216.786 \$	227,887 \$	(136,284) \$	330,770 \$	12,764 \$	179,926 \$	(582) \$	0	101,212 \$	46,470 \$	3.515 \$ 2.070 26.426 32.010 \$	799,748 \$ 470,859 740,352 2,010,958 \$	58.88%			0.9439	
Recorded (i)	50,684,423 \$ 23,771,290 (3,070,498) 71,385,215 \$	14.506.198 \$	(12,584,010) \$	21,055,270 \$	469,824 \$	11,453,213 \$	(23,999) \$	\$ 0	6,442,678 \$	2,958,069 \$	223,754 \$ 131,737 1,682,124 2,037,615 \$	50,908,177 \$ 23,903,027 42,858,968 117,670,072 \$	58.88%	1.13% 2.72% 1.08% 1.36%	1.08%	0.9439	
014 Allocation (h)	808,879 \$ 459,650 (45,631) 1,222,898 \$	238,858 \$	(467,790) \$	284,656 \$	12,639 \$	177,596 \$	(87) \$	\$	102,999 \$	60,894 \$	3.396 \$ 1,930 26,147 31,473 \$	812,275 \$ 461,579 390,282 1,664,136 \$	56.83%			0.9428	
Recorded 2 Total [1] (g)	51,381,365 \$ 22,264,666 (2,898,565) 70,747,466	15.172.682 \$	(12,212,105) \$	18,081,809 \$	484,093 \$	11,281,194 \$	(8,623) \$	\$	6,542,682 \$	3,868,087 \$	215.698 \$ 122.571 1.660.931 1,999.200 \$	51,597,063 \$ 22,387,238 41,972,183 115,956,484 \$	56.83%	1.32% 2.61% 1.01% 1.36%	3.83%	0.9428	
013 Allocation (f)	710,046 \$ 467,566 (39,732) 1,137,880 \$	226.242 \$	(732,792) \$	235,928 \$	10,948 \$	151,436 \$	(451) \$	69 1	100,469 \$	77,572 \$	2.912 \$ 1.918 30.746 35.575 \$	712,958 \$ 469,484 60,365 1,242,808 \$	65.85%			0.9277	
Recorded 2 Total [1] (e)	48,921,633 \$ 24,647,215 (2,737,515) 70,831,333 \$	15.587.893 \$	(12,338,114) \$	16,255,253 \$	469,783 \$	10,433,847 \$	(42,775) \$	\$	6,922,214 \$	5,344,670 \$	200.649 \$ 132.128 2.118.342 2.451.120 \$	49,122,282 \$ 24,779,343 42,013,599 115,915,224 \$	65.85%	1.06% 2.33% 1.05% 1.36% 1.45%	5.94%	0.9277	
012 All ocation (d)	692,533 \$ 466,669 (35,104) 1,124,097 \$	200.943 \$	(456,645) \$	210,961 \$	9,680 \$	160,753 \$	\$ (682)	\$	90,195 \$	68,741 \$	3,566 \$ 2,403 25,827 31,796 \$	696,099 \$ 469.072 274.562 1,439.733 \$	67.39%	I		0.9143	
Total [1] (c)	47,454,838 \$ 24,613,014 (2,405,468) 69,662,385 \$	13.769.355 \$	(11,492,624) \$	14,455,787 \$	419,259 \$	11,015,376 \$	(74,324) \$	\$	6,180,498 \$	4,710,407 \$	244.357 \$ 164.662 1.769.745 2.178.763 \$	47,699,195 \$ 24,777,676 38,348,013 110,824,883 \$	67.39%	1.10% 2.31% 1.06% 1.36% 1.46%	3.97%	0.9143	8 2
Account Number (b)	920	921 \$	922 \$	923 \$	924 \$	925 \$	926 \$	930.1 \$	930.2 \$	931 \$	33 33 33	ଜ 'ଜ					cept Acct. 931 Ren cent Acct. 931 Ren
Description (a)	Administrative and General Salaries [6] Labor Labor Loading [5] Materials and Expenses Total	Iffice Supplies and Expenses	vdministrative Expenses Transferred	Jutside Services Employed	roperty Insurance	njuries and Damages	imployee Pension and Benefits	Alscellaneous General Expense	Alscellaneous General Expense	Rents	Alaintenance of General Plant Labor Labor Loading Materials and Expenses Total	rotal System Allocable Expense Labor Labor Loading Materials and Expenses Total	scalation and Labor Loading abor Loading taterials & Expenses	(llocation Factors actor II actor II actor II 4-Factor	vocount 922 Allocation	Constant Dollar Factor	[1] Company Records [2] Multipled by the applicable escalation factor, except Acct. 531 Rents (2) Multipled by the applicable escalation factor around acri. 051 Bases (2) Multipled by the another planet acritection factor.
Line No.	₩ ₩ ₩	5	6 A	7 0	8 P	ц 6	10 E	11 M	12 M	13 R	15 15 17 17	18 19 21 21	W"""""""""""""""""""""""""""""""""""""	33338	30 A	31 C	12 8 8
	Account Recorded 2012 Recorded 2013 Recorded 2014 Recorded 2016 Recorded 2017 Recorded 2016 Recorded 2016<	Model for the factor of 2012 Recorded 2014 Recorded 2014 <threcord 2014<="" th=""> Recorded 2014</threcord>	Proceed Teacreted 2014 Recorded 2014 Recorded 2014 Recorded 2014 Teacreted 2016 Teacreted 2016 <thttps:></thttps:> (0) Teacreted 2016	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Monte Testel ATI Recorde ATI Record ATI Recorde ATI R	Monte Monte <th< td=""><td>Model Model <t< td=""><td>Month Month <th< td=""><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>Unit description Interaction Interaction</td><td>Matrix International Internation International International</td></th<><td>Matrix Important Imporant Important Im</td><td>matrix matrix matrix<</td><td></td><td>Unit Unit <th< td=""><td>matrix matrix matrix<</td></th<></td></td></t<></td></th<>	Model Model <t< td=""><td>Month Month <th< td=""><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>Unit description Interaction Interaction</td><td>Matrix International Internation International International</td></th<><td>Matrix Important Imporant Important Im</td><td>matrix matrix matrix<</td><td></td><td>Unit Unit <th< td=""><td>matrix matrix matrix<</td></th<></td></td></t<>	Month Month <th< td=""><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>Unit description Interaction Interaction</td><td>Matrix International Internation International International</td></th<> <td>Matrix Important Imporant Important Im</td> <td>matrix matrix matrix<</td> <td></td> <td>Unit Unit <th< td=""><td>matrix matrix matrix<</td></th<></td>	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Unit description Interaction Interaction	Matrix International Internation International International	Matrix Important Imporant Important Im	matrix matrix<		Unit Unit <th< td=""><td>matrix matrix matrix<</td></th<>	matrix matrix<

See WPCh8A Sh4)

	No.	← 0 © 4	5	9	7	8	6	10	Ħ	12	13	41 15 17	18 20 21	5 2 2	38 51 58 58 51	30	31	
	Projection Method (w)	Prior year and Officer Comp Adjust. Labor loading adjustment Prior year	Prior year	Prior year	Prior year	Prior year	Prior Year and SIR normalization	Prior Year, and WP 8A Adjustment	No Allocable Costs	Prior year	Prior year	Prior year Labor loading adjustment Prior year						
	ar 2021 Allocation (v)	862,640 375,797 (57,109) 1,181,328	239.367	(323,804)	420,656	14,305	171,359	276,564		96,133	47,358	11.924 6.050 29.661 47,634	874,564 381,847 914,491 2,170,901	7.03% 50.74% 6.12%				
	Total [1] Allo (u) Projected	55,421,767 \$ 24,143,707 (3,669,035) \$ 75,896,440 \$	15.378.566 \$	(12,800,765) \$	27,025,771 \$	609,718 \$	11,009,240 \$	18,586,907 \$	•	6,176,245 \$	3,042,580 \$	766,062 \$ 388,677 1,905,616 3,060,355 \$	56,187,830 \$ 24,532,385 67,264,842 147,985,057 \$	7.03% 50.74% 6.12%	1.24% 2.35% 1.29% 1.34%	2.53%		
	2020 All ocation (1)	862,640 \$ 375,975 (57,109) \$ 1,181,506 \$	239.367 \$	(323,804) \$	420,656 \$	14,305 \$	171,359 \$	276,564 \$	\$ '	96,133 \$	47,358 \$	11.924 \$ 6.053 29.661 47,637 \$	874,564 \$ 382,027 914,491 2,1771,082 \$	4.64% 50.76% 3.94%	ľ			
	Projected 2020 Total [1] All c (s) Projected	55,421,767 \$ 24,155,147 (3,669,035) \$ 75,907,890 \$	\$ 15.378.566 \$	(12,800,765) \$	27,025,771 \$	609,718 \$	11,009,240 \$	18,586,907 \$	\$	6,176,245 \$	3,042,580 \$	766.062 \$ 388,859 1.905.616 3.060.537 \$	56,187,830 \$ 24,544,006 67,264,842 147,996,678 \$	4.64% 50.76% 3.94%	1.24% 2.35% 1.29% 1.34% 1.56%	2.53%		
	42019 Allocation (r)	862,640 \$ 376,153 (57,109) \$ 1,181,685 \$	239,367 \$	(323,804) \$	420,656 \$	14,305 \$	171,359 \$	276,564 \$	\$	96,133 \$	47,358 \$	11.924 \$ 6,055 29,661 47,640 \$	874,564 \$ 382,209 914,491 2,171,263 \$	2.30% 50.78% 1.80%				
	Projected 2019 Total [1] Allo (q) Projected	55,421,767 \$ 24,166,608 (3,669,035) \$ 75,919,341 \$	15.378.566 \$	(12,800,765) \$	27,025,771 \$	609,718 \$	11,009,240 \$	18,586,907 \$	\$ '	6,176,245 \$	3,042,580 \$	766.062 \$ 389.040 1.905.616 3.060.719 \$	56,187,830 \$ 24,555,649 67,264,842 148,008,321 \$	2.30% 50.78% 1.80%	1.24% 2.35% 1.29% 1.34%	2.53%		
	018 Allocation (p)	961,407 \$ 570,981 (57,109) 1,475,280 \$	239.367 \$	(101,657) \$	420,656 \$	14,305 \$	181,987 \$	258,693 \$	54 \$	96,133 \$	47,358 \$	11.924 \$ 7,082 29,661 48,666 \$	973,330 \$ 578,063 1,129,449 2,680,842 \$	59.39%	I		1.0000	
	Total [1] Alloc (o) (61,767,214 \$ 28,682,324 (3,669,035) 86,780,503 \$	15.378.566 \$	(12,800,765) \$	27,025,771 \$	609,718 \$	11,692,075 \$	19,991,741 \$	3,450 \$	6,176,245 \$	3,042,580 \$	766.062 \$ 454.966 1.905.616 3.126.644 \$	62,533,276 \$ 29,137,290 <u>69,355,962</u> \$	59.39%			1.0000	
RS IFORNIA	2017 Allocation (n)	1,052,347 \$ 601,851 (65,240) 1,588,959 \$	252.641 \$	(165,337) \$ (387,527 \$	7,352 \$	200,743 \$	(22,025) \$	\$	141,379 \$	59,991 \$	3,937 \$ 2,252 23,701 29,890 \$	1,056,284 \$ 604,103 820,733 2,481,120 \$ 1	57.19%			0.9762	
RATION REAL DOLLAI ORTHERN CAL	Total [1] Allo (m) (63,746,807 \$ 26,569,169 (3,951,972) 86,364,004 \$	15.303.924 \$	(13,760,320) \$	23,474,783 \$	295,562 \$	12,160,198 \$	(1,678,579) \$	\$	8,564,122 \$	3,634,007 \$	238.480 \$ 136.390 \$ <u>1.435.724</u> <u>1.810.595</u> \$	63,985,288 \$ 26,705,559 45,477,448 136,168,295 \$	57.19%			0.9762	
SOUTHWEST GAS CORPORATION ALLOCABLE EXPENSES - REAL D AFT ER ALLOCATION TO NORTHER 2012 THROUGH 2021	2016 Allocation (I)	884,351 \$ 524,050 (52,804) 1,355,597 \$	239,404 \$	(115,507) \$ (369,110 \$	12,933 \$	182,316 \$	(1,164) \$	\$	112,293 \$	50,050 \$	3,418 \$ 2,026 24,368 29,812 \$	887,770 \$ 526,076 820,998 2,234,843 \$ 11	59.26%			0.9558	
SOUTHWEST GAS CORPORATION SYSTEM ALLOCARLE REAL DOLLARS BEFORE AND AFTER ALLOCATION TO NGRTHERN CALF ORNIA 2012 THROUGH 2021	Recorded 2016 Total [1] Alloc (k) (55,915,657 \$ 26,937,365 (3,338,715) 79,514,307 \$	15.136.997 \$	(13,049,612) \$	23,338,056 \$	497,705 \$	11,527,471 \$	(100,342) \$	\$	7,100,020 \$	3,164,563 \$	216,144 \$ 128,083 <u>1,540,710</u> <u>1,884,937</u> \$	56,131,801 \$ 27,065,448 45,816,852 129,014,102 \$	59.26%			0.9558	
SYST BEFORE AN	2015 Allocation (j)	843,567 \$ 5 496,657 \$ 5 (51,104) 1,289,120 \$	241,434 \$ 1	(144,386) \$ (1	350,434 \$ 2	13,523 \$	190,622 \$ 1	(617) \$	\$ 0	107,229 \$	49,233 \$	3.724 \$ 2.193 27.996 33.913 \$	847,291 \$ 5 498,850 \$ 2 784,363 \$ 2 2,130,504 \$ 12	58.88%			0.9439	
	Recorded 2015 Total [1] Allo	53,697,471 \$ 25,184,427 (3,253,031) 75,628,867 \$	15,368,551 \$	13,332,095) \$	22,306,947 \$	497,754 \$	12,134,075 \$	(57,209) \$	\$ 0	6,825,677 \$	3,133,918 \$	237,056 \$ 139,569 <u>1,782,122</u> 2,158,746 \$	53,934,526 \$ 25,323,995 45,406,708 124,665,230 \$	58.88%			0.9439	
	()	857,982 \$ 5 487,552 2 (48,401) 1,297,134 \$ 7	253.358 \$ 15.368.551 \$	(496,187) \$ (13,332,095)	301,936 \$ 2	13,406 \$	188,377 \$ 1	(92) \$	\$	109,252 \$	64,591 \$	3,602 \$ 2,047 27,735 33,383 \$	861,584 \$ 5 489,599 2 413,974 \$ 12	56.83%			0.9428	
	Recorded 2014 T otal [1] Alto (g) (54,500,458 \$ 23,616,237 (3,074,522) 75,042,174 \$	6.093.736 \$	2,953,438) \$	19,179,460 \$	513,480 \$	11,966,016 \$	(9,147) \$	\$	6,939,854 \$	4,102,898 \$	228.792 \$ 130,012 <u>1.761.757</u> 2,120,561 \$	54,729,250 \$ 23,746,249 44,520,094 122,995,593 \$	56.83%			0.9428	
	ation ()	765,367 \$ 5 503,995 2 (42,828) (1,226,534 \$ 7	243,869 \$ 16,093,736	(789,885) \$ (12,953,438) \$	254,309 \$ 1	11,801 \$	163,235 \$ 1	(486) \$	\$	108,296 \$	83,616 \$	3.139 \$ 2.067 33.141 38.347 \$	768,506 \$ 5 506,062 \$ 5 65,069 \$ 4 1,339,637 \$ 12	65.85%			0.9277	
	Recorded 2013 Total [1] Alloc (e) (52,733,185 \$ 26,567,513 (2,950,799) 76,349,899 \$	6.802.368 \$	3,299,393) \$	17,521,723 \$	506,385 \$	11,246,762 \$	(46,108) \$	\$	7,461,533 \$	5,761,080 \$	216,282 \$ 142,422 2,283,385 2,642,090 \$	52,949,467 \$ 26,709,935 45,286,336 124,946,339 \$	65.85%			0.9277	
	cation (d)	757,423 \$ 5 510,396 2 (38,393) ((229,425 \$ 7	219.772 \$ 16.802.368	(499,432) \$ (13,299,393) \$	230,728 \$ 1	10,587 \$	175,816 \$ 1	(863) \$	\$	98,646 \$	75,182 \$	3.900 \$ 2.628 28.247 34.775 \$	761,323 \$ 5 513,024 2 300,289 4 <u>1574,636</u> \$ 12	67.39%			0.9143	7, Sh 3) PCh8A, Sh 4)
	Recorded 2012 Total [1] Allo (c) (51,901,365 \$ 26,919,258 (26,30,860) 76,189,763 \$	15.059.546 \$	(12,569,485) \$	15,810,297 \$	458,544 \$	12,047,519 \$	(81,288) \$	\$	6,759,612 \$	5,151,774 \$	267,253 \$ 180,090 1,935,571 2,382,914 \$	52,168,618 \$ 27,099,349 41,941,228 121,209,195 \$	67.39%			0.9143	year (catoulated in Ch 20 mpensation (See WI
	Account Number (b)	920 \$ 51 \$ 26 \$ 76	921 \$ 15	922 \$ (12	923 \$ 15	924 \$	925 \$ 12	926 \$	930.1 \$	930.2 \$ 6	931 \$ 5	935 \$ \$	\$ 52 27 4121					int dollar factor for the loadingrate on Ln 23. adjusted for Officer C
	Line Description (a)	Administrative and General Salaries [3] Labor Leafor Loading [2] 3 Materials and Expenses 7 Total	5 Office Supplies and Expenses	6 Administrative Expenses Transferred	7 Outside Services Employed	8 Property Insurance	9 Injuries and Damages	10 Employee Pension and Benefits	11 Miscellaneous General Expense	12 Miscellaneous General Expense	13 Rents	Maintenance of General Plant 14 Labor Leador 15 Labor Loading 16 Material a and Expenses 17 Total	Total System Allocable Expense 18 Labor 19 Labor 20 Material sand Expenses 21 Total	E scal afton and Labor Loading 22 Labor 23 Labor Loading 24 Materials & Expenses	Allocation Factors 25 Factor Factors 26 Factor II 27 Factor M 28 Factor V 29 Factor V 29 4-Factor	30 Account 922 Allocation	31 Constant Dollar Factor	[1] Chi &A, Shi Si multiplet by the corresponding constant claim factor for the year (relationed in Cri 7. Shi 3) [2] Lukor: Loading equate Lukor multiplet by the block beading rate on Lin 23.

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CHAPTER 8B Rate Base

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION SYSTEM ALLOCABLE RATE BASE CHAPTER 8, TAB B

Chapter 8, Tab B contains the computations of the allocation of System Allocable Gas Plant in Service (GPIS) and Accumulated Depreciation and Amortization (AD&A) to Northern California (NCA) for the historical years 2012 through 2018 (historical period), and projections for years 2019, 2020 and test year 2021.

System Allocable GPIS and AD&A is allocated to NCA based on the use of the 4-Factor Allocation percentage as shown in Chapter 8, Tab C.

The System Allocable GPIS and AD&A amounts are shown by FERC account. They are also reported by plant functions (Intangible and General). GPIS is compiled to report a beginning balance, additions, retirements/transfers, and an ending balance. AD&A is also compiled to report a beginning balance, the provision for depreciation expense, retirements, transfers/costs of removal/net salvage value, and an ending balance.

System Allocable GPIS and AD&A are computed by using actual, recorded amounts for the years 2012 through 2018.

The projected year 2019 GPIS computation begins with the recorded year-end 2018 GPIS balance and adds the projected additions through December 2019. System Allocable GPIS consists of the intangible and general plant functions. The projected year 2019 intangible plant projection is estimated on a project basis. Software development projects that either closed to plant in service by May 2019, or are expected to close by December 2019 were used in the projection. A detail listing of projects expected to close is shown on Chapter 8B Workpapers Sheet 10-13. The 2019 general plant projection is based on the Company's capital planning as shown on Chapter 8B Workpaper Sheet 5. Overheads are not applied to general plant. The general additions plant are adjusted for the 2018 escalation factors contained in Chapter 7. Retirements for the projected year 2019 are based on the seven-year average of the historical period as shown on Chapter 8 Workpapers Sheet 2. Retirements are historical amounts and are not subject to escalation.

Chapter 8, Tab B also contains the calculation of the average of the sum of the year-end 2018 and the year-end 2019 GPIS balances to determine the average 2019 balance of System Allocable GPIS used for SC. This average is carried forward to Chapter 17 to determine the average rate base for 2019.

Chapter 17 also contains the calculation of the simple average of the sum of the year-end 2018 and the year-end 2019 GPIS balances to determine the average

2019 balance of System Allocable GPIS used for SC. These additions are escalated by the factors shown in Chapter 7 and are calculated in Chapter 8 Workpapers at Sheet 5.

The 2019 AD&A computation begins with the year-end 2018 AD&A balance. An annualized depreciation and amortization provision for 2019, utilizing the half-year convention for forecasted 2019 additions, is added to that balance, with the exception of Account 303. The Account 303 amortization provision is based on the calculations shown in the Chapter 8B Workpapers, Sheets 10-13. The 2019 forecasted retirements, removal costs and net salvage values were based on the historical period seven-year average of System Allocable plant retired/removed. The calculations can be found in the Chapter 8B Workpapers at Sheets 2 through 4.

Chapter 8, Tab B, also contains the calculation of the average of the sum of the year-end 2018 and year-end 2019 AD&A balances to determine the average 2019 AD&A balance of System Allocable AD&A used for SC. This average is carried forward to Chapter 17 to determine the average rate base for 2019.

Chapter 17 also contains the calculation of the simple average of the sum of the year-end 2018 and year-end 2019 AD&A balances to determine the average 2019 balance of System Allocable AD&A used for SC.

The 2020 GPIS computation begins with the year-end 2019 GPIS balance and adds the projected intangible plant for 2020, as summarized in the Chapter 8B Workpapers at Sheet 5. The general plant System Allocable additions are based on Company's capital planning. These additions are escalated by the factors shown in Chapter 7 and are calculated in the Chapter 8B Workpapers at Sheet 5. The 2020 retirements are based on the historical period seven-year average of System Allocable plant retired as detailed in the Chapter 8B Workpapers at Sheet 2.

Chapter 17 contains the calculation of the simple average of the sum of the yearend 2019 and year-end 2020 GPIS balances to determine the average 2020 balance of System Allocable GPIS used for SC.

The 2020 AD&A computation begins with the year-end 2019 AD&A balance. An annualized depreciation and amortization provision for 2020, utilizing the half-year convention for forecasted 2020 additions, is added to that balance, with the exception of Intangible Plant. The Account 303 amortization provision is based on the calculations shown in the Chapter 8B Workpapers, Sheets 10-13. The 2020 forecasted retirements, removal costs and net salvage values were based on the historical period seven-year average of System Allocable plant retired/removed, and salvaged. The calculations can be found in the Chapter 8B Workpapers at Sheets 2 through 4.

Chapter 17 contains the calculation of the simple average of the sum of the yearend 2019 and the year-end 2020 AD&A balances to determine the average 2020 balance of System Allocable AD&A used for SC.

The 2021 GPIS computation begins with the year-end 2020 GPIS balance and adds the projected additions for Intangible Plant for 2021, as summarized in the Chapter 8B Workpapers at Sheet 5. The general plant System Allocable additions are based on the Company's capital planning. These additions are escalated by the factors shown in Chapter 7 and are calculated in the Chapter 8B Workpapers at Sheet 5. The 2021 retirements are based on the historical period seven-year average of System Allocable plant retired as detailed in the Chapter 8B Workpapers at Sheet 2.

Chapter 17 contains the calculation of the simple average of the sum of the yearend 2020 and year-end 2021 GPIS balances to determine the average 2021 balance of System Allocable GPIS used for NCA in the test year.

The 2021 AD&A computation begins with the year-end 2020 AD&A balance. An annualized depreciation and amortization provision for 2021, utilizing the half-year convention for forecasted 2021 additions, is added to that balance, except for Account 303. The Account 303 amortization provision is based on the calculations shown in the Chapter 8B Workpapers at Sheets 10-13. The 2021 forecasted retirements, removal costs and net salvage values were based on the historical period seven-year average of System Allocable plant retired and salvage. The calculations are shown in Chapter 8B Workpaper Sheets 2 through 4.

Chapter 17 contains the calculation of the simple average of the sum of the yearend 2020 and year-end 2021 AD&A balances to determine the average 2021 balance of System Allocable AD&A used for NCA in the test year.

System Allocable deferred taxes are computed in Chapter 16 of this filing.

Amortization expense for 2019, 2020 and 2021 is based on the amortization of individual projects that generally have a useful life of three to five years. Major software development projects have useful lives of ten and in some cases fifteen years. The calculation of amortization expense is computed in Chapter 8B Workpaper, Sheets 10-13. The system allocable depreciation expense for years 2019, 2020 and 2021 are calculated using rates effective January 1, 2019. System Allocable amortization and depreciation expense are subject to the 4-factor allocation contained in Chapter 8C for the NCA rate jurisdiction.

Line	No.		-	0	၊က	4	5	9	7
Test Year	2021	(k)	6,648,825	4 141 364	420,312	143,688	4,705,363	(391)	1,943,071
Projected	2020	(j)	6,150,114 \$	3 830 659 \$	414,791	144,280	4,389,730 \$	(391) \$	1,759,993 \$
Projected	2019	(i)	5,482,432 \$	3 563 264 \$	354,100	144,280	4,061,644 \$	(391) \$	1,420,398 \$
	2018	(4)	5,134,538 \$	3 459 371 \$	308,230	144,280	3,911,880 \$	(534) \$	1,222,123 \$
	2017	(6)	5,053,339 \$	3 290 288 \$	416,632	72,140	3,779,059 \$	(244) \$	1,274,035 \$
	2016	(f)	4,653,956 \$	2 957 055 \$	500,769	•	3,457,824 \$	(586) \$	1,195,546 \$
Recorded	2015	(e)	4,381,500 \$	2690602 \$	481,057	•	3,171,659 \$	(276) \$	1,209,565 \$
	2014	(q)	3,818,579 \$	2 383 335 \$	415,534	•	2,798,869 \$	(280) \$	1,019,430 \$
	2013	(c)	3,131,739 \$	2 103 750 \$	338,528		2,442,278 \$	(340) \$	689,121 \$
	2012	(q)	2,928,578 \$	1951617 \$			2,270,211 \$	(448) \$	657,919 \$
		 	Ф				ب	\$	\$
	Description	(a)	Gas Plant in Service	Acclimitated Provision for Depr. and Amort \$	Deferred Taxes	Excess Deferred Taxes	Total Rate Base Deductions	Materials & Supplies	Total System Alloc Rate Base - NCA
Line	No.		-	~	၊က	4	5	9	7

Line No.		<i>←</i> (2 0	04	- ro	9	7	8	0	10	11	12	13	14	15	16	17	18	19	20	
2018	(µ)	(14,365)	(14,091) (12 766)	(13,425)	(13,420)	(12, 856)	(12,266)	(79,713)	(76,501)	(76,310)	31,551	(75,649)	(75,491)	(446,303)	(34,331)	1.56%	(534)	(25,102)	1.56%	(391) (391)	CII 0D, 3II 4(I)
2017	(6)	(15,829) \$	(15,835) (15,407)	(15,104)	(14,805)	(14,802)	(14,801)	(14,801)	(14,252)	(14,467)	(13,915)	(14,323)	(14,365)	(192,494) \$	(14,807) \$	1.65%	(244) \$	7 Year Average \$	NCA 4-Factor	NCA Allocation \$,
2016	(f)	(17,537) \$	(17,537)	(12, 307)	(16,010)	(284,690)	(15,996)	(15,964)	(15,964)	(15,964)	(15,930)	(15,562)	(15,829)	(481,771) \$	(37,059) \$	1.58%	(586) \$	7 Үе	NO	NCA	
13-Month Balances [1] 2015	(e)	(17,537) \$	(17,537) (17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(227,983) \$	(17,537) \$	1.57%	(276) \$				
13-Montl 2014	(p)	(21,037) \$	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(17,537)	(231,482) \$	(17,806) \$	1.57%	(280) \$				
2013	(c)	(29,537) \$	(26,037)	(24,537)	(23,258)	(24,037)	(22,126)	(24,037)	(21,537)	(21,537)	(21,037)	(21,037)	(21,037)	(304,792) \$	(23,446) \$	1.45%	(340) \$				
2012	(q)	(31,307) \$	(30,966)	(31,011)	(31,011)	(31,011)	(31,011)	(31,011)	(31,011)	(31,037)	(30,037)	(29,537)	(29,537)	(399,498) \$	(30,731) \$	1.46%	(448) \$				
		Υ												Ś	φ		ہ				
Description	(a) [1]	December	January	March	April	May	June	July	August	September	October	November	December	13-Month Total	13-Month Average	NCA 4-Factor	NCA Allocation				[1] Company Records
Line No.		<i>←</i> (2 0	04	<u>ى</u> .	9	7	ø	6	10	11	12	13	14	15	16	17	18	19	20	

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8B M&S

	Line No.	~ 0 Ø	4004	8 6 6		10 11 19 19	21 20	23 23
	Accumulated Provision for Depreciation 12/31/2012	(1)+(1)-(k)-(1)+(m)+(n) - 116,009,260 116,009,260	5,648,430 2,835,755 3,312,400	6,176,778 6,176,778 226,757 (17,443)	490,839 12,138 132,619 110,255	2,134,592 2,134,592 202,967 365,449 21,623,991	137,633,251	2,008,552 1,951,617
	Transfers & Adjustments (n)		34,689 34,689 2149,429	(3,203,469) 687,893 63,534	107,175 9,581 140,621 84,528	(751,884) (751,884) 66,935 345,985 (265,325) \$	(265,325) \$	ഗ് ഗ്
	Salvage	₩ ₩ ₩ 1	↔	230 76,789 -	''''' 0	0.00 - - 77,849 \$	77,849 \$	
	Removal Cost	ο. ο. ο. ο. ο. ο. ο. ο. ο. ο.	- \$ 32,920 32,902	- (27,900) -		- - 31,922 \$	31,922 \$	
	۵		- \$ 138,712 435,236 287.097	1,121,867 1,085,610 86,303	- 1,364	10,234 196,794 2,591 3,365,828 \$	3,365,828 \$	
		0.0. Necodas 9,228,765 - \$ 9,228,765 \$	- \$ 414,720 223,711 513,490	2,478,097 333,534 7,780	328,854 2,376 27,298 20,538	022 367,747 57,457 53,451 4,829,875 \$	14,058,640 \$	
I - AND N PER BOOKS		00. records 106,780,495 106,780,495 \$	- \$ 5,364,653 3,080,182 936.578	8,023,786 186,250 (2,454)	54,809 182 (35,299) 6,553	2,715,523 78,575 (31,395) 20,379,342 \$	<u>127,159,837</u> \$	1,894,682
SOUTHWEST GAS CORPORATION 2012 SYSTEM ALLOCABLE GAS PLANT AND ILATED PROVISION FOR DEPRECIATION PER	·	0.00% \$	0.00% \$ 2.79% A rious 8.16%	16.15% 10.00% 10.00%	6.67% 6.67% 5.00%	به	\$	φ
GAS COR OCABLE G I FOR DEP	tin Annual at Depr. (h)	>	>			-	<u>5,244</u> 1.46%	879 578
UTHWEST STEM ALL PROVISION	Gas Plant in Service at 12/31/2012 (g)	(c)+(0)-(e)+(1) 61,816 143,223,729 143,285,545	391,307 15,346,370 3,437,403 7 676,752	12,657,879 2,560,077	8,221,361 35,615 517,669 412,761	6,009,543 344,882 816,319 58,439,698	201,725,244	2,943,879 2,928,578
SOUTHWEST GAS CORPORATION 2012 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Transfers & Adjustments (f)		↔ · · · ·	(1,203,208) (108,489) -		0,254 - - (1,311,697) \$_	(1,311,697) \$	କ" କ"
٩	Retirements (e)		- \$ 138,712 435,236 287,097	1,121,867 1,085,610 86,303	- 1,364	196,794 196,794 2,591 3,365,828 \$	3,365,828 \$	
	Net Additions (d)	.uo.rkeodus 6,019,228 6,019,228 \$	- \$ 476,843 296,119 297,502	2,393,921 322,721 -	- - 115,235 4,376	917,913 96,994 4,861,624	10,880,852 \$	
	Gas Plant in Service at 12/31/2011	00.records 61,816 \$ 137,204,501 137,266,317 \$	391,307 \$ 15,008,238 3,576,520 7 666 347	12,589,033 3,431,454 86,303	8,221,361 35,615 402,435 409,749	5,288,425 344,882 792,171 58,255,599 \$	<u>195,521,917</u> \$ 1.49%	2,913,277
	Account Number (b)	301 \$ 303 \$	389 \$ 390.1 391.2	391.1 392.11 392.12	392.21 393 394 395	397.2 397.2 398	φ	φ
	Description Ac (a)	Intangible Plant Intangible - Organization Miscellaneous Intangible Plant Total Intangible Plant	General Plant Land & Land Rights Structures & Improverments/Owned 33 Office Furniture & Envires	ware Vehicles ⁄ Vehicles		Telemetry	Total System Allocable Plant NCA 4-Factor Allocation	NCA Allocated Total Balance NCA Average Total Balance
	Line No.	- 0 m	4000	- & o P	± 6 6 4 4	<u>6</u> 6 7 8 6	20 21	53 53

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	Line No.	9 0 7	4 v v v v v v v v v v v v v v v v v v v	
	Accumulated Provision for Depreciation 12/31/2013 (0) (i)+(i)-(k)-(n)+(m)+(n)	- 126,278,534 126,278,534	6,004,086 6,004,086 3,568,071 3,568,071 8,568,071 8,14514 167,875 167,875 167,875 173,570 2,315,007 2,315,007 1,45% 1,45% 2,198,947 2,198,947 2,103,750 2,103,7	
	Transfers & Adjustments (n) Co. Records	φ φ יי	w , w , w , w , w , w , w , w , w , w ,	
	Salvage (m) Co. Records	φ φ • '	ю	
	Removal Cost (I) Co. Records	ю ф י י י	ф	
	Retirements (k) Co. Records	ф ф '''	- \$ 115,529 8016,237 8016,237 8016,237 8,036 8,036 12,014 1,648,822 1,648,822 1,648,822 1,648,822	
	Provision [] (j) Co. Records	- \$ 10,269,273 10,269,273 \$	355,668 234,091 234,091 2800,908 2800,908 281,037 281,037 2376 3526 3526 21,350 406,646 406,646 406,646 41,037 51,76,097 5,1776,097 5,1776,007 5,1776,00756,00	
SOUTHWEST GAS CORPORATION 2013 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Accumulated Provision for Depreciation 12/31/2012 (i) Co. Records	- \$ 116,009,260 116,009,260 \$	5,648,430 2,835,755 3,176,778 3,176,778 3,176,778 2,256,757 17,443) 110,255 110,255 110,255 110,255 110,255 2,134 10,255 110,255 110,255 113,632,251 8 1,46% 1,46% 2,166,330 1,46% 2,166,330 1,46% 2,166,330 1,46% 2,166,330 1,46% 2,166,330 1,46% 2,166,330 1,46% 2,166,330 1,46% 2,166,330 1,46% 2,166,330 1,16% 2,168,330 1,16% 2,16%2,16% 2,16%2,16% 2,16% 2,16% 2,16%2,16% 2,16% 2,16% 2,16% 2,16% 2,16% 2,16%2,16% 2,16% 2,16% 2,16% 2,16% 2,16%2,16% 2,16% 2,16% 2,16%2,16% 2,16% 2,16%2,16% 2,16% 2,16%2,16% 2,16% 2,16%2,16% 2,16% 2,16% 2,16%2,16% 2,16% 2	
ORPORATIC E GAS PLAI	Annual P Depr. D Rate (h)	0.00% \$ Various	000% \$ 100% \$ 16119% 16119% 16119% 16119% 1600% 1607% 5 1000% 1607% 5 1000% 5 1000% 5 1000% 5 1000% 5 1000% 5 1000% 5 10% 5 100% 5 100 500 500 500 500 500 500 500 500 5	
SOUTHWEST GAS CORPORATION 2013 SYSTEM ALLOCABLE GAS PLANT AND ILATED PROVISION FOR DEPRECIATION PER	Gas Plant in Service at 12/31/2013 (g) (c)+(d)-(e)+(f)	61,816 164,017,654 164,079,470	381.307 15,601,597 3,402,102 17,283,073 17,283,073 17,283,073 2,769,341 8,21,050 6,831,070 6,831,070 6,831,070 1,45% 1,45% 1,45% 1,45% 3,319,599 3,131,739	
SOU 2013 SYS CUMULATED PI	Transfers & Adjustments Co. Records	φφ γ	۲۰۰۲ - ۲۰۰۰ - ۲۰۰	
AC	Retirements (e) Co. Records	ю ф '''	- \$ 115,528 112,529 800,869 174,091 174,091 174,091 226,235 12,014 1.648,822 5 1.648,822 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
	Net Additions (d) Co.Records	- \$ 20,793,925 20,793,925 \$	255.222 80.228 80.228 5.425.824 34.497 73.776 83.436 83.436 1.047.761 1.047.761 7.498.643 28.443 7.498.643 28.243 28.243 28.243 28.243 28.255 8 3	
	Gas Plant in Service at 12/31/2012 (c) Co. Records	61,816 \$ 143,223,729 143,285,545 \$	391,307 15,346,377,403 3,437,403 3,437,403 17,657,625 17,6569 11,766 412,761 11,760 6,009,543 34,482 34,182 6,009,543 34,182 34,1869 5,132 5,143,879 1,46% 1,46%	
	Account Number (b)	301 \$ 303 \$ 5	389 \$ 389 \$ 3911; 3911; 3913; 3914; 392, 393 3972 393 3972 393 3972 393 3972 393 3972 396 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
	escription (a)	Intangible Plant Intangible - Organization Miscellaneous Intangible Plant Total Intangible Plant	General Plant Land & Land Rights Structures & improvements/Owned Structures & improvements/Leasehold Office Furnus & Fixtures Computer Software & Hardware Transportation Equip/Heary Vehicles Transportation Equip/Heary Vehicles Transportation Equip/Heary Vehicles Transportation Equip/Heary Vehicles Transportation Equip/Heary Vehicles Transportation Equip/Heary Vehicles Transportation Equipment Communication Equipment Tool, Shop, & Garage Equipment Dever Operated Eculpment Communication Equipment Total Senteral Plant Total Senteral Plant NCA 4-Factor Allocation NCA Average Total Balance	
	Line No.	← N M	4 v o v a o o o o o o o o o o o o o o o o	

	Line No.	~ 0 ©	4υοναοςτιςτέτετε 8 5 6 6	5
	Accumulated Provision for Depreciation 12/31/2014 (0) (1)+(1)-(m)+(n)	- 137,864,376 137,864,376	6.455.526 6.455.526 8.181.6985 5.01.756 5.01.756 161.835 161.835 161.835 161.835 161.835 163.105.972 303.730 303.730 163.105.972 157% 157%	2,383,339
	Transfers & Adjustments (n) Co. Records	φ'φ' '''	(2,733) 2,732 (3,702) (3,702) 5 (3,702) 5	~"
	Salvage (m) Co. Records	ю ю , , , , ,	ا م • • • • • • • • • • • • • • • • • • •	
	Removal Cost (I) Co. Records	φφ יי	ا م م ا	
	Retirements (k) Co. Records	φφ יי	- \$ - 147,185 5633,411 223,185 223,827 21,393 48,527 - 48,527 - 6,137,087 5 - 6,137,087 5	
	Provision R (j) Co. Records	- \$ 11,585,842 11,585,842 \$	454,160 293,813 253,067 3,548,345 3,548,345 3,548,345 3,37,628 3,37,628 4,0,568 38,265 460,718 55,487 56,487 56,487 56,487 56,487 56,487 56,487 56,487 56,487 56,487 56,587 56,597 57,59	
N VT AND DN PER BOOKS	Accumulated Provision for Depreciation (1) Co. Records	- \$ 126,278,534 126,278,534 \$	6004,008 5294,317 3,2698,071 3,2698,071 3,2608,071 3,1667 391,667 31,657 145,14 167,875 123,570 248,243 248,243 248,2444 248,2444 248,2444 248,2444 248,24444244,24444 248,24444444444444444444444444	
DRPORATIO E GAS PLAN EPRECIATIO	Annual Properties (h)	0.00% \$ Various	0.00% \$ 2.55% Various 6.89% 6.88% 6.79% 6.79% 6.79% 5.72% 7.47% 7.47% 5.72% 7.47%	
SOUTHWEST GAS CORPORATION 2014 SYSTEM ALLOCABLE GAS PLANT AND ILATED PROVISION FOR DEPRECIATION PER	Gas Plant in <i>F</i> Service at 12/31/2014 (g) (c)+(d)-(e)+(f)	61,816 191,021,253 V 191,083,069	4,216,706 28,387,333 4,290,111 15,822,082 15,822,082 3,588,424 3,5615 8,221,361 35,615 840,792 921,361 335,109 1,065,769 83,175,419 1,57% 1,57% 4,317,559 9,317,559 9,317,559 1,57%	3,818,579
SOUTHWEST GAS CORPORATION 2014 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Transfers & Adjustments Co. Records	φφ יי	(219,108) 219,108 219,108 (24,9,12) - - - - - - - - - - - - - - - - - - -	<u>н</u> А
AC	Retirements / Co. Records	φφ • γ	- \$ 147,185 5633,481 223,827 21,393 48,527 48,527 6,137,087 5 6,137,087 5	
	Net Additions F (d) Co.Records	- \$ 27,003,600 27,003,600 \$	3.825,399 \$ 13.604,850 686,801 4.112,209 1,067,823 70,740 - 286,365 2.241 283,721 286,365 2.241 283,721 51,702,641 \$ 51,702,641 \$	
	Gas Plant in Service at 12/31/2013 (c) Co. Records	61,816 \$ 164,017,654 164,079,470 \$	391,307 \$ 15,601,591 3,402,102 3,402,102 17,283,397 17,283,341 17,283,341 8,221,361 591,445 591,445 591,445 591,445 68131,760 68131,760 332,868 332,868 332,868 332,868 332,868 332,868 332,868 333,959 1455 1455 3,319,599	
	Account Number (b)	301 \$ 303 \$	389 \$ 390.1 390.1 391.3 391.1 392.11 392.11 392.12 397.2 396 397.2 396 397.2 396 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 397.2 396 397.2 396 397.2 396 397.2 396 397.2 396 397.2 396 397.2 396 397.1 396 397.1 397.1 397.2 397.1 3	
	escription (a)	Intangible Plant Intangible - Organization Miscellaneous Intangible Plant Total Intangible Plant	General Plant Land & Land Rights Structures & Improvements/Owned Structures & Improvements/Owned Structures & Improvements/Leasehold Omfree Funtume & Fixtures Compute Software & Handware Transportation Equip/Heary Vehicles Transportation Equipment Dool, Shop, & Garage Equipment Communication Equipment Communication Equipment Total System Allocation Total System Allocation NCA Allocation NCA Allocation	NCA Average Total balance
	Line No.	~ 0 Ø	400000000000000000000000000000000000000	5

Line No.		~	2	e	4	ى .	9	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Accumulated Provision for Depreciation 12/31/2015	(o) (i)+(i)-(k)-(i)+(n)+(n)	-	150,406,077	150,406,077		7.120.165	3,436,374	4,330,841	8,047,654	606,349	'	1,477,402	19,265	213,152	201,761	(5,549)	2,753,264	17,449	468,695	28,686,820	179,092,897	1.57%	2,813,481	2,690,602
Transfers & Adjustments	(n) Co. Records	φ '		\$	Υ.	•				14,263									(6,537)	7,725 \$	7,725 \$		с Ф	φ
Salvage	(m) Co. Records	↔ '		\$	¥.	•														ۍ ۱	\$ '			
Removal Cost	(I) Co. Records	ن		\$	¥.	•														\$	\$ '			
Retirements	(k) Co. Records	ن		\$	er I	11.175		111,899	1,450,554	279,781				16,336	6,021		423,139	332,868	16,114	2,647,887 \$	2,647,887 \$			
Provision	(j) Co. Records	ω '	12,541,701	12,541,701 \$	e.	675.813	185,512	546,787	3,316,509	370,112		328,854	2,376	42,437	45,947	666	449,211	46,586	74,577	6,085,387 \$	18,627,087 \$			
Accumulated Provision for Depreciation 12/31/2014	(i) Co. Records	6 '	137,864,376	137,864,376 \$	¢.	6.455.526	3,250,862	3,895,953	6,181,699	501,756		1,148,548	16,889	187,050	161,835	(6,214)	2,727,192	303,730	416,770	25,241,596 \$	163,105,972 \$	1.57%	2,567,722	
Annual Depr. Rate	(4)	0.00% \$	Various	÷	\$ %000	2.58%	Various	6.89%	20.44%	14.14%	9.73%	4.01%	6.79%	6.78%	5.07%	5.72%	6.86%	17.26%	7.47%	ю 9	\$		\$	
Gas Plant in Service at 12/31/2015	(g) (c)+(d)-(e)+(f)	61,816	198,309,928	198,371,745	4 216 706	29.574.025	4,356,208	8,442,797	16,768,475	3,640,395		8,221,361	35,615	624,456	915,434	11,760	6,635,576	2,241	1,158,935	84,603,983	282,975,728	1.57%	4,445,441	4,381,500
Transfers & Adjustments	(f) Co. Records	φ '		\$		•				21,366									(7,342)	14,024 \$	14,024 \$		\$	φ
Retirements	(e) Co.Records	ن		\$	e.	11.175		111,899	1,450,554	279,781				16,336	6,021		423,139	332,868	16,114	2,647,887 \$	2,647,887 \$			
Net Additions	(d) Co. Records	ن	7,288,675	7,288,675 \$	e.	597.867	66,097	557,701	2,396,947	310,386							16,807		116,621	4,062,427 \$	11,351,102 \$			
Gas Plant in Service at 12/31/2014	(c) Co. Records	61,816 \$	191,021,253	191,083,069 \$	4 216 706 \$		4,290,111	7,996,995	15,822,082	3,588,424		8,221,361	35,615	640,792	921,455	11,760	7,041,908	335,109	1,065,769	83,175,419 \$	274,258,489 \$	1.57%	4,317,559	
Account Number	(q)	301 \$	303	\$	3, DAS	390.1	390.2	391	391.1	392.11	392.12	392.21	393	394	395	396	397	397.2	398	\$	\$		Ş	
Description	(a)	Intangible Plant Intangible - Organization	Miscellaneous Intangible Plant	Total Intangible Plant	<u>General Plant</u> Land & Land Richts	Structures & Improvements/Owned	Structures & Improvements/Leasehold	Office Furniture & Fixtures	Computer Software & Hardware	Transportation Equip/Light Vehicles	Transportation Equip/Heavy Vehicles	Transportation Equip/Aircraft	Stores Equipment	Tool, Shop, & Garage Equipment	Laboratory Equipment	Power Operated Equipment	Communication Equipment	Communication Equipment/Telemetry	Miscellaneous Equipment	Total General Plant	Total System Allocable Plant	NCA 4-Factor Allocation	NCA Allocated Total Balance	NCA Average Total Balance

SOUTHWEST GAS CORPORATION 2015 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS

> Line No.

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8B Sys Plant Bk 2015

	Line No.	o o →	4 u u u u u u u u u u u u u u u u u u u
	Accumulated Provision for Depreciation 12/31/2016 (o) (i)+(j)-(k)-(m)+(n)	- 165,078,282 165,078,282	7,278,099 2,825,089 4,885,089 4,885,089 9,197,913 902,202 1,966,286 241,556 241,556 241,556 241,556 241,556 241,556 241,556 1,56% 1,56% 1,56% 1,56% 2,055 2,2957,055
	Transfers & Adjustments (n) Co. Records	ю ́ю́ ' ' '	(5,840) (4,084) (4,084) (27,296) (27,296) (27,296) (27,296) (27,296) (31,525) (31,52
	Salvage (m) Co. Records	м м ' ' ' '	- 5 16,716 381,471 381,471 399,687 5 -
	Removal Cost (I) Co. Records	ю ф ' ' '	144,055 6,000 150,055 \$
	Retirements (k) Co. Records	ю ю '''	403.965 403.965 265.421 236.858 416.754 416.754 8.212 8.212 98.058 98.058 98.058 4.477 4.262.347 5 4.262.347 5
	Provision F () Co. Records	- \$ 14,672,206 14,672,206 \$	705.955 5 578.474 578.474 3.529.145 3.88.433 3.88.43 41,466 41,466 41,466 41,782 48,007 48,007 6 <u>3.35.354</u> \$ <u>82.493</u> 82.493 82.493 82.20,997,559 \$
N VT AND ON PER BOOKS	Accumulated Provision for Depreciation 12/31/2015 (i) Co. Records	- \$ 150,406,077 \$ 150,406,077 \$	7,120,165 \$ 3,368,374 3,368,374 3,368,374 8,047,654 606,349 11,477,402 11,157,402 213,152 213,152 213,152 213,152 213,152 213,264 213,264 11,57% 28,696 28,686,520 28,686,520 28,13,481 1,57% 2,813,481 2,813,481
DRPORATIC E GAS PLAN EPRECIATIO	Annual A Depr. D Rate (h)	0.00% \$ Various	0.00% \$ 2.59% 6 4 airous 14.14% 14.14% 14.14% 6.73% 6.73% 6.73% 6.73% 7.12% 5.72% 7.12% 5.72% 7.12%
SOUTHWEST GAS CORPORATION 2016 SYSTEM ALLOCABLE GAS PLANT AND ILATED PROVISION FOR DEPRECIATION PER	Gas Plant in / Service at 12/31/2016 (g) (c)+(d)-(e)+(f)	61,816 219,246,311 219,308,127	4,216,706 31,122,502 8,887,288 8,880,7288 8,880,738 18,828,335 3,590,534 11,858,335 3,590,534 3,590,534 11,760 6,584,776 6,584,776 1,563,336 1,563,563 1,563,576 1,563,576 1,563,576 1,563,576 1,563,576 1,563,576 1,564,776 1,564,776 1,566,5776 1,564,776 1,566,576 1,564,776 1,566,5766,576
SOUTHWEST GAS CORPORATION 2016 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Transfers & Adjustments (f) Co. Records	φφ '''	(8.091) (25,685) (25,685) 55,113 55,113 - - - - - - - - - - - - - - - - - -
AC	Retirements (e) Co. Records	ю ю '''	4.03.965 4.03.965 236.5421 236.568 2.380.365 416.754 8.212 8.216 8.212 98.058 98.058 98.058 4.4477 5 4.262.347 5
	Net Additions (d) Co. Records	- \$ 20,936,382 20,936,382 \$	1,952,442 706,4592 706,452 311,781 1,853 68,846 68,846 68,846 68,846 68,846 28,66,348 7,766,348 22,433 22,443 23,443 23,443 23,443 23,443 23,443 23,443 23,743 23,743 5 23,743 5 23,743 5 23,743 5 23,744 5 23,744 5 23,744 5 23,744 5 23,744 5 23,744 5 23,744 5 23,744 5 23,744 5 23,744 5 23,744 5 24,552 5 22,545 5 22,545 5 23,545 5 23,545 5 24,552 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 23,545 5 22,546 5 22,745 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 22,777 5 5 22,777 5 22,777 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Gas Plant in Service at 12/31/2015 (c) Co. Records	61,816 \$ 198,309,928 198,371,745 \$	4,216,706 \$ 29,574,025 8,4356,208 8,4356,2097 8,4356,475 3,640,395 3,640,395 9,5,436 9,15,783 11,766 6,635,576 6,635,576 6,635,576 6,635,576 8,445,641 1,57% 4,445,441
	Account Number (b)	301 \$ 303 \$	389 3901 5 3901 5 3911 3 3912 1 3922 1 3922 1 3932 2 395 396 397 2 396 397 2 396 397 3 396 397 3 397 3
	A Description A (a)	<u>mangible Flam</u> httangible - Organization Miscellaneous Intangible Plant Total Intangible Plant	Centeral Plant Land & Land Rights Structures & Improvements/Owned Structures & Improvements/Cense Structures & Improvements/Cense Computer Software & Hardware Transportation Equip/Heavy Vehicles Transportation Equip/Heavy Vehicles Transportation Equip/Heavy Vehicles Transportation Equip/Heavy Vehicles Transportation Equip/Heavy Vehicles Transportation Equip/Heavy Vehicles Transportation Equipment Tools Sino, & Garage Equipment Power Operated Equipment Communication Equipment Toolal Ceneral Plant Total System Allocable Plant NCA Allocated Total Balance NCA Average Total Balance
	Line No.	- 0 0	4 ω ω κ α α α α 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

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	Line No.	~ 0 €	4 v v v v v v v v v v v v v v v v v v v	
	Accumulated Provision for Depreciation 12/31/2017 (0) (1)+(1)+(1)+(m)+(n)	- 179,202,693 179,202,693	7,613,081 1,679,682 1,679,682 1,679,682 1,679,682 2,430,619 886,396 886,396 2,91,596 2,946,465 2,946,466 2,946,466 2,946,46 3,1597,944 1,65% 3,479,947 3,467,947 3,467,946 3,467,946 3,467,946 3,467,946 3,467,947 3,479,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,477,947 3,447,947 3,477,947,947,947 3,477,947,947,947 3,477,947,947,947,947,947,947,947,947,947	
	Transfers & Adjustments (n) Co. Records	φ φ΄ · · ·	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
	Salvage (m) Co. Records	ю ю ' ' ' '	2.237 83,507 83,507 83,507 83,507 83,744 85,744 85,744 8	
	Removal Cost (1) Co. Records	ю ю ' ' ' '	38,543 \$ 38,543 \$ 10,630 \$ 49,173 \$	
	Retirements (k) Co. Records	φ φ '''	345,147 1,519,251 1,519,251 2,515,372 2,513,282 468,280 3,117 3,117 580,933 6,250,096 5 6,250,096 5 6,250,096 5 5 6,250,096 5 5 6,250,096 5 5 6,250,096 5 5 6,250,096 5 5 6,250,096 5 5 6,250,096 5 5 6,250,096 5 5 6,250,096 5 6,250,096 5 6,250,095 5 6,250,096 5 6,250,096 5 6,250,096 5 6,250,096 5 6,250,096 5 6,250,096 5 6,250,096 5 6,250,096 5 6,250,097 5 7 6,250,097 5 7 6,250,096 5 7 7 7 7 7 7 7 7 7 7 7 7 7	
	Provision Re (j) Co. Records C	- \$ 14,124,411 14,124,411 \$	718.672 \$ 223.966 223.966 223.966 3377.475 3.988.561 377.475 328.884 4.031 4.064 4.031 4.064 4.031 377.475 328.884 4.031 377.475 3373 377.475 398.56 6.86 6.86 373 373 377 328.884 5 20.375 5 20.375 5	
SOUTHWEST GAS CORPORATION 2017 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECATION PER BOOKS	Accumulated Provision for Depreciation 12/31/2016 (i) Co. Records	- \$ 165,078,282 165,078,282 \$	7,278,009 2,594,667 2,594,667 9,1678,089 9,1678,089 9,1678,089 9,02,202 2,1,723 2,61,566 (4,883) (4,833) (4,18	
DRPORATIO E GAS PLAN EPRECIATIO	Annual P Depr. D (h)	0.00% \$ Various	0.00% \$ 2.58% Various \$ 6.689% 6.1414% 6.79% 6.79% 6.79% 6.79% 5.07% 5.0	
SOUTHWEST GAS CORPORATION 2017 SYSTEM ALLOCABLE GAS PLANT AND ILATED PROVISION FOR DEPRECIATION PER	Gas Plant in Service at 12/31/2017 (g) (c)+(d)+(e)+(f)	61,816 224,939,106 225,000,922	4,216,706 34,884,388 2,861,232 2,861,232 3,626,175 3,626,175 3,626,175 1,135,107 3,626,175 1,112,929 1,112,939 1,112,939 1,112,939 1,112,939 1,112,939 1,112,939 1,112,939 1,112,939 1,112,939 1,112,939 1,115	
SOU 2017 SYS CUMULATED PF	Transfers & Adjustments Co. Records	φφ '''	(49.275) (49.275) (49.275) \$ \$ \$ \$	
AC	Retirements //	ю ю '''	345,147 1,519,251 1,519,251 2,747,402 488,260 3,998 3,117 580,933 6,6,614 6,250,096 \$	
	Net Additions F (d) Co. Records	- \$ 5,692,795 5,692,795 \$	4,077,033 \$ 503,195 \$ 503,195 \$ 52,457 \$ 522,457 \$ 533,176 \$ 29,567 \$ 80,661 \$ 136,861 \$ 136,861 \$ 10,834,807 \$ 16,527,602 \$	
	Gas Plant in Service at 12/31/2016 (c) Co. Records	61,816 \$ 219,246,311 219,308,127 \$	4,216,706 \$ 31,122,62765 3,877,228 3,877,228 18,625,935 3,590,534 6,594,50 6,594,776 6,594,776 6,594,776 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,068 9,76,07 1,363,34 1,58% 4,862,472 4,862,47 4,86	
	Account Number (b)	301 \$ 303 \$	389 \$ 390.1 391.1 391.1 392.11 392.11 392.11 392.13 395.23 392.13 395.25 395.25	
	escription	<u>intangible Plan</u> Intangible - Organization Miscellaneous Intangible Plant Total Intangible Plant	General Plant Land & Land Rights Structures & Improvements/Owned Structures & Improvements/Leasehold Office Furnius & Fixtures Computer Software & Hartware Transportation Equip/Hearty Vehicles Transportation Equip/Hearty Vehicles Transportation Equip/Hearty Stores Equipment Tool, Storp, & Gazage Equipment Laboratory Equipment Communication Equipment Communication Equipment Tool Software Alloment Total Several Plant NCA 4-Factor Allocation NCA Average Total Balance NCA Average Total Balance	
	Line No.	~ 0 0	4 v v v v v v v v v v v v v v v v v v v	

Line No.		-	0 0		4	5	9	7	80	6	10	1	12	13	14	15	16	17	18	19	20	21	22	23
Accumulated Provision for Depreciation 12/31/2018	(0) (i)+(j)-(k)-(l)+(m)+(n)		192,556,661 192.556.661			8,308,578	1,563,340	4,904,820	5,960,308	956,550	'	2,463,965	25,961	338,142	347,241	(3,552)	3,089,227	18,569	401,437	28,374,585	220,931,246	1.56%	3,438,795	3,459,371
Transfers & Adjustments	(n) Co.Records	\$ '	' '''		ری ۱				,	(16,495)					,					(16,495) \$	(16,495) \$		φ	φ
Salvage	(m) Co. Records	\$	- - - -		ه '			,	,	177,083				,	,		,			177,083 \$	177,083 \$			
Removal Cost	(I) Co. Records	\$ '	" "		نه ۱	7,323			,						,					7,323 \$	7,323 \$			
F	(k) Co. Records C	↔ '	121,253 \$ 121,253 \$		ۍ ۱	101,274	356,412	416,550	8,267,034	451,094							266,051		235,306	10,093,721 \$	10,214,974 \$			
Provision	(j) Co. Records	ଓ '	13,475,221 13.475.221 \$		ه '	804,094	240,069	560,449	3,796,723	360,119		328,854	4,205	69,800	55,646	666	408,782	373	87,315	6,717,096 \$	20,192,317 \$			
Accumulated Provision for Depreciation 12/31/2017 F	(i) Co. Records	↔ '	179,202,693 179,202,693 \$		ه '	7,613,081	1,679,682	4,760,921	10,430,619	886,936		2,135,111	21,756	268,342	291,595	(4,218)	2,946,496	18,195	549,427	31,597,944 \$	210,800,638 \$	1.65%	3,479,947	
Annual Ac Depr. De Rate 1	(4)	ŝ	Various		0.00% \$	2.58%	/arious	6.89%	20.44%	4.14%	9.73%	4.01%	6.79%	6.78%	5.07%	5.72%	6.86%	7.26%	7.47%	\$	\$		φ	
Gas Plant in A Service at [12/31/2018]	(g) (c)+(d)-(e)+(f)	9	-				^	8,353,663 (3,379,066 14		8,221,361	63,037 6				6,030,337 6	<u>_</u>	1,260,866	86,702,439	322,831,261	1.56%	5,024,869	5,134,538
Transfers & Adjustments	(f) Co. Records	Ф	(339,000) \$	*	ۍ '				,	(52,231)				,	,		,			(52,231) \$	(391,231) \$		\$	θ
] Retirements	(e) Co. Records	↔ '	121,253 121,253 \$		ю '	101,274	356,412	416,550	8,267,034	451,094				,	,		266,051		235,306	10,093,721 \$	10,214,974 \$			
Net Additions R	(d) Co.Records	\$	11,588,153 11,588,153 \$		ه '	259,452		367,952	2,540,702	256,216	,			403,688			292,545		56,641	4,177,196 \$	15,765,349 \$			
Gas Plant in Service at 12/31/2017	(c) Co. Records	61,816 \$	224,939,106 225.000.922 \$		4,216,706 \$	34,854,388	2,861,232	8,402,261	21,153,107	3,626,175		8,221,361	63,037	702,624	1,112,929	11,760	6,003,843	2,241	1,439,532	92,671,195 \$	317,672,116 \$	1.65%	5,244,207	
Account Number	(q)	301 \$	303	1	389 \$	390.1	390.2	391	391.1	392.11	392.12	392.21	393	394	395	396	397	397.2	398	\$	\$		\$	
Description	(a)	<u>Intangible Plant</u> Intangible - Organization	Miscellaneous Intangible Plant Total Intancible Plant	General Plant	Land & Land Rights	Structures & Improvements/Owned	Structures & Improvements/Leasehold	Office Furniture & Fixtures	Computer Software & Hardware	Transportation Equip/Light Vehicles	Transportation Equip/Heavy Vehicles	Transportation Equip/Aircraft	Stores Equipment	Tool, Shop, & Garage Equipment	Laboratory Equipment	Power Operated Equipment	Communication Equipment	Communication Equipment/Telemetry	Miscellaneous Equipment	Total General Plant	Total System Allocable Plant	NCA 4-Factor Allocation	NCA Allocated Total Balance	NCA Average Total Balance

SOUTHWEST GAS CORPORATION 2018 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS

> Line No.

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	Line No.	~ 0 €	4 v v r v v v t t t	1 9 7 9 9 7 7 7 7 1 9 4 4 9 7 9 7 7 9 7 1 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	53 55 54 53 55 54
	Accumulated Provision for Depreciation 12/31/2019 (o) (i)+(i)+(k)+(m)+(n)	206,376,513 206,376,513	5, 262,265 1,512,045 5,262,264 6,078,394 1,019,556 2,792,820 2,792,820	402,70 403,427 403,427 (20) 3,358,436 16,515 455,373 \$ 30,548,176	\$ 236,924,689 1.56% \$ 3,687,733 \$ 3,563,264
	Transfers & Adjustments (n) Projected	ю ю́			1
	Salvage (m) WP Ch88, Sh 8(d)	ю б יי	- \$ - 2,388 567 102,693	119 119 105,766 \$	105.766 \$
	Removal Cost (I) WP Ch 88, Sh 7(d)	ю ю · ·	33,008 33,008 6,146 1,584 -	40,737 \$	40,737 \$
	Retirements (k) Cd (e) v	φφ - ' ' '	142,896 440,264 289,600 3,200,195 3,200,195 442,774	9, 36 3,376 1,465 262,820 2,241 59,688 4,855,755 \$	4,855,755 \$
	Provision (j) [(c) + (g)] / 2 × (h)	n/a \$ 13,819,852 13,819,852 \$	1,079,381 395,113 644,656 3,319,297 4,03,087 3,2854 3,2854 3,2854 3,2854	79,465 59,465 59,465 532,028 187 113,625 113,625 6,964,318 \$	20.784,170 \$
SOUTHWEST GAS CORPORATION 2019 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Accumulated Provision for Depreciation 12/31/2018 (i) Ch 8B. Sh 12, Col (o) [i	- \$ 192,556,661 192,556,661 \$	8,308,578 8,308,578 1,563,340 5,960,308 956,550 2,463,965 2,463,965	28,301 347,241 (3,552) 3,089,227 18,569 401,437 28,374,585 \$	220,931,246 \$ 1.56% 3,438,795
ORPORATIO E GAS PLA DEPRECIATI	Annual F Depr. [(h) Ch	n/a \$ Various	n/a \$ 2.25% 6.67% 110.13% 6.00% 6.00% 6.00%	6.67% 5.60% 5.60% 5.67% 6.67% 6.67%	ф ф
SOUTHWEST GAS CORPORATION 2019 SYSTEM ALLOCABLE GAS PLANT AND ILATED PROVISION FOR DEPRECIATION PER	Gas Plant in Service at 12/31/2019 (c)+(d)-(e)+(f)	61,816 255,783,852 255,845,669	4,216,706 60,932,417 3,914,577 10,976,345 18,101,478 4,579,220 8,221,361	1,276,445 1,289,553 160,295 9,922,518 9,922,518 2,146,178	381,625,207 1.56% 5,939,996 5,482,432
SOU 2019 SYS CUMULATED PI	Transfers & Adjustments (f) Projected	φφ 	6) 	ا م 	, , , , , , , , , , , , , , , , , , ,
A	Retirements (e) WP Ch 8B, Sh 6(d)	ю ф '''	142,896 440,264 289,600 3,200,195 442,774	9, 366 3,376 1,465 262,820 2,241 59,688 4,855,755 \$	4,855,755 \$
	Net Additions (d) WP Ch 88, Sh 5(d)	- \$ 19,716,847 19,716,847 \$	26,062,747 1,850,000 2,912,282 5,874,897 1,642,928	180,000 160,000 150,000 4,155,000 945,000 - - - - - - - - - - - - - - - - - -	63,649,701 \$
	Gas Plant in Service at 12/31/2018 (c) Ch 8B, Sh 12, Col (g)	61,816 \$ 236,067,006 236,128,822 \$	4,216,706 \$ 35,012,566 2,504,821 18,325,663 18,325,663 3,379,066 3,379,066 8,221,361	1,106,311 1,112,929 11,760 6,030,337 2,241 1,260,866 86,702,439 \$	322,831,261 \$ 1.56% 5,024,869
	Account Number (b)	301 \$ 303 \$	389 \$ 390.1 391.1 392.11 392.21 392.21 392.21	394 394 395 395 397 397.2 397.2 398	φ φ
	escription (a)	Intangible Plant Intangible - Organization Miscellaneous Intangible Plant Total Intangible Plant	General Plant Land & Land Rights Structures & Impovements/Owned Structures & Impovements/Leasehold Office Furniture & Fixures Computer Software & Hardware Transportation Equit/Heart Vehicles Transportation Equit/Heart Vehicles	Durbs schroninen. Tool, Shop, & Garage Equipment Leboratory Equipment Power Operated Leupment Communication Equipment Miscellaneous Equipment Miscellaneous Equipment Total General Plant	Total System Allocable Plant NCA 4-Factor Allocation NCA Allocated Total Balance NCA Average Total Balance
	Line No.	~ ∩ 0	4 ις ις κ το ο ο 6 5 5 5	4 C 7 C 2 C 8 C	53 57 50 53 57 50

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8B Sys Plant Bk 2019

	Line No.	- α ω	× ۵ ۵ ۷ ۵ ۲ 8	o 0 7 7 7 7 7 7 9 0 0 0 0 0 0 0 0 0 0 0 0	53 53 50
	Accumulated Provision for Depreciation 12/31/2020 ()+()-(%)-(%)+(m)+(n)	\$ 220,854,240 \$220,854,240	\$ 10,434,642 1,520,286 5,738,621 6,972,755	1,206,460 3,121,674 33,151 485,147 487,447 487,448 12,018 3,882,018 16,5103 16,5103 3,882,518 \$	\$ 255,289,758 1.56% 3,973,585 \$ 3,973,585 \$ 3,830,659
	Transfers & Adjustments (n) Projected				
	Salvage (m) WP Ch 88, Sh 8(f)	ю ю́	2,388 567	102,633 	105,766 \$
	Removal Cost (1) WP Ch 88, Sh 7(f)	φ φ '''	- \$ 33,701 6,275 1,617	41.593 \$	41,593 \$
	Retirements (k) Col (e)	φ φ 	- \$ 142,896 440,264 289,600 3,200,195	442,774 676 9,866 3,376 3,376 282,820 59,688 4,853,515 \$	4,853,515 \$
	Provision (j) [(c) + (g)] / 2 x (h)	n/a \$ 14,477,728 14,477,728 \$	n/a \$ 1,399,184 454,784 763,568 4,095,606	526,966 208,854 4,147 88,312 67,333 13,385 13,385 786,467 787,467 786,467 787,467 787,467 787,467 787,467 787,467 787,467 787,467 787,477 777,477 777,477 787,477 787,477 777,477 787,777 787,777 787,777 787,477,477 787,477 787,477,477 787,577 787,577 787,577,577 787,577,577 787,577,577 787,577,577,577 787,577,577,577,577,577,577,577,577,577,	23,154,410 \$
SOUTHWEST GAS CORPORATION 2020 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Accumulated Provision for Depreciation 12/31/2019 (i) Ch 8B, Sh 13, Col (o)	- \$ 206,376,513 206,376,513 \$	- \$ 9,212,055 1,512,042 5,262,264 6,078,334	1,019,556 29,575 407,741 407,741 403,427 403,427 403,427 403,427 16,515 16,515 30,548,176 \$	236,924,689 \$ 1.56% 3,687,733
ORPORATI E GAS PLA DEPRECIAT	Annual Annual Cepr.	n/a \$ Various	n/a \$ 2.25% 12.31% 6.67% 19.80%	10.13% 6.00% 4.00% 6.67% 6.67% 5.67% 6.67% 6.67% 6.67% 8.67%	0 0
SOUTHWEST GAS CORPORATION 2020 SYSTEM ALLOCABLE GAS PLANT AND ILATED PROVISION FOR DEPRECIATION PER	Gas Plant in Service at 12/31/2020 (9) (c)+(d)+(e)+(f)	61,816 269,074,852 269,136,669	4,216,706 63,439,520 3,474,293 11,919,246 23,268,283	5,825,233 8,221,361 61,885 1,371,579 1,4261,176 13,659,668 13,659,668 2,2291,490 2,2291,490	408,623,979 1.56% 6,360,232 6,150,114
SOU 2020 SYS CCUMULATED PI	Transfers & Adjustments (f) Projected	φ φ י י י	↔	 %	м м м '
A	Retirements (e) WP Ch 88, Sh 6(f)	ю ю ' ' ' '	- \$ 142,896 440,264 3,200,195	442,774 571 9,866 3,376 1,465 262,820 262,820 59,668 4,853,515 \$	4,853,515 \$
	Net Additions (d) WP Ch 88, St(f) W	- \$ 13,291,000 13,291,000	2,650,000 1,232,500 8,367,000	1,688,7 <i>67</i> 1688,7 <i>67</i> 106,000 160,000 4,000,000 205,000 205,000 18,561,287 \$	31,852,287 \$
	Gas Plant in Service at 12/31/2019 (c) Ch 8B, Sh 13, Col (g)	61,816 \$ 255,783,852 255,845,669 \$	4,216,706 \$ 60,932,417 3,914,557 10,976,345 18,101,478	4,579,220 8,221,361 62,466 1,276,445 1,269,553 1,60,255 9,922,518 9,922,518 2,146,178 2 2,146,178 5 3 2,125,779,533 5 2	381,625,207 \$ 1,56% 5,939,996
	Account Number (b)	301 \$ 303 \$ 	389 \$ 390.1 391.2 391.1	392.11 392.21 392.21 392.21 393 394 395 397 397 397 397 397 397 397 397 397 397	φ φ
	Description (a)	nuanguer riant Intangible - Organization Miscellaneous Intangible Plant Total Intangible Plant	General Plant Land & Land Roths Structures & Improvements/Cwrned Structures & Improvements/Leasehold Office Furniture & Firkures Computer Software & Hardware	Transportation Equip/Leavy Vehicles Transportation Equip/Heavy Vehicles Transportation Equip/Heavy Vehicles Stores Equipment Tool, Shop, & Garage Equipment Laoratory Equipment Power Operated Equipment Communication Equipment Communication Equipment Total General Plant Total General Plant	Total System Allocable Plant NCA 4-Factor Allocation NCA Average Total Balance NCA Average Total Balance
	Line.	− α œ	400780	0 2 7 7 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0	²³ ²⁵ ²⁰

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Line. No.		.	0 0	2	4	2	9	7	8	б	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Accumulated Provision for Depreciation 12/31/2021	(o) (i)+(i)-(k)-(l)+(m)+(n)	-	237,324,727	121,120,102		11,766,763	1,474,202	6,311,218	8,508,465	1,520,063		3,450,529	36,689	570,978	539,292	32,735	4,659,002	16,515	637,013	39,523,465	276,848,192	1.56%	4,309,142	4,141,364
Transfers & Adjustments	(n) Proiected	ن	' '	• •	€ 9 '						,									\$	\$ '		ы С	\$
Salvage	(m) WP Ch 8B. Sh 8(h)	\$	' ') 	\$ '			2,388	567	102,693						119				105,766 \$	105,766 \$			
Removal Cost	(I) WP Ch 8B. Sh Z(h) WI	φ	, , , , , , , , , , , , , , , , , , ,)	\$ '	34,408	6,407		1,651											42,466 \$	42,466 \$			
Retirements	(k) Col (e) WP	ن)) 	\$ '	142,896	440,264	289,600	3,200,195	442,774			571	9,866	3,376	1,465	262,820		59,688	4,853,515 \$	4,853,515 \$			
Provision	(j) [(c) + (a)] / 2 × (h)	n/a \$	16,470,487 16,470,487 \$	1	n/a \$	1,509,425	400,587	859,809	4,736,989	653,684		328,854	4,109	94,657	75,224	22,064	1,039,739		153,020	9,878,162 \$	26,348,648 \$	1.56%	410,117	
Accumulated Provision for Depreciation 12/31/2020	(i) Ch 8B. Sh 14. Col (o) [(c	÷	220,854,240 220,854,240 \$	¢	\$	10,434,642	1,520,286	5,738,621	6,972,755	1,206,460	,	3,121,674	33,151	486,187	467,444	12,018	3,882,083	16,515	543,682	34,435,518 \$	255,289,758 \$	1.56%	3,973,585	
Annual Depr. Rate	- 	n/a \$	Various	 →	n/a \$	2.25%	12.31%	6.67%	19.80%	10.13%	6.00%	4.00%	6.67%	6.67%	5.00%	5.67%	6.67%	16.67%	6.67%	ب	\$		\$	
Gas Plant in Service at 12/31/2021	(g) (c)+(d)-(e)+(f)	61,816		000,000,002	4,216,706	70,731,624	3,034,028	13,862,146	24,580,088	7,080,671		8,221,361	61,324	1,466,713	1,582,800	466,425	17,516,879		2,296,802	155,117,568	445,706,237	1.56%	6,937,418	6,648,825
Transfers & Adjustments	(f) Projected	₽	'''') 	€) '															\$ '	\$		\$	¢
Retirements	(e) WP Ch 8B. Sh 6(h)	\$ 1	- - -	• •	\$ '	142,896	440,264	289,600	3,200,195	442,774			571	9,866	3,376	1,465	262,820		59,688	4,853,515 \$	4,853,515 \$			
Net Additions	(d) WP Ch 88. Sh 5(h) M	θ	21,452,000 21,452,000 \$	A 000/301/13	€ 9 '	7,435,000		2,232,500	4,512,000	1,698,212				105,000	160,000	156,060	4,120,000		65,000	20,483,772 \$	41,935,772 \$			
Gas Plant in Service at 12/31/2020	(c) Ch 8B.Sh 14. Col (a) V	69	269,074,852 260,136,660 \$	¢ 000'001'007	4,216,706 \$	63,439,520	3,474,293	11,919,246	23,268,283	5,825,233		8,221,361	61,895	1,371,579	1,426,176	311,830	13,659,698		2,291,490	139,487,311 \$	408,623,979 \$	1.56%	6,360,232	
Account Number	(q)	θ	303) >	389 \$	390.1	390.2	391	391.1	392.11	392.12	392.21	393	394	395	396	397	397.2	398	ا ج	¢		\$ \$	
Bescription	(a)	<u>Intangible Plant</u> Intangible - Organization	Miscellaneous Intangible Plant Total Intancible Plant	General Plant	Land & Land Rights	Structures & Improvements/Owned	Structures & Improvements/Leasehold	Offlice Furniture & Fixtures	Computer Software & Hardware	Transportation Equip/Light Vehicles	Transportation Equip/Heavy Vehicles	Transportation Equip/Aircraft	Stores Equipment	Tool, Shop, & Garage Equipment	Laboratory Equipment	Power Operated Equipment	Communication Equipment	Communication Equipment/Telemetry	Miscellaneous Equipment	Total General Plant	Total System Allocable Plant	NCA 4-Factor Allocation	NCA Allocated Total Balance	NCA Average Total Balance

SOUTHWEST GAS CORPORATION 2021 SYSTEM ALLOCABLE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS

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CHAPTER 8C Allocation Factors

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA ALLOCATION FACTORS CHAPTER 8, TAB C

The allocation chapter contains seven years of historical allocation factors, as well as allocation factors projected for 2019, 2020, and 2021, which are used to allocate common expenses that have not already been allocated within Southwest Gas' general ledger for ratemaking purposes.

<u>4-Factor:</u> The 4-Factor allocation methodology is calculated from the following four items, which are equally weighted to determine the recorded 4-Factor percentages:

Factor I: direct operating expenses;

Factor II: average direct gas plant in service;

Factor III: direct labor;

Factor IV: average number of customers.

The projected 4-Factors are based on the calculation from data recorded during 2018.

Modified Massachusetts Formula (MMF): The MMF is used to allocate common costs to Southwest Gas' federal ratemaking jurisdictions. The MMF is calculated from the following three items, which are equally weighted to determine the recorded MMF:

- 1. direct labor
- 2. margin
- 3. gross plant

The projected MMF factors are based on the calculation from data recorded during 2018 for the same reason recorded factors were used for the projected 4-Factors.

A&G Overhead Factor: The A&G overhead factor is used to capitalize a percentage of A&G in Accounts 920 and 921 to construction. The credit to A&G is in Account 922. This credit in Account 922 is allocated to the various ratemaking jurisdictions based on the A&G overhead factor. The recorded overhead factor is calculated based on each jurisdiction's relative percentage of construction. The projected A&G overhead factors are based on a seven-year historical average.

Line	No.			~	7	ი	4	5	9
	2021	1		1.24%	2.35%	1.29%	1.34%	6.23%	1.56%
Projected	2020	(j)		1.24%	2.35%	1.29%	1.34%	6.23%	1.56%
Projected	2019	(j)		1.24%	2.35%	1.29%	1.34%	6.23%	1.56%
	2018	(h)	Ch 8C, Sh 9	1.24%	2.35%	1.29%	1.34%	6.23%	1.56%
	2017	(B)	Ch 8C, Sh 8	1.45%	2.49%	1.31%	1.35%	6.60%	1.65%
	2016	(f)	Ch 8C, Sh 7	1.21%	2.60%	1.16%	1.36%	6.33%	1.58%
Recorded	2015	(e)	Ch 8C, Sh 6	1.13%	2.72%	1.08%	1.36%	6.28%	1.57%
	2014	(p)	Ch 8C, Sh 5	1.32%	2.61%	1.01%	1.36%	6.30%	1.57%
	2013	(c)	Ch 8C, Sh 3 Ch 8C, Sh 4	1.06%	2.33%	1.05%	1.36%	5.81%	1.45%
	2012	(q)	Ch 8C, Sh 3	1.10%	2.31%	1.06%	1.36%	5.84%	1.46%
	Description	(a)		Factor I	Factor II	Factor III	Factor IV	5 Total of 4 Factors	4-Factor (Ln 5 / 4)
Line	No.			-	2	ი	4	5	9

8C 4Factor Summ

Line	No.	- N	ω 4	Q Q	8	0	10
	Total (h)	240,451,099 100.00%	4,354,446,005 100.00%	89,149,550 100.00%	1,848,218 100.00%	400.00%	100.00%
	Arizona (g)	139,141,929 \$ 57.87%	2,388,481,340 \$ 54.85%	51,799,277 \$ 58.10%	993,506 53.75%	224.58%	56.14%
E.	Northern (f)	15,000,489 \$ 6.24%	221,572,289 \$ 5.09%	5,862,676 \$ 6.58%	90,729 4.91%	22.81%	5.70%
Nevada	Southern (e)	61,503,318 \$ 25.58%	1,289,265,996 \$ 29.61%	21,654,392 \$ 24.29%	580,891 31.43%	110.91%	27.73%
	South Lake Tahoe (d)	2,284,864 \$ 0.95%	35,097,438 \$ 1 0.81%	720,389 \$ 0.81%	19,189 1.04%	3.60%	0.90%
California	Northern Sc (c)	2,654,409 \$ 1.10%	100,537,888 \$ 2.31%	946,294 \$ 1.06%	25,194 1.36%	5.84%	1.46%
	Southern (b)	19,866,090 \$ 8.26%	319,491,054 \$ 7.34%	8,166,522 \$ 9.16%	138,709 7.51%	32.26%	8.07%
		\$	θ	\$			
	Description (a)	Direct Operating Expenses Factor I	Average Direct Gross Plant in Service Factor II	Direct Labor Factor III	Average Number of Customers Factor IV	Total of 4 Factors	4-Factor
Line	No.	- 0	ω4	5	7 8	6	10

Line	No.		- 0	сл т	4	Ð	9	7	ø	0	10
	Total	(µ)	242,903,521 100.00%	4,526,792,184	100.00%	87,833,948	100.00%	1,872,183	100.00%	400.00%	100.00%
	Arizona	(B)	139,022,096 \$ 57.23%	2,493,241,692 \$	-	50,130,602 \$	57.07%	1,004,998	53.68%	223.07%	55.77%
	Northern	(f)	15,592,099 \$ 6.42%	θ	4.98%	6,361,821 \$	7.24%	91,622	4.89%	23.53%	5.88%
Nevada	Southern	(e)	62,263,238 \$ 25.63%	1,331,570,823 \$		21,322,770 \$	24.28%	590,747	31.55%	110.88%	27.72%
California	South Lake Tahoe	(p)	2,455,592 \$ 1.01%	θ	0.81%	796,878 \$	0.91%	19,376	1.03%	3.77%	0.94%
	Northern So	(c)	2,571,251 \$ 1.06%	105,497,608 \$	2.33%	926,416 \$	1.05%	25,495	1.36%	5.81%	1.45%
	Southern	(q)	20,999,245 \$ 8.65%	334,383,263 \$ 7.000	1.39%	8,295,461 \$	9.44%	139,945	7.47%	32.95%	8.24%
	I		θ	θ	•	ω					
	Description	(a)	Direct Operating Expenses Factor I	Average Direct Gross Plant in Service	Factor II	Direct Labor	Factor III	Average Number of Customers	Factor IV	Total of 4 Factors	4-Factor
Line	No.		~ 0	сл •	4	5	9	7	œ	6	10

Line No.	~ 0	ω4	5	7 8	0	10
Total (h)	240,380,971 100.00%	4,717,315,710 100.00%	87,020,404 100.00%	1,900,336 100.00%	400.00%	100.00%
Arizona (g)	141,251,545 \$ 58.76%	2,619,336,384 \$ 4,717,315,710 55.53% 100.00%	50,472,291 \$ 58.00%	1,017,603 53.55%	225.84%	56.46%
a Northern (f)	15,563,667 \$ 6.47%	231,703,359 \$ 4.91%	6,473,796 \$ 7.44%	92,709 4.88%	23.70%	5.93%
Nevada Southern (e)	58,903,803 \$ 24.50%	1,357,127,901	20,849,145 \$ 23.96%	603,106 31.74%	108.97%	27.24%
South Lake Tahoe (d)	2,375,185 \$ 0.99%	38,649,573 \$ 0.82%	836,806 \$ 0.96%	19,503 1.03%	3.80%	0.95%
California Northern Sc (c)	3,170,285 \$ 1.32%	123,158,688 \$ 2.61%	877,472 \$ 1.01%	25,827 1.36%	6.30%	1.57%
Southern (b)	19,116,486 \$ 7.95%	347,339,805 \$ 7.36%	7,510,894 \$ 8.63%	141,588 7.45%	31.40%	7.85%
	\$	θ	θ			
Description (a)	Direct Operating Expenses Factor I	Average Direct Gross Plant in Service Factor II	Direct Labor Factor III	Average Number of Customers Factor IV	Total of 4 Factors	4-Factor
Line No.	~ 0	ω4	റാ	7	0	10

Line	No.	- 0	ω4	5	8	6	10
	Total (h)	244,893,165 100.00%	4,985,503,183 100.00%	85,633,636 100.00%	1,927,155 100.00%	400.00%	100.00%
	Arizona (g)	140,126,682 \$ 57.22%	243,050,830 \$ 2,799,037,430 \$ 4.88% 56.14%	49,114,606 \$ 57.35%	1,029,345 53.41%	224.13%	56.03%
ſſ	Northern (f)	15,703,754 \$ 6.41%	243,050,830 \$ 4.88%	6,287,932 \$ 7.34%	93,449 4.85%	23.48%	5.87%
Nevada	Southern (e)	63,296,180 \$ 25.85%	1,412,949,996 \$ 28.34%	21,005,220 \$ 24.53%	615,485 31.94%	110.65%	27.66%
California	South Lake Tahoe(d)	2,959,269 \$ 1.21%	41,655,315 \$ 0.84%	949,298 \$ 1.11%	19,590 1.02%	4.17%	1.04%
	Northern So (c)	2,772,355 \$ 1.13%	135,441,719 \$ 2.72%	922,945 \$ 1.08%	26,157 1.36%	6.28%	1.57%
	Southern (b)	20,034,925 \$ 8.18%	353,367,893 \$ 7.09%	7,353,635 \$ 8.59%	143,129 7.43%	31.28%	7.82%
		\$	\$	\$			
	Description (a)	Direct Operating Expenses Factor I	Average Direct Gross Plant in Service Factor II	Direct Labor Factor III	Average Number of Customers Factor IV	Total of 4 Factors	4-Factor
Line	No	7 7	ω4	5	7 8	6	10

Line No.		- 0	ω4	Q Q	7	0	10
Total	(u)	251,639,821 100.00%	5,484,098,341 100.00%	86,433,211 100.00%	1,953,499 100.00%	400.00%	100.00%
Arizona	(6)	142,651,755 \$ 56.69%	257,531,404 \$ 3,092,824,439 \$ 4.70% 56.40%	48,749,277 \$ 56.40%	1,041,568 53.32%	222.80%	55.70%
a Northern	Ð	16,084,974 \$ 6.39%	257,531,404 \$ 4.70%	6,413,981 \$ 7.42%	94,269 4.83%	23.33%	5.83%
Nevada Southern	(e)	66,264,979 \$ 26.33%	1,551,314,635 \$ 28.29%	21,863,151 \$ 25.29%	627,077 32.10%	112.02%	28.00%
South Lake Tahoe	(d)	3,370,378 \$ 1.34%	48,599,249 \$ 1 0.89%	954,780 \$ 1.10%	19,752 1.01%	4.34%	1.09%
nia ern	(c)	3,051,663 \$ 1.21%	142,505,925 \$ 2.60%	1,002,293 \$ 1.16%	26,479 1.36%	6.33%	1.58%
Southern	(a)	20,216,072 \$ 8.03%	391,322,689 \$ 7.14%	7,449,729 \$ 8.62%	144,354 7.39%	31.18%	7.79%
		θ	\$	\$			
Description	(a)	Direct Operating Expenses Factor I	Average Direct Gross Plant in Service Factor II	Direct Labor Factor III	Average Number of Customers Factor IV	Total of 4 Factors	4-Factor
Line No.		7 7	ω4	5	7 8	6	10

Line No.	- 0	ω4	9 9	7 8	0	10
Total (h)	249,393,426 100.00%	5,803,366,680 100.00%	83,422,815 100.00%	1,984,743 100.00%	400.00%	100.00%
Arizona (g)	140,612,323 \$ 56.38%	3,259,836,769 \$ 56.17%	46,799,108 \$ 56.10%	1,057,198 53.27%	221.92%	55.48%
a Northern (f)	16,236,502 \$ 6.51%	262,809,388 \$ 4.53%	6,448,898 \$ 7.73%	95,380 4.81%	23.58%	5.89%
Nevada Southern (e)	66,144,368 \$ 26.52%	1,659,586,394 \$ 28.60%	20,703,274 \$ 24.82%	639,751 32.23%	112.17%	28.04%
South Lake Tahoe(d)	2,789,554 \$ 1.12%	61,070,982 \$ 1 1.05%	984,884 \$ 1.18%	19,843 1.00%	4.35%	1.09%
California Northern Sc (c)	3,626,525 \$ 1.45%	144,361,141 \$ 2.49%	1,094,608 \$ 1.31%	26,784 1.35%	6.60%	1.65%
Southern (b)	19,984,154 \$ 8.01%	415,702,006 \$ 7.16%	7,392,043 \$ 8.86%	145,787 7.35%	31.38%	7.85%
	\$	θ	θ			
Description (a)	Direct Operating Expenses Factor I	Average Direct Gross Plant in Service Factor II	Direct Labor Factor III	Average Number of Customers Factor IV	Total of 4 Factors	4-Factor
Line No.	- 0	ω4	5	7 8	6	10

Line No.		~ 0	ω4	ى ى	7	0	10
Total	(H)	240,313,224 100.00%	6,250,429,722 100.00%	86,549,884 100.00%	2,017,651 100.00%	400.00%	100.00%
Arizona	(g)	137,637,717 \$ 57.27%	275,986,787 \$ 3,507,516,220 \$ 6,250,429,722 4.42% 56.12% 100.00%	48,074,716 \$ 55.55%	1,073,610 53.21%	222.15%	55.54%
a Northern	(f)	14,193,286 \$ 5.91%	275,986,787 \$ 4.42%	6,138,876 \$ 7.09%	96,455 4.78%	22.20%	5.55%
Nevada Southern	(e)	62,809,182 \$ 26.14%	1,803,498,250 \$ 28.85%	21,890,467 \$ 25.29%	653,104 32.37%	112.65%	28.16%
South Lake Tahoe	(q)	3,315,666 \$ 1.38%	67,982,861 \$ 1.09%	1,293,395 \$ 1.49%	20,025 0.99%	4.95%	1.24%
California Northern Sc	(c)	2,988,317 \$ 1.24%	146,646,887 \$ 2.35%	1,119,991 \$ 1.29%	27,082 1.34%	6.23%	1.56%
Southern	(q)	19,369,056 \$ 8.06%	448,798,717 \$ 7.18%	8,032,439 \$ 9.28%	147,375 7.30%	31.83%	7.96%
		\$	\$	\$			
Description	(a)	Direct Operating Expenses Factor I	Average Direct Gross Plant in Service Factor II	Direct Labor Factor III	Average Number of Customers Factor IV	Total of 4 Factors	4-Factor
Line No.		7 7	ω4	و ع	7 8	6	10

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2012
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Line No.	-	7	б	4	5	9	7	ω
Total (j)	93,810,390	100.00%	785,155,720	100.00%	2,167,520 \$ 4,441,533,439	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	%00.0	216,459 \$	0.03%	2,167,520 \$	0.05%	0.08%	0.03%
Paiute (h)	3,085,138 \$	3.29%	31,605,869 \$	4.03%	180,082,803 \$	4.05%	11.37%	3.79%
SNV (g)	21,925,496 \$	23.37%	203,936,423 \$	25.97%	27,475,876 \$ 217,870,894 \$ 1,276,389,682 \$ 180,082,803	28.74%	78.08%	26.03%
NNV (f)	5,996,038 \$	6.39%	40,529,398 \$	5.16%	217,870,894 \$ 1	4.91%	16.46%	5.49%
SLT (e)	679,795 \$	0.72%	6,424,653 \$	0.82%	27,475,876 \$ 3	0.62%	2.16%	0.72%
SCA (d)	8,274,664 \$	8.82%	62,067,180 \$	7.91%	306,247,133 \$	6.90%	23.62%	7.87%
NCA (c)	1,015,250 \$	1.08%	16,598,950 \$	2.11%	96,715,677 \$	2.18%	5.37%	1.79%
AZ (b)	52,834,009 \$ 1,015,250 \$	56.32%	423,776,788 \$ 16,598,950 \$ 62,067,180 \$	53.97%	\$ 2,334,583,854 \$ 96,715,677 \$ 306,247,133	52.56%	162.86%	54.29%
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Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	7	ю	4	5	9	7	80

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2013
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Line No.	~	7	ю	4	5	9	7	8
Total (j)	92,133,558	100.00%	817,076,067	100.00%	2,157,520 \$ 4,674,453,682	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	0.00%	415,718 \$	0.05%	2,157,520 \$	0.05%	0.10%	0.03%
Paiute (h)	3,399,169 \$	3.69%	34,716,484 \$	4.25%	192,773,756 \$	4.12%	12.06%	4.02%
SNV (g)	21,894,617 \$	23.76%	205,269,758 \$	25.12%	1,325,675,851 \$ 192,773,756 \$	28.36%	77.25%	25.75%
NNV (f)	5,624,743 \$	6.10%	40,787,105 \$	4.99%	35,140,031 \$ 223,726,024 \$ 1	4.79%	15.88%	5.29%
SLT (e)	705,201 \$	0.77%	6,443,190 \$	0.79%	35,140,031 \$ 2	0.75%	2.31%	0.77%
SCA (d)	8,226,381 \$	8.93%	62,528,978 \$	7.65%	327,023,628 \$	7.00%	23.58%	7.86%
NCA (c)	999,257 \$	1.08%	16,705,472 \$ 62,528,978	2.04%	100,613,717 \$ 327,023,628	2.15%	5.28%	1.76%
AZ (b)	51,284,190	55.66%	450,209,362	55.10%	\$ 2,467,343,155	52.78%	163.55%	54.52%
	θ		θ		θ			
Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	7	ю	4	5	9	7	œ

COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF) EFFECTIVE AT JANUARY 01, 2014
COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF) EFFECTIVE AT JANUARY 01, 2014

Line No.	-	7	ю	4	5	9	7	ω
Total (j)	91,897,212	100.00%	853,358,660	100.00%	4,882,499,240	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	%00.0	408,340 \$	0.05%	1,591,264 \$	0.03%	0.08%	0.03%
Paiute (h)	3,550,430 \$	3.86%	34,606,893 \$	4.06%	\$ 195,532,690 \$	4.00%	11.92%	3.97%
SNV (g)	21,467,813 \$	23.36%	213,361,961 \$	25.00%	1,365,162,756 \$	27.96%	76.32%	25.44%
(f)	6,047,481 \$	6.58%	42,890,624 \$	5.03%	37,387,411 \$ 229,403,830 \$ `	4.70%	16.31%	5.44%
(e)	735,603 \$	0.80%	6,648,960 \$	0.78%	37,387,411 \$	0.77%	2.35%	0.78%
SCA (d)	8,274,642 \$	9.00%	62,799,195 \$	7.36%	344,248,838 \$	7.05%	23.41%	7.80%
NCA (c)	922,904 \$	1.00%	15,658,863 \$ 62,799	1.83%	115,006,820 \$ 344,248	2.36%	5.19%	1.73%
AZ (d)	50,898,339	55.39%	476,983,824	55.89%	\$ 2,594,165,631	53.13%	164.41%	54.80%
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Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	7	ю	4	5	9	7	80

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Line No.	~	7	ю	4	5	9	7	ω
Total (j)	92,363,294	100.00%	868,849,538	100.00%	2,167,520 \$ 5,153,113,963	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	00.00%	411,760 \$	0.05%	2,167,520 \$	0.04%	0.09%	0.03%
Paiute (h)	3,925,788 \$	4.25%	32,308,121 \$	3.72%	207,275,301 \$	4.02%	11.99%	4.00%
SNV (g)	21,329,303 \$	23.09%	220,310,538 \$	25.36%	40,299,760 \$ 238,396,694 \$ 1,418,039,456 \$	27.52%	75.97%	25.32%
NNV (f)	6,528,041 \$	7.07%	43,495,435 \$	5.01%	238,396,694 \$ 1	4.63%	16.70%	5.57%
(e)	838,812 \$	0.91%	6,637,109 \$	0.76%	40,299,760 \$ 2	0.78%	2.45%	0.82%
SCA (d)	7,894,169 \$	8.55%	64,658,316 \$	7.44%	355,389,382 \$	6.90%	22.89%	7.63%
NCA (c)	885,453 \$	0.96%	15,847,639 \$	1.82%	129,791,343 \$	2.52%	5.30%	1.77%
AZ (b)	50,961,728 \$	55.18%	485,180,620 \$ 15,847,639 \$ 64,658	55.84%	\$ 2,761,754,507 \$ 129,791,343 \$ 355,389	53.59%	164.61%	54.87%
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Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	~	7	ю	4	5	9	7	ω

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2016
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Line No.	-	2	S	4	5	9	7	ω
Total (j)	89,530,488	100.00%	884,224,706	100.00%	5,393,560,837	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	0.00%	412,602 \$	0.05%	2,167,520 \$	0.04%	%60.0	0.03%
Paiute (h)	4,115,830 \$	4.60%	34,363,354 \$	3.89%	209,943,039 \$	3.89%	12.38%	4.13%
SNV (g)	20,772,188 \$	23.20%	224,398,151 \$	25.38%	42,724,200 \$ 249,686,308 \$ 1,467,549,246 \$	27.21%	75.79%	25.26%
NNV (f)	6,357,341 \$	7.10%	43,875,053 \$	4.96%	249,686,308 \$ `	4.63%	16.69%	5.56%
SLT (e)	856,372 \$	0.96%	9,322,197 \$	1.05%	42,724,200 \$ 2	0.79%	2.80%	0.93%
SCA (d)	7,329,672 \$	8.19%	66,475,974 \$	7.52%	366,761,204 \$	6.80%	22.50%	7.50%
NCA (c)	885,695 \$	0.99%	18,290,554 \$	2.07%	138,267,935 \$	2.56%	5.62%	1.87%
(b)	49,213,390 \$	54.97%	487,086,821 \$ 18,290,554 \$ 66,475,974	55.09%	\$ 2,916,461,385 \$ 138,267,935 \$ 366,761	54.07%	164.13%	54.71%
	θ		⇔		⇔			
Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	7	с	4	5	9	7	œ

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2017
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Line No.	-	2	ю	4	5	9	7	8
Total (j)	89,403,719	100.00%	907,891,753	100.00%	2,167,520 \$ 5,704,696,844	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	0.00%	416,865 \$	0.05%	2,167,520 \$	0.04%	0.08%	0.03%
Paiute (h)	3,986,856 \$	4.46%	37,555,458 \$	4.14%	244,427,293 \$	4.28%	12.88%	4.29%
SNV (g)	21,236,115 \$	23.75%	232,804,476 \$	25.64%	1,528,691,685 \$	26.80%	76.19%	25.40%
(f)	6,284,198 \$	7.03%	45,470,403 \$	5.01%	47,305,775 \$ 257,401,007 \$ `	4.51%	16.55%	5.52%
(e)	967,892 \$	1.08%	9,479,340 \$	1.04%	47,305,775 \$ 3	0.83%	2.96%	0.99%
SCA (d)	7,378,802 \$	8.25%	68,952,880 \$	7.59%	390,636,487 \$	6.85%	22.70%	7.57%
NCA (c)	953,897 \$	1.07%	494,478,557 \$ 18,733,774 \$ 68,952,880	2.06%	142,161,369 \$	2.49%	5.62%	1.87%
AZ (b)	48,595,959 \$	54.36%	494,478,557 \$	54.46%	\$ 3,091,905,708 \$ 142,161,369 \$ 390,636,487	54.20%	163.02%	54.34%
	θ		θ		\$			
Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	7	ю	4	5	9	7	œ

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2018
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Line No.	-	2	ю	4	5	9	7	ω
Total (j)	89,553,725	100.00%	933,207,088	100.00%	2,398,940 \$ 6,028,492,711	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	0.00%	409,166 \$	0.04%	2,398,940 \$	0.04%	0.08%	0.03%
Paiute (h)	4,162,949 \$	4.65%	40,858,618 \$	4.38%	\$ 247,262,940 \$	4.10%	13.13%	4.38%
SNV (g)	21,346,907 \$	23.84%	242,830,299 \$	26.02%	1,648,120,956 \$	27.34%	77.20%	25.73%
NNV (f)	6,521,689 \$	7.28%	46,609,148 \$	4.99%	60,340,596 \$ 263,315,864 \$ 1	4.37%	16.64%	5.55%
(e)	944,650 \$	1.05%	9,786,371 \$	1.05%	60,340,596 \$ 2	1.00%	3.10%	1.03%
SCA (d)	7,416,748 \$	8.28%	71,194,843 \$	7.63%	412,055,135 \$	6.84%	22.75%	7.58%
NCA (c)	1,055,149 \$	1.18%	19,192,625 \$	2.06%	143,999,326 \$	2.39%	5.62%	1.87%
(b)	48,105,633 \$	53.72%	502,326,019 \$ 19,192,625 \$ 71,194,843	53.83%	\$ 3,250,998,954 \$ 143,999,326 \$ 412,055,135	53.93%	161.47%	53.82%
	Ф		θ		θ			
Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	7	ю	4	5	9	7	80

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2019
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Line No.	~	2	ю	4	5	9	7	ø
Total (j)	88,816,603	100.00%	940,106,148	100.00%	2,398,940 \$ 6,482,557,944	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	0.00%	422,822 \$	0.04%	2,398,940 \$	0.04%	0.08%	0.03%
Paiute (h)	4,260,734 \$	4.80%	40,968,077 \$	4.36%	258,240,706 \$	3.98%	13.14%	4.38%
SNV (g)	21,172,865 \$	23.84%	243,401,492 \$	25.89%	1,788,780,621 \$ 258,240,706 \$	27.59%	77.32%	25.77%
NNV (f)	6,169,950 \$	6.95%	44,890,365 \$	4.78%	67,610,907 \$ 277,946,111 \$ 1	4.29%	16.01%	5.34%
SLT (e)	1,145,276 \$	1.29%	10,027,162 \$	1.07%	67,610,907 \$ 2	1.04%	3.40%	1.13%
SCA (d)	7,744,810 \$	8.72%	73,506,969 \$	7.82%	446,570,664 \$	6.89%	23.43%	7.81%
NCA (c)	1,108,741 \$	1.25%	19,865,172 \$	2.11%	146,548,484 \$	2.26%	5.62%	1.87%
AZ (b)	47,214,227 \$	53.16%	507,024,089 \$ 19,865,172 \$ 73,506,969	53.93%	\$ 3,494,461,510 \$ 146,548,484 \$ 446,570	53.91%	161.00%	53.67%
	Ф		Ф		\$			
Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	7	ю	4	5	9	7	œ

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2020
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Line No.	-	2	ю	4	5	9	7	ω
Total (j)	88,816,603	100.00%	940,106,148	100.00%	2,398,940 \$ 6,482,557,944	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	0.00%	422,822 \$	0.04%	2,398,940 \$	0.04%	0.08%	0.03%
Paiute (h)	4,260,734 \$	4.80%	40,968,077 \$	4.36%	258,240,706 \$	3.98%	13.14%	4.38%
SNV (g)	21,172,865 \$	23.84%	243,401,492 \$	25.89%	67,610,907 \$ 277,946,111 \$ 1,788,780,621 \$ 258,240,706 \$	27.59%	77.32%	25.77%
(f)	6,169,950 \$	6.95%	44,890,365 \$	4.78%	277,946,111 \$	4.29%	16.01%	5.34%
SLT (e)	1,145,276 \$	1.29%	10,027,162 \$	1.07%	67,610,907 \$ 3	1.04%	3.40%	1.13%
SCA (d)	7,744,810 \$	8.72%	73,506,969 \$	7.82%	446,570,664 \$	6.89%	23.43%	7.81%
NCA (c)	1,108,741 \$	1.25%	507,024,089 \$ 19,865,172 \$ 73,506,969	2.11%	146,548,484 \$	2.26%	5.62%	1.87%
AZ (b)	47,214,227 \$	53.16%	507,024,089 \$	53.93%	\$ 3,494,461,510 \$ 146,548,484 \$ 446,570	53.91%	161.00%	53.67%
	Ф		θ		\$			
Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	-	2	ю	4	5	9	7	8

SOUTHWEST GAS CORPORATION	COMPUTATION OF THE MODIFIED MASSACHUSETTS FORMULA (MMF)	EFFECTIVE AT JANUARY 01, 2021
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Line No.	-	2	ю	4	5	9	7	8
Total (j)	88,816,603	100.00%	940,106,148	100.00%	2,398,940 \$ 6,482,557,944	100.00%	300.00%	100.00%
SGTC (i)	\$ 0	0.00%	422,822 \$	0.04%	2,398,940 \$	0.04%	0.08%	0.03%
Paiute (h)	4,260,734 \$	4.80%	40,968,077 \$	4.36%	\$ 258,240,706 \$	3.98%	13.14%	4.38%
SNV (g)	21,172,865 \$	23.84%	243,401,492 \$	25.89%	1,788,780,621 \$	27.59%	77.32%	25.77%
NNV (f)	6,169,950 \$	6.95%	44,890,365 \$	4.78%	67,610,907 \$ 277,946,111 \$ 1,788,780,621	4.29%	16.01%	5.34%
(e)	1,145,276 \$	1.29%	10,027,162 \$	1.07%	67,610,907 \$	1.04%	3.40%	1.13%
SCA (d)	7,744,810 \$	8.72%	73,506,969 \$	7.82%	446,570,664 \$	6.89%	23.43%	7.81%
NCA (c)	1,108,741 \$	1.25%	19,865,172 \$	2.11%	146,548,484 \$	2.26%	5.62%	1.87%
AZ (b)	47,214,227 \$	53.16%	507,024,089 \$ 19,865,172 \$ 73,506,969	53.93%	\$ 3,494,461,510 \$ 146,548,484 \$ 446,570	53.91%	161.00%	53.67%
	Ф		Ф		⇔			
Description (a)	Direct Labor	Percent to Total	Margin	Percent to Total	Gross Plant	Percent to Total	Total	Total MMF
Line No.	~	7	ю	4	5	9	7	œ

Line	No.		-	7	e	4	5	9	7
	2021				2.53%				
Projected	2020	(k)			2.53%				
Projected	2019				2.53%				
7-Year	Average	(i)	60.12%	5.71%	2.53%	1.46%	27.50%	2.68%	100.00%
	2018	(H)	62.89%	4.86%	0.79%	0.99%	28.70%	1.76%	100.00%
	2017	(g)	54.68%	7.15%	1.20%	1.07%	34.60%	1.31%	100.00%
	2016	(f)	52.65%	5.47%	0.89%	1.38%	37.61%	2.00%	100.00%
Recorded	2015	(e)	62.46%	6.14%	1.08%	3.41%	24.64%	2.27%	100.00%
	2014	(p)	63.86%	4.62%	3.83%	1.29%	22.25%	4.14%	100.00%
	2013	(c)	61.67%	4.75%	5.94%	1.14%	22.61%	3.88%	100.00%
	2012	(q)	62.64%	6.99%	3.97%	0.94%	22.07%	3.39%	100.00%
	Description	(a)	Arizona	Southern California	Northern California	South Lake Tahoe	Southern Nevada	Northern Nevada	Total
Line	No.		4	7	c	4	5	9	7

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA A&G OVERHEAD FACTOR [1]

[1] Allocates Account 922 to each ratemaking jurisdiction based on each jurisdiction's relative percentage of capital expenditures.

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CHAPTER 9 Billing Determinants

Company Witness: Brandy Little

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA BILLING DETERMINANTS TWELVE MONTHS ENDED DECEMBER 2018 AS RECORDED

Line No.	Description	Rate Schedule	Number of Bills	Therms		
	(a)	(b)	(c)	(d)		
1	Primary Residential Gas Service	GN-10	14,270	1,572,125		
2	Primary Residential Gas Service - PQ/MS	GN-10	14	1,995		
3	Primary Residential Gas Service - PQ/MS - Expanded	GN-10	1	158		
4	CARE Residential Gas Service	GN-12	747	62,699		
5	CARE Residential Gas Service - PQ/MS	GN-12	13	1,026		
6	CARE Residential Gas Service - PQ/MS - Expanded	GN-12	1	40		
7	Secondary Residential Gas Service	GN-15	10,581	1,048,426		
8	Multi-Family Master Metered Apartments Gas Service (No Submeter)	GN-20	2	1,467		
9	Multi-Family Master Metered Mobile Homes Gas Service (No Submeter)	GN-20	0	0		
10	Multi-Family Master Metered Apartments Gas Service (With Submeter)	GN-25	0	0		
11	Multi-Family Master Metered Mobile Homes Gas Service (With Submeter)	GN-25	0	0		
12	Small Commercial Gaslight - Association, 0.48 Therms/Day	GN-30	0	0		
13	Small Commercial Gaslight - Association, 0.62 Therms/Day	GN-30	0	0		
14	Small Commercial Gaslight - Association, 0.72 Therms/Day	GN-30	0	0		
15	Agricultural Employee Housing and Nonprofit Group Living	GN-35	3	321		
16	Core General Small Commercial Gas Service	GN-40	1,545	571,500		
17	Core General Large Commercial Gas Service	GN-40	6	140,234		
18	Core General Industrial Commercial Gas Service	GN-40	0	0		
19	Core General Irrigation Gas Service	GN-40	2	33		
20	Core Natural Gas Service for Motor Vehicles	GN-50	3	17,451		
21	Small Electric Power Generation Gas Service	GN-66	0	0		
	Total Sales Service		27,188	3,417,475		
22	Noncore General Gas Transportation Small Commercial Gas Service	GN-70	28	54,528		
23	Noncore General Gas Transportation General Gas Service	GN-70	1	0		
24	Noncore General Gas Transportation Small Industrial Gas Service	GN-70	1	0		
	Total Transportation Service		30	54,528		
	Total Gas Service		27,218	3,472,003		

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA BILLING DETERMINANTS TWELVE MONTHS ENDED DECEMBER 2019

Line No.	Description	Rate Schedule	Number of Bills [1]	Therms [1]
	(a)	(b)	(c)	(d)
1	Primary Residential Gas Service	GN-10	14,872	1,672,303
2	Primary Residential Gas Service - PQ/MS	GN-10	17	2,074
3	Primary Residential Gas Service - PQ/MS - Expanded	GN-10	1	136
4	CARE Residential Gas Service	GN-12	717	57,491
5	CARE Residential Gas Service - PQ/MS	GN-12	10	945
6	CARE Residential Gas Service - PQ/MS - Expanded	GN-12	1	38
7	Secondary Residential Gas Service	GN-15	10,273	1,037,416
8	Multi-Family Master Metered Apartments Gas Service (No Submeter)	GN-20	2	1,549
9	Multi-Family Master Metered Mobile Homes Gas Service (No Submeter)	GN-20	0	0
10	Multi-Family Master Metered Apartments Gas Service (With Submeter)	GN-25	0	0
11	Multi-Family Master Metered Mobile Homes Gas Service (With Submeter)	GN-25	0	0
12	Small Commercial Gaslight - Association, 0.48 Therms/Day	GN-30	0	0
13	Small Commercial Gaslight - Association, 0.62 Therms/Day	GN-30	0	0
14	Small Commercial Gaslight - Association, 0.72 Therms/Day	GN-30	0	0
15	Agricultural Employee Housing and Nonprofit Group Living	GN-35	3	445
16	Core General Small Commercial Gas Service	GN-40	1,558	586,686
17	Core General Large Commercial Gas Service	GN-40	6	137,183
18	Core General Industrial Commercial Gas Service	GN-40	0	0
19	Core General Irrigation Gas Service	GN-40	2	25
20	Core Natural Gas Service for Motor Vehicles	GN-50	3	16,115
21	Small Electric Power Generation Gas Service	GN-66	0	0
	Total Sales Service		27,465	3,512,406
22	Noncore General Gas Transportation Small Commercial Gas Service	GN-70	32	66,930
23	Noncore General Gas Transportation General Gas Service	GN-70	1	0
24	Noncore General Gas Transportation Small Industrial Gas Service	GN-70	1	0
	Total Transportation Service		34	66,930
	Total Gas Service		27,499	3,579,336
	[1] Workpapers Chapter 0, Sheet 1, 2			

[1] Workpapers, Chapter 9, Sheet 1 - 2

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA BILLING DETERMINANTS TWELVE MONTHS ENDED DECEMBER 2020

_ine No.	Description	Rate Schedule	Number of Bills [1]	Therms [1]
	(a)	(b)	(c)	(d)
1	Primary Residential Gas Service	GN-10	15,457	1,739,801
2	Primary Residential Gas Service - PQ/MS	GN-10	19	2,302
3	Primary Residential Gas Service - PQ/MS - Expanded	GN-10	1	136
4	CARE Residential Gas Service	GN-12	701	56,230
5	CARE Residential Gas Service - PQ/MS	GN-12	10	945
6	CARE Residential Gas Service - PQ/MS - Expanded	GN-12	1	38
7	Secondary Residential Gas Service	GN-15	9,991	1,008,097
8	Multi-Family Master Metered Apartments Gas Service (No Submeter)	GN-20	2	1,549
9	Multi-Family Master Metered Mobile Homes Gas Service (No Submeter)	GN-20	0	0
10	Multi-Family Master Metered Apartments Gas Service (With Submeter)	GN-25	0	0
11	Multi-Family Master Metered Mobile Homes Gas Service (With Submeter)	GN-25	0	0
12	Small Commercial Gaslight - Association, 0.48 Therms/Day	GN-30	0	0
13	Small Commercial Gaslight - Association, 0.62 Therms/Day	GN-30	0	0
14	Small Commercial Gaslight - Association, 0.72 Therms/Day	GN-30	0	0
15	Agricultural Employee Housing and Nonprofit Group Living	GN-35	3	445
16	Core General Small Commercial Gas Service	GN-40	1,571	591,551
17	Core General Large Commercial Gas Service	GN-40	6	137,183
18	Core General Industrial Commercial Gas Service	GN-40	0	0
19	Core General Irrigation Gas Service	GN-40	2	25
20	Core Natural Gas Service for Motor Vehicles	GN-50	3	16,115
21	Small Electric Power Generation Gas Service	GN-66	0	0
	Total Sales Service		27,767	3,554,417
22	Noncore General Gas Transportation Small Commercial Gas Service	GN-70	32	66,930
23	Noncore General Gas Transportation General Gas Service	GN-70	1	0
24	Noncore General Gas Transportation Small Industrial Gas Service	GN-70	1	0
	Total Transportation Service		34	66,930
	Total Gas Service		27,801	3,621,347

[1] Workpapers, Chapter 9, Sheet 7 - 8

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA BILLING DETERMINANTS TWELVE MONTHS ENDED DECEMBER 2021

Line No.	Description	Rate Schedule	Number of Bills [1]	Therms [1]
	(a)	(b)	(c)	(d)
1	Primary Residential Gas Service	GN-10	15,929	1,793,965
2	Primary Residential Gas Service - PQ/MS	GN-10	20	2,417
3	Primary Residential Gas Service - PQ/MS - Expanded	GN-10	1	136
4	CARE Residential Gas Service	GN-12	687	55,131
5	CARE Residential Gas Service - PQ/MS	GN-12	10	945
6	CARE Residential Gas Service - PQ/MS - Expanded	GN-12	1	38
7	Secondary Residential Gas Service	GN-15	9,829	991,374
8	Multi-Family Master Metered Apartments Gas Service (No Submeter)	GN-20	2	1,549
9	Multi-Family Master Metered Mobile Homes Gas Service (No Submeter)	GN-20	0	0
10	Multi-Family Master Metered Apartments Gas Service (With Submeter)	GN-25	0	0
11	Multi-Family Master Metered Mobile Homes Gas Service (With Submeter)	GN-25	0	0
12	Small Commercial Gaslight - Association, 0.48 Therms/Day	GN-30	0	0
13	Small Commercial Gaslight - Association, 0.62 Therms/Day	GN-30	0	0
14	Small Commercial Gaslight - Association, 0.72 Therms/Day	GN-30	0	0
15	Agricultural Employee Housing and Nonprofit Group Living	GN-35	3	445
16	Core General Small Commercial Gas Service	GN-40	1,584	596,417
17	Core General Large Commercial Gas Service	GN-40	6	137,183
18	Core General Industrial Commercial Gas Service	GN-40	0	0
19	Core General Irrigation Gas Service	GN-40	2	25
20	Core Natural Gas Service for Motor Vehicles	GN-50	3	16,115
21	Small Electric Power Generation Gas Service	GN-66	0	0
	Total Sales Service		28,077	3,595,740
22	Noncore General Gas Transportation Small Commercial Gas Service	GN-70	32	66,930
23	Noncore General Gas Transportation General Gas Service	GN-70	1	0
24	Noncore General Gas Transportation Small Industrial Gas Service	GN-70	1	0
	Total Transportation Service		34	66,930
	Total Gas Service		28,111	3,662,670

[1] Workpapers, Chapter 9, Sheet 13 - 14

CHAPTER 10 Operating Revenues

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA OPERATING MARGIN CHAPTER 10

This chapter sets forth both Southwest Gas authorized operating margins by rate schedule for 2016 through 2020 and the requested operating margins by rate schedule for 2021 through 2025.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION SUMMARY OF AUTHORIZED OPERATING MARGIN FOR 2016 - 2020 [1]

Description		Rate Schedule		2016		2017		2018		2019		2020	Line No.
(a)		(q)		(c)		(p)		(e)		(f)		(B)	
Primary Residential Gas Service		GN-10/ GN-12		\$ 7,901,455	\$	8,118,562	ထ မာ	8,341,631	လ မာ	8,570,854	\$	8,806,364	-
Secondary Residential Gas Service		GN-15	\$	7,939,626	\$	8,158,006	8 8	8,382,346	ထ မာ	8,612,812	\$	8,849,664	7
Multi-Family Master Metered Gas Service		GN-20	Ф	10,454	φ	10,767	Ь	11,089	ф	11,420	θ	11,775	с
Multi-Family Master Metered Gas Service - Submetered	ometered	GN-25	Ь	10,881	φ	11,317	Ь	11,764	ф	12,224	θ	12,708	4
Core General Gas Service		GN-35/ GN-40	\$	2,506,018	ŝ	2,574,933	\$ \$	2,645,769	\$ \$	2,718,510	\$	2,793,269	5
Core Natural Gas Service for Motor Vehicles		GN-50	ф	14,466	φ	14,863	ф	15,273	ф	15,692	θ	16,124	9
Core Internal Combustion Engine Gas Service		GN-60	Ф	697	φ	700	Ь	704	Ь	707	θ	726	7
Core Small Electric Power Generation Gas Service		GN-66	Ь	0	φ	0	ф	0	ф	0	Ф	0	ω
Sales Subtotal			\$ 18	\$ 18,383,597	\$	\$ 18,889,148	\$ 19	\$ 19,408,576	\$ 19	\$ 19,942,219	\$20	\$ 20,490,630	6
Noncore General Gas Transportation Service		GN-70	Ф	59,937	φ	61,586	Ь	63,280	ф	65,020	θ	66,808	10
Special Contract Gas Service		G-T		0		0	Ф	0	φ	0	θ	0	,
Other Operating Revenue			Ь	210,566	φ	216,357	Ь	222,307	θ	228,420	θ	234,702	12
Total Margin Revenue			\$ 18	\$ 18,654,100	\$	\$ 19,167,091	\$ 19	\$ 19,694,163	\$ 20	\$ 20,235,659	\$ 20	\$ 20,792,140	13

[1] Chapter 10 Workpapers

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SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION SUMMARY OF PROPOSED OPERATING MARGIN FOR 2021 - 2025 [1] & [2]

Line No.	Description	Rate Schedule	2021	2022	2023	2024	2025	Line No.
	(a)	(q)	(c)	(p)	(e)	(f)	(g)	
~	Primary Residential Gas Service	GN-10/ GN-12	\$ 11,705,775	\$ 12,361,659	\$ 14,456,874	\$ 17,407,757	\$ 20,855,630	~
2	Secondary Residential Gas Service	GN-15	\$ 7,361,033	\$ 7,773,508	\$ 9,091,155	\$ 10,946,916	\$ 13,115,227	7
ო	Multi-Family Master Metered Gas Service	GN-20	\$ 9,690	\$ 10,281	\$ 12,169	\$ 14,826	\$ 17,932	с
4	Multi-Family Master Metered Gas Service - Submetered	GN-25	0	0	0 \$ (0	0	4
5	Core General Gas Service	GN-35/ GN-40	\$ 2,548,911	\$ 2,691,740) \$ 3,148,001	\$ 3,790,598	\$ 4,541,420	5
9	Core Natural Gas Service for Motor Vehicles	GN-50	\$ 6,572	\$ 6,940) \$ 8,116	\$ 9,773	\$ 11,709	9
7	Core Internal Combustion Engine Gas Service	GN-60	\$ 744	\$ 786	5 \$ 919	\$ 1,107	\$ 1,326	7
œ	Core Small Electric Power Generation Gas Service	GN-66	0	0	0 \$ (0	0	œ
6	Sales Subtotal		\$ 21,632,725	\$ 22,844,914	\$ 26,717,234	\$ 32,170,977	\$ 38,543,244	0
10	Noncore General Gas Transportation Service	GN-70	\$ 483,191	\$ 510,267	* \$ 596,760	\$ 718,575	\$ 860,907	10
5	Special Contract Gas Service	G-T	0	0	0 \$ (0	0	1
12	Other Operating Revenue		\$ 145,472	\$ 153,624	: \$ 179,664	\$ 216,339	\$ 259,190	12
13	Total Margin Revenue		\$22,261,388	\$ 23,508,805	\$27,493,658	\$ 33,105,891	\$ 39,663,341	13

[1] Chapter 20. [2] Chapter 22. NCA CCOSS and Rate Design 2021 vFinal.xlsx

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CHAPTER 11 Gas Supply, Transmission and Distribution Expenses

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CHAPTER 11A LOST AND UNACCOUNTED FOR GAS (LUFG)

This chapter sets forth Southwest Gas' distribution system average LUFG percentage for the five-year period 2014 through December 2018. Recorded purchases and sales reflect a net bss for the period of 0.75 percent. Southwest Gas proposes to use this percentage to calculate the Distribution System rate applicable to transportation customer volumes.

NORTHERN CALIFORNIA RATE JURISDICTION AND SOUTH LAKE TAHOE RATE JURISDICTION CALCULATION OF FIVE YEAR LOST AND UNACCOUNTED FOR GAS (LUFG) **TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021** SOUTHWEST GAS CORPORATION

Line No.		~	7	ю	4	5	9	7
Percent (e)								0.75%
LUFG (d)		325,148	233,555	(154,297)	(916,582)	(479,295)	(991,471)	(198,294)
Deliveries (c)		40,935,042	42,395,805	45,484,067	51,100,202	48,570,025	228,485,141	45,697,028
Receipts (b)		41,260,190	42,629,360	45,329,770	50,183,620	48,090,730	227,493,670	45,498,734
Description (a)	Twelve Months Ending	December 2014	December 2015	December 2016	December 2017	December 2018	Five Year Total	Five Year Average
Line No.		-	7	б	4	5	9	7

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CHAPTER 11B Other Gas Supply, Transmission and Distribution

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA GAS SUPPLY, TRANSMISSION, AND DISTRIBUTION EXPENSES CHAPTER 11, TAB B

Chapter 11B contains Northern California gas supply and distribution expenses in nominal dollars and 2018 dollars. Labor, labor loading, and materials and expenses are provided by FERC account. Seven years of historical data is provided (2012 through 2018), and projections are provided for 2019, 2020, and Test Year 2021. All amounts are rounded to the nearest dollar.

Recorded labor loading dollars were adjusted to remove payroll taxes, which are in Chapter 16. Please see Chapter 18 for the recalculation of the recorded labor loading rate without payroll taxes.

Projection Methodologies: The labor loading (pensions and benefits) percentage for each projected year is calculated in Chapter 18. This percentage is applied to each dollar of projected labor in each account. The labor loading required for each projected year is calculated in the Chapter 11 sheets 3-6 col(j), col(k), and col(l). The adjustments required to increase expenses each year is shown in Chapter 11 workpapers col(d).

The projected amounts for labor and non-labor are escalated based on the general escalation factors described in Chapter 7.

<u>Gas Supply:</u> These expenses have generally increased over the past 7 years, approximately at the rate of inflation. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Transmission: There are no transmission-related expenses since there is no transmission-related plant.

Distribution: With the exception of Account 880, these expenses have generally increased over the past 7 years, approximately at the rate of inflation. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

For Account 880 (Other Expenses), these expenses have decreased over the last 4-5 years. The lower 2018 expenditure level is not expected to continue; thus, projections were based on a 7-year average.

For Northern California and Salt Lake Tahoe jurisdictions, adjustments are made to 2018 recorded expenses for Accounts 870, 878, 880, 881, 885, 887, 889, 892, and 893. The adjustments reflect expense amounts that were incorrectly charged to Northern Nevada District 22.

					GAS	SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA GAS SUPPLY EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021	SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA SUPPLY EXPENSE - NOMINAL DOL 2012 THROUGH 2021	IRATION NIA VAL DOLLARS						
Line		Account			Ê	Recorded [1]				Projected	Projected	Test Year		Line
No.	Description	Number	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Projection Method	No.
	(a)	(q)	(c)	(q)	(e)	(4)	(B)	(u)	()	(j) Projected [2]	(k) Projected [3]	(I) Projected [4]	(m)	
	Other Gas Supply Expense	813												
-	Labor	¢	15,974 \$	16,478 \$	17,570 \$	19,296 \$	19,433 \$	20,169 \$	21,253 \$	21,742 \$	22,239 \$	22,747	Prior year	-
2	Labor Loading [5]		10,764	10,851	9,984	11,361	11,515	11,535	12,622	11,042	11,289	11,541	Labor loading adjustment	2
ო	Materials and Expenses		3,038	3,532	3,568	3,121	3,864	4,298	3,385	3,446	3,518	3,592	Prior year	e
4	Total	່ ທີ	29,777 \$	30,862 \$	31,123 \$	33,779 \$	34,812 \$	36,001 \$	37,261 \$	36,230 \$	37,046 \$	37,881		4
ч 0 V	Escalation and Labor Loading Labor Labor Loading Materials & Expenses	I	67.39%	65.85%	56.83%	58.88%	59.26%	57.19%	59.39%	2.30% 50.78% 1.80%	4.64% 50.76% 3.94%	7.03% 50.74% 6.12%		م ہ ت

[2] Multiplied by the applicable escalation factor.
[3] Multiplied by the applicable escalation factor.
[4] Multiplied by the applicable escalation factor.
[5] Labor Loading equals Labor multiplied by the labor loading rate on Ln 6.

					6	SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA GAS SUPPLY EXPENSE - REAL DOLLARS 2012 THROUGH 2021	SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA S SUPPLY EXPENSE - REAL DOLLA 2012 THROUGH 2021	DRATION NIA L DOLLARS						
Line		Account			Re	Recorded [1]					Projected	Test Year		Line
No.	Description	Number	2012	2013	2014	2015	2016	2017	2018	2019		2021	Projection Method	No.
	(a)	(q)	(c)	(p)	(e)	(t)	(6)	(µ)	()	(j) Projected	(k) Projected	(I) Projected	(m)	
Ţ	Other Gas Supply Expense	813 ¢	17 471 \$	\$ 767 ¢	18 637 ¢	\$ 777 \$	20 331 ¢	20.661 ¢	01 053 ¢	01 053 ¢	01 253 ¢	01 253	Drior year	~
- 0	Labor Loading [2]	÷	11,773		10,591	12,036	12,048	11,816	12,622	10,793	10,788	10,783	Labor loading adjustment	- 0
e	Materials and Expenses		3,323	3,807	3,784	3,307	4,043	4,403	3,385	3,385	3,385	3,385	Prior year	ю
4	Total	ار ا	32,567 \$	33,266 \$	33,012 \$	35,787 \$	36,422 \$	36,880 \$	37,261 \$	35,432 \$	35,427 \$	35,422		4
	:	I									ເວົ	Ch 6, Sh 1, Ln 4(c)		
2	<u>Escalation and Labor Loading</u> Labor									2.30%	4.64%	7.03%		Ð
9	Labor Loading		67.39%	65.85%	56.83%	58.88%	59.26%	57.19%	59.39%	50.78%	50.76%	50.74%		9
7	Materials & Expenses									1.80%	3.94%	6.12%		7
Ø	Constant Dollar Factor		0.9143	0.9277	0.9428	0.9439	0.9558	0.9762	1.0000					ω
	[1] Company Records [2] I short I oradino annals I shor multituliad hu tha Ishor bardinor rata on Ln 6	- ior loading rate on 1 r	cc c											

[2] Labor Loading equals Labor multiplied by the labor loading rate on Ln 6.

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	Line	No.		← N ŵ 4	n o r o	o 1 1 0 0 1 1 0	15 4 1 16 5 16 1 16 1 16 1 16 1 16 1 16 1 16	17 19 20	21 23 24
		Projection Method (m)		Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year
	Test Year	2021	Projected [4]	441,937 224,225 59,138 725,300	26,714 13,554 5,865 46,134	26,472 13,431 132,194 172,097	268 268	151,015 76,621 52,327 279,964	173,487 88,022 45,170 306,678
	Projected	2020 (k)	Projected [3]	432,061 \$ 219,317 57,922 709,300 \$	26,117 \$ 13,257 5,745 45,119 \$	25,881 \$ 13,137 129,475 168,493 \$	263 \$ 263 \$	147,641 \$ 74,943 51,251 273,835 \$	169,610 \$ 86,095 44,241 299,946 \$
	Projected	2019 (j)	rrojectea [∠]	422,406 \$ 214,517 56,730 693,653 \$	25,534 \$ 12,967 5,627 44,127 \$	25,302 \$ 12,850 126,812 164,964 \$	- \$ - 257 \$	144,341 \$ 73,303 50,197 267,842 \$	165,820 \$ 84,211 43,331 293,361 \$
(0		(j)	-	427,355 \$ 253,807 55,727 736,889 \$	24,960 \$ 14,824 5,527 45,310 \$	24,733 \$ 14,689 124,570 163,992 \$	- \$ - 253 253 \$	141,096 \$ 83,797 49,309 274,203 \$	162,092 \$ 96,267 42,564 300,923 \$
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DISTRIBUTION EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021		2017 (h)		241,194 \$ 137,942 18,918 398,053 \$	23,568 \$ 13,479 4,831 41,878 \$	42,263 \$ 24,171 103,185 169,619 \$	100 \$	74,930 \$ 42,854 101,022 218,806 \$	117,666 \$ 67,295 26,265 211,226 \$
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA IBUTION EXPENSE - NOMINAL DOI 2012 THROUGH 2021		2016 (g)		206,726 \$ 122,502 26,003 355,230 \$	24,619 \$ 14,589 5,520 44,727 \$	52,000 \$ 30,814 127,240 210,054 \$	- \$ 102 \$	94,194 \$ 55,818 46,247 196,259 \$	83,114 \$ 49,252 14,649 147,014 \$
SOUTHWES NORTHI RIBUTION EXF 2012 1	Recorded [1]	2015 (f)		179,212 \$ 105,513 26,287 311,011 \$	25,372 \$ 14,938 4,487 44,798 \$	21,473 \$ 12,642 38,975 73,090 \$	۵ ۵ ۱ - ۱ - ۱	81,072 \$ 47,732 63,174 191,977 \$	76,546 \$ 45,067 24,896 146,509 \$
DISTI	Å	2014 (e)		188,863 \$ 107,322 18,035 314,221 \$	21,327 \$ 12,119 2,961 36,408 \$	25,196 \$ 14,318 118,945 158,459 \$	- \$ 239 \$	56,722 \$ 32,232 14,720 103,674 \$	58,191 \$ 33,067 6,469 97,728 \$
		2013 (d)		190,768 \$ 125,621 15,739 332,128 \$	20,749 \$ 13,663 2,591 37,002 \$	8,893 \$ 5,856 55,504 70,252 \$	ю ю '''	69,230 \$ 45,588 17,200 132,018 \$	64,425 \$ 42,424 8,173 115,022 \$
		2012 (c)		175,687 \$ 118,388 14,603 308,678 \$	21,692 \$ 14,617 2,527 38,836 \$	14,119 \$ 9,514 48,998 72,632 \$	۵ ۵ ۱ ۰ ۰ ۰	103,325 \$ 69,626 24,391 197,342 \$	78,333 \$ 52,785 11,554 142,673 \$
	Account	Number (b)		870 \$ 	871 \$	874 \$ 	875 \$	878 \$ \$	879 \$
		Description (a)	Operations	Operation Supervision & Engineering Labor Labor Loading [5] Material and Expenses Total	Distribution Load Dispatching Labor Labor Loading [5] Materials and Expenses Total	Mains Expense Labor Labor Loading [5] Materiatia and Expenses Total	Measuring & Regulating Station Expense Labor Labor Loading [5] Materiatia and Expenses Total	Meter and House Regulator Expense Labor Labor Loading [5] Materiatia and Expenses Total	Customer Installation Expense Labor Labor Loading [5] Materials and Expenses Total
	Line	No.	5	<i>−</i> 0 ∞ 4	8 4 6 2	o 6 1 6	6 4 7 6 0	14 19 20 20	22 23 24 24 33 24

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	Line	No.		цС	26 26	27	07	29	ç	31	32	55		34	35	36	10	38	39	40	41	:	42 43	5 1	45		46	48	49
		Projection Method	(m)		r-rear Average Labor loading adjustment	7-Year Average		Prior year						Prior year	Labor loading adjustment	Prior year		Prior vear	Labor loading adjustment	Prior year			Prior year Labor loading adjustment	Prior year			Prior year Labor loading adjustment	Prior year	
	Test Year	2021	(I) Projected [4]	100 500	52,524	164,210 220.255	007,020	214,215	277 000	468,377	673,388 2 064 012	2,004,912		45 581	23,127	4,705	10,414	38.072	19,316	12,951	70,338		37 750	159,900	272,081		33,333 16 012	59,238	109,484
	Projected	2020	(k) Projected [3]	101 000 \$	51,374	160,833 242 445 e	e <u>11,010</u>	209,809	000 510 \$		659,538	z,uzu,180 \$		44 563 \$			11,132 9	37,221 \$	18,894		68,799 \$		72,758 \$ 36 033	156,612	266,302 \$		32,588 \$ 16 542	58,020	107,150 \$
	Projected	2019	(j) Projected [2]	÷ 110 00			\$ 17/00C	205,493	\$ U20 C00		645,972 1 076 110 e			43.567 \$			¢ 0,700 ¢	36 389 \$			67,292 \$		71,132 \$ 36.124	153,390	260,647 \$		31,860 \$ 16 180	56,827	104,867 \$
ş		2018	Ξ	÷ 0110	03, 149 a 49, 382	135,401 267.027 c	11	201,860 \$	9 30C C 20		615,212 1 001 262 e	1,991,302 \$		49.810 \$		4,434	¢ 70,00	35.571 \$			68,900 \$		69,533 \$ 41 206	150,678	261,507 \$		31,144 \$ 18 406	55,822	105,462 \$
ORATION RNIA IINAL DOLLAF 21		2017	(µ)	4 JUZ 006 @	72,653	250,986	11	175,777 \$	606 667 ¢		681,083 1 666 122 ¢	1,000,133 \$		20 292 \$		- 1	40,00	5.305 \$		- 1	11,773 \$		67,451 \$ 38.576	184,275	290,302 \$		31,531 \$ 18.033	46,520	96,084 \$
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA IBUTION EXPENSE - NOMINAL DOI 2012 THROUGH 2021		2016	(6)	4 190 00		240,193 200 070 ¢	11	217,202 \$	EE4 040 e		677,155 1 550 466 ¢	4 004/A00		34 033 \$			00,100	4.489 \$		- 1	8,397 \$		40,284 \$ 23 871	163,558	227,713 \$		27,899 \$ 16 537	8,802	53,233 \$
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DISTRIBUTION EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021	Recorded [1]	2015	(f)		60,373 \$ 47,321	161,401 °	\$ 160'607	213,298 \$	464 040 \$		532,518 1 260 700 e	1,209,700 \$		31 603 \$			00,000	2.536 \$	1,493	232	4,261 \$		54,366 \$ 32 008	156,166	242,541 \$		25,097 \$ 11 776	6,234	46,106 \$
DIST	æ	2014	(e)	00 E70 \$		121,546 267 222 e	¢ <u>6,000,000</u>	233,297 \$	106 070 \$		516,212 1 201 217 e	1,201,34/ \$		39 077 \$		4,892	00,1/4 %	69	•		ۍ ۲		53,019 \$ 30 128	191,649	274,796 \$		24,607 \$ 13 083	20,142	58,732 \$
		2013	(p)	\$ 000 90	00,029 \$ 57,177	62,206	ZU0,Z1Z	236,727 \$	9 000 011		<u>398,140</u>	1,129,301 \$		38.318 \$		4,225	01,10	69	•	•	ۍ ۲		70,757 \$ 46.504	114,326	231,677 \$		28,637 \$ 18857	7,909	55,402 \$
		2012	(c)	÷ 100 10	01,324 3 58,844	66,184		236,472 \$	400 404		404,730 1 200 006 e	1,200,900 \$		30.348 \$		3,111	23,300 \$	69 1	•		ۍ ۲		44,948 \$ 30 280	149,580	224,818 \$		30,951 \$ 20,856	9,610	61,416 \$
	Account	Number	(q)	880 8	Ð	ا س	9 9	881 \$	6	•	۹ ا	e B		885 \$	•	l e	∥ ≁	886 \$			ا م	887	9		ы В	889	\$		6 69
		Description	(a)	Other Expense	Labor Labor Loading [5]	Materials and Expenses	10141	Rents	Total Distribution - Operations	Labor Loading	Materials and Expenses	1 Otal	Maintenance	Maintenance Supervision & Engineering	Labor Loading [5]	Materials and Expenses	- 0141	Maintenance of Structures & Impr. Labor	Labor Loading [5]	Materials and Expenses	Total	Maintenance of Mains	Labor Labor Loading [5]	Materials and Expenses	Total	Maintenance of Measuring & Reg Station	Labor Labor Looding [5]	Materials and Expenses	Total
	Line	No.			26	27	07	29		31	32	55			35	36	10		39	40	41	9	42	ç 4	45		46	48	49

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	Line No.	50 53 53 53	54 55 57	5 6 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	62 63 65	66 67 63 69	70 71	72 73 74	
	Projection Method (m)	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year					
	Test Year 2021 (I) Projected [4]	46,176 23,428 2,166 71,770	45,437 23,053 15,406 83,896	245 124 64 433	283,265 143,720 254,430 681,415	1,206,412 612,097 927,818 2,746,327		7.03% 50.74% 6.12%	
	Projected 2020 (k) Projected [3]	45,144 \$ 22,915 2,121 70,181 \$	44,422 \$ 22,549 15,089 82,059 \$	239 \$ 122 62 62 \$	276,935 \$ 140,574 249,197 666,706 \$	1,179,453 \$ 598,699 908,734 2,686,886 \$		4.64% 50.76% 3.94%	
	Projected 2019 (j) Projected [2]	44,135 \$ 22,414 2,078 68,627 \$	43,429 \$ 22,055 14,778 80,262 \$	234 \$ 119 61 814 \$	270,747 \$ 137,497 244,071 652,315 \$	1,153,096 \$ 585,594 890,043 2,628,733 \$		2.30% 50.78% 1.80%	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DISTRIBUTION EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021	2018 (i)	43,143 \$ 25,623 2,041 70,806 \$	42,453 \$ 25,213 14,517 82,182 \$	229 \$ 136 60 425 \$	271,882 \$ 161,471 239,756 673,109 \$	1,135,267 \$ 674,237 854,967 2,664,471 \$	1.0000	59.39%	
	2017 (h)	51,346 \$ 29,365 62,093 142,805 \$	40,190 \$ 22,985 150,936 214,112 \$	244 \$ 139 50 432 \$	216,359 \$ 123,739 460,941 801,039 \$	843,016 \$ 482,132 1,142,024 2,467,172 \$	0.9762 1.0244	57.19%	
	2016 (g)	17,473 \$ 10,354 6,693 34,520 \$	37,925 \$ 22,473 30,279 90,677 \$	25 \$ 15 2 42 \$	162,127 \$ 96,074 214,537 472,738 \$	716,141 \$ 424,372 891,691 2,032,204 \$	0.9558 1.0462	59.26%	
	Recorded [1] 2015 (f)	28,584 \$ 16,829 27,795 73,208 \$	20,279 \$ 11,939 9,313 41,531 \$	131 \$ 77 225 \$	162,595 \$ 95,729 203,357 461,680 \$	626,644 \$ 368,942 735,875 1,731,461 \$	0.9439 1.0594	58.88%	
DISTF	2014 Re (e)	26,061 \$ 14,809 50,273 91,143 \$	17,615 \$ 10,010 4,481 32,106 \$	ю ю · · · ·	160,379 \$ 91,136 271,436 522,951 \$	597,257 \$ 339,394 787,648 1,724,298 \$	0.9428 1.0607	56.83%	
	2013 (d)	34,601 \$ 22,785 48,696 106,081 \$	11,308 \$ 7,447 2,807 21,562 \$	ю ю · · · ·	183,621 \$ 120,915 177,961 482,497 \$	624,514 \$ 411,243 576,101 1,611,858 \$	0.9277 1.0779	65.85%	
	2012 (c)	42,752 \$ 28,809 70,755 142,316 \$	17,590 \$ 11,853 5,502 34,945 \$	ю ю · · · ·	166,588 \$ 112,257 238,557 517,403 \$	647,069 \$ 436,033 643,287 1,726,388 \$	0.9143 1.0937	67.39%	
	Account (b)	892 \$	8933 8933 8933	894 \$ \$	କ କ	69 69 19			
	Description (a)	Maintenance of Services Labor Labor Loading [5] Materials and Expenses Total	Maintenance of Meters & House Regs Labor Labor Loading [5] Materials and Expenses Total	Maintenance of Other Equipment Labor Labor Loading [5] Materials and Expenses Total	Total Distribution - Maintenance Labor Labor Loading Materials and Expenses Total	Total Distribution Labor Labor Loading Materials and Expenses Total	Constant Dollar Factor Scale-Up Factor	Escalation and Labor Loading Labor Labor Loading Materials & Expenses	 Company Records Multiplied by the applicable escalation factor. Multiplied by the applicable escalation factor.
	No.	50 53 53	54 55 57	58 59 61	62 65 65 65	66 67 69 69	70	72 73 74	

[3] Multiplied by the applicable escalation factor. [4] Multiplied by the applicable escalation factor. [5] Labor Loading equals Labor multiplied by the labor loading rate on Ln 73.

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	Line	No.		← N © 4	00 × 00 CU	0 2 1 2 0	5 7 7 7 5 5 5	17 198 20	21 23 23
		Projection Method	Ê,	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year
	Test Year	2021	(I) Projected	412,909 209,498 55,727 678,134	24,960 12,664 5,527 43,150	24,733 12,549 124,570 161,852	- - 253 253	141,096 71,588 49,309 261,994	162,092 82,241 42,564 286,897
	Projected	2020	(K) Projected	412,909 \$ 209,596 55,727 678,232 \$	24,960 \$ 12,670 5,527 43,156 \$	24,733 \$ 12,555 124,570 161,858 \$	253 253	141,096 \$ 71,621 49,309 262,027 \$	162,092 \$ 82,279 42,564 286,935 \$
	Projected	2019	()) Projected	412,909 \$ 209,694 55,727 678,330 \$	24,960 \$ 12,676 5,527 43,162 \$	24,733 \$ 12,561 124,570 161,864 \$	253 \$\$	141,096 \$ 71,655 49,309 262,061 \$	162,092 \$ 82,317 42,564 286,974 \$
		2018	Ξ	427,355 \$ 253,807 55,727 736,889 \$	24,960 \$ 14,824 5,527 45,310 \$	24,733 \$ 14,689 124,570 163,992 \$	- \$ - 253 253 \$	141,096 \$ 83,797 49,309 274,203 \$	162,092 \$ 96,267 42,564 300,923 \$
2012 THROUGH 2021		2017	E)	247,085 \$ 141,311 19,380 407,776 \$	24,144 \$ 13,808 4,949 42,901 \$	43,295 \$ 24,761 105,706 173,762 \$	- \$ 102 \$	76,760 \$ 43,900 103,490 224,150 \$	120,540 \$ 68,939 26,906 216,385 \$
		2016	(6)	216,286 \$ 128,167 27,205 371,659 \$	25,757 \$ 15,263 5,775 46,796 \$	54,405 \$ 32,239 133,124 219,768 \$	106 \$	98,551 \$ 58,399 48,386 205,336 \$	86,957 \$ 51,529 15,326 153,813 \$
	Recorded 1]	2015	Ê	189,866 \$ 111,785 27,849 329,500 \$	26,881 \$ 15,826 4,754 47,461 \$	22,749 \$ 13,394 41,292 77,435 \$	м м , , , , , , , , , , , , , , , , , ,	85,891 \$ 50,569 66,929 203,390 \$	81,096 \$ 47,746 26,376 155,219 \$
	Re	2014	(e)	200,328 \$ 113,837 19,130 333,295 \$	22,622 \$ 12,855 3,140 38,618 \$	26,725 \$ 15,187 126,166 168,078 \$	- \$ 253 253 \$	60,165 \$ 34,189 <u>15,613</u> \$ <u>109,967</u> \$	61,724 \$ 35,075 6,862 103,661 \$
		2013	(a)	205,631 \$ 135,408 16,966 358,004 \$	22,365 \$ 14,727 2,793 39,885 \$	9,586 \$ 6,312 59,828 75,726 \$	ю ю '''	74,623 \$ 49,140 <u>18,540</u> <u>142,303</u> \$	69,445 \$ 45,729 8,810 123,984 \$
		2012	(c)	192,149 \$ 129,481 15,971 \$ 337,601 \$	23,725 \$ 15,987 2,763 42,475 \$	15,442 \$ 10,406 53,590 79,438 \$	м м 	113,007 \$ 76,150 26,676 215,833 \$	85,673 \$ 57,731 12,637 156,041 \$
	Account	Number /h)	(a)	870 \$	871 \$	874 \$	875 \$	878 \$ 	879 \$\$
		Description	(a) <u>Operations</u>	Operation Supervision & Engineering Labor Labor Loading [2] Materials and Expenses Total	Distribution Load Dispatching Labor Labor Loading [2] Materials and Expenses Total	Mains Expense Labor Labor Loading [2] Materials and Expenses Total	Measuring & Regulating Station Expense Labor Labor Loading [2] Materials and Expenses Total	Meter and House Regulator Expense Labor Labor Loading [2] Materials and Expenses Total	Customer Installation Expense Labor Labor Loading [2] Materials and Expenses Total
	Line	No.		← 0 © 4	8 1 6 5	9 1 1 0 0	15 15 16	17 19 20	21 23 24

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DISTRIBUTION EXPENSE - REAL DOLLARS 2012 THROUGH 2021

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11B Dist Real

	Line	No.		;	25 26	27	28	29	ç	31 31	32	33		20	35	36	37	ç	000	40	41	9	42 43	5 1	45		46	4/ 48	49
		Projection Method	(m)		7-Year Average	Zabol loaung aujustment 7-Year Average	5	Prior year						Drior year	Labor loading adjustment	Prior year			Labor loading adjustment	Prior year		·	Prior year Labor loading adjustment	Prior year			Prior year	Labor loading adjustment Prior vear	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DISTRIBUTION EXPENSE - REAL DOLLARS 2012 THROUGH 2021	Test Year	2021	(I) Projected		96,722 40.074	43,0/4 154,740	300,535	201,860	011 000	437,613	634,550	1,934,675		10 588	21,608	4,434	68,629	25 574	18.048	12,204	65,822		69,533 35,270	150,678	255,490		31,144	15,801	102,767
	Projected	2020	(k) Projected		96,722 \$ 40.007	43,03/ 154,740	300,558 \$	201,860 \$	e 071 000	437,817	634,550	1,934,879 \$		A7 588 ©		4,434	68,639 \$	9 1 1 1 1 0	33,37 \$ 18.056	12,204	65,831 \$		69,533 \$ 35 205	150,678	255,507 \$		31,144 \$	15,809 55.822	102,774 \$
	Projected	2019	(j) Projected		96,722 \$ 40,120	154,740	300,581 \$	201,860 \$			634,550	1,935,084 \$		10 588 ¢			68,649 \$	00 E71 0		12,204	65,839 \$		69,533 \$ 35,312	150,678	255,523 \$		31,144 \$	55.822	102,782 \$
		2018	(i)		83,149 \$ 40.382	43,302 135,401	267,932 \$	201,860 \$		512,766	615,212	1,991,362 \$		AD 810 ©		- 1	83,827 \$	6 11 10		12,204	68,900 \$		69,533 \$ 41 206	150,678	261,507 \$		31,144 \$	18,490 55.822	105,462 \$
		2017	(H)		130,138 \$ 74 428	257.116	461,682 \$	180,070 \$	e 000 PF0		697,718	1,706,828 \$		30 788 ©			46,643 \$		3,433 a	3,518	12,060 \$		69,099 \$ 30,518	188,776	297,393 \$		32,301 \$	18,47.3	98,431 \$
		2016	(B)		97,679 \$ 57 882	251,302	406,863 \$	227,247 \$	e 000 011		708,472	1,631,589 \$		35 607 ¢			60,845 \$	e 100 t	4,09/ \$	1,305	8,785 \$		42,147 \$ 24 075	171,122	238,244 \$		29,189 \$	9.209	55,695 \$
	Recorded 1]	2015	(f)		85,153 \$ 50,134	30,134 170,996	306,283 \$	225,978 \$	9 000 FOF	491,030 \$ 289,455	- I	1,345,265 \$		33 484 6		3,815	57,008 \$	4 10000	2,00/ \$ 1582	246	4,514 \$		57,598 \$ 33 011	165,450	256,959 \$		26,589 \$	6.604 6.604	48,847 \$
		2014	(e)		91,834 \$ 52185	02,100 128,924		247,459 \$	e 000 001		547,548	1,274,275 \$		11 AAO ©			70,191 \$	e	₽ 1 1		چە י		56,237 \$ 31 057				26,101 \$	14,832 21.365	62,298 \$
		2013	(p)		93,594 \$ 61 620	67.052	222,278 \$	255,171 \$	9 TTC 117		429,159	1,217,352 \$		41 303 ¢		4,554	73,055 \$	6	₽ 1 1		\$		76,270 \$ 50 224	123,233	249,727 \$		30,868 \$	20,326 8.525	59,719 \$
		2012	(c)		95,506 \$ 64 358	72,386	232,250 \$	258,629 \$			- I	1,322,268 \$		33 101 ¢			58,959 \$	e	₽ 		\$ '		49,160 \$ 33,127	163,596	245,883 \$		33,851 \$	22,811	67,171 \$
	Account	Number	(q)	880	9		' <i>ெ</i> "	881 \$	e	Ð	',	њ ["]		885 ¢	•	I	<i>ө</i> "	886 °	Ð		'	887	9		' <i>ω</i> "	889	в		'"
		Description	(a)	Other Expense	Labor Labor Loading [2]	Labor Loading [∠] Materials and Expenses	Total	Rents	Total Distribution - Operations	Labor Labor Loading	Materials and Expenses	Total	Maintenance	Maintenance Supervision & Engineering	Labor Loading [2]	Materials and Expenses	Total	Maintenance of Structures & Impr.	Labor Labor Loading [2]	Materials and Expenses	Total	Maintenance of Mains	Labor Labor Loading [2]	Materials and Expenses	Total	Maintenance of Measuring & Reg Station	Labor	Labor Loading [∠] Materials and Expenses	Total
	Line	No.			25 26	27	28	29		31 31	32	33			35	36	37		8 8	9 4	41		42	6 4	45	-	46	4/ 48	49

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11B Dist Real

	Line No.	50 52 53	54 55 57	58 59 61	62 63 65	66 67 68 69	70 71	72 73 74
	Projection Method (m)	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year				
	Test Year 2021 (I) Projected	43,143 21,889 2,041 67,073	42,453 21,539 14,517 78,509	229 116 60 405	264,659 134,280 239,756 638,695	1,127,171 571,893 874,306 2,573,370	110, 3111, L113(G)	7.03% 50.74% 6.12%
	Projected 2020 (k) Projected	43,143 \$ 21,900 2,041 67,083 \$	42,453 \$ 21,549 14,517 78,519 \$	229 \$ 116 60 405 \$	264,659 \$ 134,343 239,756 638,758 \$	1,127,171 \$ 572,160 874,306 2,573,637 \$		4.64% 50.76% 3.94%
	Projected 2019 (j) Projected	43,143 \$ 21,910 2,041 67,094 \$	42,453 \$ 21,559 14,517 78,529 \$	229 \$ 116 60 405 \$	264,659 \$ 134,406 239,756 638,821 \$	1,127,171 \$ 572,428 874,306 2,573,905 \$		2.30% 50.78% 1.80%
	2018 (i)	43,143 \$ 25,623 2,041 70,806 \$	42,453 \$ 25,213 14,517 82,182 \$	229 \$ 136 60 425 \$	271,882 \$ 161,471 239,756 673,109 \$	1,135,267 \$ 674,237 854,967 2,664,471 \$	1.0000	59.39%
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DISTRIBUTION EXPENSE - REAL DOLLARS 2012 THROUGH 2021	2017 (h)	52,600 \$ 30,083 63,610 146,293 \$	41,172 \$ 23,547 154,623 219,342 \$	249 \$ 143 51 443 \$	221,644 \$ 126,761 472,199 820,604 \$	863,607 \$ 493,908 1,169,917 2,527,432 \$	0.9762 1.0244	57.19%
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RIBUTION EXPENSE - REAL DOLL 2012 THROUGH 2021	2016 (g)	18,281 \$ 10,833 7,003 36,117 \$	39,679 \$ 23,513 31,679 94,871 \$	27 \$ 16 44 \$	169,626 \$ 100,517 224,459 494,601 \$	749,261 \$ 443,998 932,931 2,126,190 \$	0.9558 1.0462	59.26%
SOUTHWES NORTH STRIBUTION E 2012	Recorded 1] 2015 (f)	30,283 \$ 17,829 29,447 77,560 \$	21,484 \$ 12,649 9,866 44,000 \$	138 \$ 81 238 \$	172,260 \$ 101,420 215,446 489,126 \$	663,896 \$ 390,875 779,621 1,834,391 \$	0.9439 1.0594	58.88%
SIG	Ru 2014 (e)	27,643 \$ 15,708 53,325 96,676 \$	18,684 \$ 10,618 4,753 34,055 \$	به به ۱ ۱ ۱ ۱	170,115 \$ 96,668 287,914 554,697 \$	633,513 \$ 359,997 835,462 1,828,971 \$	0.9428 1.0607	56.83%
	2013 (d)	37,296 \$ 24,560 52,490 114,346 \$	12,189 \$ 8,027 3,025 23,242 \$	به م ۱ ، ، ،	197,927 \$ 130,335 191,826 520,089 \$	673,171 \$ 443,284 620,986 1,737,440 \$	0.9277 1.0779	65.85%
	2012 (c)	46,758 \$ 31,508 77,385 155,651 \$	19,238 \$ 12,964 6,017 38,219 \$	به به ۱ ، ۱ ،	182,198 \$ 122,775 260,910 565,883 \$	707,699 \$ 476,889 703,563 1,888,151 \$	0.9143 1.0937	67.39%
	Account Number (b)	892 892	893 893 893	894 \$ \$	ଜ ଜ	ନ ନ		-
	Description (a)	Maintenance of Services Labor Labor Loading [2] Materials and Expenses Total	Maintenance of Meters & House Regs Labor Labor Loading [2] Materials and Expenses Total	Maintenance of Other Equipment Labor Labor Loading [2] Materials and Expenses Total	Total Distribution - Maintenance Labor Labor Loading Materials and Expenses Total	Total Distribution Labor Labor Loading Materials and Expenses Total	Constant Dollar Factor Scale-Up Factor	Escalation and Labor Loading Labor Labor Loading Materials & Expenses [1] Company Records
	Line No.	50 53 53	54 55 57	58 59 61	62 63 65	66 67 68 69	70 71	72 73 74

Company Records
 Labor Loading equals Labor multiplied by the labor loading rate on Ln 73.

11B Dist Real

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CHAPTER 12 Customer Accounts Expenses

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CUSTOMER ACCOUNTS EXPENSES CHAPTER 12

Chapter 12 contains Northern California customer accounts expenses in nominal dollars and 2018 dollars. Labor, labor loading, and materials and expenses are provided by FERC account. Seven years of historical data is provided (2012 through 2018), and projections are provided for 2019, 2020, and Test Year 2021. All amounts are rounded to the nearest dollar.

Projection Methodologies: Account 904, uncollectibles expense, is projected separately from the other customer accounts. First, the uncollectibles percentage is calculated for 2018. This percentage is multiplied by projected margin for the test year to project the portion of uncollectibles expense that should be collected through base rates. The portion of uncollectibles related to gas cost is collected through the gas cost rate and is therefore excluded from the cost of service. The large negative adjustment to this account reflects the fact that the amounts recorded on Southwest Gas' books include uncollectibles related to total revenues, including gas cost.

For Accounts 901, 902, 903, and 905, these expenses have generally decreased over the last 4-5 years. The lower 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

For Northern California and Salt Lake Tahoe jurisdictions, adjustments are made to 2018 recorded expenses for Accounts 901, 902, and 903. The adjustments reflect expense amounts that were incorrectly charged to Northern Nevada District 22.

The labor loading (pensions and benefits) percentage for each projected year is calculated in Chapter 18. This percentage is applied to each dollar of projected labor in each account. The labor loading required for each projected year is calculated in the Chapter 12 sheets 2-3 col(j), col(k), and col(l). The adjustments required to increase expenses each year is shown in Chapter 12 workpapers col(d).

The projected amounts for labor and non-labor are escalated based on the general escalation factors described in Chapter 7.

	_ ²	-									
	Duritorian Marthau	Projection Method (m)	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	WP12 uncollectibles adjustment	Prior year Labor loading adjustment Prior year				
	Test Year	(1) Proiected [4]	23,586 11,967 5,139 40,692	70,613 35,827 15,623 122,063	122,522 62,164 309,557 494,244	10,291		216,721 109,958 340,610 667,289	7.03% 50.74% 6.12%		
	Projected	ZUZU (k) Projected [3]	23,059 \$ 11,705 5,033 39,797 \$	69,035 \$ 35,043 15,302 119,379 \$	119,784 \$ 60,803 303,190 483,778 \$	8,551 \$	φ φ -	211,878 \$ 107,551 332,076 651,506 \$	4.64% 50.76% 3.94%		
	Projected	(j) Proiected [2]	22,544 \$ 11,449 4,930 38,922 \$	67,492 \$ 34,276 14,987 116,755 \$	117,108 \$ 59,473 296,954 473,534 \$	8,551 \$	به ۲.۱.۱	207,144 \$ 105,197 325,422 637,762 \$	2.30% 50.78% 1.80%		
LARS	0040	(i)	29,260 \$ 17,377 4,842 51,479 \$	65,975 \$ 39,183 14,722 119,879 \$	114,475 \$ 67,987 291,704 474,165 \$	8,551 \$	ф ф · · ·	209,709 \$ 124,547 319,819 654,075 \$	59.39%	1.0000	
DRATION RNIA NOMINAL DOL 21	1100	(H)	12,900 \$ 7,377 4,965 25,242 \$	70,155 \$ 40,123 16,783 127,061 \$	147,145 \$ 84,154 328,683 559,982 \$	10,728 \$	φ φ · · ·	230,199 \$ 131,654 361,159 723,013 \$	57.19%	0.9762 1.0244	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CUSTOMER ACCOUNTS EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021	900	(6)	12,102 \$ 7,171 844 20,117 \$	67,482 \$ 39,988 16,278 123,749 \$	186,844 \$ 110,720 267,563 565,128 \$	11,143 \$	φ φ · · ·	266,428 \$ 157,880 295,829 720,137 \$	59.26%	0.9558 1.0462	
SOUTHWES NORTH ER ACCOUNT 2012	Recorded [1]	(J)	20,260 \$ 11,928 3,118 35,306 \$	52,601 \$ 30,969 14,127 97,697 \$	196,563 \$ 115,728 241,040 553,331 \$	18,369 \$	φ φ γ ' ' '	269,424 \$ 158,625 276,654 704,703 \$	58.88%	0.9439 1.0594	
CUSTOM		(e)	26,566 \$ 15,096 2,858 44,520 \$	49,909 \$ 28,361 11,058 89,328 \$	176,351 \$ 100,212 235,885 512,448 \$	23,637 \$	φ φ 	252,826 \$ 143,670 273,438 669,933 \$	56.83%	0.9428 1.0607	
	6100	(d)	26,959 \$ 17,752 3,794 48,506 \$	43,538 \$ 28,670 9,039 81,247 \$	202,027 \$ 133,035 230,701 565,763 \$	25,774 \$	φ φ 	272,524 \$ 179,457 269,309 721,290 \$	65.85%	0.9277 1.0779	
	0100	(c)	38,891 \$ 26,207 5,965 71,063 \$	41,679 \$ 28,085 9,790 79,554 \$	191,461 \$ 129,017 234,154 554,632 \$	25,247 \$	- \$ 332_\$	272,030 \$ 183,310 275,488 730,828 \$	67.39%	0.9143 1.0937	23.
		(p)	901 \$ 	902 \$	8 8 803	904 \$	905 \$ 8	ა ა ს			ding rate on Ln
	-	Uescription (a)	Supervision Labor Loading [6] Materials and Expenses Total	Meter Reading Expense Labor Labor Loading [6] Materials and Expenses Total	Customer Records & Collections Labor Labor Loading [6] Materials and Expenses Total	Uncollectibles [5]	Misc. Customer Accounts Expense Labor Labor Loading [6] Materials and Expenses Total	Total Customer Accounts Expense Labor Labor Loading Materials and Expenses Total	<u>Escalation and Labor Loading</u> Labor Labor Loading Materials & Expenses	Constant Dollar Factor Scale-Up Factor	 Company Records Multiplied by the applicable escalation factor. Multiplied by the applicable escalation factor. Multiplied by the applicable escalation factor. Uncollectibles expense is not escalated. Uncollectibles expense is not escalated. Labor Loading equals Labor multiplied by the labor bading rate on Ln 23.
	Line	NO.	− 0 0 4	8 7 6 5	9 1 1 0 9	13	15 15 17	18 20 21	22 23 24	25 26	

12 Cust Acct Nom

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9 11 12 13 15 16 17 22 23 25 25 25 8 4 6 2 18 20 21

Line No.

− 0 0 4

					CUSTC	SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CUSTOMER ACCOUNTS EXPENSE - REAL DOLLARS 2012 THROUGH 2021	SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA ER ACCOUNTS EXPENSE - REAL E 2012 THROUGH 2021	ORATION RNIA : - REAL DOLL	ARS					
	Description	Account Number	2012	2013	2014 F	Recorded [1] 2015	2016	2017	2018	Projected	Projected	Test Year 2021	Projection Method	Line No
	(a)	(q)	(c)	(p)	(e)	(t)	(6)	(4)	()	(j) Projected	(k) Projected	(I) Projected	(m)	
Supervision Labor Labor Lc Materials Total	servision Labor Labor Loading [2] Materias and Expenses Total	901	\$ 42,535 \$ 28,663 \$ <u>6,524</u> \$	29,059 \$ 19,136 4,090 52,285 \$	28,179 \$ 16,013 3,032 47,223 \$	21,464 \$ 12,637 3,304 37,405 \$	12,661 \$ 7,503 883 21,047 \$	13,215 \$ 7,558 5,087 25,859 \$	29,260 \$ 17,377 4,842 51,479 \$	22,037 \$ 11,191 4,842 38,071 \$	22,037 \$ 11,186 4,842 38,065 \$	22,037 11,181 4,842 38,060	Prior year Labor loading adjustment Prior year	← 0 0 4
eter Readi Labor Labor Lo Materials Total	Meter Reading Expense Labor Labor Loading [2] Materials and Expenses Total	902 \$ \$	\$ 45,584 \$ 30,717 \$ 87,008 \$	46,930 \$ 30,904 9,743 87,577 \$	52,939 \$ 30,083 11,729 94,751 \$	55,728 \$ 32,810 14,967 103,505 \$	70,603 \$ 41,838 17,031 129,472 \$	71,869 \$ 41,103 17,193 130,164 \$	65,975 \$ 39,183 14,722 119,879 \$	65,975 \$ 33,505 14,722 114,202 \$	65,975 \$ 33,489 14,722 114,186 \$	65,975 33,474 14,722 114,170	Prior year Labor loading adjustment Prior year	8 1 9 2
ustomer R Labor Labor Lo Materials Total	Customer Records & Collections Labor Labor Loading [2] Materials and Expenses Total	\$ 803 8	\$ 209,401 \$ 141,106 256,094 \$ 606,601 \$	217,767 \$ 143,400 248,675 609,842 \$	187,056 \$ 106,295 250,204 543,555 \$	208,248 \$ 122,608 255,369 586,225 \$	195,486 \$ 115,841 279,937 591,264 \$	150,739 \$ 86,209 336,711 573,659 \$	114,475 \$ 67,987 291,704 474,165 \$	114,475 \$ 58,135 291,704 464,314 \$	114,475 \$ 58,108 291,704 464,287 \$	114,475 58,081 291,704 464,259	Prior year Labor loading adjustment Prior year	9 10 12 12 10 10 10 10 10 10 10 10 10 10 10 10 10
Uncollectibles [3]	les [3]	904 \$	\$ 27,613 \$	27,783 \$	25,072 \$	19,461 \$	11,659 \$	10,990 \$	8,551 \$	8,551 \$	8,551 \$	10,291	WP12 uncollectibles adjustment	13
isc. Custor Labor Labor Lo Materials Total	Misc. Customer Accounts Expense Labor Labor Loading [2] Materials and Expenses Total	905 \$ \$	* * * 303 ' ' 300 & *	ю ю · · ·	н н н н н н н н н н н н н н н н н н н н	ө ө ''''	ы сы	ө ө ''''	ф ф	φ φ · · ·	φ φ • ' ' ' 		Prior year Labor loading adjustment Prior year	15 16 17
otal Custor Labor Labor Lo Materials Total	Total Customer Accounts Expense Labor Labor Loading Materials and Expenses Total	67 69	\$ 297,519 \$ 200,486 301,301 \$ 799,306 \$	293,757 \$ 193,439 290,291 777,487 \$	268,174 \$ 152,391 290,037 710,602 \$	285,440 \$ 168,055 293,100 746,596 \$	278,750 \$ 165,182 309,510 753,442 \$	235,822 \$ 134,870 369,981 740,672 \$	209,709 \$ 124,547 319,819 654,075 \$	202,486 \$ 102,832 319,819 625,137 \$	202,486 \$ 202,486 \$ 102,784 319,819 625,089 \$	202,486 102,736 321,559 626,781		18 20 21
<u>Escalation and</u> Labor Labor Loading Materials & Exp	Escalation and Labor Loading Labor Labor Loading Materials & Expenses		67.39%	65.85%	56.83%	58.88%	59.26%	57.19%	59.39%	2.30% 50.78% 1.80%	4.64% 50.76% 3.94%	7.03% 50.74% 6.12%		22 23 24
Constant Dollar I Scale-Up Factor	Constant Dollar Factor Scale-Up Factor		0.9143 1.0937	0.9277 1.0779	0.9428 1.0607	0.9439 1.0594	0.9558 1.0462	0.9762 1.0244	1.0000					25 26
 [1] Company Records [2] Labor Loading equi- 	(1) Company Records [2] Labor Loading equals Labor multiplied by the labor loading rate on Ln 23. [10-11-11-11]	bor loading rate o	м Ln 23.											

ng ra [2] Uncollectibles expense is not escalated. 12 Cust Acct Real

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CHAPTER 13 Customer Service and Informational Expenses

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CUSTOMER SERVICE AND INFORMATION EXPENSES CHAPTER 13

Chapter 13 contains Northern California customer service and information expenses in nominal dollars and 2018 dollars. Labor, labor loading, and materials and expenses are provided by FERC account. Seven years of historical data is provided (2012 through 2018), and projections are provided for 2019, 2020, and Test Year 2021. All amounts are rounded to the nearest dollar.

Recorded labor loading dollars were adjusted to remove payroll taxes, which are in Chapter 16. Please see Chapter 18 for the recalculation of the recorded labor loading rate without payroll taxes.

Projection Methodology: For Accounts 908, 909 and 910, these expenses have generally decreased over the last 4-5 years. The lower 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

The labor loading (pensions and benefits) percentage for each projected year is calculated in Chapter 18. This percentage is applied to each dollar of projected labor in each account. The labor loading required for each projected year is calculated in the Chapter 13 sheets 2-3 col(j), col(k), and col(l). The adjustments required to increase expenses each year is shown in Chapter 13 workpapers col(d).

The projected amounts for labor and non-labor are escalated based on the general escalation factors described in Chapter 7.

	Line	No.	← 0 0 4	8 4 9 2	o 6 ± 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17 18 19	21
		Projection Method (m)	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year	Prior year Labor loading adjustment Prior year			
	Test Year	2021	Projected [4]		- - 11,326 11,326	- - 11,326 11,326	7.03% 50.74% 6.12%	
	Projected	2020 (k)	Projected [3]	ф ф , , , , ,	- \$ - 11,093 \$	- \$ - 11,093 \$	4.64% 50.76% 3.94%	
0	Projected	2019	Projected [2]	φ φ · · ·	- \$ - 10,865 \$	- \$ - 10,865 10,865	2.30% 50.78% 1.80%	
IAL DOLLAR		(i)	• •	φ φ · · ·	- \$ - 10,673 \$	- \$ - 10,673 \$	59.39%	1.0000
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CUSTOMER SERVICE AND INFORMATION EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021		2017 (h)	\$ 	φ φ · · ·	- \$ - 10,513 10,513 \$	- \$ - 10,513 10,513 \$	57.19%	0.9762 1.0244
SOUTHWEST GAS CORPORATION NORTHERN CALFORNIA :E AND INFORMATION EXPENSE - I 2012 THROUGH 2021		2016 (g)	ю ф ''''	မ မ မ မ မ မ	(558) \$ (331) 19,291 18,402 \$	(558) \$ (331) 19,291 18,402 \$	59.26%	0.9558 1.0462
SOUTHWES NORTH CE AND INFO 2012	Recorded [1]	2015 (f)	6,755 \$ 3,977 21,686 32,418 \$	φ φ · · · ·	168 \$ 99 6,977 7,244 \$	6,923 \$ 4,076 28,663 39,662 \$	58.88%	0.9439 1.0594
TOMER SERVI		2014 (e)	9,479 \$ 5,386 29,457 44,323 \$	ю ю · · ·	147 \$ 83 11,068 11,299 \$	9,626 \$ 5,470 40,526 55,621 \$	56.83%	0.9428 1.0607
CUS		(d)	9,253 \$ 6,093 35,383 50,730 \$	۵ ۵ ۱ ۱ ۱ ۱	175 \$ 115 3,938 4,228 \$	9,428 \$ 6,208 39,321 54,958 \$	65.85%	0.9277
		2012 (c)	8,513 \$ 5,737 34,386 48,636 \$	۵ ۵ ۱ ۱ ۱ ۱	به م ۱ ' ' '	8,513 \$ 5,737 34,386 48,636 \$	67.39%	0.9143 1.0937
	Account	Number (b)	800 800 800	600 600	910 & &	\$ \$		
		Description (a)	Customer Assistance Expense Labor Labor Loading [5] Materials and Expenses Total	Informational & Instructional Labor Labor Loading [5] Materials and Expenses Total	Misc. Customer Service & Information Labor Labor Loading [5] Materials and Expenses Total	Total Customer Service & Information Labor Labor Loading Materials and Expenses Total	Escalation and Labor Loading Labor Labor Loading Materials & Expenses	Constant Dollar Factor Scale-Up Factor 11 Company Records [2] Multinied by the applicable escalation factor. 13 Multinied by the anticicable ascalation factor.
	Line	No.	- 0 0 4	छ न छ र।	9 11 10 9	15 16	17 11 11 11 11	22 23

(3) Multiplied by the applicable escalation factor.
 (4) Multiplied by the applicable escalation factor.
 (5) Labor Loading equals Labor multiplied by the labor loading rate on Ln 18.

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	Line	No			- 0	2 0	94		ı ع	9 1	~ 8	þ	0	10	11	6	5 4	15	16		17	19	20	ī	
		Projection Method	(m)		Prior year	Labor loading adjustment Drior year			Prior year	Labor loading adjustment	FIIU year		Prior year	Labor loading adjustment	Prior year										
	Test Year	2021	(I) Proiected						'	'				1	10,673 10,673				10,673	сп в, эп I, Ln /(c)	7.03%	. 12% 6. 12%			
	Projected	2020	(k) Proiected		99 1		چې ا		\$ '		'e'	, 	6) 1		10,673 \$	÷	0 1 1	I	10,673 \$		4.64%	3.94%			
	Projected	2019	(j) Proiected		99 1		\$		\$		'# 	, 	ያ י		10,673 10,673 \$	÷	₽ 1 1		10,673 \$		2.30%	0.00% 1.80%			
AL DOLLARS		2018	()		99 1		φ '		\$ '		' '	, 	ያ י		10,673 10,673	÷	0 1 1		10,673 \$		E0 300/	08.08%	1.0000	0000	
RATION NIA XPENSE - RE/		2017	(H)		ю '		ۍ ۱		€) '		' '	, 	<i>ତ</i> '	1	10,770 10,770 \$	e	₽ 		10,770 \$		100/	0/ EI . IC	0.9762 1 0244	1 1 20.1	
SOUTHWEST GAS CORPORATION NORTHERN CALIPORNIA TICE AND INFORMATION EXPENSE 2012 THROUGH 2021		2016	(g)		9 1		\$		\$ ') '	(584) \$	(346)	20,184 19,253 \$	(F04) ¢	(304) \$ (346)		19,253 \$		100000	0/07.60	0.9558 1 0462	2010.1	
SOUTHWEST NORTHE VICE AND INF 2012 T	Recorded [1]	2015	(f)		7,157 \$	4,214 22 075	34,346 \$		€ 9 1		 	, 	178 \$	105	7,674 \$		4.318 4.318		42,020 \$		2000/	00.00	0.9439 1.0594		
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CUSTOMER SERVICE AND INFORMATION EXPENSE - REAL DOLLARS 2012 THROUGH 2021		2014	(e)		10,054 \$	5,713 31 245	47,013 \$		\$ '		' '	> '	156 \$	89	11,740 11,984 \$		5.802		58,998 \$		/050 22	00.00%	0.9428 1 0607	0000	
cna		2013	(p)		9,974 \$	38 140	54,682 \$		€) 1		 	, '	188 \$	124	4,245 4,557 \$		6.692	42,385	59,239 \$		CE DED/	02.00.00	0.9277		
		2012	(c)		9,311 \$	0,2/4 37 608	53,193 \$		\$ '		• •) '	<i>ତ</i> '		ф ' '		9,311 \$		53, 193 \$		/006 29	01.237/0	0.9143 1.0937	000-	
	Account	Number	(q)	908	ю		с. С	606	⇔		 #	, ,	910 \$		ф	÷	Ð		с. С						
		Description	(a)	Customer Assistance Expense	Labor	Labor Loading [2] Matarials and Evnenses	Total	Informational & Instructional	Labor	Labor Loading [2]	materials and Expenses Total	- 0181	Misc. Customer Service & Information Labor	Labor Loading [2]	Materials and Expenses Total	Total Customer Service & Information	Labor Loading	Materials and Expenses	Total	Escalation and Labor Loading	Labor	Labor Loading Materials & Expenses	Constant Dollar Factor Scale-Lin Factor		[1] Company Records
	Line	ġ N			- (2 0	9 4		ъ Q	9 ٢	- α	D		10	11		5 4	15	16		17	19	20		

Company Records
 Labor Loading equals Labor multiplied by the labor loading rate on Ln 18.

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CHAPTER 14 Sales Expenses

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA SALES EXPENSES CHAPTER 14

Chapter 14 contains Northern California sales expenses (Accounts 911-913) in nominal dollars and 2018 dollars. Labor, labor loading, and materials and expenses are provided by FERC account. Seven years of historical data is provided (2012 through 2018), and projections are provided for 2019, 2020, and Test Year 2021. All amounts are rounded to the nearest dollar.

Southwest Gas is not requesting recovery of Sales expenses in this rate case. Therefore, the projection for the test year is \$0.

	Line	No.	- 0 ¢	94	ى ئ	0 ~ 0	o !	1 1 1	13	15 15	17 19	20	
		Projection Method (m)											
	Test Year	()	Projectea [4]			.		•••			7.03% 50.74% 6.12%		
	Projected	2020 (k)	- 1 \$	\$	୫ '	چ ب	ମ '	با	ሪን י	ۍ ۲	4.64% 50.76% 3.94%		
	Projected	(])	\$ - *	\$ 	\$	چ ب ا	ଓ '	, , , , , , , , , , , , , , , , , , ,	ያ 1	چي - ' ' '	2.30% 50.78% 1.80%		
		(i)	€) I I I	\$ 	\$	چ ب	ଓ '	, , , , , , , , , , , , , , , , , , ,	ያ 1	چ ب ' ' '	59.39%	1.0000	
ORATION RNIA L DOLLARS 21		2017 (h)	\$	\$	\$, , , , , , , , , , , , , , , , , , ,	ن ۱	89 \$	ن	89 \$	57.19%	0.9762 1.0244	
SOUTHWEST GAS CORPORATION NORTHERN CALIPORNIA LES EXPENSE - NOMINAL DOLLAF 2012 THROUGH 2021		2016 (g)	↔ · · ·	\$ 	\$	· · ·	\$) 1	· ' '	€) 1	· · · ·	59.26%	0.9558 1.0462	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA SALES EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021	Recorded [1]	2015 (f)	↔ · · ·	\$	\$ '	چ ب ' '	භ 1	''''	ሪን י	چ ب ' '	58.88%	0.9439 1.0594	
		2014 (e)	↔ · · ·	\$ 	69 I	چ ب ا	ب ۱	, , , , , , , , , , , , , , , , , , ,	ن ۱	به ۱ ۱ ۱	56.83%	0.9428 1.0607	
		2013 (d)	↔ 	چ ب	\$	ب ب	\$) 1	- 11 - 1 \$	⇔ '	- <u></u>	65.85%	0.9277 1.0779	
		2012 (c)	6) ↓ ↓ ↓	\$ 	\$	\$ \$	ن ه ۱	251 	↔ '	- 251 251 \$	67.39%	0.9143 1.0937	
	Account	Number (b)	911 \$	\$ \$	912 \$	ار ا چ	913 \$	به م	↔	 Ф			
		Description (a)	Supervision Labor Labor Loading [5] Matariate and Evonnes	Total	Labor Labor	Labor Loading [2] Materials and Expenses Total	Advertising Expense	Labor Loading [5] Materials and Expenses Total	Total Sales Expense Labor	Labor Loading Materials and Expenses Total	Escalation and Labor Loading Labor Labor Loading Materials & Expenses	Constant Dollar Factor Scale-Up Factor	 Company Records Multiplied by the applicable escalation factor. Multiplied by the applicable escalation factor.
	Line	Ň	← 0 ¢	94		0 2 8		1 1 1		15 16	17 18 19	21	

[3] Multiplied by the applicable escalation factor.
[4] Multiplied by the applicable escalation factor.
[5] Labor Loading equals Labor multiplied by the labor loading rate on Ln 18.

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[2] Labor Loading equals Labor multiplied by the labor loading rate on Ln 18.

14 Sales Real

CHAPTER 15 Administrative and General Expenses

Company Witness: Timothy S. Lyons / Byron Williams

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DIRECT ADMINISTRATIVE AND GENERAL EXPENSES CHAPTER 15

Chapter 15 contains administrative and general expenses (A&G) charged directly to Northern California in nominal dollars and 2018 dollars. Labor, labor loading, and materials and expenses are provided by FERC account. Seven years of historical data is provided (2012 through 2018), and projections are provided for 2019, 2020, and Test Year 2021. All amounts are rounded to the nearest dollar.

Projection Methodologies: The labor loading (pensions and benefits) percentage for each projected year is calculated in Chapter 18. This percentage is applied to each dollar of projected labor in each account. The labor loading required for each projected year is calculated in the Chapter 15 sheets 3-4 col(j), col(k), and col(l). The adjustments required to increase expenses each year is shown in Chapter 15 workpapers col(d).

The projected amounts for labor and non-labor are escalated based on the general escalation factors described in Chapter 7.

<u>Account 923</u>: These expenses have generally decreased over the last 4-5 years. The lower 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Account 925: These expenses have generally fluctuated over the past 7 years; thus, projections were based on a 7-year average.

Southwest Gas manages its general liability expenses with a combination of insurance premiums and what is known as "self-insurance" – which is similar to a deductible. The Company is currently self-insured for up to \$1.0 million of expense for each claim. To the extent that a specific gas operation claim exceeds \$1.0 million, the Company is currently self-insured for the excess over \$1.0 million up to an aggregate of \$5.0 million. Once the \$5.0 million plus aggregate is reached, any amount paid above the \$5.0 million is the responsibility of the insurance carrier. The \$5.0 million plus aggregate can be the result of payouts from more than one gas operations claim and/or from one or more ratemaking jurisdictions. For this reason, Southwest Gas proposes to normalize self-insured retention based on a seven-year average of claims for all California jurisdictions, and allocate the total to each jurisdiction based on its relative 4-factor percentage.

<u>Account 926</u>: These expenses are certain employee benefits, which are fully described in Chapter 18. An adjustment was made to remove the amounts directly charged to Account 926 by Northern California in this chapter, since they

are already included in Chapter 18. For Northern California and Salt Lake Tahoe jurisdictions, an adjustment is made to 2018 recorded expenses that reflects expense amount that was incorrectly charged to Northern Nevada District 22.

Account 927: The projected franchise taxes are calculated on WP Chapter 15, Sheet 9. An average tax rate was developed in WP Chapter 15, Sheet 9, Column (c) based on actual taxable operating revenues and actual franchise taxes paid for 2018. A combined rate is used for both Northern California and South Lake Tahoe, because these two jurisdictions pay the same gas cost rate. The combined rate is proposed for administrative efficiency. This average percentage was then applied to the projected operating margin to develop the projected franchise taxes. Southwest Gas records its franchise tax payments in Account 408.1. An adjustment was made to reclassify the amounts related to margin to Account 927 for presentation purposes. The franchise tax related to gas cost is not included in base rates.

Account 928: The recorded amounts from 2015 to 2018 were the rate case expense amortizations from the TY2014 rate case. The incremental rate case expense for processing the TY2021 rate case was estimated. WP Chapter 15, Sheet 10 provides details supporting the rate case expense estimate. A five-year amortization of these costs is requested to begin January 1, 2021. An adjustment was made for 2021 expenses to reflect the difference between recorded base year 2018 rate case expense and annual rate case amortization expense resulting from the TY2021 rate case.

Account 930.1: Southwest Gas charges its safety advertising expenses directly to each ratemaking jurisdiction. These expenses have generally increased over the past 7 years, approximately at the rate of inflation. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses.

Account 930.2: This account includes \$250,000 per year in R&D expenses proposed by Southwest Gas in the TY2014 rate case. This amount is allocated to each ratemaking jurisdiction based on its weighted 4-Factor relative to the total California 4-Factor percentage.

Account 935: These expenses have generally fluctuated over the past 7 years since certain types of maintenance are not needed at the same level every year. The 2018 expenditure level is expected to continue; thus, projections were based on 2018 expenses. For Northern California and Salt Lake Tahoe jurisdictions, an adjustment is made to 2018 recorded expenses that reflects expense amount that was incorrectly charged to Northern Nevada District 22.

	Line	No.	-	2	ო	4	5	9	7	8 6 1 1 0 8	1 5 5 5 5	16 17 18	19 20	
		Projection Method (m)	Prior year	Prior Year and SIR normalization	Prior year	Prior Year and WP15 Franch adjustment	WP15 928 adjustment	Prior year	Prior year	Prior year Labor loading adjustment Prior year				
	Test Year	2021 (I) Projected [4]	4,803	100,525	429	420,374	23,581	51,839	38,071	5,617 2,850 81,293 89,760	5,617 2,850 720,914 729,382	7.03% 50.74% 6.12%		
	Projected		4,704 \$	98,458 \$	420 \$	440,696 \$	4,831 \$	50,773 \$	37,288 \$	5,492 \$ 2,788 79,621 87,900 \$	5,492 \$ 2,788 716,790 725,070 \$	4.64% 50.76% 3.94%		
(0	Projected		4,607 \$	96,433 \$	411 \$	440,696 \$	4,732 \$	49,729 \$	36,521 \$	5,369 \$ 2,727 77,983 86,078 \$	5,369 \$ 2,727 711,112 719,207 \$	2.30% 50.78% 1.80%		
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CT ADMINISTRATIVE AND GENERAL EXPENSE - NOMINAL DOLLARS 2012 THROUGH 2021		(i)	4,526 \$	6,476 \$	404 \$	440,696 \$	4,648 \$	48,850 \$	35,875 \$	5,248 \$ 3,117 76,604 84,969 \$	5,248 \$ 3,117 618,078 626,444 \$	59.39%	1.0000	
JRATION KNIA PENSE - NOMII 21		2017 (h)	1,379 \$	140,408 \$	\$ '	483,658 \$	4,648 \$	44,876 \$	38,119 \$	1,423 \$ 814 28,650 30,886 \$	1,423 \$ 814 741,738 743,975 \$	57.19%	0.9762 1.0244	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA ATIVE AND GENERAL EXPENSE - I 2012 THROUGH 2021		2016 (g)	7,725 \$	8,496 \$	\$	492,666 \$	4,648 \$	54,626 \$	33,611 \$	852 \$ 505 31,476 32,833 \$	852 \$ 505 633,247 634,604 \$	59.26%	0.9558 1.0462	
SOUTHWES NORTH RATIVE AND (2012	Recorded [1]	2015 (f)	2,735 \$	5,202 \$	ଓ '	440,369 \$	4,631 \$	47,786 \$	35,476 \$	858 \$ 505 31,508 3 32,871 \$	858 \$ 505 567,706 569,069 \$	58.88%	0.9439 1.0594	
ECT ADMINIST		2014 (e)	\$ '	493,972 \$	\$ '	375,931 \$	11,070 \$	50,250 \$	35,872 \$	193 \$ 109 38,262 38,564 \$	193 \$ 109 1,005,357 1005,659 \$	56.83%	0.9428 1.0607	
DIRE		2013 (d)	\$ '	6,146 \$	\$ '	339,034 \$	2,648 \$	45,387 \$	\$ '	3,471 \$ 2,286 28,497 34,255 \$	3,471 \$ 2,286 421,712 427,470 \$	65.85%	0.9277 1.0779	
		2012 (c)	316 \$	5,147 \$	€) 1	347,744 \$	2,648 \$	57,399 \$	€) 1	2,708 \$ 1,825 36,052 40,584 \$	2,708 \$ 1,825 449,305 453,837 \$	67.39%	0.9143 1.0937	hise Payments. hise Payments. hise Payments. 117.
	Account	Number (b)	923 \$	925 \$	926 \$	927 \$	928 \$	930.1 \$	930.2 \$	935 \$ \$	esise A A			: Acct. 927 Franc : Acct. 927 Franc : Acct. 927 Franc : Acct. 927 Franc loading rate on L
		Description (a)	Outside Services Employed	Injuries and Damages	Employee Pension and Benefits	Franchise Taxes [5]	Regulatory Commission Expense	General Advertising/Safety Education	Miscellaneous General Expense	Maintenance of General Plant Labor Labor Loading [6] Materials and Expenses Total	Total Direct Administrative and General Expense Labor Labor Loading Materials and Expenses Total	Escalation and Labor Loading Labor Labor Loading Materials & Expenses	Constant Dollar Factor Scale-Up Factor	 Company Records Company Records Multiplied by the applicable escalation factor, except Acct. 927 Franchise Payments. Multiplied by the applicable escalation factor, except Acct. 927 Franchise Payments. Multiplied by the applicable escalation factor, except Acct. 927 Franchise Payments. Multiplied by the applicable escalation factor, except Acct. 927 Franchise Payments. WH Ch 15, SN 8, Ln 4. Labor Loading equals Labor multiplied by the labor loading rate on Ln 17.
	Line	No.	-	2	с	4	5	9	7	8 0 1 1	5 th 4 th 2 th 4 th 4 th 4 th 4 th 4 th 4	16 17 18	19 20	

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		Account				Recorded [1]				Projected	Projected	Test Year		Line
ă	Description (a)	Number (b)	2012 (c)	2013 (d)	2014 (e)	2015 (f)	2016 (g)	2017 (h)	2018 (i)	2019 (j) Proiected	2020 (k) Proiected	2021 (I) Proiected	Projection Method (m)	No.
Outside Services Employed	Employed	923 \$	\$ 345	' ଚ	ନ ' ନ	2,897 \$	8,082 \$	1,413 \$	4,526 \$	4,526 \$	4,526 \$	4,526	Prior year	-
Injuries and Damages	sage	925 \$	\$ 5,629	\$ 6,624	\$ 523,958 \$	5,511 \$	8,889 \$	143,837 \$	6,476 \$	94,728 \$	94,728 \$	94,728	Prior Year and SIR normalization	2
Employee Pension and Benefits	n and Benefits	926 \$	۰ ج	۰ ب	\$ ' \$	\$	୫ '	\$	404 \$	404 \$	404 \$	404	Prior year	e
Franchise Taxes [2]	[2]	927 \$	\$ 347,744 \$	339,034	\$ 375,931 \$	440,369 \$	492,666 \$	483,658 \$	440,696 \$	440,696 \$	440,696 \$	420,374	Prior Year and WP15 Franch adjustment	4
Regulatory Commission Expense	ilssion Expense	928 \$	\$ 2,896	\$ 2,854	\$ 11,742 \$	4,906 \$	4,863 \$	4,762 \$	4,648 \$	4,648 \$	4,648 \$	22,221	WP15 928 adjustment	5
Seneral Advertisi	General Advertising/Safety Education	930.1 \$	\$ 62,777	\$ 48,923	\$ 53,301 \$	50,626 \$	57,152 \$	45,972 \$	48,850 \$	48,850 \$	48,850 \$	48,850	Prior year	9
Miscellaneous General Expense	ineral Expense	930.2 \$	۰ ج	۰ ب	\$ 38,050 \$	37,585 \$	35,165 \$	39,050 \$	35,875 \$	35,875 \$	35,875 \$	35,875	Prior year	7
Maintenance of General Plant Labor Labor Loading [3] Materials and Expenses Total	ieneral Plant ∣[3] Expenses	\$ 33 0 32	\$ 2,961 1,995 39,430 \$ 44,386	\$ 3,742 2,464 30,718 \$ 36,924	\$ 204 \$ 116 \$ <u>40,584</u> \$	909 \$ 535 33,381 33,381 \$	891 \$ 528 32,932 34,351 \$	1,457 \$ 834 29,350 \$ 31,641 \$	5,248 \$ 3,117 76,604 \$ 84,969 \$	5,248 \$ 2,665 \$ 76,604 \$ 84,518 \$	5,248 \$ 2,664 76,604 \$ 84,516 \$	5,248 2,663 76,604 84,515	Prior year Labor loading adjustment Prior year	8 0 1 11
Total Direct Administrative a Labor Labor Loading Materials and Expenses Total	Total Direct Administrative and General Expense Labor Labor Loading Materials and Expenses Total		\$ 2,961 1,995 458,822 \$ 463,778	\$ 3,742 2,464 428,154 \$ 434,360	\$ 204 \$ 116 11,043,567 \$ 1,043,887 \$	909 \$ 535 576.720 \$	891 \$ 528 639,749 641,169 \$	1,457 \$ 834 748,042 750,333 \$	5,248 \$ 3,117 618,078 626,444 \$	5,248 \$ 2,665 706,330 714,244 \$	5,248 \$ 2,664 706,330 714,243 \$ Chi,	5,248 2,663 703,581 711,492 ch 6, sh 1, Ln 9(c)		12 15 15
Escalation and Labor Loading Labor Labor Loading Materials & Expenses	abor Loading Ises		67.39%	65.85%	56.83%	58.88%	59.26%	57.19%	59.39%	2.30% 50.78% 1.80%	4.64% 50.76% 3.94%	7.03% 50.74% 6.12%		16 17 18
Constant Dollar Factor Scale-Up Factor	actor		0.9143 1.0937	0.9277	0.9428 1.0607	0.9439 1.0594	0.9558 1.0462	0.9762 1.0244	1.0000 1.0000					19 20

[2] WP Ch 15, Sh 8, Ln 4 [3] Labor Loading equals Labor multiplied by the labor loading rate on Ln 17.

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CHAPTER 16 Taxes

Company Witness: Timothy S. Lyons / Byron Williams

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA TAXES CHAPTER 16

Pursuant to California Public Utilities Commission decisions for the applications 88-02-003, 91-12-049, 94-01-021, 02-02-012, 07-12-022 and 12-12-024, income tax expense has been computed using full normalization including:

Federal Income Tax Expense (FIT)

- A. The tax benefits from using accelerated depreciation and the 10 percent ITC for 1981 through 1986 plant additions is being normalized in conformance with the provisions of the Economic Recovery Tax Act of 1981 and the Tax Reform Act of 1986.
- B. The tax basis of 1983 through 1985 plant additions have been reduced by 50 percent of the ITC generated in conformance with provisions of federal tax rules.
- C. Payroll taxes, pension costs and construction period interest related to selfconstructed projects are capitalized for income tax purposes in conformance with provisions of federal tax rules.
- D. Interest deduction was derived by applying the weighted average embedded cost of debt from Chapter 6 to the estimated rate base per Chapter 17. Unamortized deferred ITC is not deducted from rate base for this calculation under the "interest synchronization" rules permitted by Treasury Regulations.
- E. The amortization of excess accumulated deferred income taxes as a result of the Tax Cuts and Jobs Act of 2017 is calculated in Chapter 16.

California Corporation Franchise Tax Expense (CCFT)

- A. Deferred ITC has been deducted from rate base for the interest charge deduction computation.
- B. Interest deduction was computed by applying the weighted average embedded cost of debt to the estimated rate base net of the deferred ITC.

Contributions in Aid of Construction (CIAC) and Customer Advances

Since January 1, 1991, Southwest Gas collects gross-up taxes on CIAC and customer advances in accordance with CPUC Decision No. 87-09-026.

Property Taxes

The actual property taxes in California are paid for each fiscal year ended June. The lien and/or levy date and asset valuation date is January 1 of each year; with the tax payments due in two installments; the first during December and the final installment the following April.

The California property taxes are calculated on Sheets 3 and 4 as follows:

- 1. The 2012-2018 tax rates have been calculated by dividing the actual property taxes paid by the Total Full State Value. The forecasted rate for 2019-2021 is based on the latest two-year average actual rate changes.
- 2. The calculated property tax rate for the future years is then applied to the projected Total Full State Value for those years to arrive at the estimated future years' property taxes. The resultant property tax projected to be paid, as shown on the summary, will reflect the actual method of payment (i.e., half of the current year's assessment and half of the prior year's assessment).

Franchise Taxes

Please see Chapter 15 for the narrative on franchise taxes.

Payroll Taxes

Payroll taxes include federal unemployment insurance (FUI), state unemployment insurance (SUI), Federal Insurance Contributions Act (FICA) taxes, and Medicare taxes. FUI and SUI were calculated based on the Northern Nevada Division (NND) number of employees for 2018. The applicable tax base per employee was multiplied by the rate to determine the expense which was then allocated to Northern California jurisdiction based on 4-factor allocation method. The rates used to project 2021 expense were based on anticipated increases. For Social Security and Medicare taxes, the rates were multiplied by the NND 2018 eligible salaries for Social Security and by NND 2018 total salaries for Medicare, escalated by the compounded labor escalation factor for 2021 to determine test year expense which was then allocated to Northern California jurisdiction based on 4-factor allocation method. Southwest Gas records payroll taxes in Account 236 and distributes them to each FERC account charged with labor through its labor loading process. For ratemaking purposes consistent with prior rate cases, Southwest Gas has removed payroll taxes from labor loadings (Chapter 18) and includes them in Chapter 16.

SUMMARY OF TAXES OTHER THAN INCOME TAXES SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA

Line No.		~ ∩	с	4	5	8 7 6	S	
Test Year 2021	(q)	581,998 698,298	1,280,296	7,100	186,705	11,705 1,486 13,191	1,487,292 Ch 6, Sh 1	
2018	(c)	490,590 \$ 558,204	1,048,794 \$	7,100 \$	174,442 \$	11,705 1,486 13,191 \$	<u>1,243,527</u> \$	752,021 1.56% 11,705
		φ	ا م	φ	φ	ب م	с. Ф	<i></i> Ф Ф
Reference	(q)	Ch 16, Sh 4 Ch 16, Sh 4	Ln 1 + Ln 2	Ch 16, Sh 5	Ch 16, Sh 6	Company Records Company Records	Ln 3 + Ln 4 + Ln 5 + Ln 9	Company Records Company Records
Description	(a)	<u>Property Tax</u> 1/2 Prior Year 1/2 Current Year Year	Total Property Tax	FUI and SUI	FICA Taxes	<u>Other Taxes</u> Modified Business Tax [1] Other Miscellaneous Taxes Total Other Taxes	Total Taxes Other than Income Taxes	Allocation of Modified Business Tax Modified Business Tax NCA 4 - Factor
Line No.		~ ∩	ო	4	2	8 7 6	o	[5]

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16 Other Tax

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA SUMMARY OF TAXES OTHER THAN INCOME TAXES
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Line No.	. 	5	с	4	5	9	7	ø	o	10
								[3]	[3]	[3]
Tax Rate Per \$100 Value (f) (e)/(d)*100	1.2820	1.3105	1.3498	1.3711	1.4804	1.4671	1.4728	1.4691	1.4653	1.4616 [3]
I	\$	Ф	Ф	Ф	Ф	Ф	φ	ج	ج	÷.
Property Taxes (e)	592,754	666,546	742,157	888,653	972,940	981,179	1,116,409	1,158,675 [4]	1,163,997 [4]	1,396,596 [4]
Total Full State Value (d)	46,236,575	50,863,465	54,981,912	64,810,881	65,722,384	66,880,459	75,799,281	78,870,546	79,436,373 [2] \$	95,555,532 [2] \$
	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
Direct Net Plant Value Ratio (c) (d)/(b)	0.7198	0.6932	0.6227	0.6662	0.6713	0.6940	0.7989	0.8456	0.8456	0.8456
Net Plant 12/31/Previous Year (b) [1]	64,234,526	73,370,955	88,293,475	97,281,965	97,901,743	96,366,534	94,882,926	93,274,343	93,943,505	113,006,437
I	θ	φ	φ	φ	φ	φ	φ	φ	φ	φ
Lien Date <u>1/1/Year</u> (a)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Line No.	~	7	ю	4	5	9	7	80	6	10

[1] Chapter 17 - Average Rate Base

[2] Estimated Value based on Net Plant multiplied by actual 2019 Direct Net Plant Value Ratio.

[3] Estimated increase in tax rate of \$(0.00376) based on latest two-year average actual rate changes.

16 Prop Tax

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA FEDERAL AND STATE UNEMPLOYMENT INSURANCE

Line No.	Description(a)	Allocatio	ase or on Factor b)	Reference (c)		2018 (d)	Test Year 2021 (e)	Line No.
	Federal Unemployment Inst	surance (I	=UI)					
	Northern Nevada Division (N	NND) [1]						
1		\$	7,000	\$7,000 * Ln 20	\$			1
2 3	FUI Rate Total FUI			Ln 1 * Ln 2	\$	0.60%	0.60% 6,678	2 3
3 4	NND Allocation to NCA [2]	1	8.23%	Ln 1 * Ln 2 Ln 3 * Ln 4(b)	φ \$	<u>6,678</u> 550 \$	550	3 4
-		I	0.2070		Ψ	¢		т
	Corporate Staff							
5		\$	7,000	\$7,000 * Ln 21	\$	6,314,000 \$	6,314,000	5
6	FUI Rate					0.60%	0.60%	6
7	Total FUI			Ln 5 * Ln 6	\$	37,884 \$	37,884	7
8	NCA 4-Factor	0 - 1:6 :	_	Chapter 8C	<u>م</u>	1.56%	1.56%	8
9	Total Allocated to Northerr	n California	a.	Ln 7 * Ln 8	\$	590 \$	590	9
	State Unemployment Insu		I)					
	Northern Nevada Division (N							
10		\$	7,000	\$7,000 * Ln 20	\$	1,113,000 \$	1,113,000	10
11 12	SUI Rate Total SUI				\$	2.30% 25,599 \$	2.30% 25,599	11 12
13	NND Allocation to NCA [2]		8.23%		Ψ \$	2,107 \$	2,107	13
		I	0.2070		Ť			
	Corporate Staff							
14		\$	30,500	\$30 500 * l n 21	\$	27,511,000 \$	27.511.000	14
15	SUI Rate	Ŧ	00,000	\$00,000 <u></u>	Ŧ	0.90%	0.90%	15
16	Total SUI				\$	247,599 \$	247,599	16
17	NCA 4-Factor			Chapter 8C		1.56%	1.56%	17
18	Total Allocated to Northerr	n California	a		\$	3,854 \$	3,854	18
19	Total FUI and SUI				\$	7,100 \$	7,100	19
					:	Ch 16, Sh 3	Ch 16, Sh 3	
						Ln 4(c)	Ln 4(d)	
	Number of Employees [3]	_						
20	Northern Nevada Division [1]				159	159	20
21	Corporate Staff					902	902	21

[1] The South Lake Tahoe ratemaking jurisdiction is a part of the Northern Nevada division.

[2] The NND Allocation to NCA is calculated on WP Ch 16, Sh 1

[3] Monthly Operating Report for December 2018. No additional employees are projected to be added for the test year.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA FEDERAL INSURANCE CONTRIBUTIONS ACT (FICA) TAXES

Line No.	Description	Rate/Allocation Factor	2018	Test Year 2021 [1]	Line No.
	(a)	(b)	(c)	(d)	
4	Northern Nevada Division (NND)		¢ 40.000.004		4
1	Total Salaries	:	\$ 12,962,684		1
2	Salaries Eligible for Social Security Taxes		12,730,870		2
3	Social Security	6.20%	\$ 789,314 \$	844,803	3
4	Medicare	1.45%	187,959	201,172	4
5	Total FICA - NCA		\$ 977,273 \$	1,045,975	5
6	NND Allocation to NCA [2]	8.23%	\$ 80,426 \$	86,080	6
	Corporate Staff				
7	Total Salaries	5	\$ 83,178,326		7
8	Salaries Eligible for Social Security Taxes		77,969,173		8
9	Social Security	6.20%	\$ 4,834,089 \$	5,173,926	9
10	Medicare	1.45%	1,206,086	1,290,874	10
11	Total FICA - Corporate		\$ 6,040,174 \$	6,464,800	11
12	NCA 4-Factor [3]		1.56%	1.56%	12
13	Total Allocated to Northern California	5	\$94,015_\$	100,625	13
14	Total FICA	5	\$ 174,442 \$	186,705	14
			Ch 16. Sh 3	Ch 16, Sh 3	
			Ln 5(c)	Ln 5(d)	

[1] Escalated based on compound labor factor in Chapter 7.

1.0703

[2] Recorded 2018 percentage of labor charged to Northern California by NND employees calculated on WP Ch 16, Sh 1

[3] Ch 8C, Sh 2, Ln 6

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA INCOME TAXES ON OPERATIONS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2021 AS ADJUSTED

Line No.	Description (a)	Reference (b)		Test Year 2021 (c)	_	Adjustments (d)		After Rate Relief (e) (c) + (d)	Line No.
	State Income Tax								
1 2	Margin Expenses	Ch 6, Sh 1 Ch 6, Sh 1	\$ -	20,792,140 \$ 12,320,646	\$ -	1,469,249 30,418	\$ 	22,261,389 12,351,064	1 2
3 4	Taxable Income Before Interest Interest Expense [1]	Ln 1 - Ln 2 Ln 23	\$	8,471,494 2,195,525	\$ -	1,438,831 19	\$	9,910,325 2,195,543	3 4
5 6	State Taxable Income Effective State Income Tax Rate	Ln 3 - Ln 4 WP Ch 16, Sh 6	\$	6,275,969 \$ 8.84%	\$ -	1,438,813 8.84%		7,714,782 8.84%	5 6
7	State Income Tax	Ln 5 * Ln 6	\$_	554,796	\$_	127,191		681,987	7
	Federal Income Tax		C	Ch 6, Sh 1, Ln 18(c)			C	Ch 6, Sh 1, Ln 18(e)	
8 9	Margin Expenses	Ln 1 Ln 2	\$	20,792,140 \$ 12,320,646	\$ -	1,469,249 30,418		22,261,389 12,351,064	8 9
10 11 12	Taxable Income Before Interest State Income Tax Interest Expense [2]	Ln 8 - Ln 9 Ln 7 Ln 26	\$	8,471,494 5 554,796 2,195,502	\$	1,438,831 127,191 42		9,910,325 681,987 2,195,543	10 11 12
13 14	Federal Taxable Income Effective Federal Income Tax Rate	Ln 10 - Ln 11 - Ln 12 WP Ch 16, Sh 6	\$	5,721,197 S 21.00%	\$ -	1,311,599 21.00%		7,032,795 21.00%	13 14
15 16	Federal Income Tax Investment Tax Credit	Ln 13 * Ln 14 Ch 16, Sh 9, Ln 16(e)	\$	1,201,451 \$ 1,048	\$	275,436 (1,048)		1,476,887 -	15 16
17	Total Federal Income Tax	Ln 15 - Ln 16	\$_	1,200,403	\$_	276,484	\$	1,476,887	17
		Ln 7 + Ln 17	C	Ch 6, Sh 1, Ln 19(c)			C	Ch 6, Sh 1, Ln 19(e)	
18	Total Federal and State Income Tax	Ln 7 + Ln 17	\$_	1,755,199	\$_	403,675	\$_	2,158,874	18
19 20	Excess Deferred Income Tax (EDIT) Plant Related EDIT Amortization Non-Plant Related EDIT Amortization		\$	(230,230) \$ 220,545	\$	-	\$	(230,230) 220,545	19 20
21	Total EDIT Amortization		\$_	(9,685) Ch 6, Sh 1, Ln 20(c)	\$_	-	\$ _	(9,685) Ch 6, Sh 1, Ln 20(e)	21
22 23 24 25 26	[1] Interest Calculation - State Rate Base Deferred ITC Adjusted Rate Base Weighted Cost of Debt Synchronized Interest Expense	Ch 6, Sh 1 n/a Ln 19 + Ln 20 Ch 6, Sh 2 Ln 21 * Ln 22	\$ \$ \$	100,027,409 5 1,048 100,028,457 5 2.19% 2,195,525 5	\$	1,901 (1,048) 853 2.19% 19	\$	100,029,310 	22 23 24 25 26
27 28 29	[2] Interest Calculation - Federal Rate Base Weighted Cost of Debt Synchronized Interest Expense	Ln 19 Ln 22 Ln 24 * Ln 25 16 Incom	= \$ \$ \$ \$	100,027,409 5 2.19% 2,195,502 5	_	1,901 2.19% 42		100,029,310 2.19% 2,195,543	27 28 29

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16 Income Tax

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA DEFERRED INCOME TAXES

Line			Activity For	Pro	jected Activity		Balances	Projected End	ing Balances Ass	et (Liability)	Line
No.	Description		2018	2019	2020	2021	12/31/2018	12/31/2019	12/31/2020	12/31/2021	No.
	(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
				(g) - (f)	(h) - (g)	(i) - (h)					
	Federal										
1	Capitalized Interest	\$	(2,112) \$	(1,874) \$	(1,126) \$	(512) \$	(27,592) \$	(29,466) \$	(30,592) \$	(31,104)	1
2	Excess Depreciation		(474,655)	16,198	(433,395)	(63,119)	(12,010,791)	(11,994,593)	(12,427,988)	(12,491,107)	2
3	Other Cap. Costs		(142,910)	(108,371)	(112,307)	(98,066)	(1,680,020)	(1,788,391)	(1,900,698)	(1,998,764)	3
4	Relocation Costs		20,812	15,942	13,574	17,725	(665,799)	(649,857)	(636,283)	(618,558)	4
5	Repairs		(32,645)	(13,299)	(11,922)	(13,030)	(778,890)	(792,189)	(804,111)	(817,141)	5
6	Customer Advances		3,369	(12,643)	-	-	30,037	17,394	17,394	17,394	6
7	Federal Net Operating Loss		-	-	-	-	-	-	-	-	7
8	C-I-A-C		(38,524)	(32,367)	(28,703)	(21,147)	548,262	515,895	487,192	466,045	8
9	Subtotal	\$	(666,665) \$	(136,414) \$	(573,879) \$	(178,149) \$	(14,584,793) \$	(14,721,207) \$	(15,295,086) \$	(15,473,235)	9
40	0 / // // //		0.040	(10, 170)	(1 7 1 0)	(5.07.1)	(000, 405)	(005.040)	(007.050)	(000,000)	40
10	System Allocable [1]		8,310	(12,478)	(1,716)	(5,274)	(283,465)	(295,943)	(297,659)	(302,932)	10
11	Total Federal	\$_	(658,355) \$	(148,893) \$	(575,594) \$	(183,423) \$	(14,868,258) \$	(15,017,150) \$	(15,592,745) \$	(15,776,167)	11
	California										
12	Capitalized Interest	\$	303 \$	400 \$	332 \$	452 \$	(24,636) \$	(24,236) \$	(23,904) \$	(23,452)	12
13	Excess Depreciation		(39,236)	(88,250)	(170,922)	(54,946)	(1,133,880)	(1,222,130)	(1,393,052)	(1,447,998)	13
14	Other Cap. Costs		(51,493)	(41,142)	(37,348)	(32,613)	(523,144)	(564,286)	(601,634)	(634,247)	14
15	Relocation Costs		6,921	5,302	4,514	5,894	(221,413)	(216,111)	(211,597)	(205,703)	15
16	Repairs		(10,856)	(4,423)	(3,965)	(4,334)	(259,022)	(263,445)	(267,410)	(271,744)	16
17	Customer Advances		(12,811)	(10,764)	(9,545)	(7,033)	182,326	171,562	162,017	154,984	17
18	C-I-A-C		(1,007)	(1.023)	(707)	(622)	15,460	14,437	13,730	13,108	18
19	Subtotal	\$	(108,179) \$	(139,900) \$	(217,641) \$	(93,202) \$	(1,964,309) \$	(2,104,209) \$	(2,321,850) \$	(2,415,052)	19
20	Sustem Allesship [2]		(6,042)	(0.205)	(1.014)	(0.400)	(108,649)	(117,034)	(118,948)	(121,085)	20
20	System Allocable [2] Total California	<u>م</u> –	(114,221) \$	(148,285) (148,285)	(1,914) (219,555) \$	(2,138) (95,340) \$	(2,072,958) \$	(2,221,242) \$	(2,440,797) \$		20
21	Total California	^э =	(114,221) \$	(140,20 <u>5)</u> ֆ	(219,555) \$	(95,340) \$	(2,072,956) \$	(2,221,242) \$	(2,440,797) \$	(2,536,137)	21
22	Total Deferred Taxes	\$	(772,576) \$	(297,177) \$	(795,149) \$	(278,763) \$	(16,941,215) \$	(17,238,392) \$	(18,033,542) \$	(18,312,305)	22
	Gross Up Collected										
23	Customer Advances	\$	10,702 \$	(2,909) \$	- \$	- \$	22,895 \$	19,986 \$	19,986 \$	19,986	23
24	C-I-A-C		(8,742)	(14,920)	- '	- '	111,203	96,283	96,283	96,283	24
25	Total Gross Up Collected	\$	1,960 \$	(17,829) \$	- \$	- \$	134,098 \$	116,269 \$	116,269 \$	116,269	25
26	Not Deferred Taylog	¢	(770.646) *	(215.006) *	(705 140) *	()70 762) *	(16 907 117) *	(17 100 100) @	(17.017.070) *	(19, 106, 020)	26
26	Net Deferred Taxes	\$_	(770,616) \$	(315,006) \$	(795,149) \$	(2/8,/63) \$	(16,807,117) \$				26
								Ch 17, Sh 26	Ch 17, Sh 26	Ch 17, Sh 26	
[1	1] Ch 16, Sh 12, Ln 9							Ln 5(i)	Ln 5(j)	Ln 5(k)	

[2] Ch 16, Sh 12, Ln 17

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA ITC AMORTIZATION

		_		12/31/2021				
Line			ITC	ITC		ITC	ITC [1]	Line
No.	Description		Generated	Amortized	_	Unamortized	Annual Amort	No.
	(a)		(b)	(c)		(d)	(e)	
				-(b)+(d)				
	Five Years Amortization							
1	71-73 Fully Amort	\$	(192,093) \$	192,093	\$	-		1
2	Subtotal	\$	(192,093) \$	192,093	\$	-	\$	2
	Remaining Life Amortizatio	n						
3	1975	\$	(10,551) \$	10,526	\$	(25)	\$ 25	3
4	1976		(17,134)	17,086		(48)	48	4
5	1977		(18,486)	18,425		(61)	61	5
6	1978		(22,910)	22,824		(86)	86	6
7	1979		(30,049)	29,925		(124)	124	7
8	1980 utilized 1982		(31,571)	31,398		(173)	173	8
9	1981 utilized 1982		(24,448)	24,315		(133)	133	9
10	1982 utilized 1983		(23,593)	23,455		(138)	138	10
11	1983 utilized 1983		(11,732)	11,662		(70)	70	11
12	1984 utilized 1984		(23,731)	23,667		(64)	64	12
13	1985 utilized 1985		(16,509)	16,406		(103)	103	13
14	1986 utilized 1986		(3,469)	3,446		(23)	23	14
15	Subtotal	\$	(234,183) \$	233,135	\$	(1,048)	\$ 1,048	15
		-	<u> </u>		-	· · ·		
16	Total	\$_	(426,276) \$	425,228	\$	(1,048)	\$1,048	16
		-			-	Ch 16, Sh 7	Ch 16, Sh 7	
						Ln 23(c)	Ln 16(c)	

[1] ITC annual amortization over the weighted average remaining life for vintages 1975 through 1986.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA SCHEDULE M'S

Line			Activity For	Pr	ojected Activity		Line
No.	Description		2018	2019	2020	2021	No.
	(a)		(b)	(c)	(d)	(e)	
	Federal						
1	Capitalized Interest	-\$	(10,057) \$	(8,924) \$	(5,362) \$	(2,438)	1
2	Excess Depreciation		(2,260,262)	77,132	(2,063,784)	(300,567)	2
4	Other Cap. Costs		(680,524)	(516,052)	(534,795)	(466,981)	4
5	Relocation Costs		99,105	75,914	64,638	84,405	5
6	Repairs		(155,452)	(63,329)	(56,771)	(62,048)	6
7	Customer Advances		16,043	(60,205)	-	-	7
8	C-I-A-C		(183,448)	(154,129)	(136,681)	(100,700)	8
9	Subtotal	\$	(3,174,595) \$	(649,592) \$	(2,732,756) \$	(848,329)	9
10	System Allocable [1]		39,573	(59,421)	(8,170)	(25,113)	10
11	Total Federal	\$	(3,135,023) \$	(709,012) \$	(2,740,926) \$	(873,442)	11
	California						
12	Capitalized Interest	-\$	4,339 \$	5,728 \$	4,754 \$	6,472	12
13	Excess Depreciation	Ψ	(561,831)	(1,263,670)	(2,447,477)	(786,786)	13
15	Other Cap. Costs		(737,342)	(589,123)	(534,796)	(466,994)	15
16	Relocation Costs		99,104	75,921	64,637	84,398	16
17	Repairs		(155,450)	(63,334)	(56,776)	(62,060)	17
18	Customer Advances		(183,444)	(154,133)	(136,677)	(100,707)	18
19	C-I-A-C		(14,419)	(14,649)	(10,124)	(8,907)	19
20	Subtotal	\$	(1,549,043) \$	(2,003,260) \$	(3,116,459) \$	(1,334,584)	20
04				(400.007)	(07, 400)	(00.040)	04
21	System Allocable [2]		(86,519)	(120,067)	(27,406)	(30,613)	21
22	Total California	\$_	(1,635,562) \$	(2,123,328) \$	(3,143,865) \$	(1,365,197)	22

[1] Ch 16, Sh 5, Ln 22 divided by the federal tax rate (21.00%)

[2] Ch 16, Sh 5, Ln 22 divided by the state tax rate (08.84% * (1 - 21.00%))

SOUTHWEST GAS CORPORATION SYSTEM ALLOCABLE SCHEDULE M'S

Line			Activity For	Projected Activity						
No.	Description		2018	2019	2020	2021	No.			
	(a)	_	(b)	(c)	(d)	(e)				
	Federal									
1	Capitalized Interest	\$	467,476 \$	91,110 \$	738 \$	2,348	1			
2	Excess Depreciation		4,792,957	(600,934)	2,478,437	1,084,433	2			
3	Other Cap. Costs		(2,718,019)	(3,307,767)	(3,004,086)	(2,700,229)	3			
4	Federal Net Operating Loss		-	-	-	-	4			
5	Research Costs		-	-	-	-	5			
6	Subtotal	\$	2,542,414 \$	(3,817,591) \$	(524,911) \$	(1,613,448)	6			
7	NCA 4-Factor		1.56%	1.56%	1.56%	1.56%	7			
8	Total Federal	\$	39,573 \$	(59,421) \$	(8,170) \$	(25,113)	8			
	California									
9	Capitalized Interest	\$	246,071 \$	91,020 \$	794 \$	2,381	9			
10	Excess Depreciation		(1,102,027)	(4,497,146)	1,242,537	731,150	10			
11	Capitalized Overhead		(3,899,164)	(3,307,800)	(3,004,048)	(2,700,296)	11			
12	Other Cap. Costs		(87,712)	-	-	-	12			
13	Research Costs		(715,722)	-	-	-	13			
14	Subtotal	\$	(5,558,554) \$	(7,713,927) \$	(1,760,718) \$	(1,966,765)	14			
15	NCA 4-Factor		1.56%	1.56%	1.56%	1.56%	15			
16	Total California	\$	(86,519) \$	(120,067) \$	(27,406) \$	(30,613)	16			

SOUTHWEST GAS CORPORATION SYSTEM ALLOCABLE DEFERRED INCOME TAXES

Line No.	(a) Federal		Activity For 2018 (b)	Pro 2019 (c) (g) - (f)	2020 (d) (h) - (g)	2021 (e) (i) - (h)	Balances 12/31/2018 (f)	Projected Endir 12/31/2019 (g)	ng Balances Ass 12/31/2020 (h)	<u>set (Liability)</u> 12/31/2021 (i)	Line No.
1	Capitalized Interest	\$	98,170 \$	19,133 \$	155 \$	493 \$	(1,833,186) \$	(1,814,053) \$	(1,813,898) \$	(1,813,405)	1
2	Excess Depreciation		1,006,521	(126,196)	520,472	227,731	1,501,583	1,375,387	1,895,859	2,123,590	2
3	Capitalized Overhead		(570,786)	(694,631)	(630,858)	(567,048)	(10,872,204)	(11,566,835)	(12,197,693)	(12,764,741)	3
4	Other Cap. Costs		2	-	-	-	(765,214)	(765,214)	(765,214)	(765,214)	4
5	Federal Net Operating Loss		-	-	-	-	-	-	-	-	5
6	Research Costs	_	-	-	-	-	(6,242,640)	(6,242,640)	(6,242,640)	(6,242,640)	6
7	Subtotal	\$	533,907 \$	(801,694) \$	(110,231) \$	(338,824) \$	(18,211,661) \$	(19,013,355) \$	(19,123,586) \$	(19,462,410)	7
8	NCA 4-Factor		1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	8
9	NCA Allocation [1]	\$_	8,310 \$	(12,478) \$	(1,716) \$	(5,274) \$	(283,465) \$	(295,943) \$	(297,659) \$	(302,932)	9
	California	-									
10	Capitalized Interest	\$	17.185 \$	6.356 \$	55 \$	166 \$	(609.628) \$	(603,272) \$	(603,216) \$	(603.050)	10
11	Excess Depreciation		(76,961)	(314,063)	86,774	51,061	(424,644)	(738,707)	(651,933)	(600,873)	11
12	Capitalized Overhead		(272,302)	(231,004)	(209,791)	(188,578)	(3,615,575)	(3,846,579)	(4,056,370)	(4,244,947)	12
13	Other Cap. Costs		(6,125)	-	-	-	(254,471)	(254,471)	(254,471)	(254,471)	13
14	Research Costs		(49,983)	-	-	-	(2,076,001)	(2,076,001)	(2,076,001)	(2,076,001)	14
15	Subtotal	\$	(388,187) \$	(538,710) \$	(122,961) \$	(137,351) \$	(6,980,320) \$	(7,519,030) \$	(7,641,991) \$	(7,779,342)	15
16	NCA 4-Factor	_	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	16
17	NCA Allocation [2]	\$	(6,042) \$	(8,385) \$	(1,914) \$	(2,138) \$	(108,649) \$	(117,034) \$	(118,948) \$	(121,085)	17

[1] Ch 16, Sh 8, Ln 10 [2] Ch 16, Sh 8, Ln 20

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA EXCESS DEFERRED INCOME TAXES

Line No.	Description(a)		Reference (b)	_	Plant <u>Amount</u> (c)	Non-Plant Amount (d)	Total (e) (c) + (d)	Line No.
1	Timing Differences at 12/31/2017		Company Records	\$	68,631,824 \$	(7,475,842) \$	61,155,982	1
2 3 4 5 6 7 8 9 10	Recorded Deferred Taxes Required Deferred Taxes at 35% Statutory Rate Excess Deferred Taxes Before State Adjustment State Adjustment (Federal Benefit of State Taxes) Excess Deferred Taxes Common Excess Deferred Taxes Apportioned Total Excess Deferred Taxes Gross-up Total Regulatory Liability	[2]	Ln 1 * 21% Ln 1 * 35% Ln 3 - Ln 2 Company Records Ln 4 + Ln 5 Ln 18 Ln 6 + Ln 7 Company Records Ln 8 + Ln 10	\$ \$ [1] \$ \$	14,412,683 24,021,138 9,608,455 (165,664) 9,442,791 144,280 9,587,071 2,909,850 12,496,921 \$	(1,569,927) (2,616,545) (1,046,618) \$ 30,268 (1,016,350) \$ (86,374) (1,102,724) (334,697) \$ (1,437,420) \$	12,842,756 21,404,594 8,561,837 (135,396) 8,426,441 57,906 8,484,347 2,575,153 11,059,501	2 3 4 5 6 7 8 9 10
	SYSTEM ALLOCABLE							
11	Timing Differences		Company Records	\$	65,175,852_\$	(38,504,933) \$	26,670,919	11
12 13 14 15 16 17 18	Recorded Deferred Taxes Required Deferred Taxes at 35% Statutory Rate Excess Deferred Taxes Before State Adjustment State Adjustment (Federal Benefit of State Taxes) Excess Deferred Taxes 4-Factor at 12/31/17 Excess Deferred Taxes Apportioned	[3]	Ln 11 * 21% Ln 11 * 35% Ln 13 - Ln 12 Company Records Ln 14 + Ln 15 Ln 16 * Ln 17	\$ \$ \$	13,686,929 22,811,548 9,124,619 (380,388) 8,744,231 <u>1.65%</u> 144,280	(8,086,036) (13,476,727) (5,390,691) \$ 155,899 (5,234,791) \$ 1.65% (86,374) \$	5,600,893 9,334,822 3,733,929 (224,489) 3,509,440 1.65% 57,906	12 13 14 15 16 17 18

[1] Rate Base adjustment associated with plant-related excess deferred income tax

[2] Excess deferred taxes are grossed-up to reflect the future tax savings of reduced future revenue

[3] The 4-factor apportionment percentage used to establish the excess deferred liability is the percentage at 12/31/17

Line No.	- 0 σ 4 ω
Total (e) (c) + (d)	8,484,347 9,685
Non-Plant Amount (d)	(1,102,724) 5 (220,545)
Plant Amount (c)	9,587,071 197,665 32,565 230,230
Reference (b)	Company Records \$ Ln 10 Ln 3 + Ln 4
Description (a)	Total Excess Deferred Taxes Amortization Period (Years) Annual Amortization of Excess Deferred Taxes Share of Annual Amortization of Excess Deferred Taxes Total Annual Amortization of Excess Deferred Taxes
Line No.	- 0 σ 4 Ω

SYSTEM ALLOCABLE

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1,973,614	1.65%	32,565
θ		 ج
Company Records		Ln 8 * Ln 9
	[1]	
Annual Amortization of Excess Deferred Taxes	4-Factor at 12/31/17	Arizona Share of Annual Amortization of Excess Deferred Taxes

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[1] The 4-factor percentage used to establish the excess deferred liability is the percentage at 12/31/17

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CHAPTER 17 Rate Base and Depreciation Expenses

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE BASE CHAPTER 17

Chapter 17 contains the computation of the Northern California (NCA) Gas Plant in Service (GPIS) and Accumulated Depreciation and Amortization (AD&A) for the historical years 2012 through 2018 (historical period), and projections for years 2019, 2020 and test year 2021. Chapter 17 also contains the computation of average rate base for the years 2012 through 2021.

The NCA GPIS and AD&A amounts are shown by FERC account. They are also reported by categories of activities (Intangible, Distribution, and General). GPIS is compiled to report a beginning balance, additions, retirements/transfers, and an ending balance. AD&A is also compiled to report a beginning balance, the provision for depreciation expense, retirements, transfers/costs of removal/salvage value, and an ending balance.

<u>General Information for Gross Plant in Service Projections</u>: The 2019 GPIS computation begins with the year-end 2018 GPIS balance and adds the projected additions through December 2019. There are no projected intangible additions to NCA plant for years 2019 through 2021. Distribution and general plant projections are based on plans developed by Southwest Gas's capital planning and budgeting process. All projected distribution plant additions include escalation and are calculated before overheads which are separately applied based on a seven-year overhead ratio average.

<u>Retirements/transfers:</u> Retirements for both distribution and general plant used in the projected years 2019 and 2020 and the test year 2021 were based on the seven-year average of the historical period 2012 through 2018. Transfers were assumed to be zero in the projected periods.

Salvage/Removal Cost: Salvage and removal costs for both distribution and general plant used in the projected years 2019 and 2020 and the test year 2021 were based on the seven-year average of the historical period 2012 through 2021.

Overheads: The NCA distribution overhead rate applied to projected years 2019 and 2020 and test year 2021 direct distribution plant capital expenditures is based on the seven-year average historical period 2012 through 2018. General plant capital expenditures are not subject to overheads. Overheads consist of division supervision and engineering, Administrative and General, capitalized property tax and Allowance for Funds Used During Construction.

Escalation: Escalation is included in Southwest Gas's capital planning and budgeting process.

<u>Average Rate Base:</u> The NCA average GPIS and AD&A is computed by using actual, recorded amounts for the historical years 2012 through 2018.

The 2019 GPIS computation begins with the year-end 2018 GPIS balance and adds the forecasted/projected additions for 2019, as summarized in the Chapter 17 Workpapers at Sheet 5. The 2019 retirements/transfers are based on the methods discussed above.

The simple average of the sum of the year-end 2018 and the year-end 2019 GPIS balances is calculated to determine the average 2019 GPIS balance used for rate base.

The 2019 AD&A computation begins with the year-end 2018 AD&A balance. An annualized provision for 2019, utilizing the half-year convention for forecasted 2019 additions, is added to that balance. The 2019 retirements, removal costs, and salvage are based on the methods discussed above.

The simple average of the sum of the year-end 2018 and the year-end 2019 AD&A balances is calculated to determine the average 2019 AD&A balance used for rate base.

The 2020 GPIS computation begins with the year-end 2019 GPIS balance and adds the forecasted/projected additions for 2020, as summarized in the Chapter 17 Workpapers at Sheet 5. The 2020 retirements/transfers are based on the methods discussed above.

The simple average of the sum of the year-end 2019 and the year-end 2020 GPIS balances is calculated to determine the average 2020 GPIS balance used for rate base.

The 2020 AD&A computation begins with the year-end 2019 AD&A balance. An annualized provision for 2020, utilizing the half-year convention for forecasted 2020 additions, is added to that balance. The 2020 retirements, removal costs, and salvage are based on the methods discussed above.

The simple average of the sum of the year-end 2019 and the year-end 2020 AD&A balances is calculated to determine the average 2020 AD&A balance used for rate base.

The 2021 GPIS computation begins with the year-end 2020 GPIS balance and adds the forecasted/projected additions for 2021, as summarized in the Chapter 17 Workpapers, Sheet 5. The 2021 retirements/transfers are based on the methods discussed above.

The simple average of the sum of the year-end 2020 and year-end 2021 GPIS balances is calculated to determine the average 2021 GPIS balance used for the test period rate base.

The 2021 AD&A computation begins with the year-end 2020 AD&A balance. An annualized provision for 2021, utilizing the half-year convention for forecasted 2021 additions, and the use of proposed depreciation rates, is added to that balance. The 2021 retirements, removal costs, and salvage are based on the methods discussed above.

The simple average of the sum of the year-end 2020 and year-end 2021 AD&A balances is calculated to determine the average 2021 AD&A balance used for the test period rate base.

System Allocable GPIS and AD&A are described in the narrative summary of Chapter 8, Tab B, of this filing.

Customer Advances for Construction for 2019-2021 are calculated utilizing a 13month average of the historical balances from 2012-2018.

Deferred Taxes are computed in Chapter 16 of this filing and include excess deferred taxes as a result of the Tax Cuts and Jobs Act of 2017.

Working capital consists of the Lead-Lag Study plus Materials and Supplies. See Chapter 17, Sheet 25 for the calculation of Materials and Supplies. The Lead-Lag Study was prepared consistent with the previous Southwest Gas filings and followed the California Standard Practice U-16. The 13-month average balances are listed by account and are adjusted for deferred income taxes, if applicable, to obtain a more accurate amount relating to cash working capital needs or surpluses. All System Allocable/Common balances have the appropriate 4-Factor Allocation percentage applied to determine the appropriate amount to allocate to the rate jurisdiction. Details of all subaccounts are also included in the Chapter 17 Lead Lag Workpapers.

Depreciation and Amortization expense for 2019 and 2020 uses the annualized provision as computed in Chapter 17, Sheets 15 and 16. Depreciation and Amortization for 2021 uses annualized provision as computed in Chapter 17, sheet 17 based on the proposed depreciation rates submitted to the Public Advocates Office on August 28, 2019.

Line	No.			-	2	e		4	5	9	7	ø	6	10	11	12	13	4
Test Year	2021	(k)	Ch 17, Sh 14 Col (g)	185,080,793	6,648,825	191,729,618		62,640,210	4,141,364	200,963	17,636,342	420,312	9,397,007	143,688	94,579,885	2,878,067	(391)	100,027,409 Ch 6, Sh 1
Projected	2020	(j)	Ch 17, Sh 13 Col (g) C	162,654,761 \$	6,150,114	168,804,876 \$		59,179,790 \$	3,830,659	200,963	17,104,907	414,791	9,442,791	144,280	90,318,181 \$	2,878,067 \$	(391)	81,364,371 \$
Projected	2019	()	Ch 17, Sh 12 Col (g) C	149,590,955 \$	5,482,432	155,073,388 \$		55,982,031 \$	3,563,264	200,963	16,641,906	354,100	9,442,791	144,280	86,329,335 \$	2,878,067 \$	(391)	71,621,729 \$
	2018	(4)	Ch 17, Sh 11 Col (g) C	146,700,935 \$	5,134,538	151,835,473 \$		52,622,300 \$	3,459,371	126,264	16,189,788	308,230	9,442,791	144,280	82,293,024 \$	3,494,914 \$	(534)	73,036,828 \$
	2017	(6)	Ch 17, Sh 10 Col (g) C	144,568,944 \$	5,053,339	149,622,284 \$		48,944,214 \$	3,290,288	130,236	20,617,538	416,632	4,721,395	72,140	78,192,443 \$	3,054,050 \$	(244)	74,483,646 \$
	2016	(t)	Ch 17, Sh 9 Col (g) C	142,622,865 \$	4,653,956	147,276,821 \$		45,488,726 \$	2,957,055	160,406	25,285,269	500,769			74,392,225 \$	2,726,390 \$	(586)	75,610,400 \$
Recorded	2015	(e)	Ch 17, Sh 8 Col (g) 0	140,596,540 \$	4,381,500	144,978,040 \$		43,004,686 \$	2,690,602	130,823	24,513,062	481,057			70,820,229 \$	2,670,689 \$	(276)	76,828,224 \$
	2014	(p)	Ch 17, Sh 7 Col (g) (134,263,948 \$	3,818,579	138,082,527 \$		41,476,228 \$	2,383,335	151,516	22,400,479	415,534			66,827,091 \$	\$ i0//I0#	(280)	\$\$
	2013	(c)		120,574,003 \$	3,131,739	\$ 123,705,742 \$		39,741,789 \$	2,103,750	271,706	18,601,108	338,528			61,056,880 \$	2,674,552 \$	(340)	65,323,074 \$
	2012	(q)	Ch 17, Sh 5 Col (g) Ch 17, Sh 6 Col (g)	106,210,449 \$	2,928,578	109,139,027 \$		37,407,709 \$	1,951,617	435,787	16,287,006	318,594			56,400,713 \$	2,884,834 \$	(448)	55,622,699 \$
	Description	(a)		Gas Plant in Service - Direct \$	Gas Plant in Service - System Allocable	Total Gas Plant in Service \$	Less:	Accum. Provision for Dep/Amort - Direct \$	Accum. Provision for Dep/Amort - System Alloc.	Customer Advances for Construction	Deferred Taxes - Direct	Deferred Taxes - System Allocable	Excess Deferred Taxes - Direct	Excess Deferred Taxes - System Allocable	Total Rate Base Deductions	Add: Working Capital - Direct \$	Add: Working Capital - System Allocable	Total Rate Base
Line	No.			~	2	e		4	5	9	7	œ	6	10	5	12	13	14

	Salvage (m) Co. Records
	Removal Cost (I) Co. Records
	Retirements (k) Co. Records
	Provision (j) Co. Records
ION JMULATED R BOOKS	Accumulated Provision for Depreciation 12/31/2011 (i) Co. Records
THWEST GAS CORPORATI NORTHERN CALIFORNIA GE GAS PLANT AND ACCI N FOR DEPRECIATION PEF	Annual Depr. Rate (h) D.08-11-048
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA 2012 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2012 (g) (c)+(d)+(e)+(f)
SOI 2012 AVER PROVISIC	Transfers & Adjustments (f) Co. Records

Line No.		- 0	ιm	-	4 u	n o	7	8	6	10	,	12	20	4		15	16	17	9	19	20	21	22	23	24	97. 77	97	17	29	0	30	31
Accumulated Provision for Depreciation 12/31/2012	(o) (i)+(k)-(k)-(i)+(m)+(n)	31,415 -	31,415		- 760	732	18,177,246	792,501	'	15,137,344	3,296,154	37,279	12,8/2	37,478,897		•	840,222		62,267	17,094	88,385	41,885	34,757	18,738	' 000 000	98,066	(395,396)	- 1033	1,170,951		38,681,263	37,407,709
Transfers & Adjustments	(n) Co. Records (↔ '''	' '	÷	<i>₽</i>		,						'	, ,		\$				951	(641)	3,793	5,917						10,020 \$		10,020 \$	۳
de	(m) Co. Records	∽ '''	\$ 	÷	<i>₽</i>								'	, ,		\$ '			'	1,105	12,944				'	236			14,285 \$	-	14,285 \$	
Removal Cost	(I) Co. Records	\$ '''	\$	e	<i>₽</i>		28,563		'	14,699	107		- L	43,369 \$		\$ '													\$		43,369 \$	
Retirements	(k) Co. Records	\$ '''	\$	e	<i>₽</i>		120,565			199,123	1,443			321,130 \$	-	\$ '				8,620	606'09				' 0 0 0	1,383			70,912 \$		392,043 \$	
Provision	(j) Co. Records	∽ '''	\$	÷	\$ ' \$	15	1,128,521	38, 198	'	1,376,673	254,477	4,622		2,802,870 \$		\$ '	67,216		12,924	20,553	27,223		7,157	4,385		10,445	3,241	- 000	155,345 \$		2,958,215 \$	
Accumulated Provision for Depreciation 12/31/2011	(i) Co. Records	31,415 \$	31,415 \$	÷	- \$ 21 105	717	17,197,853	754,303	'	13,974,493	3,043,226	32,657	12,8/2	35,040,526 \$		\$ '	773,007		49,343	3,106	109,767	38,093	21,683	14,353	' 00 00	88,768	(38,637)	- 731	1,062,213 \$		36,134,154 \$	
	(h) D.08-11-048	0.00% \$ Various	, ,	4 /000 0	0.00% \$	1.78%	2.15%	4.45%	n/a	3.92%	2.97%	4.23%	0.00 %00.0	_ ج		0.00% \$	2.90%	0.00%	11.32%	19.91%	8.95%	8.95%	14.11%	5.42%	n/a - 1221	5.13%	21.93%	П/а 18 67%	\$	•	پ ج	
Gas Plant in Service 12/31/2012	(g) (c)+(d)-(e)+(f) D	31,415 -	31,415		35 068	30,300 851	61,294,940	1,041,687	'	36,535,448	8,832,578	234,203	12,8/2	10/,988,54/		790,233	2,317,780	'	114,171	127,741	219,753	85,495	67,091	80,906		202,450	14,779	11 858	4,032,256		112,052,217	106,210,449
Transfers & Adjustments	(f) Co. Records	∽ '''	\$ 	÷	₽ I I								'	- -		\$ '				3,934	(50,269)	85,495	(4,462)						34,698 \$	-	34,698 \$	φ
ents	(e) Co. Records	↔ '''	\$	÷	<i>₽</i>		120,565		'	199,123	1,443		- 100	321,130 \$		\$ '				8,620	606'09				' 0	1,383			70,912 \$		392,043 \$	
l	(d) Co. Records	9 '''	\$ 	÷	₽ 1		9,422,299	185,481	'	1,682,721	438,299	135,543		11,864,343 \$		چ י			'	59,619	83,755		33,165						176,539 \$		12,040,881 \$	
Gas Plant in Service 12/31/2011	(c) Co. Records	31,415 \$	31,415 \$	÷	35 068	30,300 851	51,993,206	856,206	'	35,051,850	8,395,722	98,660	- L	96,445,335 \$		790,233 \$	2,317,780		114,171	72,808	247,174		38,388	80,906		203,833	14,779	11 858	3,891,931 \$		100,368,680 \$	
Account Number	(q)	302 \$ 303	 \$		3/4.1 \$	375	376	378	379	380	381	385	38/	چر ج		389 \$	390.1	390.2	391	391.1	392.11	392.12	393	394	395	396	397	397.2	\$ \$		æ	
Description	(a)	<u>Intangible Plant</u> Franchise and Consents Miscellaneous Intanoible Plant	Total Intangible Plant	Distribution Plant	Land and Land Rights Bichte of Wex	Structures & Improvements	Mains	Vleasuring & Reg Station-General	Measuring & Reg Station-City Gate	Services	Meters	ndustrial Measuring & Reg Station	Miscellaneous Equipment	l otal Distribution Plant	General Plant	Land and Land Rights	Structures & Improvements - Owned	Structures & Improvements - Leasehold	Office Furniture & Fixtures	Computer Software & Hardware	Fransportation Equip Vehicles Light	Fransportation Equip Vehicles Heavy	Stores Equipment	fool, Shop & Garage Equipment	aboratory Equipment	Power Operated Equipment	Communication Equipment	Communication Equipment - Leiemetry Miscellaneous Equipment	Total General Plant		Total Gas Plant in Service	Annual Average Total Balance
Line No.		≤ ⊐⊫ ~ ~		- 11-	- u	- 00 n 00		_			-			4											_				58	0	02	31 A

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	Transfers & Adiustments	(n) Co. Records	· ·	
	Salvade		φφ '''	69 1
	Removal Cost	sp.	\$ \$ ''	69 1
	Retirements		ю ю ' ' ' '	6
	Provision		ю ю ' ' ' '	- \$ 282
N IULATED 300KS	Accumulated Provision for Depreciation		31,415 \$ 31,415 \$	\$ - \$ 24 760
CORPORATIO ALIFORNIA T AND ACCUM CIATION PER E	Annual Depr. Rate	1 4	0.00% \$ Various	0.00% \$
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNA 2013 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2013	(g) (c)+(d)-(e)+(f)	31,415 - 31,415	35.068
SOU 2013 AVERA PROVISIO	Transfers & Adiustments	(f) Co. Records	φ φ 	69 1
	Retirements		у у у у у у у у у у у у у у у у у у у у	6 1
	Net Additions		ф ф ч ч	()
			1 1	

Line No.	, α α	4507807	13 13 14	2 7 0 6 7 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	23 25 28 28 28 28 28 28 28 28 28 28 28 28 28	30 31
Accumulated Provision for Depreciation 12/31/2013 (o) ()+(k)-(k)+(n)+(n)+(n)	31,415 - 31,415	25,132 747 18,678,936 839,282 16,283,654	3,502,245 46,037 12,872 39,448,905	907,438 907,438 75,191 42,527 108,053 49,537	23,123 23,123 96,922 (32,155) 7,135 1,321,995	40,802,314 39,741,789
Transfers & Adjustments (n) Co. Records	φ φ '''	9 	· · ·	6) 	(654) (654) - (654) \$_	(654) \$ \$
Salvage (m) Co. Records	φ φ ιι	↔ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	 	↔ · · · · · · · ·	1,075 1, <u>075</u> \$ _	1,075 \$
Removal Cost () Co. Records	ф ф - ' '	- \$ - 237,878 88,343	- - 326,220 \$	↔	φ · · · · · · · ·	326,220 \$
Retirements (K) Co. Records	φ φ ' ' '	633,153 193,874	94 - 827,122 \$	⇔ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11,600 \$	838,722 \$
Provision () () Co. Records	φ φ ' ' '	- \$ 363 15 1,372,721 1,372,721 1,428,528	200,185 8,758 3,123,350 \$	67,216 67,216 12,924 25,433 19,668 7,652	9,467 4,385 10,036 3,241 2,202 162,223 \$	3,285,573 \$
Accumulated Provision for Depreciation 12/31/2012 (i) Co. Records	31,415 \$ 31,415 \$	24,769 24,769 732 18,177,246 792,501 15,137,344	3,290,154 37,279 12,872 37,478,897 \$	- \$ 840,222 62,267 17,094 88,385 81,385	34,757 18,738 98,066 (35,396) 4,933 1,170,951 \$	38,681,263 \$
Annual Depr. (h) D.08-11-048	0.00% \$ Various	0.00% \$ 1.01% \$ 2.15% 4.45% 3.92%	2.91% 4.23% 0.00%	0.00% \$ 2.90% 0.00% 11.32% 8.95% 8.95%	14.11% 5.42% n/a 2.1.3% 21.93% n/a 18.57% \$	φ
Gas Plant in Service 12/31/2013 (g) (c)+(d)-(e)+(f)	31,415 - 31,415	35,968 851 77,411,949 1,115,244 37,148,281	9,115,927 202,627 12,872 125,043,719	790,233 2,317,780 114,171 127,741 219,753 85,495	87,091 80,906 190,849 14,779 11,858 4,020,655	129,095,789 120,574,003
Transfers & Adjustments Co. Records	φ φ ''''	↔ 	 	↔ · · · · · ·	- - (15,276) - - (15,276) \$_	(15,276) \$ \$
Retirements (e) Co. Records	φ φ י י '	- \$ 633,153 193,874	94 - 827,122 \$	6) 	11,600 \$	838,722 \$
Net Additions (d) Co. Records	φ φ '''	- \$ - 750,162 73,557 806,708	263,443 (31,576) 17,882,294 \$	↔ · · · · · ·	15,276 - - - - 15, <u>276</u> \$	17,897,570 \$
Gas Plant in Service 12/31/2012 (c) Co. Records	31,415 \$ 31,415 \$	35,968 35,968 851 61,294,940 1,041,687 36,535,448 36,535,448	6,834,203 234,203 12,872 107,988,547 \$	790,233 \$ 2,317,780 114,171 219,753 85,495 85,495	67,091 80,906 14,779 14,779 11,858 4,032,256 \$	112,052,217 \$
Account Number (b)	302 \$ 303 \$ \$	374.1 \$ 374.2 \$ 375 375 376 376 379 379 380	385 387 \$	389 \$ 390.1 391.1 391.1 392.12 392.12	393 394 395 397 397 397 397 398 397 398 397 397 398 397 398	м Ф
Description (a)	Intangible Plant Franchise and Consents Miscellaneous Intangible Plant Total Intangible Plant	Distribution Plant Land and Land Rights Rights of Way Structures & Improvements Mains Reg Station-Ceneral Measuring & Reg Station-City Gate Services	weters Industrial Measuring & Reg Station Miscellaneous Equipment Total Distribution Plant	General Randh General Rand Randh Structures & Improvements - Owned Structures & Improvements - Leasehold Office Furniture & Fraures Compute Software & Fraures Transportation Equip - Vehicles Light Transportation Equip - Vehicles Heavy	Sordes Europhment Tool, Shop & Garage Equipment Laboratory Eurument Power Operated Equipment Communication Equipment Communication Equipment Messellameous Equipment Total General Plant	Total Gas Plant in Service Annual Average Total Balance
Line No.	₩ 0 0	4 v v v v v ç ;	- 7 7 7	2 1 0 1 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	58 51 52 52 57 58 53 58 55 57 57 57 57 57 57 57 57 57 57 57 57	30 31

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	Line No.	- 0 0	4 い 0 ~ 8	o 1 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0	2 2 2 2 3 2 2 1 1 2 2 2 3 2 2 3 2 3 2 2 3 3 2 3 2	30 31
	Accumulated Provision for Depreciation 12/31/2014 (o)	(i)+(k)-(k)-(i)+(m)+(n) 31,415 31,415 31,415	24,617 255 17,990,820 563,601	17,363,957 4,801,333 74,120 12,872 40,832,075	787,900 79,080 18,558 14,2,375 48,2,376 48,2,376 48,2,376 27,4,16 12,5,16 14,5,1614,16 14,16,16 14,16,16 14,16,16 14,16,16 14,16,1614,16 14,16,16 14,16,16 14,16,1614,16 14,16,16 14,16,1614,16 14,16,16 14,16,1614,16 14,16,16 14,16,1614,16 14,16,16 14,16,1614,16 14,16,16 14,16,1614,16 14,16,1614,16 14,16,16 14,16,1614,16 14,16,1614,16 14,16,1614,16 14,16,1614,16 14,16,1614,16 14,16,1614,16 14,16,1614,1614,16 14,	42,150,141 41,476,228
	Transfers & Adjustments (n)	Co. Records	- \$ (1,052) (6) (844,814) (246,877)	86,297 986,160 20,292	(186.981) (186.981) 47.429 1.619 1.7.194 17.794 17.794 225.51 15.725 45.646 25.64 15.725 15.755 1	(11,985) \$ \$
	Salvage (m)	Co. Records	↔ · · · · ·		ا ا م ۱۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰	\$ '
	Removal Cost (I)	ords	- \$ 529,265 9,585	42,267 528 528 - 581,635 \$	69 69 69 69 69 69 69 69 69 69 69 69 69 6	581,635 \$
	Retirements (k)	Co. Records	- \$ - 1,120,792 64,968	244,233 919 <u>-</u> 1,430,913 \$	50,661 50,661 43,016 29,25 29,25 29,25 29,25 29,25 29,25 29,25 29,25 29,25 29,25 29,25 29,25 29,25 20,422 5 -	1,591,755 \$
	Provision (i)	Co. Records	537 537 13 1,806,745 45,750	1,280,506 254,375 7,791 3,395,718 \$	67,443 7,150 7,150 17,729 7,029 7,108 3,529 9,868 9,868 9,868 1,871 1,871 1,203 5	3,533,201 \$
DN MULATED BOOKS	Accumulated Provision for Depreciation 12/31/2013 (i)	Co.Records 31,415 \$ 31,415 \$	- \$ 25,132 747 18,678,936 839,282	16,283,654 3,562,245 46,037 39,448,905 39,448,905	907,438 907,438 75,191 142,527 108,055 49,537 49,537 44,223 23,133 96,922 96,922 (32,155) 7,135 (32,156) 7,135 96,922 (32,156) 7,135 (32,156) (32,156) (32,156) (32,156) (32,156) (32,156) (32,156) (32,156) (32,156) (32,157) (32,156) (32,157) (32,1	40,802,314 \$
ORPORATIC LIFORNIA AND ACCU ATION PER	Annual Depr. Rate (h)	A.12-12-024 0.00% \$ Various	0.00% \$ 1.84% 2.41% 3.82%	n/a 3.06% 2.61% 3.57% 0.00% \$	0.00% \$ 2.89% \$ 12.07% 92.89% 12.07% 0.84% 7.83% 0.84% 0.84% 5.20% 6.04% 1.59% \$ 1.59% \$	\$ \$
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA 2014 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2014 (g)	e)+(f) :1,415 .1,415	35,968 851 86,635,512 1,217,645	37,949,916 9,471,451 202,627 12,872 135,526,842	790,233 2,332,827 6,3480 6,3480 84,725 85,485 37,168 5,465 5,465 5,410 14,779 14,779 220,102 14,779 23,873,860	139,432,106 134,263,948
SOU 2014 AVERA PROVISIO	Transfers & Adjustments (f)	Co. Records	φ	, , , , , , , , , , , , , , , , , , ,	(35,226) (35,226) (35,226) (35,220) (35,220) (35,220)	(35,226) \$ = \$
	Retirements (e)	Co. Records	- \$ - 1,120,792 64,968	244,233 919 - - 1,430,913 \$	50,691 50,691 43,016 43,016 23,525 23,525 23,525 23,525 23,525 24,52 26,528 26,528 26,528 26,528 26,528 26,528 27,528 26,528 27,528 26,528 27,528 26,528 27,528 26,528 27,	1,591,755 \$
	Net Additions (d)	Co. Records	- \$ - 10,344,355 167,369	1,045,868 356,443 - - 11,914,035	15.047 15.047 1,687 29.252 29.252 3.275 49.262 \$	11,963,298 \$
	Gas Plant in Service 12/31/2013 (c)	Co. Records 31,415 \$ 31,415 \$	- \$ 35,968 851 77,411,949 1,115,244	37,148,281 9,115,927 202,627 12,872 12,872 125,043,719 \$_	790.233 \$ 2.317.760 114.17 114.17 127.741 219.753 85.465 86.901 80.906 140.849 14.779 14.779 14.779 8.449 14.779 14.779 4.020,655 \$	129,095,789 \$
	Account Number (b)	302 \$ 303 \$	374.1 \$ 374.2 375 376 378	379 380 381 385 387 87 87 87	389 \$ 380.1 \$ 390.2 \$ 391.1 \$ 392.11 \$ 392.11 \$ 392.12 \$ 395 \$ 396 \$ 397 \$ 396 \$ 397 \$ 396	с Ф
	Description (a)	Intangible Plant Franchise and Consents Miscellaneous Intangible Plant Total Intangible Plant	Distribution Plant Land and Rughts Rights of Way Structures & Improvements Mains Meansaring & Reg Station-General	Measuring & Reg Station-City Gate Services Meters Industration & Reg Station Miscellaneous Equipment Total Distribution Plant	General Plant Land and Land Rupts Structures & Improvements - Owned Structures & Improvements - Comed Office Furniture & Fictures Origination Euglis - Leasehold Office Furniture & Hardware Transportation Euglis - Vehicles Light Transportation Euglis - Vehicles Light Transportation Euglis - Vehicles Light Transportation Euglis - Vehicles Light Transportation Euglis - Lease Stores Euglishert Tool, Shop & Garage Euglinent Device Operated Euglinent Device Operated Euglinent Communication Equipment Communication Equipment Communication Equipment Total Ceneral Plant Total Ceneral Plant	Total Gas Plant in Service Annual Average Total Balance

Line. No.

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	Accumulated Provision for Depreciation 12/31/2015 (0)	31,415 31,415 31,415	- 25,279	18,390,409 552,018	18,362,385 5,047,429 35,596	12,872 42,426,755	855,319 81 543	23,737 23,737 55,449 36,728 36,728	30,232 - 133,961 16,255 - 7,166 1,401,061	43,859,230 43,004,686
	Transfers & Adjustments Co Records	φ φ · · ·	69 1 1			' '	Ω	- - (2,620)	(2,620) \$ -	(2,620) \$
	Salvage (m)	φφ י'''	↔ '''			∽ ' ' '	↔ '''''		 م י י י י י י י	ب ب
	Removal Cost (I) Co Records	\$ \$ ' '	6 1 1	166,537 20,605	- 11,128 794 29	199,093 \$	69 1 1 1 1			199,093 \$
	Retirements (K)	φ φ ' ' '	\$	1,515,597 37,246	- 146,037 2,373 45,172	1,746,425 \$	⇔ 	4,806	4 ,806 \$	1,751,231 \$
	Provision Re (i) Constants	φφ , , , , ,	662 - \$ 662 -	2,081,722 46,269	- 1,155,592 249,263 6,678	3,540,198 \$	67,419 2.463	9,985 17,696 8,671 312	2,807 11,445 893 121,835 \$	3,662,033 \$
I JLATED DOKS	Accumulated Provision for Depreciation 12/31/2014 F Contector	31,415 \$ 31,415 \$	- \$ 24,617 766	17,990,820 563,601	- 17,363,957 4,801,333 74,120	12,872 40,832,075 \$	- \$ 787,900 - 79.080	18,558 142,976 49,397 36,416	27,425 - 122,516 15,362 - 7,021 -	42,150,141 \$
ORPORATION LIFORNIA AND ACCUMI ATION PER B	Annual Pr Depr. De Rate 11 (h) A 12-172-024	0.00% \$ Various	0.00% \$ 1.84%	2.41% 3.82%	n/a 3.06% 3.57%	\$	0.00% 2.89% 0.00% 3.88%	0.07% 9.59% 0.84%	4.67% 5.20% 6.04% 1.59% 3	\$
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA 2015 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2015 (g) Anterken	2 2	35,968	87,909,688 1,369,125	38,520,138 9,766,281 179,277	12,872	790,233 2,332,827 63.480	79,919 79,919 85,495 37,166	72,229 - 220,102 14,779 9,965 3,935,358	141,760,973 140,596,540
SOUT 2015 AVERA PROVISION	Transfers & Adjustments Co Records	φ φ 	₩ 			`∽ ' ' '	↔ '''''	- - (100,981) -	(100,981) \$	(100,981) \$ \$
	Retirements (e)	φφ , , , , ,	↔ '''	1,515,597 37,246	- 146,037 2,373 45,172	1,746,425 \$	⇔ 	4,806	4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1,751,231 \$
	Net Additions (d) Co (d)	φ φ ' ' '	\$	2,789,772 188,727	- 716,259 297,203 21,822	4,013,784 \$	↔ 	44,636 100,981	18,218 3,461 167,296 \$	4,181,080 \$
	Gas Plant in Service 12/31/2014 (c) Co Beronds	31,415 \$ 31,415 \$	- \$ 35,968 664	86,635,512 1,217,645	37,949,916 9,471,451 202,627	12,8/2 135,526,842 \$	790,233 \$ 2,332,827 63.480	84,725 84,725 85,495 37,166	54,011 220,102 14,779 6,505 3,873,850 \$	139,432,106 \$
	Account Number (b)	302 \$ 303 \$ 303	374.1 \$ 374.2	376 376	379 380 385 385	38/	389 \$ 390.1 390.2	391.1 392.11 392.12 393	394 395 397 397 2 398 \$	φ
	Description (a)	Intangible Plant Franchise and Consents Miscellaneous Intangible Plant Total Intangible Plant	Distribution Plant Land and Land Rights Rights of Way	Mains Measuring & Reg Station-General	Measuring & Reg Station-City Gate Services Meters Industrial Measuring & Reg Station	Miscellaneous Equipment Total Distribution Plant	General Plant Land and Land Rights Structures & Improvements - Dwned Office Erructures Ins Provines	Computer Software & Hardware Transportation Equip - Vehicles Light Transportation Equip - Vehicles Heavy Stores Equipment	Tool. Shopk Garage Equipment Laboratory Equipment Power Operated Equipment Communication Equipment Communication Equipment Mesellaneous Equipment Total General Plant	Total Gas Plant in Service Annual Average Total Balance
	Line No.	τ α ω	4 2 3	0 ~ 00	o 6 1 6 5	13	15 15 15 15 15 15 15 15 15 15 15 15 15 1	2 5 5 5 3	28 28 28 28 28 29 29 29	30

17 Plant Bk Dir 2015

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SOUTHWEST GAS CORPORATION NORTHERN CALIFORNA 2016 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Accumulated

Line No.	τ 0 0	4 い の ト 8	01110	2 2 2 2 2 3 2 2 1 0 8 4 1 4 8 2 2 3 2 2 1 0 8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	30 31
Accumulated Provision for Depreciation 12/31/2016 (o) (i)+(k)-(n)+(n)	31,415 - 31,415	25,941 25,941 779 20,234,427 532,246	19,407,451 5,305,236 41,996 12,872 45,560,948	923,212 923,212 64,006 64,006 233,339 82,143 33,041 33,041 33,041 145,406 17,148 17,148 17,148	47,118,222 45,488,726
Transfers & Adjustments (n) Co. Records	φ 'φ' - - -	↔ · · · · ·	ب ب ب	10,799 5.	10,799 \$
Salvage (m) (m) Co. Records	\$ \$ ''	↔ · · · · ·	ب ج ا	43,1130 6	43,130 \$
Removal Cost (I) Co. Records	φφ יי	- \$ - 5 64,387 19,390	33,594 33,594 996 - - 118,366 \$	به ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ -	118,366 \$
Retirements (k) Co. Records	φφ ''''	- \$ - 216,949 52,392	100,770 3,149 3,149 - 373,259 \$	55.5.13 55.5.13 55.5.13 8	428,772 \$
Provision (j) Co. Records	φφ יי	- \$ 662 12 2,125,354 52,010	1,179,429 261,952 6,400 3,625,819 \$	67,894 67,894 2,463 9,110 23,768 6,694 6,694 6,694 3,112 3,615 11,445 883 883 832 832 8	3,752,201 \$
Accumulated Provision for Depreciation 12/31/2015 (i) Co. Records	31,415 \$ 31,415 \$ 31,415 \$	- \$ 25,279 767 18,390,409 552,018	18,362,385 5,047,429 35,596 12,872 42,426,755	855,319 81,543 81,543 81,543 82,377 160,72 85,449 85,449 85,449 85,449 86,72 1133,961 1133,961 1133,961 16,255 7,166 7,166 8	43,859,230 \$
Annual Depr. Rate (h) A.12-12-024	0.00% \$ Various	0.00% \$ 1.84% 2.41% 3.82%	n/a 3.06% 3.57% 0.00% \$_	0.00% \$ 2.89% 2.89% 3.80% 12.07% 9.59% 0.84% 0.84% 0.84% 0.84% 0.84% 1.50% 1.50% 5.20% 1.50% 5.20% 1.50% 5.20\% 5.2	ы Ф
Gas Plant in Service 12/31/2016 (g) (c)+(d)-(e)+(f)	31,415 - 31,415	35,968 35,968 851 88,408,352 1,411,395	38,898,953 10,525,582 179,277 12,872 139,473,250	790,233 2,384,735 63,480 63,480 46,493 242,818 85,485 81,168 81,84881,848 81,848 81,848 81,848 81,84881,848 81,848 81,848 81,848 81,84881,848 81,848 81,84881,848 81,848 81,84881,848 81,848 81,84881,848 81,848 81,84881,848 81,848 81,848 81,84881,848 81,848 81,84881,848 81,84881,8	143,484,756 142,622,865
Transfers & Adjustments Co. Records	φ φ - ' '	Ω		(1,825) (1,825) (1,825) (1,825) S	(1,825) \$ = \$
Retirements (e) Co. Records	φφ '''''	- \$ 216,949 52,392	100,770 3,149 373,259 \$	5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	428,772 \$
Net Additions (d) Co. Records	φφ 	- \$ 715,612 94,662	479,584 762,450 2,052,308	21,908 - \$ 22,088 - 22,088 - 22,088 - 12,596 - 1	2,154,380 \$
Gas Plant in Service 12/31/2015 (c) Co. Records	31,415 \$ 31,415 \$ 31,415 \$	- \$ 35,968 851 87,909,688 1,369,125	38,520,138 9,766,281 179,277 12,872 137,794,200 \$	790.233 \$ 2.332.827 63.480 63.480 73.919 279.162 85.495 85.495 77.229 14.779 14.779 9.965 9.965 9.965	141,760,973 \$
Account Number (b)	302 \$ 303 \$ \$	374.1 \$ 374.2 375 376 378	379 380 381 385 387 5_	389 \$ 380.1 \$ 380.2 \$ 391.1 \$ 392.12 \$ 392.12 \$ 392.12 \$ 395.5 \$ 396 \$ 397 \$ 396 \$ 397 \$ 396 \$ 397 \$ 396 \$ 397 \$ 396 \$ 3	ы Ф
Description (a)	Intangible Plant Franchise and Consents Miscellaneous Intangible Plant Total Intangible Plant	Distribution Plant Land and Land Rights Rights of Way Structures & Improvements Means and Reg Station-General	Measuring & Reg Station-City Gate Services Meters Meters Miscellaneous Equipment Total Distribution Plant	Caneral Plant Land and Land Rights Structures & Improvements - Owned Structures & Improvements - Lassehold Office Furniture & Fixtures Computer Schware & Hardware Transportation Equip - Vehicles Light Transportation Equip - Vehicles Light Transportation Equip - Vehicles Heavy Stores Equipment Tool, Shop & Garage Equipment Laboratory Equipment Power Operated Equipment Communication Edupment Communication Equipment Total General Plant Total General Plant	Total Gas Plant in Service Annual Average Total Balance
Line No.	~ 0 €	4 ら の と の	0012264	28 2 2 2 2 3 3 5 7 4 9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	30 31

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	Line No.	- 0 0	459780	9 1 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2 8 2 8 2 8 2 5 4 3 3 5 4 4 6 8 4 7 9 8 4 6 8 7 8 6 8 7 8 6 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 7 9	30
	Accumulated Provision for Depreciation 12/31/2017 (o)	31,415 31,415 31,415	26,603 791 22,275,239 581,888	20,532,431 5,586,744 48,677 12,872 49,065,245	991,264 86,469 86,489 (41,890) 370,196 68,828 37,353 37,353 37,353 37,353 37,353 37,353 97,857 18,040 1,673,546	50,770,206 48,944,214
	Adjustments &	\ ا ب ا ب	↔ 	ا ↔ 	88, 345 88, 345 - - - (57, 518) - - 30, <u>827</u> 5	30,827 \$
	Salvage (m)		↔ , , , , , ,		ی م 	ب
	Removal Cost	\$ \$ ' '	- \$ - 17,789 33	28,391 166 <u>-</u> - <u>-</u> \$	ا م 	46,378 \$
	Retirements (k)	\$ \$ ' ' '	- \$ - 73,506 4,295	42,236 919 120,955 \$	24,406 S 	145,361 \$
	Provision R	\$ \$ ' ' '	- \$ 662 12 53,969	1,195,606 282,593 6,681 3,671,630 \$	68,052 - \$ 68,052 - 2,46 - 2,46 - 2,46 - 2,46 - 2,46 - 2,46 - 2,46 - 4,345 - 6,5,45 - 4,345 - 6,46 - 4,345 - 4,46 - 9,339 - 9,339 - 9,339 - 9,339 - 9,339 - 9,339 - 9,339 - 9,339 - 9,339 - 9,349 - 1,41,266 - 5,50 - 1,50 - 5,50 - 1,50 - 5,	3,812,896 \$
N IULATED 300KS	Accumulated Provision for Depreciation 12/31/2016	15 \$ \$	- \$ 25,941 779 20,234,427 532,246	19,407,451 5,305,236 41,996 12,872 45,560,948 \$	923,212 \$ 923,212 \$ 84,006 \$ 84,006 \$ (22,686) \$ 283,399 \$ 23,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,041 \$ 37,06 \$ 117,48 \$ 177,324 \$ 175,5859 \$	47,118,222 \$
ORPORATIO LIFORNIA AND ACCUIA ATION PER I	Annual F Depr. C (h)	0.00% \$ Various	0.00% \$ 1.84% 2.41% 3.82%	na 3.06% 3.57% 0.00% \$	0 000% \$ 2 89% \$ 0 0.00% \$ 12 0.7% 9 59% 9 9 59% 0 84% 0 84% 0 84% 0 850% 0 86 0 4% 50\% 0 86 0 4% 50\% 0 86 0 4% 50\% 0 86 0 4% 50\% 0 86 0 4% 50\% 0 80	6
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA 2017 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2017 (g)	2 2	35,968 35,968 851 88,607,061 1,410,816	39,720,926 11,489,525 202,756 12,872 141,480,775	790,233 2,354,735 63,480 53,480 502,444 85,586 91,766 91,779 162,187 141,779 141,779 141,779 142,787 142,787 142,187	145,653,132 144,568,944
SOU1 1 2017 AVERA	Adjustments		↔ · · · · · ·	 چ	235,074 	177,159 \$\$
	Retirements (e)	9 9 9 	- \$ - 73,506 4,295	42,236 919 - 120,955 \$	24,406 54,406 5	145,361 \$
	Net Additions (d)	9 1 1 1 5 5 5	- \$ - 3,716	864,209 964,861 23,479 2,128,481 \$\$	6,745 6,745 8,007 8,745 8,097	2,136,578 \$
	Gas Plant in Service 12/31/2016	31,415 \$ 31,415 \$ 31,415 \$	35,968 35,968 851 88,408,352 1,411,395	38,898,953 10,525,582 179,277 12,872 139,473,250 \$	790.233 \$ 2,354,735 6.3480 6.3480 6.3480 46,493 7.166 8.3495 85,495 87,495 87,495 87,495 87,495 87,495 87,196 85,495 87,196 84,494 220,102 14,779 9,9965 3,390,092 \$	143,484,756 \$
	Account Number (b)	302 \$ 303	374.1 \$ 374.2 375 376 378	3/9 380 381 387 387 \$	389 \$ 390.1 390.2 391.1 391.1 392.11 392.12 392.2 395 395 397 2 397 2 397 2 397 2 397 2	φ.
	Description (a)	Intangible Plant Franchise and Consents Miscellaneous Intangible Plant Total Intangible Plant	Distribution Plant Land and Land Rights Rights of Way Structures & Improvements Mans Measuring & Reg Stathorceneral	wasumg a keg stauon-ury care Services Meters Meters Maselaneous Equipment Total Distribution Plant	General Plant Land and Land Rights Bruckures & Improvements - Leasehold Office Furniure & Fixtures Computer Schware & Hardware Computer Schware & Hardware Computer Schware & Hardware Transportation Equip Vehicles Light Transportation Equip Vehicles Light Transportation Equipment Tool. Stop & Garage Equipment Leowor Operated Equipment Communication Equipment Communication Equipment Communication Equipment Total General Plant Total General Plant	Total Gas Plant in Service Annual Average Total Balance
	Line No.	- 0 0	_,	D 6 5 6 6 4	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$	30 3

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	Line No.	9 10 - 7		8 7 6 8												20 28	30	
	Accumulated Provision for Depreciation 12/31/2018 (o)	31,415 31,415 31,415	27,265	803 24,415,618 630,431	21,613,942 5 884 010	51,448 51,448 12,872	52,637,289	1,059,316	- 000 00	(39,184)	406,167 75.507	37,665	42,212	108,386	- -	7,758 1,805,692	54,474,395	
	Transfers & Adjustments Co Records	φ φ '''	↔ '''				\$	() • •			(22,767)					(22,767) \$	(22,767) \$	
	Salvage (m)	φφ יי'	↔ '''				\$ 	69 '''				,				\$ '''	\$ '	
	Removal Cost (I) Co Records	 م م י י י	\$ '''		- 17,248	20 '	17,268 \$	69 1						ı		\$ ' '	17,268 \$	
	Retirements (k)	\$ \$ ' ' '	\$	- 621 7,945	- 127,894 5.358	4,331	146,149 \$	\$						ı		\$ ' '	146,149 \$	
	Provision R (j) Co Reports	φ φ ' ' '	- \$ 662	12 2,140,999 56,489	1,226,653 303 523	7,122	3,735,460 \$	- \$ 68,052	- 160	2,666	58,737 6 679	312	4,276	10,559	 -	275 154,912 \$	3,890,372 \$	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Accumulated Provision for Depreciation 12/31/2017 (1) Co Beoords	15 \$	- \$ 26,603	791 22,275,239 581,888	20,532,431 5 586 7 4 4	48,677 12,872	49,065,245 \$	- \$ 991,264	-	(41,850)	370,196 68,828	37,353	37,936 -	97,827		7,483 1,673,546 \$	50,770,206 \$	
AND ACCUM	A Annual F Depr. C (h) A 12-12-024		0.00% \$ 1.84%	1.41% 2.41% 3.82%	n/a 3.06% 2.61%	3.57% 0.00%	φ	0.00% \$ 2.89%	0.00%	3.86 % 12.07%	9.59% 7.83%	0.84%	4.67% n/a	5.20%	0.04.70 n/a	1.59%	¢	
2018 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2018 (g)	2 2	35,968	851 88,830,296 1,525,572	40,693,037	11,304,042 198,425 12,872	143,201,063	790,233 2,354,735	- 400	22,088	744,848 85 295	37,166	91,569 -	284,782		27,285 4,516,260	147,748,738	
2018 AVERA	Transfers & Adjustments Co Records	φ φ '''	ω 				چ ۲	\$			103,940 -			,		103,940 \$	103,940 \$	
	Retirements (e)	φ φ ''''	\$ '''	- 621 7,945	- 127,894 5 358	4,331	146,149 \$	\$						ı		\$ ' '	146,149 \$	
	Net Additions (d) Co Beords	φ φ ''''	\$ '''	- 223,856 122,701	1,100,004		1,866,436 \$	\$			131,463 -	,		122,595		17,320 271,378 \$	2,137,814 \$	
	Gas Plant in Service 12/31/2017 (c)	31,415 \$ 31,415 \$ 31,415 \$	- \$ 35,968	851 88,607,061 1,410,816	39,720,926	11,403,323 202,756 12,872	141,480,775 \$	790,233 \$ 2,354,735	- 480	22,088	509,444 85 295	37,166	91,569 -	162,187		9,965 4,140,943	145,653,132 \$	
	Account Number (b)	302 \$ 303 \$	374.1 \$ 374.2	375 376 378	379 380 381	385 387	\$	389 \$ 390.1	390.2 201	391.1	392.11 392.12	393	394 395	396	397.2	398 \$	\$	
	Description (a)	Intangible Plant Franchise and Consents Miscellaneous Intangible Plant Total Intangible Plant	<u>Distribution Plant</u> Land and Land Rights Rights of Way	Structures & Improvements Mains Measuring & Reg Station-General	Measuring & Reg Station-City Gate Services Meters	vicieis Industrial Measuring & Reg Station Miscellaneous Equipment	Total Distribution Plant	<u>General Plant</u> Land and Land Rights Structures & Improvements - Owned	Structures & Improvements - Leasehold	Computer Software & Hardware	Transportation Equip Vehicles Light Transportation Equip Vehicles Heavy	Stores Equipment	Tool, Shop & Garage Equipment aboratory Fourinment	Power Operated Equipment	communication Equipment - Telemetry	Miscellaneous Equipment Total General Plant	Total Gas Plant in Service	
	No.	~ ∩ ∞	4 S									. 0)				28 29	30	

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	Line No.	0 0 7	4 º o r & o 0 1 ;	13 13 14	15 20 20 20 20 20 20 20 20 20 20 20 20 20	222 254 287 287 287 287 287	30 31
	Accum ulated Provision for Depreciation 12/31/2019 (o) (i)+(j)-(k)-(i)+(m)+(n)	31,415 n/a 31,415	27,926 815 815 815 815 815 338 657,330 657,330 22,692,473 6,196,379	51,327 12,872 55,548,460	1,127,368 56,239 (57,016) 476,490	32,800 32,802 43,382 121,479 19,826 6,949 6,949 1,909,793	57,489,668 55,982,031
	Transfers & Adjustments (n) Projected	φ΄φ΄ '''	69 1 1 1 1 1 1 1 1 1	· · · ·	↔	φ · · · · · · · · · ·	ю" ю" '
	Salvage (m) WP Ch17, Sh4(k)	9 9 -	G 	ب جو ا	8,011 8,011	187 187 8,356 \$\$	8,356 \$
	Removal Cost () WP Ch 17, Sh 3(k) W	м м ' ' ' '	- \$ - 149,201 7,088 33,667 370	7 - 190,333 \$	↔	 • •	190,333 \$
	Retirements (k) Cd (e) W	φφ φ	525,883 23,833 150,595 2,036	7,072 - 709,422 \$	- \$ - 19,480 8,701	4,275 4,083 1,855 1,855 1,233 46,868 \$	756,290 \$
	Provision [() () [(c) + (g)] / 2 × (h)	- \$ 	- \$ 662 12 57,805 57,822 7,822 1,262,793 313,876 313,876	6,958 - 3,810,926 \$	68,052 68,052 - (25,451) 1,490 71,014 5 271,014	(4999) 5,253 14,760 893 π/a 142,614 \$	3,953,540 \$
N IULATED 300KS	Accumulated Provision for Depreciation (1) (17, Sh 11(o) [((31,415 \$ 31,415 \$ 31,415 \$	27,265 27,265 803 24,415,618 630,431 630,431 21,613,942 5,884,910 5,884,910	51,448 12,872 52,637,289 \$	1,059,316 88,932 (39,184) 406,167	37,665 37,665 42,212 108,386 18,933 7,758 7,758 1,805,692 \$	54,474,395 \$
DRPORATIO JFORNIA AND ACCUM ATION PER E	Annual F Depr. D Rate (h) A.12-12-024 c	0.00% \$ Various	0.00% \$ 1.84% 2.41% 3.82% 3.06% 2.61%	3.57% 0.00% \$	0.00 % \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0, 20, % 1, 67, % 1, 67, % 5, 20% 6, 04, % 1, 59, % 1, 59, %	φ
SOUTHWEST GAS CORPORATION NORTHERN CALFORNA 2019 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2019 (g) A.	31,415 31,415		191,353 12,872 146,886,466	790,233 2,354,735 56,239 2,607 736,147 055,2467		151,433,173 149,590,955
SOU 2019 AVERA PROVISION	Transfers & Adjustments Projected	φφ	φ · · · · · · · · ·	, , , , , , , , , , , , , , , , , , ,	69 	ا ا بو ا	, м м
	Retirements (e) WP Ch 17, Sh 2(k)	φφ -	- \$ 525,883 23,835 23,835 23,835 23,835 2,336 2,036	7,072 - 709,422 \$	- \$ - 7,242 19,480 8,701	4,275 4,083 1,855 1,855 - - - - - - - - - - - - - - - - - -	756,290 \$
	Net Additions (d) WP Ch 17, Sh 5(e) W	ч ч ч	- \$ - 2,849,074 - 1,300,013 - 245,738	- 4,394,825 \$	\$} ↓ ↓ ↓ ↓ ↓ ↓	45,900 45,900 45,900 45,900 \$	4,440,725 \$
	Gas Plant in Service 12/31/2018 (c) Ch 17, Sh 11(g) W	31,415 \$ 31,415 \$ 31,415 \$	35,968 35,968 851 851 88,830,296 1,525,572 40,693,037 11,904,042	198,425 12,872 143,201,063 \$	790,233 \$ 2,354,735 63,480 63,480 722,088 744848 66,068	37,159 91,569 91,569 91,768 14,779 27,285 27,285 4,516,260 \$\$	147,748,738 \$
	Account Number (b)	302 \$ 303 \$ *	374.1 \$ 374.2 \$ 375 376 376 379 379 381 381	385 387 \$	389 \$ 390.2 \$ 390.2 \$ 391.1 \$ 392.11 \$ 392.11 \$	392.12 393 395 397 397 397 397 397 398 \$	φ
	Description (a)	<u>Intangible Plant</u> Franchise and Consents Miscellaneous Intangible Plant Total Intangible Plant	Distibution Plant Land and Land Rights Rights of Way Structures & Improvements Measuing & Reg Station-City Gate Measuing & Reg Station-City Gate Meters	Industrial Measuring & Reg Station Miscellaneous Equipment Total Distribution Plant	Land and Land Rights Structures & Improvements - Owned Structures & Improvements - Leasehold Office Furniture & Fixtures [1] Computer Software & Hardware Transportation Equit Victude Light	Transportation Equity. Transportation Equipment (1) Stores Equipment (1) Tool, Storey & Garage Equipment Laboratory Equipment Power Operated Equipment Communication Equipment (1) Communication Equipment (1) Miscellaneous Equipment Total General Plant	Total Gas Plant in Service Annual Average Total Balance [1] Overaccual of depredation reversed in column (j)
	Line No.	9 7 7	49978927	12 13 13	5 20 3 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	30

[1] Overaccrual of depreciation reversed in column (j)

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Line Description (a) (a) (a) (a) (a) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c															
	Account	Gas Plant in Service	Net	C	Transfers &	Gas Plant in Service	Annual Depr.	Accumulated Provision for Depreciation			Removal		Transfers &	Accumulated Provision for Depreciation	Line
	(b)	(c) (c) (c)	(d) WP Ch 17. Sh 5(h)	(e) (e) WP Ch 17. Sh 2(k)	Adjustments (f) Projected	(c)+(c)+(c) (g) (c)+(c)+(c)+(c)	(h) A.12-12-024	(i) (i) (i)	(j) (j) (f(c) + (a)] / 2 × (h)	(k) (k) Col (e)	(1) (1) WP Ch 17, Sh 3(k)	(m) (m) (m) (m)	Adjustments (n) Projected	(u)+(u)+(l)-(l)+(l) (0)	NO
								e	€						
	302 ¢ 303	4 G14,15	₽ '''	₽ '''	<i>₽</i>	31,415 -	U.UU% \$ Various	¢ cl.4,15 ¢/n	¢ -	<i>₽</i>	₽ 	<i>₽</i>	<i>₽</i>	ci 4, i 5 e/n	- ~
	8	31,415 \$	\$ -	\$ -	\$	31,415		31,415 \$	\$ 5	\$ 	\$ -	\$ - 	\$ 	31,415	1 ന
	\$ F F2C	e	e	e	e		\$ 700 U	e	e	e	÷	e	e		-
		35.968		₽ 	<i>₽</i>	35.968	0.00%	- 4 7 926	- a 662	0 '''	↔ 	⊕ '''	₽ '''	28.588	4 LC
	375	851				851	1.41%	815	12					827	9
	376	91,153,487	21,617,791	525,883		112,245,395	2.41%	25,909,338	2,450,957	525,883	149,201			27,685,210	7
	378	1,501,737		23,835	1	1,477,901	3.82%	657,330	56,911	23,835	7,088			683,318	8
	379			'			n/a	n/a	n/a		'			n/a	<u>ග</u> ්
	380	41,842,455	1,389,142	150,595	•	43,081,002	3.06%	22,692,473	1,299,329	150,595	33,667	•		23,807,540	; 9
	100	12,147,743	120,811	2,030		070'C07'71	0/10/2	0, 130,379	200,010	000'2	0/0		•	000,210,0	= ;
	387	12.872				12.872	% /00 [°] 0	12.872			- 1			12.872	4 00
	÷	146,8	23,126,255 \$	709,422 \$	+ - 	169,303,299	Ś	55,548,460 \$	4,133,162 \$	709,422 \$	190,333 \$	\$	\$	58,781,868	14
	389 \$		\$ 9 '	↔ '	\$	790,233	\$ %00.0	\$ '	\$ '	\$	\$ '	\$	÷		15
		2,354,735			1	2,354,735	2.89%	1,127,368	68,052	•				1,195,420	16
000000000000000000000000000000000000000				'			%00.0		1					'	17
	391	56,239		7,242		48,997	3.88%	56,239	(0)	7,242		' !		48,997	9
	391.1	2,607		2,607		'	12.07%	(57,016)	157	2,607		158		(59,308)	19
- 00 - 11	392.11	736,147		8,701		727,445	9.59%	476,490	70,179 6.670	8,701		8,011		545,979	20
, – – ,	303	32 801		4 275		28.616 28.616	% P8 U	32 801	6000	4 275				28.616	- 20
	394	133,386	56.340	4,083		185,642	4.67%	43,382	7.449	4.083				46.748	23
	395						n/a	n/a	n/a					n/a	24
	396	282,928		1,855		281,073	5.20%	121,479	14,664	1,855		187		134,476	25
26 Communication Equipment [1]	397	14,779				14,779	6.04%	19,826	893					20,718	26
0	397.2	•	•	'	•	'	n/a	n/a	n/a	1	•	•		n/a	27
Misc	398	26,052	'	1,233	·	24,820	1.59%	6,949	404	1,233				6,121	28
29 Total General Plant	\$	4,515,292 \$	56,340 \$	29,996 \$	\$ '	4,541,636	ا م	1,909,793 \$	168,477 \$	29,996 \$	\$	8,356 \$	\$ '	2,056,630	29
30 Total Gas Plant in Service	ن ې	151,433,173 \$	23,182,595 \$	739,418 \$	\$	173,876,350	\$ S	57,489,668 \$	4,301,639 \$	739,418 \$	190,333 \$	8,356 \$	ه ۲	60,869,913	30
31 Annual Average Total Balance					÷	162,654,761							\$	59,179,790	31
					Ι										

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA 2020 AVERAGE GAS PLANT AND ACCUMULATED

[1] Overaccrual of depreciation reversed in column (j)

CA TY 2021 GRC CHAPTER 17 SHEET 14 OF 26

	Line No.	~ 0 0	4 ら 0 ~ 8 ~	0011004	2 2 8 2 2 3 2 3 2 4 9 8 4 4 9 8 4 7 9 8 4 7 9 8 7 8 4 7 9 8 7 8 4 7 9 8 7 8 4 7 9 8 7 8 4 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 7 9	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	Accumulated Provision for Depreciation 12/31/2021 (0)		29,006 827 29,823,300 698,504	n/a 24,605,646 6,977,243 49,615 12,872 62,197,013	1,224,436 41,756 617,589 617,589 617,589 51,341 54,341 54,341 54,341 54,341 54,341 54,341 54,341 54,341 54,341 54,341 54,343 54,341 54,343 54,343 54,343 54,343 54,343 54,343 54,343 54,343 54,343 54,343 54,343 54,343 54,345 54,355 54,555 54,555 54,555 54,555 54,555 54,555 54,555 54,555 54,555 54,555 54,5555 54,55555 54,55555555	2,18 64,41 62,64
	Transfers & Adjustments (n)	ю ́ю́ -	↔ · · · · · ·	φ. 	99 	``````````````````````````````````````
	Salvage (m) wp.ch.17. Sh.4(k)		Ω 	۱۱۱ ص	8 0.0158 1 11 87	8,356 \$
	Removal Cost (I) WD Ch 17 Sh 3(k)	φ φ	- \$ - 7,088	33,667 370 7 190,333 \$	69 	- \$\$
	Retirements (k) Cot (a)	\$ '''	- \$ 525,883 23,835	150,595 2,036 7,072 709,422 \$\$	7.242 8,701 1,855 1,855 1,855	27,388 \$ 736,810 \$
	Provision (j) (no) 1 2 x(h)	φ φ 	- \$ 418 2,813,174 46,108	982,369 467,090 5,741 4,314,900 \$	29,016 29,016 6,3309 6,337 6,337 6,337 6,337 6,398 6,098 6,098	144,483 \$
N IULATED 300KS	Accumulated Provision for Depreciation 12/31/2020 (i) Ch 17 Sh 13/0	s dial	- \$ 28,588 827 685,210 683,318	n/a 23,807,540 6,512,560 50,953 12,872 58,781,868 \$	1,195,420 48,997 48,997 545,379 545,379 88,864 88,864 48,616 46,748 134,476 20,718 20,718 20,718 20,718 20,718	2,056,630 \$ 60,869,913 \$
RPORATIO FORNIA NND ACCUN	Annual F Depr. C Rate (h)	 م م	0.00% \$ 1.16% 2.29% 3.15%	0.00% 2.25% 3.18% 0.00%	0.00% \$ 1.123% \$ 0.00% \$ 6.67% \$ 6.67% 6.67% 6.67% 6.67% 6.67% 6.67% 6.67% 6.67% 6.67% 6.67% 6.00\% 6.00\% 6.0	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNA 2021 AVERAGE GAS PLANT AND ACCUMULATED PROVISION FOR DEPRECIATION PER BOOKS	Gas Plant in Service 12/31/2021 (9) PP	2 2	- 35,968 851 133,142,647 1,454,066	- 44, 353,094 12,409,491 177,210 12,872 191,586,198		4,667,623 196,285,236 185,080,793
SOUT P 2021 AVERAG PROVISION	Transfers & Adjustments [f]	φ φ - -	ω	 φ 	69 	, , , , , , , , , , , , , , , , , , ,
	Retirements (e) WD Ch 17 Sh 200	φ φ ; · · · ;	- \$ 525,883 23,835	150,595 2,036 7,072 709,422 \$	7,242 8,701 4,275 1,855 1,855	27,388 \$ 736,810 \$
	Net Additions I (d) WD Ch 17 Sh5(k) W	φ φ	- \$ - 21,423,135	1,422,688 146,499 22,992,321 \$	153.375 • • • • • • • • • • • • \$	153,375 \$ 23,145,696 \$
	Gas Plant in Service 12/31/2020 ch 1 ch 13/n W	امار م	- \$ 35,968 851 112,245,395 1,477,901	43,081,002 12,265,028 184,281 12,872 169,303,299 \$	7 90, 233 \$ 2,354, 735 48, 97 48, 97 727, 445 85, 285 85, 285 185, 642 185, 642 181, 073 14, 779 14, 779	4,541,636 \$
	Account Number (b)	302 \$ 303 \$ 303	374.1 \$ 374.2 375 376 378	379 380 381 387 387 387	389 \$ 390.1 \$ 390.2 \$ 391.1 391.1 391.1 392.11 392.11 392.393 393.2 395 395 395 395 397 2	φ φ
	Description (a)	Intangible Plant Franchise and Consents Miscellaneous intangible Plant Total Intangible Plant	Distribution Plant Land and Land Rights Reghts of Way Structures & Improvements Meansing & Reg Station-General Measuring & Reg Station-General	Measuring & Reg Station-City Gate Services Meters Meters Muscellaneous Equipment Total Distribution Plant	General Plant Land and Land Rights Structures & Improvements - Owned Structures & Improvements - Owned Office Eurniture & Flumprovements 1 Computer Software & Hardware Transportation Equit Vehicles Light Transportation Equit Vehicles Light Communication Equit Telemetry Macediments - Telemetry	Total General Plant Total General Plant Total Gas Plant in Service Annual Average Total Balance
	Line No.	~ 0 0		0011064	8 2 8 8 5 8 3 3 5 5 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	

[1] Overacorual of depreciation reversed in column (j)

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA REGULATORY AMORTIZATIONS

Line				Line
No.	Description	Reference	Amount	No.
	(a)	(b)	(c)	
1	Base Year Recorded Amortization Expense	Company Records	\$744,414	1
2	CARB Implementation Fees	Ch 17, Sh 16, Ln 8(d)	28,033	2
3	Tax Memorandum Account	Ch 17, Sh 17, Ln 5(c)	(528,330)	3
4	Greenhouse Gas Memorandum Account	Ch 17, Sh 18, Ln 8(d)	1,839	4
5	MHP - To The Meter Deferral Amort.	Ch 17, Sh 19, Ln 4(c)	7,219	5
6	MHP - Beyond the Meter Deferral Amort.	Ch 17, Sh 20, Ln 4(c)	2,110	6
7	MHP - Beyond the Meter Asset Amort.	Ch 17, Sh 20, Ln 6(c)	3,593	7
	Pension Balancing Account (PBA)			
8	Balance at December 31, 2018	Company Records	\$ (275,565)	8
9	Amortization Period		5	9
10	Annual Amortization Expense	Ln 8 / Ln 9	\$ (55,113)	10
11	Test Year Regulatory Amortization Expense	Sum Ln 2 - Ln 7 + Ln 10	\$ <u>(540,650)</u> Ch 6, Sh 1, Ln 13(c)	11
12	Adjustment	Ln 11 - Ln 1	\$(1,285,063)	12

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA REGULATORY AMORTIZATIONS CALIFORNIA AIR RESOURCES BOARD (CARB)

Line				Total			Line
No.	Description	Account		California	A	mount	No.
	(a)	(b)		(c)		(d)	
			Co	ompany Records			
1	Balance at December 31, 2018	182.3	\$	596,022			1
2	2019 Administrative Fee	182.3		186,078			2
3	Projected 2020 Costs	182.3		186,078			3
4	Projected Total CARB Costs		\$	968,178			4
5	Amortization Period			5			5
6	Annual Amortization Expense (Total California)				\$	193,636	6
7	NCA Weighted 4-Factor					14.48%	7
8	NCA Annual Amortization Expense	407.3			\$	28,033	8
					Ch 17,	Sh 15, Ln 2(c)	

[1] CARB amortization is allocated to Northern California based on its weighted 4-Factor relative to the Total California 4-Factor:

Test Year 4-Factor - Total California	Ch 8C, Sh 9, Ln 10	4-Factor	Weighted
Southern California		7.96%	74.00%
Northern California		1.56%	14.48%
South Lake Tahoe		1.24%	11.52%
Total California		10.75%	100.00%

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA REGULATORY AMORTIZATIONS TAX MEMORANDUM ACCOUNT (TMA)

Line No.	Description (a)	Reference(b)	Amount (c)	Line No.
1	2019 Reserve Amounts	Company Records \$	(1,302,911)	1
2	2020 Reserve Amounts	Company Records	(1,338,741)	2
3	Total TMA Amounts	Ln 1 + Ln 2	(2,641,652)	3
4	Amortization Period		5	4
5	Annual Amortization Expense	Ln 3 / Ln 4 \$	(528,330)	5
		C	h 17, Sh 15, Ln 3(c)	

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA REGULATORY AMORTIZATIONS GREENHOUSE GAS MEMORANDUM ACCOUNT (GHGMA)

Line				Total		Line
No.	Description	Account		California	Amount	No.
	(a)	(b)		(c)	(d)	
			C	Company Records		
1	Actual 2018 Costs	182.3	\$	3,527		1
2	Projected 2019 Costs	182.3		57,500		2
3	Projected 2020 Costs	182.3		2,500		3
4	Projected Total GHGMA Costs		\$	63,527		4
5	Amortization Period			5		5
6	Annual Amortization Expense (Total California)			\$	12,705	6
7	NCA Weighted 4-Factor				14.48%	7
8	NCA Annual Amortization Expense	407.3		\$	1,839	8
					Ch 17, Sh 15, Ln 4(c)	

[1] GHGMA amortization is allocated to Northern California based on its weighted 4-Factor relative to the Total California 4-Factor:

Test Year 4-Factor - Total California	Ch 8C, Sh 9, Ln 10	4-Factor	Weighted
Southern California	_	7.96%	74.00%
Northern California		1.56%	14.48%
South Lake Tahoe	_	1.24%	11.52%
Total California		10.75%	100.00%

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA REGULATORY AMORTIZATIONS MASTER METER MOBILE HOME PARK CONVERSION TO THE METER (TTM) COSTS THROUGH DECEMBER 2020

Line No.	Description (a)	<u>Account</u> (b)	 Cor	Amount (c) npany Records	Line No.
1	Kings Beach MHP	182.3	\$	36,095	1
2	Projected Total Revenue Requirement			36,095	2
3	Amortization Period			5	3
4	NCA MHP - TTM Deferral Amortization	407.3	\$	7,219	4
			Ch 1	7, Sh 15, Ln 5(c)	

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA REGULATORY AMORTIZATIONS MASTER METER MOBILE HOME PARK CONVERSION BEYOND THE METER (BTM) COSTS THROUGH DECEMBER 2020

Line					Line
No.	Description	Account		Amount	No.
	(a)	(b)		(c)	
			Con	npany Records	
	Mobile Home Park Conversion Balancing <u>Account (MHPCBA) Balance</u>				
1	Kings Beach MHP	182.3	\$	21,096	1
2	Projected Total Revenue Requirement			21,096	2
3	Amortization Period			10	3
4	NCA MHP - BTM Deferral Amortization	407.3	\$	2,110	4
			Ch 17	7, Sh 15, Ln 6(c)	
	Annual Amortization Expense				
5	Kings Beach MHP		\$	3,593	5
6	NCA MHP - BTM Asset Amortization	407.3	\$	3,593	6
			Ch 17	7, Sh 15, Ln 7(c)	

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA WORKING CAPITAL	2012 THROUGH 2021
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Line	No.		-	2	ო
Test Year	2021	(I)	2,253,972	624,095	2,878,067 Ch 17, Sh 4 Ln 12, Col (k)
		(K)	2,253,972 \$	624,095	2,878,067 \$ Ch 17, Sh 4 Ln 12, Col (j)
Projected	2019	(j)	2,253,972 \$	624,095	\$ 2,878,067 Ch 17, Sh 4 Ln 12, Col (i)
		(i)	2,253,972 \$	1,240,942	3,494,914 \$ Ch 17, Sh 4 Ln 12, Col (h)
	l '	(h)	2,253,972 \$	800,078	\$ 3,054,050 \$ Ch 17, Sh 4 Ln 12, Col (g)
	2016	(B)	2,253,972 \$	472,418	2,726,390 \$ Ch 17, Sh 4 Ln 12, Col (f)
Recorded	2015	(f)	2,253,972 \$	416,717	2,670,689 \$ Ch 17, Sh 4 Ln 12, Col (e)
	2014	(e)	2,253,972 \$	i0//IC#	#DIV/0! \$ Ch 17, Sh 4 Ln 12, Col (d)
	2013	(p)	2,253,972 \$	420,580	Ln 1 + Ln 2 \$ 2,884,834 \$ 2,674,552 \$ = Ch 17, Sh 4 Ch 17, Sh 4 Ch 17, Sh 4 Ln 12, Col (b) Ln 12, Col (c)
	2012	(c)	Ch 17, Sh 22 \$ 2,253,972 \$ 2,253,972 \$	630,862	2,884,834 \$ Ch 17, Sh 4 Ln 12, Col (b)
	Reference	(q)	Ch 17, Sh 22 \$	Ch 17, Sh 24	Ln 1 + Ln 2 \$
	Description	(a)	Working Capital	Materials and Supplies	Total Working Capital
Line	No.		-	7	ო

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA LEAD LAG STUDY TEST YEAR 2021 - BEFORE RATE RELIEF

Line		Reference/				Line
No.	Description	Account	Cost	Lag Days	Dollar Days	No.
	(a)	(b)	(c)	(d)	(e)	
			Ch 6, Sh 1	[1]	(c) * (d)	
	Operations and Maintainence					
1	Cost of Gas	\$	13,933,322	39.56 \$	551,217,845	1
2	Labor and Labor Loading Cost	Ŧ	3,524,769	25.41	89,553,353	2
3	Prepayments Amortized to O&M [2]		104,762	0.00	0	3
4	Provision for Uncollected Accounts		10,291	170.21	1,751,636	4
5	Prepaid Insurance [2]		335,791	0.00	0	5
6	Other Amortizations [2]		770,380	0.00	0	6
7	Other O&M Expense		1,758,512	23.75	41,768,322	7
8	Total O&M Expenses	\$	20,437,826	33.48 \$	684,291,157	8
0		Ψ	20,407,020	00.40 φ	004,201,107	0
9	Depreciation and Amortization		4,328,850	0.00	0	9
10	Payroll Taxes		193,805	15.00	2,906,731	10
11	Taxes Other Than Income Taxes		1,293,488	129.08	166,962,097	11
12	State Income Taxes		554,796	21.00	11,650,712	12
13	Federal Income Taxes - Current		1,200,404	38.25	45,915,438	13
14	Total Operating Expenses	\$	28,009,167	32.55 \$	911,726,135	14
15	Number of Days in Test Period		365			15
		_				
16	Avg Daily Operating Expenses	Ln 14(c) / Ln 15(c)	76,737			16
17	Lag in Receipt of Revenue			33.78		17
				-		
18	Net Difference: Revenue Lag - Expense Lag	Ln 17(c) - Ln 14(c)	1.23			18
19	Cash Working Capital for Operating Expense	Ln 16(c) * Ln 18(c) \$	94,171			19
20	Other Working Capital Required		WP Ch 17, Sh 80			20
21	Other Special Funds	Acct 128 \$	1,848,731			21
22	Working Funds	Acct 135	8,263			22
23	Prepayments	Acct 165	210,555			23
24	Misc. Curr. & Accru. Assets	Acct 174	0			24
25	Other Regulatory Assests	Acct 182.3	73,907			25
26	Deferred Debits	Acct 186	6,924			26
27	Alternative Minimum Tax	Acct 190	140,636			27
28	Injuries and Damages	Acct 228	(36,767)			28
29	Misc. Curr. & Accru. Liabilities	Acct 242	688,953			29
30	Other Deferred Credits	Acct 253	(310,479)			30
31	Other Regulatory Liabilities	Acct 254	(470,923)			31
32	Total Other Working Capital Required	\$	2,159,801			32
		* <u>_</u>	2,,			
33	Total Working Capital Requirements	\$_	2,253,972			33
		=	Ch 17, Sh 21, Ln 1			

[1] See WP Ch 17 Table of Contents columns (c) & (d) for references.[2] Chapter 17 Workpapers

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA LEAD LAG STUDY TEST YEAR 2021 - AFTER RATE RELIEF

Line		Account					Line
No.	Description	Number	_	Cost	Lag Days	Dollar Days	No.
	(a)	(b)		(c)	(d)	(e)	
				WP Ch 17, Sh 5	[1]	(c) * (d)	
	Operations and Maintainence						
1	Cost of Gas		\$	13,933,322	39.56 \$	551,217,845	1
2	Labor and Labor Loading Cost			3,524,769	25.41	89,553,353	2
3	Prepayments Amortized to O&M [2]			104,762	0.00	0	3
4	Provision for Uncollected Accounts			10,291	170.21	1,751,636	4
5	Prepaid Insurance [2]			335,791	0.00	0	5
6	Other Amortizations [2]			770,380	0.00	0	6
7	Other O&M Expense		_	1,788,929	23.75	42,490,805	7
8	Total O&M Expenses		\$	20,468,244	33.47 \$	685,013,640	8
9	Depreciation and Amortization			4,328,850	0.00	0	9
10	Payroll Taxes			193,805	15.00	2,906,731	10
10	Taxes Other Than Income Taxes			1,293,488	129.08	166,962,097	10
12	State Income Taxes			681,987	21.00	14,321,721	12
13	Federal Income Taxes - Current			1,476,887	38.25	56,490,928	13
14	Total Operating Expenses		s ⁻	28,443,259	32.55 \$	925,695,117	14
			Ψ-	20,110,200	¢¢	020,000,111	
15	Number of Days in Test Period			365			15
40			_				10
16	Avg Daily Operating Expenses	Ln 14(c) / Ln 15(c)		77,927			16
17	Lag in Receipt of Revenue				33.78		17
					-		
18	Net Difference: Revenue Lag - Expense Lag	Ln 17(c) - Ln 14(c)		1.23			18
19	Cash Working Capital for Operating Expense	Ln 16(c) * Ln 18(c)	\$_	96,072			19
20	Other Working Capital Required			WP Ch 17, Sh 80			20
21	Other Special Funds	Acct 128	\$	1,848,731			21
22	Working Funds	Acct 135		8,263			22
23	Prepayments	Acct 165		210,555			23
24	Misc. Curr. & Accru. Assets	Acct 174		0			24
25	Other Regulatory Assests	Acct 182.3		73,907			25
26	Deferred Debits	Acct 186		6,924			26
27	Alternative Minimum Tax	Acct 190		140,636			27
28	Injuries and Damages	Acct 228		(36,767)			28
29	Misc. Curr. & Accru. Liabilities	Acct 242		688,953			29
30	Other Deferred Credits	Acct 253		(310,479)			30
31	Other Regulatory Liabilities	Acct 254	_	(470,923)			31
32	Total Other Working Capital Required		\$_	2,159,801			32
00			ድ	0.055.070			22
33	Total Working Capital Requirements		\$_	2,255,873			33
				Ch 6, Sh 1, Ln 29(e)			

[1] See WP Ch 17 Table of Contents columns (c) & (d) for references. [2] Chapter 17 Workpapers

				13	13-Month Balances				Projected	Projected	Test Year	Line
	Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	No.
	(a)	(q)	(c)	(p)	(e)	(f)	(B)	(4)	(i)	(į)	(k)	
		[1]	[1]	[1]	[1]	[1]	[1]	[1]	[2]	[2]	[2]	
Δ	December	\$ 1,416,550 \$	1,744,434 \$	1,775,181 \$	1,414,901 \$	2,161,898 \$	2,821,132 \$	4,629,129 \$	2,280,461 \$		3 2,280,461	-
÷	January	1,461,009	2,105,768	1,813,002	1,421,626	2,151,076	2,807,299	4,772,277	2,361,722	2,361,722	2,361,722	2
ĽĹ.	February	1,487,623	2,240,599	1,710,541	1,556,793	2,231,454	2,905,602	5,045,772	2,454,055	2,454,055	2,454,055	с
\geq	March	1,798,641	2,509,691	1,783,362	1,796,848	2,265,147	4,353,830	7,540,415	3,149,705	3,149,705	3,149,705	4
\triangleleft	April	4,242,258	2,686,945	2,013,667	2,237,217	2,297,985	4,983,961	7,819,766	3,754,543	3,754,543	3,754,543	5
2	May	4,655,676	2,863,770	2,150,738	2,685,793	2,384,701	5,480,293	7,825,734	4,006,672	4,006,672	4,006,672	9
5	June	4,839,337	2,764,485	2,241,693	2,735,735	2,518,527	5,578,820	6,379,101	3,865,385	3,865,385	3,865,385	7
	July	4,706,659	2,781,540	2,496,720	2,687,307	2,585,561	4,520,300	6,860,140	3,805,461	3,805,461	3,805,461	ø
∢	August	4,548,709	2,214,636	2,459,427	2,754,428	2,787,509	3,708,254	7,220,668	3,670,519	3,670,519	3,670,519	6
0)	September	4,372,429	1,867,197	2,345,662	2,571,549	2,799,872	4,370,309	7,310,295	3,662,473	3,662,473	3,662,473	10
O	October	4,339,939	1,860,749	1,859,439	2,515,796	2,813,681	4,428,640	7,353,266	3,595,930	3,595,930	3,595,930	11
z	November	4,368,685	1,856,660	1,657,849	2,288,718	2,768,445	4,557,894	6,567,904	3,438,022	3,438,022	3,438,022	12
\Box	December	1,744,434	1,775,181	1,414,901	2,161,898	2,821,132	4,629,129	6, 190, 991	2,962,524	2,962,524	2,962,524	13
	13-Month Total	\$ 43,981,949 \$	29,271,655 \$	25,722,185 \$	28,828,607 \$	32,586,988 \$	55,145,464 \$	85,515,458 \$	43,007,472 \$	43,007,472	\$ 43,007,472	14
	13-Month Average	\$ 3,383,227 \$	2,251,666	1,978,630 \$	2,217,585 \$	2,506,691 \$	4,241,959 \$	6,578,112 \$	3,308,267 \$	3,308,267 \$	3,308,267	15
Ż	Northern California Allocated	630,862	420,580	i0//I0#	416,717	472,418	800,078	1,240,942	624,095	624,095	624,095	
Ś	South Lake Tahoe Allocated	480,496	319,637	i0//IU#	312,096	352,400	592,740	917,556	461,458	461,458	461,458	
ž	Northern Nevada Juris Factor IV	4.91%	4.89%	4.88%	4.85%	4.83%	4.81%	4.78%	4.78%	4.78%	4.78%	
õ	South Lake Tahoe Juris Factor IV	1.04%	1.03%	1.03%	1.02%	1.01%	1.00%	0.99%	0.99%	0.99%	0.99%	
ž	Northern California Juris Factor IV	1.36%	1.36%	1.36%	1.36%	1.36%	1.35%	1.34%	1.34%	1.34%	1.34%	
	Northern Nevada Division- Factor IV	7.31%	7.29%	•	7.22%	7.19%	7.15%	7.12%	7.12%	7.12%	7.12%	
ž	Northern California Ratio	18.65%	18.68%	i0//IC#	18.79%	18.85%	18.86%	18.86%	18.86%	18.86%	18.86%	
Š	South Lake Tahoe Ratio	14.20%	14.20%	#DIV/0	14.07%	14.06%	13.97%	13.95%	13.95%	13.95%	13.95%	
									Ch 17, Sh 21	Ch 17, Sh 21	Ch 17, Sh 21	
1									Ln 2, Col (j)	Ln 2, Col (k)	Ln 2, Col (l)	

[1] Source: Company Records[2] Reflects 7-year historical average

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17 M&S

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CUSTOMER ADVANCES ACCOUNT 252 2012 THROUGH 2021

Line				13-	13-Month Balances	s			Projected	Projected	Test Year	Line
No.	Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	No.
	(a)	(q)	(c)	(p)	(e)	(f)	(g)	(4)	(i)	()	(k)	
		[1]	[1]	[1]	[1]	[1]	[1]	[1]	[2]	[2]	[2]	
-	December	\$ 498,789 \$	367,287 \$	159,903 \$	147,857 \$	617,084 \$	142,379 \$	126,986 \$	294,327 \$	294,327 \$	294,327	-
2	January	486,939	355,463	155,593	144,319	112,901	134,087	126,637	216,563	216,563	216,563	2
ი	February	472,437	343,639	151,293	140,781	125,287	132,489	126,289	213,173	213,173	213,173	ო
4	March	460,587	331,815	147,232	137,243	122,376	130,891	102,647	204,684	204,684	204,684	4
5	April	448,737	319,991	143,885	133,705	119,465	129,530	102,298	199,659	199,659	199,659	5
9	May	436,887	308,167	140,538	130,167	116,668	128,856	95,496	193,825	193,825	193,825	9
7	June	424,883	296,343	137,190	126,629	135,843	128,550	95,147	192,084	192,084	192,084	7
8	July	437,606	284,519	133,843	131,480	134,754	128,302	94,798	192,186	192,186	192,186	8
6	August	425,546	250,813	151,893	127,942	119,633	128,096	147,163	193,012	193,012	193,012	6
10	September	413,696	178,207	148,545	124,404	107,297	127,890	146,814	178,122	178,122	178,122	10
1	October	401,846	171,814	177,742	121,633	85,076	127,683	146,465	176,037	176,037	176,037	11
12	November	389,996	164,213	174,189	118,722	146,513	127,335	187,665	186,948	186,948	186,948	12
13	December	367,287	159,903	147,857	115,811	142,379	126,986	143,031	171,894	171,894	171,894	13
14	13-Month Total	\$ 5,665,235 \$	3,532,175 \$	1,969,704 \$	1,700,695 \$	2,085,276 \$	1,693,073 \$	1,641,437 \$	2,612,514 \$	2,612,514 \$	2,612,514	14
15	13-Month Average	\$ 435,787 \$	271,706 \$	151,516 \$	130,823 \$	160,406 \$	130,236 \$	126,264 \$	200,963 \$	200,963 \$	200,963	15
									Ch 17, Sh 4	Ch 17, Sh 4	Ch 17, Sh 4	
		1							Ln 6, Col (i)	Ln 6, Col (j)	Ln 6, Col (k)	

[1] Source:Company Records[2] Reflects 7-year historical average

Line	No.	-	0 0 4	Ð	9 2 3 3	1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	16 17
Projected	2021 (k)	17,772,018	27,241,753 1.56% 424,018	18,196,036	9,442,791 (197,665) 106,097 9,351,223	8,744,231 (1,973,614) 1,901,844 8,672,461 143,096	9,494,319 27,690,354 Ch 17, Sh 4 Ln 7-10, Col (k)
Projected	2020 (j)	17,500,667 \$	26,765,578 \$ 1.56% 416,606 \$	17,917,273 \$	9,442,791 \$ - - 9,442,791 \$	8,744,231 \$ 8,744,231 \$ 1.65% 144,280 \$	9,587,071 \$
Projected	2019 (i)	16,709,147 \$	26,532,385 \$ 1.56% 412,977 \$	17,122,123 \$	9,442,791 \$ - - - -	8,744,231 \$ 8,744,231 \$ 1.65% 144,280 \$	9,587,071 \$ 26,709,194 \$ Ch 17, Sh 4 Ln 7-10, Col (i)
	2018 (h)	16,574,665 \$	18,967,191 \$ 1.56% 295,224 \$	16,869,889 \$	9,442,791 \$ 	8,744,231 \$ 8,744,231 \$ 1.65% 144,280 \$	26,456,960 \$ 43,326,849 \$
	2017 (g)	15,804,911 \$	19,459,079 \$ 1.65% 321,235 \$	16,126,146	9,442,791 \$	- \$ 8,744,231 165% 144,280 \$	25,713,217 \$
	2016 (f)	25,430,164 \$	32,374,504 \$ 1.58% 512,029 \$	25,942,193	φ φ · · · ·	\$ - % - % 	25,942,193 \$ 51,884,386 \$
Recorded [1]	2015 (e)	25,140,374 \$	31,159,844 \$ 1.57% 489,509 \$	25,629,883	φ φ · · · ·	\$ 	25,629,883 \$
	2014 (d)	23,885,749 \$	30,020,658 \$ 1.57% 472,605 \$	24,358,354 \$	ю у 	\$ \$ 0000 0000 0	24,358,354
	2013 (c)	20,915,209 \$	24,697,811 \$ 1.45% 358,463 \$	21,273,672 \$	φ φ · · · ·	\$ \$ \$ \$ 	21,273,672 \$
	2012 (b)	16,287,006 \$	21,831,207 \$ 1.46% 318,594 \$	16,605,600 \$	φ φ · · · ·	\$ 	16,605,600 \$ 33,211,200 \$
		⇔	ക'ക	' ⇔ "	s 's	ຜູ່ຜູ່ ຜູ	່ຜ່ ່ຜ່
	Description (a)	Deferred Income Tax (DIT) Direct	System Allocable 4-Factor NCA Allocation	Total DIT	Excess Deferred Taxes (EDIT) Direct Beginning Period Amortization Adjustment Direct Ending Period	System Alloc. Beginning Amortization Adjustment System Alloc. Ending 4-Factor NCA Allocation	Total EDIT Total DIT and EDIT [1] Company Records
Line	No.	4	004	Q	9 8 4 9	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	16

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17 Def Tax

CHAPTER 18 Pension and Benefits

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA PENSIONS AND BENEFITS CHAPTER 18

Chapter 18 contains pensions and benefits (P&B) for Southwest Gas in nominal dollars and 2018 dollars. Chapter 18, Sheet 3 shows projected employee benefits from 2019 through 2021, as well as the applicable labor loading percentage that carries through to the other chapters where labor loading expense is calculated. Chapter 18 Sheets 4 and 5 show seven years of historical P&B data (2012 through 2018). Chapter 18, Sheet 6 shows P&B as recorded, and as adjusted for using the cash method for pension cost recovery, along with the historical labor loading percentages, both with and without payroll taxes.

Southwest Gas allocates its P&B (also referred to as labor loadings) to each labor account based on a percentage of labor. Southwest Gas' recorded labor loadings include pension accruals, benefits, and paid time off, as well as payroll taxes. For projection purposes, payroll taxes have been removed from the labor loading factor and are included in Chapter 16. Therefore, for comparison purposes Southwest Gas shows the computation of historical labor loadings as recorded, as adjusted for cashbasis pension, and the labor loading percentage with and without payroll taxes.

Several pension and benefits projections are based solely on escalating 2018 benefits, including Life and AD&D insurance, employee assistance program, pension plan administration fees, dental, long term disability, flex benefits, tuition reimbursements, and employee investment plan, since this best reflects ongoing expenses. The remaining pension and benefit projections were normalized in 2018 dollars over three years (medical and post-employment benefits other than pension) or seven years (supplemental executive retirement plan (SERP), deferred compensation (EDCP), pension, employee communications, and miscellaneous benefits) because the expense has fluctuated from year to year in recent years.

Paid time off, SERP, EDCP, pension, and employee investment plan are escalated by the labor escalation factor in Chapter 7. The remaining P&B are escalated by the materials and expenses escalation factor in Chapter 7.

Seven years of historical P&B data by subaccount is provided in WP Chapter 18, Sheet 1. All amounts are rounded to the nearest dollar. Certain miscellaneous benefits, related to employee recognition and employee events, were removed from the cost of service (WP Chapter 18, Sheet 3). Also, since the Commission requires that pensions be requested for recovery on a cash basis, a workpaper has been provided that lists all the payments to the pension plan from 2012 through 2018 (WP Chapter 18, Sheet 2). The labor loading factor is calculated on a total-Company basis, since most P&B cover all employees, and is then applied to labor charged to or allocated to California. The summary page from the actuarial studies showing results

from 2012 to 2018, along with internal memos supporting additional funding from 2012 through 2018 are included in Chapter 18 Workpapers.

The labor loading factors for the projected years are calculated based on escalated labor loadings divided by escalated labor, as shown on Chapter 18, Sheet 1. The labor loading factor is applied to the requested labor costs to determine labor loading expense within the workpapers of each chapter with charged labor.

The projected periods 2019-2021 reflect a seven-year normalization of 2013 through 2019 pension and supplemental executive retirement plan costs, and a three-year normalization of 2017 through 2019 post-employment benefits other than pension costs for the projected periods as shown in the workpapers to Chapter 8A.

Line No.	- v m 4 m m m m m m m m m m m m m m m m m	22
2021 (f)	326,699 3,746,952 459,462 16,067,646 26,021,027 113,247 1,491,413 1,113,247 1,491,413 1,113,631 1,045,203 1,113,631 1,045,203 280,766 5,915,222 635,450 58,569,672 58,569,672 29,322,452 29,322,452 29,322,452 87,892,125 87,992,125 87	1.0703 1.0612
2020 (e)	319,399 \$ 3,663,222 450,012 15,737,166 - 25,439,551 1,0918 1,460,737 1,308,811 1,023,705 1,090,725 1,090,725 1,090,725 1,090,725 16,317 274,991 5,783,038 622,380 57,300,971 \$ 169,359,647 \$ 50.76% 50.76%	1.0464 1.0394
2019 (d)	312,261 \$ 3,581,362 440,756 15,413,482 24,871,070 108,637 1,430,693 1,281,891 1,068,291 1,068,291 1,068,291 1,068,291 15,981 269,335 5,653,808 609,578 56,059,795 56,059,795 84,086,389 \$ 165,575,074 \$ 50.78%	1.0230 1.0180
Projection Methodology (c)	7-Year 2013-2019 \$ 7-Year 2012-2018 3-Year 2016-2018 7-Year 2013-2019 2018 2018 7-Year 2012-2018 7-Year 2012-2018 7-Year 2012-2018 8 7-Year 2012-2018 5	Ch 7, Sh 2 Ch 7, Sh 2
Adjusted \$2018 (b) Ch 18, Sh 5(h)	305,241 3,500,843 432,962 15,140,945 - 24,311,896 1,405,396 1,405,396 1,259,225 984,921 1,049,402 15,699 264,573 5,526,694 598,800 54,903,312 27,396,475 82,299,787 161,852,467 161,852,467 50.85%	
	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
Description (a)	SERP [1] [3] Deferred Compensation [1] Life and AD&D Insurance [2] Medical [2] Employee Assistance Program [2] Pension - Cash Basis [1] [4] Pension Plan Administration [2] Pension Plan Administration [2] Pension Plan Administration [2] Pension Plan Administration [2] Dental [2] Long Term Disability Insurance [2] Flex Benefits [2] Tuition Reimbursements [2] Employee Communications [2] Tuition Reimbursements [2] Employee Investment Plan (EIP) [1] Miscellaneous Benefits [2] Total Other Benefits [2] Indirect Time (Account 242) [1] Net Labor [1] Net Labor [1]	 Labor-Related Benefit Escalation Other Benefits Escalation WP Ch 8A, Sh 9, Ln 3(i) WP Ch 8A, Sh 9, Ln 1(i) WP Ch 8A, Sh 9, Ln 2(i) WP Ch 8A, Sh 9, Ln 2(i)
Line No.	- 0 m 4 m 0 h m 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22

SOUTHWEST GAS CORPORATION PROJECTED EMPLOYEE BENEFITS 2018 THROUGH 2021

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18 Proj Benefits

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SOUTHWEST GAS CORPORATION EMPLOYEE BENEFITS - NOMINAL DOLLARS [1] 2012 THROUGH 2018

2018 No. (h)	3,404,642 1 3,335,953 2 432,962 3 14 056 217 4	44,000,000 6 106,716 7	1,472,649 8 1,259,225 9 984,921 10 1,049,402 11		27,396,475 17
2017 (g)	3,634,418 \$ 3,423,926 406,762	36,000,000 - 113,241	2,768,630 1,366,481 876,877 919,770 1 160	272,842 5,207,507 696,721 69,367,308 \$	26,465,134 \$
2016 (f)	3,573,379 \$ 3,455,600 419,263	36,000,000 219,171	3,281,998 1,378,129 886,607 1,313,459 13,270	265,204 4,974,267 129,530 71,636,101 \$	25,027,375 \$
2015 (e)	3,308,493 \$ 3,320,262 394,078	36,000,000 145,920	2,895,714 1,279,088 886,847 2,579,280 1 361	282,575 5,073,314 529,449 68,244,668 \$	25,032,724 \$
2014 (d)	2,820,335 \$ 3,319,924 395,440	-0,000,000 36,000,000 51,815	1,021,301 1,359,427 878,796 2,019,640 30 750	319,099 4,816,674 691,355 63,808,191 \$	25,311,147 \$
2013 (c)	2,879,033 \$ 3,187,699 525,372 12 363 284	46,000,000 62,589	2,195,589 1,353,085 659,116 2,404,954 25,645	318,622 4,852,224 469,776 77,412,145 \$	24,855,411 \$
2012 (b)	2,586,399 \$ 3,265,808 488,549 11 012 750	48,500,000 68,069	3,018,050 1,349,906 611,495 1,615,514 30 274	344,090 4,709,328 575,150 79,190,690 \$	25,085,782 \$
	\$			به	ال ج
Description (a)	SERP Deferred Compensation Life and AD&D Insurance Modicol	Employee Assistance Program Pension - Cash Basis Pension Plan Administration	PBOP Dental Long Term Disability Insurance Flex Benefits Fmolovee Communications	Tuition Percentistication of the transmission of transmission of the transmission of transmissiono	Indirect Time (Account 242)
No.	- 0 0 z	1002	8 6 6 7 6	15 4 1 3	17

[1] WP Ch 18, Sh 1

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18 Hist Benefits

Line No.	Description	2012		2013	2014	2015	2016	2017	2018	Line No.
	(a)	(q)		(c)	(q)	(e)	(f)	(6)	(y)	
~	SERP	\$ 2,828,745	,745 \$	3,103,342 \$	2,991,543 \$	3,505,174 \$	3,738,643	3,723,188	3,404,642	-
2	Deferred Compensation	3,571,815	,815	3,436,057	3,521,459	3,517,643	3,615,417	3,507,554	3,335,953	2
ო	Life and AD&D Insurance	534	534,326	566,304	419,445	417,505	438,654	416,697	432,962	З
4	Medical	13,028,986	,986	13,326,524	10,695,759	12,234,799	16,453,540	14,013,079	14,956,217	4
S	Employee Assistance Program	126	126,104	124,128					•	5
9	Pension - Cash Basis	53,044,459	,459	49,583,923	38,185,371	38,140,100	37,664,951	36,879,292	44,000,000	9
7	Pension Plan Administration	74,	74,447	67,465	54,961	154,595	229,308	116,007	106,716	7
8	PBOP	3,300,842	,842	2,366,651	1,083,299	3,067,856	3,433,786	2,836,253	1,472,649	8
6	Dental	1,476,392	,392	1,458,506	1,441,951	1,355,126	1,441,866	1,399,857	1,259,225	6
10	Long Term Disability Insurance	668	668,792	710,469	932,144	939,567	927,611	898,295	984,921	10
1	Flex Benefits	1,766,888	,888	2,592,327	2,142,241	2,732,611	1,374,204	942,235	1,049,402	1
12	Employee Communications	33	33,110	27,643	32,617	1,442	13,883	1,188	80	12
13	Tuition Reimbursements	376	376,331	343,447	338,470	299,374	277,470	279,506	264,573	13
14	Employee Investment Plan (EIP)	5,150,593	,593	5,230,268	5,109,069	5,374,908	5,204,320	5,334,699	5,526,694	14
15	Miscellaneous Benefits	629	629,042	506,377	733,323	560,923	135,521	713,739	912,675	15
16	Total Account 926 Benefits	\$ 86,610,872	,872 \$	83,443,432 \$	67,681,652 \$	72,301,623 \$	74,949,174	71,061,588	77,706,636	16
			 						Ch 18, Sh 3(b)	
17	Constant Dollar Factor: Ch 7, Sh 3(c)	.0	0.9143	0.9277	0.9428	0.9439	0.9558	0.9762	1.0000	17
18 19	Benefits Cost Increase Per Year Average Benefits Cost Increase 2012-2018	18		-3.66%	-18.89%	6.83%	3.66%	-5.19%	9.35% -1.32%	6 0
20	Benefits Cost Increase Per Year Excluding Pension and Medic Average Non-Pension Benefits Cost Increase 2012-2018	ıg Pension anc ease 2012-201	d Medic: 18	-0.02%	-8.44%	16.63%	-5.00%	-3.18%	-7.03% -1.17% Ch 18, Sh 3(c)	20 21
22	Indirect Time (Account 242)	\$ 27,436,	27,436,324 \$	26,791,930 \$	26,847,654 \$	26,520,849 \$	26,184,857	27,111,539	27,396,475 Ch 18, Sh 3, Ln 17(b)	22
	[1] Ch 18 Sh 4 * n 17									

[1] Ch 18, Sh 4 * Ln 17

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18 Hist Benefits

SOUTHWEST GAS CORPORATION	HISTORICAL LABOR LOADING PERCENTAGES - NOMINAL DOLLARS	2012 THROUGH 2018
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Line No.	- 0 0 4	8 1 6 2	0		0 1 1 2 0 4	15	16 17	18 20
2018 (i)	62,262,099 27,396,475 14,836,782 104,495,357	217,839,433 (27,396,475) (13,472,508) 176,970,449	59.05%		77,706,636 27,396,475 105,103,111 14,836,782 119,939,894	176,970,449	59.39% 67.77%	28,555,463 44,000,000 15,444,537
2017 (h)	71,648,944 \$ 26,465,134 14,436,755 112,550,833 \$	210,907,735 (26,465,134) (16,877,915) 167,564,685 \$_	67.17%		69,367,308 \$ 26,465,134 95,832,442 \$ 14,436,755 110,269,197 \$	167,564,685 \$	57.19% 65.81%	38,281,636 \$ 36,000,000 (2,281,636) \$
2016 (g)	73,204,270 \$ 25,027,375 16,353,681 114,585,326 \$	198, 145, 775 (25, 027, 375) (9, 995, 707) 163, 122, 694 \$	70.24%		71, 636, 101 \$ 25, 027, 375 96, 663, 476 \$ 16, 353, 681 113, 017, 157 \$	163,122,694 \$	59.26% 69.28%	37,568,169 \$ 36,000,000 (1,568,169) \$
2015 (f)	76,531,909 \$ 25,032,724 15,746,195 117,310,828 \$	193,772,491 (25,032,724) (10,309,151) 158,430,616 \$	74.05%		68,244,668 \$ 25,032,724 \$ 93,277,391 \$ 15,746,195 109,023,587 \$	158,430,616 \$	58.88% 68.81%	44,287,241 \$ 36,000,000 (8,287,241) \$
2014 (e)	62,139,398 \$ 25,311,147 13,541,144 100,991,690 \$	194,341,660 (25,311,147) (12,200,573) 156,829,940 \$	64.40%		63,808,191 \$ 25,311,147 89,119,339 \$ 13,541,144 102,660,483 \$	156,829,940 \$	56.83% 65.46%	34,331,207 \$ 36,000,000 1,668,793 \$
2013 (d)	74,496,060 \$ 24,855,411 13,457,372 112,808,843 \$	191,651,231 (24,855,411) (11,492,393) 155,303,427 \$	72.64%		77,412,145 \$ 24,855,411 102,267,556 \$ 13,457,372 115,724,928 \$	155,303,427 \$	65.85% 74.52%	43,083,915 \$ 46,000,000 2,916,085 \$
2012 (c)	67,378,255 \$ 25,085,782 13,574,061 106,038,097 \$	190,760,559 (25,085,782) (10,929,320) 154,745,457 \$	68.52%		79,190,690 \$ 25,085,782 104,276,471 \$ 13,574,061 117,850,532 \$	154,745,457 \$	67.39% 76.16%	methodology as follows: 36,687,565 \$ 48,500,000 11,812,435 \$
Reference (b)	Ln 10 - Ln 20 \$ Ch 18, Sh 4, Ln 17 Company Records Sum Lns 1 - 3 \$	Company Records \$ Ln 2 * -1 Company Records Sum Lns 5 - 7	Ln 4 / Ln 8		Ch 18, Sh 4, Ln 16 S Ln 2 Ln 2 Ln 11 S Ln 10 + Ln 11 S	Ln 8	Ln 12 / Ln 15 Ln 14 / Ln 15	lission-accepted cash basis r Company Records \$ Ch 18, Sh 4, Ln 6
Description (a) AS RECORDED	Other Benefits Indirect Time Payroll Taxes Total	Total Company Labor Less: Indirect Time Less: Variable Compensation Net Labor	Labor Loading Percentage	AS ADJUSTED	Other Benefits [1] Indirect Time Total Excluding Payroll Taxes Payroll Taxes [2] Total Including Payroll Taxes	Net Labor	Labor Loading %, Excluding Payroll Taxes Labor Loading %, Including Payroll Taxes	[1] Recorded pension expense was adjusted to reflect the Commission-accepted cash basis Per Books Account 926 (Accrual Method) Company Records \$ Cash Method Ch 18, Sh 4, Ln 6 Difference \$
Line No.	- 0 ω 4	5 8 7 6 5	O		1 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	15	16 17	18 20

[2] Payroll taxes requested for the California jurisdictions are in Chapter 16 of this proceeding.

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CHAPTER 19 Class Cost of Service

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CHAPTER 19 CLASS COST OF SERVICE STUDY

This chapter sets forth the results of Southwest Gas Corporation's (Southwest Gas') Customer Class Cost of Service Study (CCOSS) used in Southwest Gas' proposed rate design. Southwest Gas used an embedded CCOSS model to allocate its Test Year 2021 rate base, expenses, taxes and miscellaneous items to the various functions and rate classes.

Three (3) Class Cost of Service Summaries are included in this Application:

- 1. Present Rates at Present Rate Schedules
- 2. Class Revenues at System Average Rate of Return
- 3. Proposed Rates at Proposed Rate Schedules

Southwest Gas allocated its Test Year 2021 rate base, expenses, taxes and miscellaneous items utilizing class determinants, special studies and internally generated factors.

The first schedule, Present Rates at Present Rate Schedules, provides a summary of the customer class cost of service for the test year at current rates including the test year FCAM adjustment multiplied by Test Year 2021 bills and volumes for each rate class.

The second schedule, Class Revenues at System Average Rate of Return, sets forth the revenue requirement that would be necessary from each rate class in order for each rate class to provide the overall system rate of return.

The third schedule, Proposed Rates at Proposed Rate Schedules, reflects the results of Southwest Gas' rate design proposals in this general rate case application. This summary incorporates the requested revenue responsibility for each class of customers.

		I																															SH
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	Noncore	(k)	1,137,741	23,300	20,944	5,796		(256,440)	931,341		471,241 0	0 (471.243		(26,910)	(23,637)	5,024	(45,248) (13,820)	(104.592)	1	366,651	(20,401)	346,250 30,608	20,000	336,043	(20,401)	315,641	00,285	0	66,275	(06)	269,858	28.98%
	Small Electric	()		\$ 0					\$ 0				+	ł					-	ł			9 C			\$					\$ 0	\$	%00.0
	Small		¢	\$	 ө	99 Q	θ¥	э с у	φ		6 е	÷ ¢	6		\$	 ө	ن ه و	A 4	e e		÷	φ	se les)	÷	ф	ф е	ቀ ቀ	ب نو	ъ	ŝ	\$	
	Gas Engine	(i)	9,285	190	171	47		(2,093)	7,600		655 î		655		(322)	(283)	41	(309) (113)	(1.046)		(391)	(166)	(221)	(nt)	(342)	(166)	(208)	(70F)	0	(107)	(1)	(234)	(3.08%)
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EDULES	NGV	(H)	199,864	4,093	3,679	1,018		(45,048)	163,606		5,782 î		5.782		(3,852)	(3,384)	883	(1,949) (2,428)	(16.730)		(10,948)	(3,584)	(14,532)	CU2(1)	(9,663)	(3,584)	(13,247)	(2,782)	<u>j</u> o	(2,784)	(16)	(6,864)	(4.20%)
SCH			\$					ۍ د م	\$			÷> ↔	+	1	_	_			- - -	-			မမြ		\$			A 4		69	\$	θ	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION GE STUDY SUMMARY - PRESENT RATES AT PRESENT RATE SCHEDULES T YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021	Core General	(g)	14,526,921	297,497	267,422	73,999	0 (6 806)	(0,000) (3,274,278)	11,884,755		2,379,799	U 11 R01	2.391.600		(364,082)	(319,803)	64,145 //77 740	(176 450) (176 450)	(1.373.939)		1,017,661	(260,487)	757,173 66.034	100,000	950,727	(260,485)	690,242	124,951 (124)	0	144,826	(1,149)	807,049	6.79%
TION F PRE ER 31	Ŭ		Ф	\$	ଜ ଜ	99 U	9 4	9 (9	φ		 ө ө	e e	- -		\$	မ မ	نه و	e e	မှုလ	ŀ	ф	ŝ	မာမ)	Ф	φ	φ	e e	ب ھ	φ	Ф	θ	
JURISDIC JURISDIC RATES A1 DECEMB	Sub	(f)	0	0	0 0			00	0		0 0				0	0 0	0 0				0	0		>	0	0	0		0	0	0	0	%00.0
ORPO ATE, ENT IDED			Ф	\$	ଜ ଜ	9 U	9 4	э с у	φ		 ө ө	e e	- -			မ မ		e e		!	ф		မာမ)	Ф	φ	φ	e e		φ	Ф	θ	
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION ERVICE STUDY SUMMARY - PRESENT RATES AT PRESENT TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021	Multi- Family	(e)	3 25,753			131		(5,80	3 21,081		9,11		9.11		-	<u> </u>		\$ (1,024) \$ (313)	(2		6,846		6,384		6,282			(U)		3 1,222	(2)	5,062	24.01%
N CA UMM LVE I	2	 		\$ 2					↔ 0			e e e	i	1	\$ (0					1			က လုဂ				÷	5 7 7			\$ (6	\$ 6	%
SOU NORTHER E STUDY S YEAR TWE	Residential	(p)	40,195,154	823,157	739,941	204,752	0 (15 704)	(9,059,739)	32,897,470		6,873,684	0 15 370	6.889.063		(1,153,170)	(1,012,924)	177,486	(5/C,88C,1) (488 253)	(4.075.434)		2,813,630	(720,753)	2,092,876 185,010	0,001	2,628,619	(720,746)	1,907,874	400,004 (344)		400,309	(3,179)	2,231,489	6.78%
RVIC			Ф	\$	 ө	99 U	ө ө -	ۍ م	\$			÷> ↔	- -		\$	ራ ()	њ.	₩ •	⇒ ↔ √~	-		\$	မမြ	9	θ	\$	မ	ት የ	ۍ د	60	\$	θ	
CLASS COST OF SERVI	Residential	(c)	66,345,865	1,358,697	1,221,341	337,962	0 (188 367)	(14,953,947)	54,121,556		10,906,396	U 118 290	11.024.686		(1,913,932)	(1,681,163)	292,957	(2,038,599) (805 907)	(6.746.639)		4,278,047	(1,189,671)	3,088,376	210,012	4,005,034	(1,189,658)	2,815,376	(568)	0	590,661	(5,248)	3,419,621	6.32%
ss c	Ľ.		Ф	\$	ଜ ଜ	9 U			φ		 ө ө	e e	- -		\$			e e	မှုလ	ŀ	ф		မာမ)	Ф	φ	φ	e e		φ	Ф	θ	
CLA	Total Amount	(q)	122,440,583	2,507,461	2,253,972	623,704 0	0	(27,597,349)	100,027,409		20,646,669 2	0 145 472	20.792.141		(3,462,823)	(3,041,681)	540,650	(4,809,499) (1 487 292)	(12.320.646)		8,471,496	(2,195,525)	6,275,971 554 706	001,100	7,916,700	(2,195,502)	5,721,198	1,201,452 (1 048)	0	1,200,404	(9,685)	6,725,981	6.72%
	To			\$	 ө	99 U	0 4	÷ ю	ŝ			e e	÷		\$	 ө	نه و	e e	မှုလ		ŝ	ŝ	မာမ	9	ŝ	ф	ф,	e e	÷ сэ	φ	\$	Ф	
	Description	(a)	<u>Rate Base</u> Total Direct Net Plant	Total System Allocable Net Plant	Cash Working Capital	Materials & Supplies	Currer Deposite	Deferred Taxes	Total Rate Base	Revenue	Net Operating Margin	Special Contracts Other Revenue		Operating Deductions	Operations & Maintenance Exps	Administrative & General Exps	Regulatory Amortization	Uepreclation Expenses Tayes other than Income	Total Operating Deductions		<u>State Income 1ax</u> Taxable Income before Interest Exp	State Interest Expenses	Total State Taxable Income State Tavable Income		<u>Federal Income Tax</u> Taxable Income before Interest Exp	Federal Interest Expenses	Federal Taxable Income	Federal Income Laxes Investment Tax Credit (LT C.)	Federal Deferred Provision	Total Federal Income Tax	Excess Deferred Amortization	Total Net Income	Rate of Return on Rate Base
	No.		~	0	ი •	4 u	n u		8		о ;	2 5	1	!	13	4 4	15	01	9		19	20	21	3	23	24	25	27	58	29	30	31	32

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SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CLASS COST OF SERVICE STUDY SUMMARY - CLASS REVENUE AT SYSTEM AVERAGE RATE OF RETURN

		CL	CLASS COST		ICE S TESI	OF SERVICE STUDY SUMMARY - CLASS REVENUE AT SYSTEM AVERAGE RATE OF RETURN TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021	ARY - -VE Mi	CLASS	REVE	NUE AT S DECEM	YSTE BER (EM AVERAGI 31, 2021	ERAT	'e of ret	URN						
No.	Description	Total Amount		Residential	Ř	Residential	Multi-	Multi- Family		Sub	ပိ	Core General		NGV	Gas E	Engine	Small Electric	ectric	Noncore		Line No.
	(a)	(q)		(c)		(p)		(e)		(t)		(6)		(H)		(i)	(İ)		(k)	()	
~	<u>Rate Base</u> Total Direct Net Plant	\$ 122 440 583		66 345 865		40 195 154		25 753	¢.	C	G	14 526 921	G	199 864	¢.	9 285	v :			1 137 741	÷
• ~	Total System Allocable Net Plant			5 -		823,157		527	, ю	0	ب نو	297.497	, ю	4.093	ب ہ	190	, ю		-	23,300	. 0
ς Γ	Cash Working Capital	\$ 2,253,972	72	1,22	ŝ	739,941	ŝ	474	ŝ	0	ŝ	267,422	ŝ	3,679	ŝ	171	ŝ	0		20,944	ŝ
4	Incremental Cash Working Capital Adj				θ	624	ŝ	0	θ	0	θ	226	θ	с	Ф	0	\$			18	4
5	Materials & Supplies	623,70		337,96	в	204,752	ŝ	131	θ	0	в	73,999	θ	1,018	Ф	47	Ф		ŝ	5,796	5
9	Other Debits and Credits				с	0	с о	0	с	0	6 (0	с	0	6 6	0	6		 б	0	9 1
L i	Customer Deposits				ю ((5,794)		0 100	6 (0 0	с ((6,806)	ю (0		0	ю (0	- č
ගග	Ueterred Taxes Total Rate Base	\$ (2/,59/,349) \$ 100,029,310	10 \$	5 (14,953,947) 5 54,122,586	es es	(9,059,739) 32,898,094	ب ه	(5,805) 21,082	နာမှ	00	er er	(3,2/4,2/8) 11,884,980	s s	(45,048) 163,609) अ %	7,600	به و		<u>\$ (256,</u> \$ 931,	(256,440) 931,359	თ თ
	Revenue																				
10	Net Operating Margin	\$ 22,115,916		3 12,005,921	в	7,330,072	÷	4,368	в	0	Ф	2,543,245	ф	32,950		1,800	÷			197,560	10
11	Special Contracts				θ	0	÷	0	θ	0	θ	0	θ	0	\$	0	¢		÷	0	11
12	Other Revenue - Labor			45	\$	28	ŝ	0	ŝ	0	ŝ	10	\$	0	\$	0	ŝ		\$, -	12
13	Other Revenue - Parts & Material	6	9		6	2	ن کې	0	ŝ	0	6	-	ŝ	0	6 6	0	с о	0	с я (0	13
4 4 7	Other Revenue - Returned Item Fee	5,88		635 4,635	ю е	1,034 ĵ	မ မ	0 0	ю (0 0	ю (214 0	ю (0 0	ю е	0 0	69 6		69 6	0 0	4 4 i
15	Other Revenue - Rental Gas Property			C	÷ €	0 000	÷ د	0 0	به و	0 0	ب و	0	ب	0 0	÷ د	0 0	÷ €		ب	0 0	15
10	Late Charges				ب و	11,836	÷ €	0 0	÷ د	0 0	<u>ب</u>	8,664	÷ د	0 0	÷ €	0 0	÷ €		<u>ب</u>	0 0	16
1	Service Establishment Charges	0		6/ 6/	¢ و	2,447	<i>₽</i> €	0 0	<i>•</i> €	0 0	₽ €	G/ 8/ 7	¢ و	-	<i>₽</i> €	0 0	<i>∳</i> €		<i>А</i> 6		1
20	Total Devenue	Ф 1,120 Ф 27.261.380	≎ e S g	00011 000	θ	32 7 345 451	ب ا	1 368	ъ e		ϧ	38 2 555 046	e la	32 051	<u>ب</u>		ج اط	÷	\$ 107	0	8 0
<u>n</u>			÷		÷	1,040,401	÷	4,300	÷		÷	2,000,040	÷	02,301	÷		÷	÷		000,10	<u>מ</u>
	Operating Deductions																				
20	Operations & Maintenance Exps	\$ (3,462,823)	23)	(1,913	6 ((1,153,170)	ن کې	(555)	6 (0	6 ((364,082)	()	(3,852)	6 6	(322)	с (0	5 8	(26,910)	20
21	Incremental O&M Expenses		_			(258)	ن کې	(o)	6 (0		(41)	ю ((0)	сэ (0)	ഗ ((1)	21
22	Administrative & General Exps	<u>(</u> 3	_	Ę	ю е	(1,012,924)	نه و	(487)	ю	0 0	نه و	(319,803)	ю е	(3,384)	юе	(283)	€ €			(23,637) 7 001	22 8
22	Regulatory Amortization	\$ 540,650 \$ /1 860 400)		292,95/	ب و	1//,486	<u>ب</u>	114		0 0	ب و	64,145 /E77 740/	ب و	883	÷ 6	41	ب و			5,024	52
7 7 7	Uepreciation Expenses			Ń,	e e	(1,390,373) (0,885)	e e	(1,024)			e e	(047,77C) (077,77)	e e	(1,949) (8)	e e	(509)	₽ θ			(678)	47 75
290	Taxes other than Income	E.)	, 9	(2,000) (488,253)	÷ €	(313)	, 9		, 9	(176 459)	, 9	(0)	,	(113)	,			(0.0)	29
27	Total Operating Deductions	È	3 3 5 8 8	9)	ب	(4.085.576)	÷	(2.279)	ب	0	ب	(1.377.403)	ب	(16.738)	- 	(1.047)	ب	-	È	(105.271)	27
ī		1	1	2	÷	(210,000,1-)	÷	10,12,101	÷		÷	(001; 100; 1)	÷	1001/01/	÷	11-01	÷	÷		1 1707	ĩ
ac	<u>State Income Tax</u> Tavabla Income bafera Internet Evin	¢ 0.010.375		5 E 261 A62	e	3 760 976	÷		e	c	e	1 177 612	e	16 212	÷	762	÷			000 00	ac
0,00	State Interest Exnenses)	_)	÷ €	(720.753)	÷	(462)	÷		÷	(260,487)	÷	(3.584)	÷ €	(166)	÷ €	0 0		0.401)	07 07
30	State Taxable Income		÷		÷.	2 539 122	e,	1 627	÷.		e es	917,156	÷.	12,628	÷.	587	÷.	÷		71,889	302
31	Total State Income Tax	\$ 681,988	⇔ ∞		ь Ф	224,458	e S	144	6	0	ь Ф	81,077	ь С	1,116	- so	52	с С		\$	6,355	31
	Eadaral Income Tax																				
32	Taxable Income before Interest Exp	\$ 9,228,337		\$ 4,992,677	Ф	3,035,417	θ	1,945	Ф	0	ф	1,096,566	ф	15,096	ŝ	701	¢			85,935	32
33	Federal Interest Expenses	\$ (2,195,543)		(1,189	ф	(720,759)	\$	(462)	¢	0	¢	(260,489)	÷	(3,584)	\$	(166)	\$	0		(20,401)	33
34	Federal Taxable Income			3,802	φ	2,314,657	φ	1,483	ω	0	ω	836,077	ω	11,512	¢	535	¢			65,533	34
35	Federal Income Tax	\$ 1,476,887	37 \$			486,078 õ	с с	312 2		0 0		175,576 õ	φ.	2,418 2	6 6	112	с с	0 0		13,762 î	35
36	Investment Tax Credit (I.T.C.)				نه و	0 0	ю (0 0	ю (0 0	نه و	0 0	ю (0 0	ю (0 0	ю (.	0 0	36
37	Federal Deferred Provision Total Ecdarol Incomo Tox	\$ ¢ 175 007	_ .	200	ب ه ا	106.070	<u>ب</u>	00	<u>ب</u> ا		ب ه ا	175 576	e کارو	0 410	به د	110	ب ه و	-	۔ ب	10 767	37
8			÷		e	400,070	e	210	e		e	0/0'0/1	Ð	2,410	e	711	Ð	-		201/01	8
39	Excess Deferred Amortization	\$ (9,685)	35) \$	\$ (5,248)	φ	(3,179)	⇔	(2)	¢	0	θ	(1,149)	φ	(16)	¢	(1)	⇔	0	ŝ	(06)	39
40	Net Income	\$ 7,761,135	35 \$	\$ 4,199,295	φ	2,552,518	θ	1,636	¢	0	⇔	922,139	φ	12,694	Ф	590	Ф	0	\$	72,263	40
41	Rate of Return on Rate Base	7.76%	<u>%</u>	7.76%		7.76%		7.76%		0.00%		7.76%		7.76%		7.76%		0.00%		7.76%	41
:																					:
o's and	55 and Kate Design 2021 VFinal.xisx					CIA	2000	C19 CCUSS @ Sys Avg KUK	s Avg r	YOY											

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SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CLASS COST OF SERVICE STUDY SUMMARY - PROPOSED RATES TEST YEAR TWEI VE MONTHS ENDED DECEMBER 31 2021

	5	Total Amount	Residential	Resid	Residential	Multi- Family	mily	Sub	0	Core General	NGV		Gas Engine		Small Electric	ž	Noncore	Line No.
шı,		(q)	(c)	0)	(p)	(e)		(t)		(B)	(y)		(i)		(j)		(k)	
T I I Otal Direct Net Plant	€) €	122,440,583	\$ 66,345,865	\$ 40,1	40,195,154	\$ 22	25,753 \$		9 9 0	14,526,921	\$ 190	199,864 \$	9,285	ю с	0 0	ب ج	1,137,741	- c
Z I Otal System Allocable Net Plant 2 Cook Working Conitol		2,501,401				A 4				184,182						A 9	20,004	2 0
		2,200,912 1 901	-			2 44				201,426			2			÷	18	0 4
		623 704	3							73 999			7			÷	5 796	r uc
	÷ €;	0	\$							0000						, ю	000	9
	ب	(200,963)	(188,36							(908)					0	ŝ	0	~ ~
8 Deferred Taxes	-		(14	\$ (9,			_			(3,274,278)		_	(2,09		0		(256,440)	8
9 Total Rate Base	\$	100,029,310	\$ 54,122,586	32,	898,094		21,082 \$			11,884,980		163,609 \$	7,600		0		931,359	6
Revenue 10 Not Charating Margin		20 11E 016	,		7 261 022		0,600 0			0 E40 011	u t	670			C		101 001	0
		24,110,910	€//î∩0/'II \$							∠,040,3 I I			1				+00,181	2 €
) 0	80,00	4	, ю		э ю))))))	0	, ю)))))))	00	÷ ю	0 0	12
		9	с С	Ф	0	. 40				~	Ф				0		0	13
		5,883	4,63							214	\$				0		0	14
		0								0	\$				0		0	15
		53.503	\$ 33.003	6		4				8.664	6				0		0	16
	ن	84,877		6		. 40				2,875	Ф				0		0	17
	6	1.120								38	6				0		0	18
19 Total Revenue		:	11,82		,376,412	6	069		÷	2,560,712	, 6,	572	74	÷	0		483,193	19
Onerating Deductions																		
		(3,462,823)	\$ (1,913,932)			-				(364,082)			(322)		0	θ	(26,910)	20
21 Incremental O&M Expenses	⇔	(727)								(41)					0	θ	Ē	21
-	÷	(3,041,681)	Ę,	\$ (1,0) \$	(487) \$		\$	(319,803)	\$ (3	(3,384) \$	U	3) \$	0	θ	(23,637)	22
	6	540,650		6						64,145					0	6	5,024	33
	6 ((4,869,499)	ý)	сэ (573)					(577,740)			(3		0	မ	(45, 248)	24
25 Incremental O&M Expense	÷ €	(29,690)		÷ €			(13)			(3,422)		(8)			0 0		(8/9)	97 G
<u>ש</u>	ſ	(1,48/,292)	- (÷	203)					(1/6,459)		428)	(113)				(13,820)	07
2/ I otal Operating Deductions		12,351,064)	\$ (6,762,750)	\$,085,576)	2	,2/9) \$		-	(1,3//,403)		/38)	5	1	0		105,2/1)	21
																		;
		9,910,325	\$ 5,061,315	به		-				1,183,309			(303)		0 0		377,922	28
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36 Federal Inconne Lax 36 Investment Tax Credit /I T.C.)		1,470,007	↔ /41,1/0 A	• •						B						⊖ ¢	00,444	50.00
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	1	100,01+,1				-	1		1	1000		-		1		÷	111	3
39 Excess Deferred Amortization	÷	(9,685)	\$ (5,248)	¢	(3,179) \$	÷	(2) \$		\$	(1,149)	\$	(16) \$		(1) \$	0	φ	(06)	39
40 Net Income	ŝ	7,761,135	\$ 3,983,140	\$ 2,5	574,815	\$	5,468 \$		\$	926,220	9) \$	(6,303) \$	(171)	1) \$	0	ŝ	277,965	40
41 Rate of Return on Rate Base		7.76%	7.36%		7.83%	25.	25.94%	0.00%	 	7.79%	Ϋ́	-3.85%	-2.25%	%	0.00%		29.85%	4

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CHAPTER 20 Present and Proposed Rates

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA CHAPTER 20 DEVELOPMENT OF PROPOSED RATES

This chapter sets forth the development of Southwest's proposed rate design for Northern California. Southwest Gas utilized the results of its embedded customer class cost of service study set forth in Chapter 19 as a guide to allocate its proposed test year margin of \$22,261,389 among customer classes. A cap of two (2) times the system average percentage change in margin revenue was employed to mitigate revenue increases among classes.

Southwest Gas proposes to increase the number of Residential baseline seasons from two to three. Presently, Southwest Gas has two seasons: Winter Season and Summer Season. The Winter Season includes six months (November through April) for the three "Warmer" climate zones¹ and eight months (October through May) for the four "Colder" climate zones.² The Summer Season includes six months (May through October) for the three "Warmer" climate zones and four months (June through September) for the four "Colder" climate zones.

The proposal would create three seasons for Southwest Gas's seven climate zones.

- 1. Winter (Peak) Season
 - a. December through February for the three "Warmer" climate zones.
 - b. December through March for the four "Colder" climate zones.
- 2. Winter (Off-Peak) Season
 - a. March, April and November for three "Warmer" climate zones.
 - b. April, May and November for the four "Colder" climate zones.
- 3. Summer Season
 - a. May through October for the three "Warmer" climate zones.
 - b. June through October for the four "Colder" climate zones.

The proposed changes to the Residential baseline seasons are in response to SB 711, which was approved by Governor Brown in 2017 in response to winter season bill volatility. SB 711 directed the Commission to make efforts to minimize bill volatility for residential customers: "Those methods may include modifying the length of the baseline seasons or defining additional baseline seasons."³

Southwest Gas proposes to set monthly baseline allowances for primary residential service at the maximum levels allowed by statute and to continue setting the difference between Baseline and Tier II rates at the average basic service charge rate per therm.

¹ Warmer climate zones: Barstow, Needles and Victorville's normal annual heating degree days are 2,255, 2,647, 2,255, respectively.

² Colder climate zones: Big Bear, North Lake Tahoe, South Lake Tahoe and Truckee's normal annual heating degree days are 5,940, 7,397, 7,876, 7,141, respectively.

³ Senate Bill No. 711, See § 739 (a) (1)

Southwest Gas proposes to increase the basic service charge from \$5.00 per month to \$5.75 per month to further stabilize winter bills and better reflect customer-related costs. Southwest Gas proposes to update the IRRAM surcharge in this filing related to the programs derived from the risk-based decision-making process.

Comparisons of present and proposed revenues by customer class and the impact of proposed rates on typical monthly bills, including the proposed change in the Residential baselines, comprise the remainder of this chapter.

Schedule
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C20 Comp Pres Prop Rev

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION COMPARISON OF PRESENT AND PROPOSED MARGIN AND REVENUES BY CLASS TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Proposed [2] Dialase of the control of t	Effective (1) Proposed [2] Dollars Percent (c) (d) (e) (f) (f) 900 \$ 900 \$ 0 0.00% \$ $4,882$ \$ $5,672$ \$ 790 16.18% \$ $5,782$ \$ $6,572$ \$ 790 16.18% \$ 600 \$ 600 \$ 00 \$ 0.00% \$ $5,782$ \$ $5,790$ $16,18\%$ \$ 13.66% \$ 600 \$ 600 \$ 00 0.00% \$ $5,782$ \$ 144 \$ \$ 90 0.00% \$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
(d) (e) (f) (f) 900 \$ 0 0.00% $\frac{5,672}{6,572}$ $\frac{$790}{$790}$ 16.18% 13.66% 600 \$ 0 0.00%	(c) (d) (e) (f) (f) 900 \$ 900 \$ 0 0.00% -4,882 \$ $5,672$ \$ 790 16.18% 5,782 \$ $5,672$ \$ 790 16.18% 600 \$ $6,572$ \$ 790 10.00% 600 \$ 600 \$ 0 0.00% -55 \$ 744 \$ 89 10.35% -13.66%	(c) (d) (e) (f) $\frac{5}{5} + \frac{4,882}{5,782} + \frac{5,672}{5,672} + \frac{5,790}{5,772} + \frac{16,18\%}{3} + \frac{16,18\%}{13,66\%}$ \$ 600 \$ 600 \$ 0 0.00% \$ 655 \$ 144 \$ 89 161.82\% 13.59\%
900 \$ 0 0.00% 5,672 \$ 790 16.18% 6,572 \$ 790 13.66% 600 \$ 0 0.00%	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	\$\$ 900 \$\$ 900 \$\$ 0 0.00% \$\$ 4,882 \$ 5,672 \$ 790 16.18% \$\$ 5,782 \$ 5,672 \$ 790 16.18% \$\$ 5,782 \$ 5,672 \$ 790 16.18% \$\$ 6.00 \$ 6.00 \$ 0.00% 13.66% \$\$ 5.782 \$ 6.00 \$ 0.00% 13.66% \$\$ 55 \$ 144 \$ 89 161.82% \$\$ 655 \$ 744 \$ 89 161.82%
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6,572 <u>\$ 790</u> 13.66% 600 \$ 0 0.00%	5,782 \$ 6,572 \$ 790 13.66% \$ 600 \$ 600 \$ 0 0.00% \$ 55 \$ 144 \$ 89 161.82% \$ 655 \$ 744 \$ 89 13.59% \$	\$\$ 5,782 \$< 6,572 \$< 790 13.66% \$ \$\$ 600 \$< 600
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	$\frac{55}{655} \frac{\$}{\$} \frac{144}{744} \frac{\$}{\$} \frac{\$90}{89} \frac{161.82\%}{13.59\%} -$	55 \$ 144 \$ 89 161.82% 655 \$ 744 \$ 89 13.59% 6
144 \$ 89 161.82%	655 \$ 744 \$ 89 13.59% \$	655 \$ 744 \$ 89 13.59% \$
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	40,800	\$ \$ \$ \$ \$ 0 0 40,800

[1] Chapter 20, Sheets 7-8.[2] Chapter 20, Sheets 5-6.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION PROPORTIONAL COST RESPONSIBILITY METHODOLOGY TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

		TES	TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021	ELVE MO	NTHS EN		ECEMB	ER 31, 1	2021							
Line No.	Description	Total	Residential		Secondary Residential	Multi- Family	i	Muti- Fam Sub	0 ő	NGV	Gas Engine		Small Electric	Noncore	Other Revenue	Line No.
	(a)	(q)	(c)		(e)	(f)		(g)	(µ)	(i)	(j)		()	(m)	(u)	
-	Allocated Margin Revenue [1]	\$ 22,261,389	\$ 12,005,921	θ	7,330,072	\$ 4,3	4,368 \$	0	\$ 2,543,245	\$ 32,950	\$ 1,800	\$ 00	0	\$ 197,560	\$145,472	-
2	Margin at Present Rates [2]	\$ 20,792,141	\$ 10,906,396	θ	6,873,684	\$ 9,1	9,112 \$	0	\$ 2,379,799	\$ 5,782	0 \$	655 \$	0	\$ 471,241	\$145,472	2
З	Difference (Line 1 - Line 2)	\$ 1,469,247														ю
4	System Average Percentage Increase (Line 3 / Line 2)	%20.7														4
Ω.	Ratio of Margin at System Return to Margin at Present Rates (Line 1 / Line 2)	1.0707	1.1008	8	1.0664	0.4794	94	0.0000	1.0687	5.6988	2.7482		0.0000	0.4192	0.0000	5
9	Adjusted Percentage Increase (Line 4 * 2)	7.57%	7.78%	%	7.54%	3.0	3.39%	7.07%	° 7.55%	14.13%	14.13%		7.07%	2.96%	0.00%	9
7	Adjusted Dollar Increase (Line 2 X Line 6)	\$ 1,561,244	\$ 848,381	\$	517,969	\$	309 \$	0	\$ 179,715	\$ 817	\$	93 \$	0	\$ 13,960	0	7
Ø	Adjusted Margin Requirement (Line 2 + Line 7)	\$ 22,353,386	\$ 11,754,777	θ	7,391,653	\$ 9,4	9,421 \$	0	\$ 2,559,514	\$ 6,599	\$	748 \$	0	\$ 485,201	\$145,472	80
6	(Over) / Under Collection (Line 8 - Line 2 ratio per Line 8)	\$ (91,997)	\$ (48,694)	4) \$	(30,620)	\$	(39) \$	0	\$ (10,603)	\$ (27)	ф	(3) \$	0	\$ (2,010)	0	6
10	Margin Requirement (Greater of Line 9 or 10 + Line 11)	\$ 22,261,389	\$ 11,706,083	Ф	7,361,033	\$ 0'3	9,382 \$	0	\$ 2,548,911	\$ 6,572	\$	744 \$	0	\$ 483,191	\$145,472	10
11	Margin Allocation	\$ 22,261,389	\$ 11,706,083	i i	\$ 7,361,033	\$ 0'3	9,382 \$	0	\$ 2,548,911	\$ 6,572	\$	744 \$		\$ 483,191	\$145,472	11
12	Dollar Change From Present Margin Percent Change From Present Margin	\$ 1,469,247 7.07%	\$ 799,687 7.33%	۲ \$ %	487,349 7.09%	\$	270 \$ 2.96%	0.00%	\$ 169,112 5.11%	\$ 790 13.66%	\$ 13.6	0,	\$ 0 0.00%	\$ 11,950 2.54%	n/a	13
15 15	Rate of Return at Present Rates Present Rate of Return Indices	6.72% 1.0	6.32% 0.9	32% 0.9	6.78% 1.0	24.01% 3.6	01% 3.6	0.0 0.0	6.79%	(4.20%) (0.6)	(3.		0.00% 0.0	28.98% 4.3	n/a	14 15
16 17	Rate of Return at Proposed Rates Proposed Rate of Return Indices	7.76% 1.0	7.36% 0.9	% 6	7.83% 1.0	25.6	25.94% 3.3	0.0 0.0	6 7.79% 1.0	(3.85%) (0.5)	(2.		0.00% 0.0	29.85% 3.8	n/a	16 17

[1] Chapter 19, Sheet 3. [2] Chapter 20, Sheets 7-8. SOUTHWEST GAS CORPORATION NORTHENI CALIFORNIA RATE JURISDICTION CALCULATION OF REVENUES BY CLASS AT PROPOSED RATES TEST TWELVE MONTHE ENDED DECEMBER 31, 2021

			Forec	Forecasted Billing Units	ts							Total	Total			
Ē	۵	Schedule .	Number of	Volumes	les	Authoriz	Authorized Margin	Upstrean	Upstream Charges	Ga	Gas Cost	Annual	Present			Line
No.	Description	No.	Bills	Transport	Sales	Rates	Revenues	Rates	Revenues	Rates	Revenues	Revenues	Revenue	Dollars	Percent	No.
	(a)	(q)	(c)	(d)	(e)	(J)	(6)	(H)	٤	(j)	(k)	()	(m)	(u)	(o)	
-	Primary Residential Gas Service Basic Service Charge	GN-10/ GN-12	197,270			\$ 5.75	\$ 1,134,303					\$ 1,134,303	3 \$ 986,350	\$ 147,953		~
004	Commodity Charge Baseline Quantities Tier II Total Primary Residential Gas Service		197,270	9,050,994 4,006,522 13,057,516	9,050,994 4,006,522 13,057,516	\$ 0.77118 \$ 0.89641	\$ 6,979,973 \$ 3,591,499 \$ 11,705,775	\$ 0.22707 \$ 0.22707	\$ 2,055,209 \$ 909,761 \$ 2,964,970	\$ 0.30339 \$ 0.30339	\$ 2,745,981 \$ 1,215,539 \$ 3,961,520	\$ 11,781,163 \$ 5,716,799 \$ 18,632,265	3 \$10,643,501 9 \$ 6,203,034 5 \$17,832,885	\$ 1,137,662 \$ (486,235) \$ 799,380	: 	8 <u>%</u> 3%
2	Secondary Residential Gas Service Basic Service Charge	GN-15	119,305			\$ 6.00	\$ 715,830					\$ 715,830	0 \$ 715,830	0	_	£
6			119,305	6,982,234 6,982,234	6,982,234 6,982,234	\$ 0.95173	\$ 6,645,203 \$ 7,361,033	\$ 0.22707	\$ 1,585,456 \$ 1,585,456	\$ 0.30339	\$ 2,118,340 \$ 2,118,340	\$ 10,348,999 \$ 11,064,829	9 \$ 9,861,650 9 \$10,577,480	\$ 487,349 \$ 487,349	4.61%	6 8 7
80	Total Residential Gas Service		316,575	20,039,750	20,039,750	·	\$ 19,066,808	·	\$ 4,550,426		\$ 6,079,860	\$ 29,697,094	4 \$ 28,410,365	\$ 1,286,729	4.53%	8 8
6		GN-20	24			\$ 25.00	\$ 600					\$	0 \$ 600	0		6
1 1 12	Commodity Charge Baseline Quantities Tier II Total Mutti-Family Master Metered Gas Service		24	11,606 156 11,762	11,606 156 11,762	\$ 0.77118 \$ 0.89641	\$ 8,950 \$ 140 \$ 9,690	\$ 0.22707 \$ 0.22707	\$ 2,635 \$ 35 \$ 2,670	\$ 0.30339 \$ 0.30339	\$ 3,521 \$ 47 \$ 3,568	\$ 15,106 \$ 222 \$ 15,928	6 \$ 14,539 2 \$ 211 8 \$ 15,350	\$ 567 \$ 11 \$ 578	3.77%	11 10 11 10
13		GN-25	00			\$ 25.00 \$ (9.58)	0 0 9 0					ю ю	00 & & 00	6 O 0		13
15 16 17	Commodity Charige Baseline Quantities Tier II Total Muti- Fam Sub		0	000	000	\$ 0.77118 \$ 0.89641	000	\$ 0.22707 \$ 0.22707	0 0 0 & & &	\$ 0.30339 \$ 0.30339	000	မ မ မ	0 0 0 \$ \$ \$ 0 0	0 0 0 & & &	0.00%	15 16 17
18	Total Multi-Family Master Metered Gas Service		24	11,762	11,762		\$ 9,690	·	\$ 2,670		\$ 3,568	\$ 15,928	8 \$ 15,350	\$ 578	3.77%	<u>%</u> 18
19 20	Core General Gas Service Basic Service Charge D Transportation Service Charge Commodity Charryee	GN-35/ GN-40	19,078 12			\$ 11.00 \$ 780.00	\$ 209,858 \$ 9,360					\$ 209,858 \$ 9,360	8 \$ 209,858 0 \$ 9,360	0 0 & &		19 20
21 23 25 25			19,078	1,011,005 1,901,594 1,689,766 1,431,347 6,033,712	1,011,005 1,901,594 1,689,766 1,431,347 6,033,712	\$ 0.64944 \$ 0.48198 \$ 0.33973 \$ 0.12751	\$ 656,591 \$ 916,530 \$ 574,063 \$ 182,509 \$ 2,548,911	\$ 0.22707 \$ 0.22707 \$ 0.22707 \$ 0.22707	<pre>\$ 229,569 \$ 431,795 \$ 383,695 \$ 325,016 \$ 1,370,075</pre>	\$ 0.30339 \$ 0.30339 \$ 0.30339 \$ 0.30339	\$ 306,729 \$ 576,925 \$ 512,658 \$ 434,256 \$ 1,830,568	\$ 1,192,889 \$ 1,925,250 \$ 1,470,416 \$ 941,781 \$ 5,749,554	9 \$ 1,168,638 0 \$ 1,865,869 6 \$ 1,431,460 1 \$ 895,256 4 \$ 5,580,441	\$ 24,251 \$ 59,381 \$ 38,956 \$ 46,525 \$ 169,113	3.03%	21 22 24 25 25

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		No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	41	42	43	44
		Percent	(o)		0.78%		11.68%		0.00%		2.54%	4.25%					
		Dollars	(u)	0	790 790	0	89	0	00	0 (9,360)	21,310 11,950	1,469,249					0
				\$	<u>୫</u> ୫	\$	<u>କ</u> ୍	\$	\$ \$	% % 0.0	မမ	69	0		سا	ها	\$ 0
	Total Brocont	Revenue	(ш)	006	100,932 101,832	600	162 762	0		40,800 327,600	102,841 471,241	\$ 34,579,991	0	145,472	\$ 34,725,463	\$ 22,261,389	
	_			\$ 006	22 \$2	\$ 009	251 \$ 851 \$	\$	% % 0 0	00 \$ \$	91 8 8		\$	72 \$		\$2	ф
	Total	Revenues	€		101,722 102,622					40,800 318,240	124,151 483,191	\$ 36,049,240		145,472	\$ 36,194,712		
				69	54,935 \$ 54,935 \$	\$	61 61 \$	69	8 0 0		8 8 0 0		69	ŝ	\$		
		Revenues	(K)		\$ 54, \$ 54,		6 6		ന ന		6 6	\$ 6,138,424					
	Ċ	Rates	9		\$ 0.30339		\$ 0.30339		\$ 0.30339		\$ 0.00000	I					
							46 \$ 0.		00 8 00		0 0 0	2					
) RATES , 2021	00000	Revenues	()		41,115 41,115		4 4					5,964,332					
N DICTION ROPOSEE MBER 31	Protection Character	eam			707 \$		707 \$		707 \$		\$ 000	Ф					
PORATIC E JURISI SS AT PF SD DECE	-	Rates	(ų)		\$ 0.22707		\$ 0.22707		\$ 0.22707		\$ 0.00000						- 11
SOUTHWEST GAS CORPORATION HERN CALIFORNIA RATE JURISDIC OF REVENUES BY CLASS AT PRO TWELVE MONTHS ENDED DECEMI	in i	Revenues	(g)	006	5,672 6,572	600	144 744	0	00	40,800 318,240	124,151 483,191	\$ 22,115,916	0	145,472	\$ 22,261,388	\$ 22,261,389	0
HWEST G CALIFOF VENUES /E MONT	Authorizod Moreio	IOLIZED		\$ 0	& &	\$	କ କ	\$	<u>م</u>	& & 0 0	8 8 2	\$ 22	ю	в	\$ 22	\$ 22	ф
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION ATION OF REVENUES BY CLASS AT PROPOSEI (FAR TWELVE MONTHS ENDED DECEMBER 3	44 V	Rates	(J)	\$ 25.00	\$ 0.03132	\$ 25.00	\$ 0.71521	\$ 25.00	\$ 0.71521	\$ 100.00 \$ 780.00	\$ 0.12545						
SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CALCULATION OF REVENUES BY CLASS AT PROPOSED RATES TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021		Sales	(e)		181,069 181,069		202 202		00		00	26,266,495					
CA	Ig Units																
	Forecasted Billing	Transport	(p)		181,069 181,069		202				989,670 989,670	27,256,165					
	Forecas			36	36	24	24	0	0	408 420	408						
	Plumbor of	Bills	(c)							4 4	4	336,145					
		No.	(b) GN-50		11	GN-60	11	GN-66	0	GN-70	11	I	G-T				
	400	200	- ਦ	5	cles		ervice		as Service	ō	rvice		0				
			'ehicles		otor Vehi	s Service	le Gas Se	n Gas Sel	eration G	Service	tation Ser						
		ion	or Motor V		vice for M	ingine Ga	tion Engir	Generatio	ower Gen	sportation rge	Transpot		e			t	
		Description	(a) Service fo	irge	Gas Ser	bustion E irge	c I Combus	c Power (Irge	e Electric Po	Gas Trans Irge rvice Cha	e neral Gas	s	as Servio	evenues	evenue	quiremen	/ery
			(a) Core Natural Gas Service for Motor Vehicles	Basic Service Charge	All Usage Total Core Natural Gas Service for Motor Vehicles	Core Internal Combustion Engine Gas Service Basic Service Charge	All Usage Total Core Internal Combustion Engine Gas Service	Core Small Electric Power Generation Gas Service Basic Service Charge	Commony criatige All Usage Total Core Small Electric Power Generation Gas Service	Noncore General Gas Transportation Service Basic Service Charge Transportation Service Charge	Commony Charge All Usage Total Noncore General Gas Transportation Service	Total All Schedules	Special Contract Gas Service	Other Operating Revenues	Total Operating Revenue	Total Revenue Requirement	der Reco
			Core Nat	Basic Se	All Usage Total Core Na	Core Inte Basic Se	All Usage Total Core Inte	Core Sm Basic Se	All Usage Total Core Sm	Noncore Basic Se Transpor	All Usage Total Noncore	Total All	Special (Other Op	Total Op	Total Re	Over/Under Recovery
	-	No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	41	42	43	44

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CALC	:ULATION OF -	CALCULATION OF TEST YEAR REVENUES INCLUDING FCAM ADJUSTMENT BY CLASS AT CURRENTLY EFFECTIVE RATES TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021	REVENUES INCLUDING FCAM ADJUSTMENT BY CLASS AT (TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021	ding Fcam ad Ve Months Ei	JUSTMENT E	8Y CLASS ABER 31, 2	AT CURRENI 021	.LY EFFI	CTIVE RATE	S				
		Fore	Forecasted Billing Units	its								Tc	Total	
:	Schedule	Number of	Volumes		, Mai	Margin [1]		ream C	harges	в	Gas Cost	, Anr		Line
Description	No.	BIIIS	Iransport	Sales	Kates	Kevenues	× 		Kevenues	Kates	Kevenues	Keve	Ines	No.
(a)	(q)	(c)	(p)	(e)	(f)	(B)	(µ)		Ξ	(])	(K)	<u> </u>	(=)	
Primary Residential Gas Service Basic Service Charge	GN-10/ GN-12	197,270			\$ 5.00	\$ 986,350	350					б 9	986,350	~
Commodity Baseline Quantities Tier II			8,496,300 4,561,216	8,496,300 4,561,216	\$ 0.72226 \$ 0.82949	\$ 6,136,554 \$ 3,783,492	554 \$ 0.22707 492 \$ 0.22707	707 \$ 707 \$	1,929,255 1,035,715	\$ 0.30339 \$ 0.30339	\$ 2,577,692 \$ 1,383,827	\$ 10,6 \$ 6,2	\$ 10,643,501 \$ 6,203,034	0 N
Total Primary Residential Gas Service		197,270	13,057,516	13,057,516		\$ 10,906,396	396	θ	2,964,970		\$ 3,961,519	\$ 17,8	\$ 17,832,885	4
Secondary Residential Gas Service Basic Service Charge	GN-15	119,305			\$ 6.00	\$ 715,830	830					\$	715,830	5
commouty All Usage Total Secondary Residential Gas Service		119,305	6,982,234 6,982,234	6,982,234 6,982,234	\$ 0.88193	\$ 6,157,854 \$ 6,873,684	854 \$ 0.22707 684	707 \$	1,585,456 1,585,456	\$ 0.30339	\$ 2,118,340 \$ 2,118,340		\$ 9,861,650 \$ 10,577,480	9
Total Residential Gas Service	1	316,575	20,039,750	20,039,750		\$ 17,780,080	080	\$	4,550,426		\$ 6,079,859	\$ 28,410,365		œ
Multi-Family Master Metered Gas Service Basic Service Charge	GN-20	24			\$ 25.00	\$	600					θ	009	0
Continuouity Baseline Quantities Tier II			11,606 156	11,606 156	\$ 0.72226 \$ 0.82949	യ് കക	8,383 \$ 0.22707 129 \$ 0.22707	707 \$ 707 \$	2,635 35	\$ 0.30339 \$ 0.30339	\$ 3,521 \$ 47	ഴ ക	14,539 211	1 1
Total Multi-Family Master Metered Gas Service		24	11,762	11,762		6	112	1 1	2,670		3,5		15,350	12
Multi-Family Master Metered Gas Service - Submetered Basic Service Charge Submeter Discourt per Occupied Space Commodity	GN-25	00			\$ 25.00 \$ (11.01)	လ လ	00					ର ଚ	00	13
Baseline Quantities Tier II Total Muti- Fam Sub	1 1	0	000	000	\$ 0.7226 \$ 0.82949	မ မ မ	0 \$ 0.22707 0 \$ 0.22707 0	707 \$ 707 \$	000	\$ 0.30339 \$ 0.30339	0 0 0 9 0 0	မ မ မ	000	15 16 17
t Total Multi-Family Master Metered Gas Service	I	24	11,762	11,762		6 \$	9,112	\$	2,670		\$ 3,568	ŝ	15,350	18
Core General Gas Service	GN-35/													

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION

Line. No.

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320,119 581,014 514,211 415,224 1,830,568 မ မ မ မ မ \$ 0.30339 \$ 0.30339 \$ 0.30339 \$ 0.30339 \$ 239,590
 \$ 434,856
 \$ 384,857
 \$ 310,771
 \$ 1,370,074 \$ 0.22707 \$ 0.22707 \$ 0.22707 \$ 0.22707 608,929 849,999 532,392 169,261 2,379,799 209,858 9,360 ଡ ଡ တ တ တ တ တ \$ 0.57711 \$ 0.44385 \$ 0.31412 \$ 0.12367 \$ 11.00 \$ 780.00 1,055,139 1,915,073 1,694,884 1,368,615 6,033,711 1,055,139 1,915,073 1,694,884 1,368,615 6,033,711 19,078 19,078 12 GN-40 Core General Gas Service Basic Service Charge Transporation Service Charge First 100 Next 500 Next 2400 Over 3000 I Core General Commodity Annual Baselir Tier II Total Mul Multi-Fan Basic Sel Commod Multi-Fan Submete Basic Sel Submete Baseli Tier II Total Mu Total Mu Commo Total (5 1 5 4 13 15 16 17 10 ¹⁹

¹⁹

209,858 9,360

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1,168,638 1,865,869 1,431,460 895,256 5,580,441

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				Forecasted Billing Units	nits									Total	
Line		Schedule	Number of	Volumes		Mai	Margin [1]	Upstre	Upstream Charges	s	Gas	Gas Cost		Annual	Line
No.	. Description	No.	Bills	Transport	Sales	Rates	Revenues	Rates	Revenues	nes	Rates	Revenues		Revenues	No.
	(a) Core Natural Gas Service for Motor Vehicles	(b) GN-50	(c)	(p)	(e)	(f)	(B)	(µ)	(i)		(j)	(k)		(I)	
25	_		36			\$ 25.00	\$ \$00	-					Ф	006	25
26	Commodity Annual			181,069	181,069	\$ 0.02696	\$ 4,882	2 \$ 0.22707	Ф	41,115 \$	\$ 0.30339	\$ 54,935		100,932	26
27	Total Core Natural Gas Service for Motor Vehicles		36	181,069	181,069		\$ 5,782			1,115	·	\$ 54,93	35 \$	101,832	27
28	Core Internal Combustion Engine Gas Service Basic Service Charge	GN-60	24			\$ 25.00	\$						÷	600	28
30 30		۵	24	202	202 202	\$ 0.27285	\$ 55 \$ 655	5 \$ 0.22707	မမ	46 46	\$ 0.30339	\$ \$	61 \$ 61	162 762	30 29
31	Core Small Electric Power Generation Gas Service Basic Service Charge	e GN-66	0			\$ 25.00	0						θ	0	31
32 33		ervice	0	00	00	\$ 0.21622	0 0 \$ \$	0.22707	မမ	\$ 0	\$ 0.30339	ଦ କ	\$\$ 00	00	33
34 35	Noncore General Gas Transportation Service Basic Service Charge Transportation Service Charge	GN-70	408 420			\$ 100.00 \$ 780.00	\$ 40,800 \$ 327,600						ଓ ୫	40,800 327,600	34 35
36 37			408	989,670 989,670	00	\$ 0.10391	\$ 102,841 \$ 471,241	000000 \$	 ө ө	\$ 0	\$ 0.30339		& &	102,841 471,241	36 37
38	Total All Schedules		336,145	27,256,164	26,266,494		\$ 20,646,669		\$ 2,964	5,964,331		\$ 7,968,991	- i	\$ 34,579,991	38
39	Special Contract Gas Service	G-T					ı ب						θ	0	39
40	Other Operating Revenues						\$ 145,472	ما					θ	145,472	40
41	Total Operating Revenue						\$ 20,792,141	_1					ф Ф	\$ 34,725,463	41
42	Total Revenue Requirement						\$ 22,261,389								42
43	Over/Under Recovery						\$ (1,469,247)								43

[1] 2020 Attrition Year margin rates plus 2021 test year FCAM adjustment.

C20 Pres TY

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CALCULATION OF TEST YEAR REVENUES BY CLASS AND FCAM ADJUSTMENT AT CURRENTLY EFFECTIVE RATES TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line	No.	. 	0 0 4	5	6	œ	6	1 1 10	13	14	15 16 17	18	19 20	22 22 23	24
	Revenues (g)	986,350	\$ 6,844,548 \$ 4,163,577 \$ 11,994,475	715,830	6,739,681 7,455,511	\$ 19,449,986	600	9,350 142 10,092	0	0	0 0 0	10,092	209,858 9,360	696,853 1,009,581 673,626	2,882,585
Marain [1]		\$	\$ \$ 4 (-	\$	\$	\$ 19	\$	လ လ လ	\$		မ မ မ	မ	\$		
Ma	Rates (f)	\$ 5.00	\$ 0.80559 \$ 0.91282	\$ 6.00	\$ 0.96526		\$ 25.00	\$ 0.80559 \$ 0.91282		\$ (11.01)	\$ 0.80559 \$ 0.91282		\$ 11.00 \$ 780.00	\$ 0.66044 \$ 0.52718 \$ 0.39745	\$ 0.201 00
its	Sales (e)		8,496,300 4,561,216 13,057,516		6,982,234 6,982,234	20,039,750		11,606 156 11,762			000	11,762		1,055,139 1,915,073 1,694,884	6,033,711
Forecasted Billing Units	Transport (d)		8,496,300 4,561,216 13,057,516		6,982,234 6,982,234	20,039,750		11,606 156 11,762			0 0 0	11,762		1,055,139 1,915,073 1,694,884	6,033,711
Fore Number of	Bills (c)	197,270	197,270	119,305	119,305	316,575	24	24	0	0	0	24	19,078 12		19,078
Schedule	(b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	GN-10/ GN-12		GN-15			GN-20		GN-25				GN-35/ GN-40		
	uo	vice	s Service	Service	Gas Service	e	Gas Service	etered Gas Service	l Gas Service -	upied Space		stered Gas Service	0		
	Description (a)	Primary Residential Gas Service Basic Service Charge	Commonty Baseline Quantities Tier II Total Primary Residential Gas Service	Secondary Residential Gas Service Basic Service Charge	Commodity All Usage Total Secondary Residential Gas Service	Total Residential Gas Service	Multi-Family Master Metered Gas Service Basic Service Charge	Barnoury Barnoury Tier II Total Multi-Family Master Metered Gas Service	Multi-Family Master Metered Gas Service Submetered Basic Service Charge	Submeter Discount per Occupied Space Commodity	Baseline Quantities Tier II Total Muti- Fam Sub	Total Multi-Family Master Metered Gas Service	Core General Gas Service Basic Service Charge Transporation Service Charge Commodity	First 100 Next 2400 Next 2400	Total Core General

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SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CALCULATION OF TEST YEAR REVENUES BY CLASS AND FCAM ADJUSTMENT AT CURRENTLY EFFECTIVE RATES TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line	No		25	26 27	28	30 30	31	32 33	34 35	36 37	38	39	40	41	42	43	44	
_	Revenues	(B)	006	19,971 20,871	600	72 672	0	00	40,800 327,600	185,310 553,710	\$ 22,917,916		145,472	\$ 23,063,388	\$ 20,792,140	2,271,249	(0.08333)	
Margin [1]	Re		Ф	မမ	\$	မာ	Ф	မမ	ଓ ଓ	မာ	\$ 22	⇔	ф	\$ 23	\$ 20	\$	ф	
Ma	Rates	(f)	\$ 25.00	\$ 0.11029	\$ 25.00	\$ 0.35618	\$ 25.00	\$ 0.29955	\$ 100.00 \$ 780.00	\$ 0.18724								
its nes	Sales	(e)		181,069 181,069		202 202		00		00	26,266,494							
Forecasted Billing Units f Volumes	Transport	(p)		181,069 181,069		202		00		989,670 989,670	27,256,164							
Fore Number of	Bills	(c)	36	36	24	24	0	0	408 420	408	336,145							
Schedule	No.	(q)	GN-50		GN-60		GN-66	vice	GN-70			G-T						
	Description	(a)	Core Natural Gas Service for Motor Vehicles Basic Service Charge Commodity	Annual Annual Total Core Natural Gas Service for Motor Vehicles	Core Internal Combustion Engine Gas Service Basic Service Charge	Commonly Annual Total Core Internal Combustion Engine Gas Service	Core Small Electric Power Generation Gas Service Basic Service Charge	Commonty Annual Total Core Small Electric Power Generation Gas Service	Noncore General Gas Transportation Service Basic Service Charge Transportation Service Charge	Commonty Annual Total Noncore General Gas Transportation Service	Total All Schedules	Special Contract Gas Service	Other Operating Revenues	Total Operating Margin Revenue	Total Authorized Margin Revenue	Over/Under Recovery	TY FCAM Adjustment Rate	[1] 2020 Attrition Year margin rates.
Line	No		25	26 27	28	29 30	31	32 33	34 35	36 37	38	39	40	41	42	43	44	

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION TYPICAL MONTHLY BILL COMPARISON - PRIMARY RESIDENTIAL GAS SERVICE TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

				North Lak	e Tahoe			Tru	ickee	e		
Line	Monthly		Present	Proposed	Increase	(Decrease)	Present	Proposed	Ir	crease/(D	ecrease)	Line
No.	Therms		Rates [1]	Rates [2]	Dollars	Percent	Rates [1]	Rates [2]	[Dollars	Percent	No.
	(a)		(b)	(c)	(d)	(e)	(f)	(g)		(h)	(i)	
	Winter Co	ompa										
1	5		\$ 11.59	\$ 12.93	\$ 1.33	11.50%	\$ 11.59	\$ 12.93	\$	1.33	11.50%	1
2	15		\$ 24.78	\$ 27.28	\$ 2.50	10.08%	\$ 24.78	\$ 27.28	\$	2.50	10.08%	2
3	50		\$ 70.93	\$ 77.51	\$ 6.58	9.28%	\$ 70.93	\$ 77.51	\$	6.58	9.28%	3
4	108	[3]	\$ 150.40	\$ 162.50	\$12.09	8.04%	\$ 150.19	\$160.74	\$	10.55	7.03%	4
5	124	[4]	\$ 173.22	\$187.46	\$14.25	8.22%	\$ 173.00	\$185.71	\$	12.71	7.35%	5
6	150		\$ 210.29	\$228.03	\$17.75	8.44%	\$ 210.07	\$226.28	\$	16.21	7.71%	6
7	200		\$ 281.58	\$306.05	\$24.48	8.69%	\$ 281.36	\$304.30	\$	22.94	8.15%	7
	Winter Of	f-Pea										
2	10		\$ 18.19	\$ 20.10	\$ 1.92	10.54%	\$ 18.19	\$ 20.10	\$	1.92	10.54%	2
3	20		\$ 31.37	\$ 34.45	\$ 3.08	9.82%	\$ 31.37	\$ 34.45	\$	3.08	9.82%	3
4	45		\$ 64.33	\$ 70.33	\$ 6.00	9.32%	\$ 64.33	\$ 70.33	\$	6.00	9.32%	4
5	66	[4]	\$ 92.02	\$100.72	\$ 8.70	9.45%	\$ 92.02	\$ 100.47	\$	8.45	9.18%	5
6	69	[3]	\$ 95.98	\$ 105.40	\$ 9.42	9.82%	\$ 95.98	\$ 105.15	\$	9.17	9.55%	6
7	100		\$ 139.00	\$ 153.77	\$14.77	10.63%	\$ 138.78	\$ 153.52	\$	14.74	10.62%	7
8	125		\$ 174.64	\$192.78	\$18.14	10.39%	\$ 174.43	\$ 192.53	\$	18.10	10.38%	8
	Summer (Comp	<u>parison</u>									
8	5		\$ 11.59	\$ 12.93	\$ 1.33	11.50%	\$ 11.59	\$ 12.93	\$	1.33	11.50%	8
9	15		\$ 24.78	\$ 27.28	\$ 2.50	10.08%	\$ 24.78	\$ 27.28	\$	2.50	10.08%	9
10	24	[4]	\$ 36.64	\$ 40.69	\$ 4.05	11.05%	\$ 37.07	\$ 40.44	\$	3.37	9.09%	10
11	26	[3]	\$ 39.28	\$ 43.81	\$ 4.53	11.54%	\$ 39.93	\$ 43.56	\$	3.64	9.11%	11
12	50		\$ 70.93	\$ 81.26	\$10.34	14.57%	\$ 74.14	\$ 81.01	\$	6.87	9.26%	12

Present Rates [1]		Winter Basel	ine Allowance	es
Basic Service Charge	\$ 5.00		Present	Proposed
Charge per Therm		North Lake Tahoe	80	94
Baseline Quantities	\$1.31854	Truckee	82	108
Tier II	\$1.42577			
	••••=••••			
Proposed Rates [2]	•	Winter Off-Peak E	Baseline Allow	/ances
Proposed Rates [2] Basic Service Charge	\$ 5.75	Winter Off-Peak E	aseline Allow Present	/ances Proposed
		Winter Off-Peak E North Lake Tahoe		
Basic Service Charge			Present	Proposed

Summer Base	eline Allowand	es
	Present	Proposed
North Lake Tahoe	20	20
Truckee	20	22

[1] Includes all applicable surcharges.

[2] Chapter 21, Sheets 11-13.

[3] Average Summer and Winter use for North Lake Tahoe.

[4] Average Summer and Winter use for Truckee.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION TYPICAL MONTHLY BILL COMPARISON - SECONDARY RESIDENTIAL GAS SERVICE TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line	Monthly			Present		roposed		Increase / (I	,	Line
No.	Therms		R	ates [1]	R	ates [2]		Dollars	Percent	No.
	(a)			(b)		(c)		(d)	(e)	
1	10		\$	20.78	\$	22.16	\$	1.38	6.64%	1
2	15		\$	28.17	\$	30.24	\$	2.07	7.35%	2
3	35		\$	57.74	\$	62.55	\$	4.81	8.33%	3
4	59	[3]	\$	93.21	\$	101.33	\$	8.12	8.71%	4
5	100		\$	153.82	\$	167.57	\$	13.75	8.94%	5
6	150		\$	227.73	\$	248.35	\$	20.62	9.05%	6
	Present Rate	es [1]]							
	Basic Servic		-	е			\$	6.00		
	Charge per	Therr	n							
	All Usage						\$	1.47821		
	Proposed R	ates	[2]							
	Basic Servic		_	9			\$	6.00		
	Charge per			-			Ψ	0.00		
	All Usage						\$	1.61568		

[1] Includes all applicable surcharges.

[2] Chapter 21, Sheets 11-13.

[3] Annual average usage.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION **TYPICAL MONTHLY BILL COMPARISON - CORE GENERAL GAS SERVICE** TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line	Monthly		P	resent	F	roposed	Ir	crease/([Decrease)	Line
No.	Therms			Rates		Rates	-	Dollars	Percent	No.
	(a)			(b)		(c)		(d)	(e)	
1	146	[3]	\$	175.84	\$	177.92	\$	2.09	1.19%	1
2	248	[4]	\$	282.50	\$	295.44	\$	12.94	4.58%	2
3	403	[5]	\$	443.21	\$	472.49	\$	29.28	6.61%	3
4	600		\$	648.40	\$	698.56	\$	50.16	7.74%	4
5	1500		\$1	,467.76	\$	1,618.62	\$	150.86	10.28%	5
6	3000		\$ 2	2,833.35	\$	3,124.13	\$	290.78	10.26%	6
7	4000		\$3	3,553.31	\$	3,915.59	\$	362.29	10.20%	7
										-
	Present F	2 ate	ae [1	1						
Present Rat		Vale	55 [I]			_			
		rvic	e Ch	arde	\$	11.00	•			
Basic Servio Charge per				•	Ψ	11.00				
	First		100		\$	1.17339				
	Next		500		\$	1.04013				
	Next		240		\$	0.91040				
	Over		300		\$	0.71995				
	Proposed	d Ra	ates	[2]			_			
	Basic Se	rvic	e Ch	narge	\$	11.00	_			
	Charge p	er 7	Ther	m						
	First		100		\$	1.31339				
	Next		500		\$	1.14593				
	Next		240	0	\$	1.00368				
	Over		300	0	\$	0.79146				
							_			
	[1] Includ	es a	all ap	oplicable s	surc	harges.				

[2] Chapter 21, Sheets 11-13. 9

[3] Average summer usage.

[4] Average winter Off-Peak usage.

[5] Average winter usage.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CALCULATION OF MASTER METER WITH SUBMETER DISCOUNT PER SPACE TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line No.	Description	Account Number	Totals	Line No.
	(a)	(b)	(c)	
1 2 3	<u>Capital Investment</u> Distribution Services Distribution Metering Equipment Total Capital Investment	380 381	\$ 873,302 \$ 224,773 \$ 1,098,075	1 2 3
4 5 6 7 8	Operation and Maintenance Expenses Meter and House Regulator Expense Customer Installation Expenses Maintenance of Services Maintenance of Meters & House Regulators Total Operation and Maintenance Expenses	878 879 892 893	\$ 141,703 \$ 179,977 \$ 41,398 \$ 43,454 \$ 406,533	4 5 6 7 8
9 10 11 12 13 14	Customer Account Expenses Supervision of Customer Accounts Meter Reading Expense Customer Records and Collection Expenses Uncollectible Expenses Miscellaneous Customer Expenses Total Supervision of Customer Accounts	901 902 903 904 905	\$ 23,520 \$ 71,634 \$ 290,052 \$ 492 \$ 0 \$ 385,697	9 10 11 12 13 14
15	Total		\$ 1,890,305	15
16	Total Number of Residential Bills		197,270	16
17	Cost-Based Submetered Discount per Month		\$ 9.58	17
18	Total Submetered Spaces		0	18
19	Total Cost-Based Submetered Discount		\$ 0	19

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION IRRAM RATE CALCULATION TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line No.		~	7	ю	4	5	9
Estimated 2025 (f)		901,696	503,631	394,609	1,799,936	27,256,164	0.06604
		φ	θ	φ	မ		မ
Estimated 2024 (e)		727,183	406,856	318,237	1,452,277	27,256,164	0.05328
		θ	θ	θ	ω		φ
Estimated 2023 (d)		547,439	306,364	239,576	1,093,379	27,256,164	0.04011
		Ф	Ф	Ф	မ		မ
Estimated 2022 (c)		362,346	202,093	158,573	723,012	27,256,164	0.02653
		θ	θ	θ	ω		မာ
2021 (b)		171,521	93,845	75,063	340,428	27,256,164	0.01249
		θ	θ	θ	မ		မ
Description (a)	IRRAM Revenue Requirements	Customer-Owned Yard Line (COYL)	Meter Protection - Meters	Meter Protection - Services	Total IRRAM Revenue Requirements	Total Therms	IRRAM Surcharge (Line 15 / Line 16)
Line No.		~	7	ю	4	5	9

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CUSTOMER-OWNED YARD LINE (COYL) TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line No.	Description		2021		Estimated 2022	ш	Estimated 2023	_	Estimated 2024	_	Estimated 2025	Line No.
	(a)		(q)		(c)		(p)		(e)		(f)	
~ ~	COYLs Replaced Gross COYL Plant Replaced	လ လ	1,352,375 1,352,375	ଓ ଓ	1,352,375 2,704,750	လ လ	1,352,375 4,057,125	ა ა	1,352,375 5,409,500	လ လ	1,352,375 6,761,875	~ ∩
С	Accumulated Depreciation	\$	(15,195)	θ	(60,779)	φ	(136,752)	θ	(243,114)	θ	(379,866)	ო
4	Net COYL Plant (Line 2 + Line 3)	φ	1,337,180	φ	2,643,972	φ	3,920,373	မ	5,166,386	မ	6,382,009	4
5	Accumulated Deferred Income Tax	θ	(5,688)	θ	(30,191)	φ	(71,459)	θ	(127,599)	θ	(196,856)	5
9	COYL Rate Base (Line 4 + Line 5)	φ	1,331,493	φ	2,613,781	φ	3,848,914	မာ	5,038,786	φ	6,185,153	9
7	Rate of Return		7.76%		7.76%		7.76%		7.76%		7.76%	7
œ	Rate of Return Revenue (Line 6 * Line 7)	φ	103,323	φ	202,827	φ	298,672	မာ	391,005	φ	479,962	Ø
0	Revenue Conversion Factor		1.42		1.42		1.42		1.42		1.42	0
10	Revenue Requirement (Line 8 * Line 9)	θ	146,504	θ	287,594	φ	423,495	θ	554,417	φ	680,551	10
1	Revenue Requirement	φ	146,504	φ	287,594	φ	423,495	မာ	554,417	မ	680,551	11
12 13	Depreciation Expense (2.25% per year) Property Tax	လ လ	15,195 9,822		45,584 29,168	လ လ	75,973 47,971	აფ	106,363 66,404	လ လ	136,752 84,393	12
14	Total Revenue Requirement	မ	171,521	φ	362,346	ω	547,439	မ	727,183	ω	901,696	14

C20 IRRAM-COYL

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NCA CCOSS and Rate Design 2021 vFinal.xlsx

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION METER PROTECTION - METERS TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line No.	Description		2021	_	Estimated 2022	ш	Estimated 2023	ш	Estimated 2024	-	Estimated 2025	Line No.
	(a)		(q)		(c)		(p)		(e)		(f)	
- 0	Meters Replaced Gross Meter Plant Replaced	မ မ	699,840 699,840	ଓ ଓ	699,840 1,399,680	လ လ	699,840 2,099,520	ଓ ଓ	699,840 2,799,360	ଓ ଓ	699,840 3,499,200	~ ~ ~
с	Accumulated Depreciation	θ	(13,248)	Ф	(52,992)	φ	(119,232)	θ	(211,968)	φ	(331,200)	с
4	Net Meter Plant (Line 2 + Line 3)	φ	686,592	φ	1,346,688	φ	1,980,288	φ	2,587,392	φ	3,168,000	4
2	Accumulated Deferred Income Tax	Υ	71	Ф	(6,582)	φ	(18,897)	θ	(35,893)	θ	(56,664)	5
9	Meter Rate Base (Line 4 + Line 5)	φ	686,663	φ	1,340,106	φ	1,961,391	φ	2,551,498	φ	3,111,336	9
7	Rate of Return		7.76%		7.76%		7.76%		7.76%		7.76%	7
8	Rate of Return Revenue (Line 6 * Line 7)	φ	53,284	φ	103,991	φ	152,202	φ	197,994	φ	241,437	Ø
0	Revenue Conversion Factor		1.42		1.42		1.42		1.42		1.42	G
10	Revenue Requirement (Line 8 * Line 9)	⇔	75,553	φ	147,452	φ	215,811	θ	280,741	φ	342,340	10
1	Revenue Requirement	φ	75,553	ф	147,452	φ	215,811	φ	280,741	φ	342,340	11
13 13	Depreciation Expense (3.79% per year) Property Tax	မာမာ	13,248 5,043	ଓ ଓ	39,744 14,897	ഗ ഗ	66,240 24,313	ଓ ଓ	92,736 33,380	လ လ	119,232 42,059	12
14	Total Revenue Requirement	φ	93,845	မ	202,093	φ	306,364	ω	406,856	φ	503,631	14

NCA CCOSS and Rate Design 2021 vFinal.xlsx

C20 IRRAM-MP-M

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION METER PROTECTION - SERVICES TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line No.	Description		2021	_	Estimated 2022	ш	Estimated 2023	_	Estimated 2024	_	Estimated 2025	Line No.
	(a)		(q)		(c)		(p)		(e)		(f)	
~ N	Services Replaced Gross Services Plant Replaced	မမ	591,840 591,840	လ လ	591,840 1,183,680	ଓ ଓ	591,840 1,775,520	ଓ ଓ	591,840 2,367,360	ଓ ଓ	591,840 2,959,200	~ ~ ~
ო	Accumulated Depreciation	⇔	(6,650)	θ	(26,599)	φ	(59,847)	φ	(106,394)	φ	(166,241)	ę
4	Net Services Plant (Line 2 + Line 3)	φ	585,190	φ	1,157,081	ф	1,715,673	φ	2,260,966	ф	2,792,959	4
5	Accumulated Deferred Income Tax	θ	(2,489)	φ	(13,212)	ф	(31,273)	φ	(55,841)	Ф	(86,150)	5
9	Services Rate Base (Line 4 + Line 5)	φ	582,701	φ	1,143,869	ф	1,684,401	φ	2,205,124	φ	2,706,809	9
7	Rate of Return		7.76%		7.76%		7.76%		7.76%		7.76%	7
Ø	Rate of Return Revenue (Line 6 * Line 7)	φ	45,217	φ	88,763	φ	130,708	φ	171,115	φ	210,046	ω
6	Revenue Conversion Factor		1.42		1.42		1.42		1.42		1.42	0
10	Revenue Requirement (Line 8 * Line 9)	θ	64,114	φ	125,860	Ф	185,334	φ	242,629	Ф	297,830	10
1	Revenue Requirement	θ	64,114	φ	125,860	Ь	185,334	ω	242,629	မ	297,830	1
12	Depreciation Expense (2.25% per year) Property Tax	လ လ	6,650 4,298	လ လ	19,949 12,765	မ မ	33,248 20,993	လ လ	46,547 29,060	ଓ ଓ	59,847 36,933	13 12
14	Total Revenue Requirement	မာ	75,063	φ	158,573	Ь	239,576	ω	318,237	မ	394,609	14

CA TY 2021 GRC CHAPTER 20 SHEET 19 OF 20

C20 IRRAM-MP-S

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CALCULATION OF FRANCHISE AND UNCOLLECTIBLES FACTOR TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line No.	Description	Percentage	Line No.
	(a)	(b)	
	Percentage Rates		
1	Franchise	2.022%	1
2	Uncollectible	0.049%	2
	<u>Gross Up Factors</u>		
3	Franchises(Line 1 /(1 - Line 2)/(1 - Line 1))	2.065%	3
4	Uncollectibles (Line 2 / (1 - Line 2))	0.050%	4
5	Franchise and Uncollectible	2.114%	5

CHAPTER 21 Proposed Tariff Sheets

Company Witness: Valerie J. Ontiveroz

Proposed Tariff Sheets Clean

PROPOSED TARIFF SHEETS

Canceling

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

2nd Revised Cal. P.U.C. Sheet No. 3 3 1st Revised Cal. P.U.C. Sheet No.

	TABLE OF CONTENTS (Continued)		
RATE SCHEDULE	DESCRIPTION	CAL. P.U.C. <u>SHEET_NOS.</u>	
GS-10/GN-10/SLT-10	Residential Gas Service	79 – 80	
GS-11	Residential Air-Conditioning Gas Service	81 – 82	
GS-12/GN-12/SLT-12	CARE Residential Gas Service	83 - 86	
GS-15/GN-15/SLT-15	Secondary Residential Gas Service	87	
GS-20/GN-20/SLT-20	Multi-Family Master-Metered Gas Service	88 – 89	Т
	Held for Future Use	90	Т
GS-25/GN-25/SLT-25	Multi-Family Master-Metered Gas Service – Submetered	91 – 93	
GS-35/GN-35/SLT-35	Agricultural Employee Housing and Nonprofit Group Living Facility Gas Service	94 – 103	
GS-40/GN-40/SLT-40	Core Commercial General Gas Service	104	
GS-50/GN-50/SLT-50	Core Natural Gas Service for Motor Vehicles	105 – 106	
GS-60/GN-60/SLT-60	Core Internal Combustion Engine Gas Service	107	
GS-66/GN-66/SLT-66	Core Small Electric Power Generation Gas Serv	vice 108	
GS-70/GN-70/SLT-70	Noncore General Gas Transportation Service	109 – 117	
GS-VIC	City of Victorville Natural Gas Service	118 – 120	
	Held for Future Use	120.1 – 120.2	Т
G-PPPS	Surcharge to Fund Public Purpose Programs	121 – 122	
G-IRRAM	Rate to Fund Infrastructure Reliability and Replacement Programs	122.1	

Issued by Justin Lee Brown Senior Vice President

Issued by Justin Lee Brown Senior Vice President Date Filed <u>August 30, 2019</u> Effective Resolution No.

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

Canceling

PROPOSED TARIFF SHEETS

PRELIMINARY STATEMENT

(Continued)

9. FIXED COST ADJUSTMENT MECHANISM (FCAM) (Continued)

9F. ACCOUNTING PROCEDURE (Continued)

	So	uthern California	No	rthern California	So	uth Lake Tahoe
January	\$	10,735,981	\$	3,051,849	\$	1,953,422
February	\$	9,346,316	\$	2,628,694	\$	1,746,422
March	\$	8,475,635	\$	2,525,275	\$	1,649,630
April	\$	6,995,351	\$	2,101,095	\$	1,382,774
May	\$	6,185,840	\$	1,653,517	\$	1,122,303
June	\$	5,790,416	\$	1,392,607	\$	917,080
July	\$	5,448,739	\$	1,166,939	\$	784,311
August	\$	3,837,412	\$	734,566	\$	503,343
September	\$	5,451,251	\$	1,186,471	\$	798,584
October	\$	5,682,562	\$	1,396,269	\$	974,985
November	\$	6,698,363	\$	1,833,574	\$	1,326,173
December	\$	9,098,152	\$	2,590,530	\$	1,740,466
Total	\$	83,746,018	\$	22,261,386	\$	14,899,493

ANNUAL 2021 MARGIN

2. An entry to record interest on the Fixed Cost Balancing Account balance after entry (1) above, calculated as set forth in Section 12B of this Preliminary Statement.

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CA TY 2021 GRC CHAPTER 21 SHEET 2 OF 44

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Cal. P.U.C. Sheet No.

Cal. P.U.C. Sheet No.

18. ENVIRONMENTAL COMPLIANCE COST MEMORANDUM ACCOUNT (ECCMA)

18A. PURPOSE

The purpose of the ECCMA is to record the Company's allocated portion of California Air Resources Board (ARB) administrative fees associated with the implementation of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006.

18B. APPLICABILITY

Costs recorded in the EECMA will apply to all customer classes, excluding the Company's "self-reporting" customers that are directly billed by the ARB.

18C. ACCOUNTING PROCEDURES

The Company shall make the following entries to the ECCMA:

- 1. Debit entries equal to the cost of the Company's allocation of the ARB administrative fees;
- 2. Credit entries for the recovery of any ECCMA amounts that may be authorized by the Commission; and
- 3. An entry to record interest on the ECCMA balance after entries (1) and (2) above are calculated as set forth in Section 12B of these Preliminary Statements.
- 18D. DISPOSITION

The ECCMA December 31 balance, at the end of the last estimated calendar year, will be amortized beginning with the effective date of rates approved in the Company's next general rate case or other ratesetting application.

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Advice Letter No. <u>A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No.

	PF	ROPOSED TARIF	F SHEET	<u>S</u>		-	Y 2021 GRC HAPTER 21
SOUTHWEST P.O. Box 9851	GAS CORPORATIO	N				SHE	ET 4 OF 44
	vada 89193-8510	Canceling	(oth Revised		C. Sheet No C. Sheet No	
		<u>PRELIMINAR</u> (Con	<u>RY STATE</u> ntinued)	MENT			
	ASTRUCTURE HANISM (IRRAM)	RELIABILITY	AND	REPLACE	EMENT	ADJUSTM	<u>1ENT</u>
20A.	PURPOSE						
	requirements as revenues to re	the IRRAM is to ssociated with Co cover these cos to recover the I rate cases.	ommissio sts. The	n-approve IRRAM wi	d program II allow ti	ns with reco he Compai	orded ny to
20B.	APPLICABILITY	/					
	the Company's	ovision applies to California servio t or any other ex	ce areas	excluding	service p	rovided un	
20C.	REVISION DAT	E					
		vill file an advice) of each year, w ar.					
20D.	FORECAST PE	RIOD VOLUMES	S				
	the volumes est	gas, expressed timated to be de owing the Revisio	elivered c	,			
20E.	INFRASTRUCT ACCOUNT ADJ	-	LITY AN	ND REPL	ACEMEN	T BALAN	ICING
	Adjustment sha accumulated in	ure Reliability ar Il consist of a ra the IRRBA plus ment, for each (te per the s an amo	erm to reco ount to reco	over or repover the e	turn the am estimated a	nounts annual

Advice Letter No. A.19-08-____ Decision No._____ Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No.

D. Bo s Ve	ox 9851	evada 89193-8510	Canceling	7th Revised 6th Revised		Sheet No Sheet No	
			PRELIMINARY S (Continu				
21.	PENS	SION BALANCING	ACCOUNT (PBA)				
	21A.	PURPOSE					
		The PBA is a two- Company. The pur authorized and act are allocable to Ca	rpose of this account	ount is to balanciated with the C	ce the diffe Company p	erence be ension fun	tween d that -028. T
	21B.	ACCOUNTING PR	OCEDURES				D
		Debit and or credit to the difference b and embedded in California, using th most recent genera	petween pension authorized rates, le same allocatior	amounts that w and actual pen	ere allocat sion amou	ed to Cali ints alloca	fornia ble to
	21C.	DISPOSITION					
		The PBA Decemb calendar year, wil approved in the application.	I be amortized b	eginning with th	ne effectiv	e date of	rates N

Advice Letter No. A.19-08-Decision No.

Issued by Justin Lee Brown Senior Vice President

August 30, 2019 Date Filed Effective Resolution No.

SOUTHWEST GAS CORPORATION P.O. Las Calif

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SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

PRELIMINARY STATEMENT

(Continued)

22. MOBILE HOME PARK CONVERSION BALANCING ACCOUNT (MHPCBA)

22A. PURPOSE

The MHPCBA is a two-way balancing account for the purpose of recording and recovering the incremental revenue requirement associated with converting submetered residents at mobile home parks from master-metered natural gas service to direct utility service. The Company is authorized to establish the MHPCBA pursuant to Decision (D.) 14-03-021. A separate MHPCBA will be maintained for each of the Company's California rate jurisdictions.

22B. APPLICABILITY

The MHPCBA provision applies to all rate schedules, excluding customers served under a Special Contract or any other exclusion provided for by the Commission.

22C. REVISION DATE

Annually, the Company shall file a Tier I Advice Letter to update the MHPCBA adjustment rates using the month ended September 30 MHPCBA balance.

22D. FORECAST PERIOD VOLUMES

The volumes of gas, expressed in therms, to be utilized hereunder shall be the volumes estimated to be delivered during the 12 calendar-month period immediately following the Revision Date.

22E. ACCOUNTING

The Company will maintain separate subaccounts in the MHPCBA for its costs up to and including the customer's meter ("to the meter" costs) and for the reimbursable costs for work performed beyond the Company's meter ("beyond the meter" costs).

- 1. The Company shall make the following entries to the "to the meter" MHPCBA subaccount at the end of each month:
 - a. A debit entry for incremental O&M start-up costs, such as program development, customer outreach and administration expenses, not otherwise recovered in rates;

Issued by Justin Lee Brown Senior Vice President

		PRC CORPORATION	POSED TARIFF SH	EETS		CA TY 2021 GRO CHAPTER 2 ⁻ SHEET 7 OF 44	1
Las V	8ox 98510 egas, Nevada mia Gas Tariff		Canceling	6th Revised 5th Revised	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N		
			PRELIMINARY S (Continu				
22.	MOBILE (Continued		CONVERSION	BALANCING	ACCOUNT (N	<u>/IHPCBA)</u>	
	b.	Company's requiremen property ta calculated tax will be Return on	ntry equal to the s actual "to the nt is defined as an ix and return on pla using the Compan calculated at the investment will be urn on rate base;	e meter" fac amount equal ant in service. y's authorized Company's au	ilities cost. The to the depreciatio Depreciation expe depreciation rate uthorized effective	e revenue in expense, ense will be es. Property e tax rates.	
	C.	franchise t	entry equal to the taxes and uncolled volumes delivered	tible accounts	s expense, multip		
	d.	,	o record interest o B of this Preliminal			set forth in	
		HPCBA subac A debit en the meter related tay authorized	will make the follo count at the end of try equal to the re costs incurred, xes, and authorized pre-tax return on as a regulatory ass	each month: venue require which include d return on in rate base. "E	ment related to th s amortization ex vestment at the Beyond the meter	he "beyond xpense, all Company's " costs are	
	b.		ntry equal to the ne meter" subaccon te case;		•		
	C.		o record interest B of this Preliminal			set forth in	
	A MF jurisd Septe the to forth "Beyo with	ictions. The M ember 30 balar otal Forecast F in the current ond the meter" the Company's	VENT RATES nent Rate will be e HPCBA Adjustmen nces recorded in th Period volumes. Th ly-effective Statem balances will be a s first general rate Company's gas dis	t Rates will be e "to the mete e MHPCBA Ad ent of Rates mortized over case after th	e determined by o er" MHPCBA suba djustment Rates s of this California a ten-year perioo e MHPs is cutovo	dividing the accounts by shall be set Gas Tariff. d beginning er to direct	N

		Issued by	Date Filed	August 30, 2019	
Advice Letter No.	A.19-08-	Justin Lee Brown	Effective		
Decision No.		Senior Vice President	Resolution No.		_T

P.O. Bo Las Ve Califorr	gas, N	evada 89193-8510	Canceling	3rd Revised 2nd Revised	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.	45.3 45.3
				<u>RY STATEMENT</u> Sinued)		
24.	GRE	ENHOUSE GAS ME	EMORANDUM A	CCOUNT (GHGN	<u>1A)</u>	
	24A.	PURPOSE				
		outreach costs inc (ARB) natural ga	urred to comply as supplier Ca	with the Californ	pany's administrativ nia Air Resources E ogram. The Compa cisions 14-12-040 a	Board's any is
	24B.	APPLICABILITY				
		use customers who	o emit 25,000 m by the ARB and	etric tons of CO2e any other custor	mer classes excludin e or more per year a ners who elect to op	nd are
	24C.	ACCOUNTING				
		The Company shal	I make the follow	ving entries to the	GHGMA:	
			-		ciated administrative s Cap-and-Trade Pro	I
		-	ord interest on th iminary Stateme		ated as set forth in S	Section
	24D.	DISPOSITION				
			tized beginning	with the effective	he last estimated ca date of rates appro application.	

Advice Letter No. <u>A.19-08-</u>____ Decision No. _____

Issued by Justin Lee Brown Senior Vice President Date Filed _____August 30, 2019 Effective Resolution No._____

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P.O. Box 98 Las Vegas, I California Ga	Nevada 89193-8510 as Tariff		2nd Re 1st Re ARY STATEMI Continued)	vised	Cal. P.U.C. Cal. P.U.C.	Sheet No.	
Las Vegas, I California Ga	Nevada 89193-8510 as Tariff	PRELIMIN	1st Re ARY STATEM	vised			
							45.7
			,				
	ENVIRONMENTAL F finued)	REGULATO	RY BALANCIN	IG ACC	<u>OUNT (NE</u>	ERBA)	
	,						
26D	NERBA ADJUSTME						
	The Company shall rate with a request NERBA rate shall be by the volumes of g period immediately f forth in the currently	ed effective e calculated as estimate following the	date of Janu by using the d to be deliver adjustment da	ary 1 o year en red duri ate. Th	of the follo d NERBA ng the 12 e NERBA	wing yea balance o calendar- rate shall	ar. The divided month be set
	<u>URAL GAS LEAK</u>	ABATEME	NT PROGRA	<u>M ME</u>	MORANDL	JM ACC	<u>OUNT</u>
27A.	PURPOSE						
	The purpose of the administrative costs Leak Abatement P NGLAPMA pursuant	associated rogram. 7	d with the imp The Company	olement	ation of th	ne Natura	al Gas
27B.	TRACKING PROCE	DURES					
	The Company sha administrative costs Separate accounts California rate jurisd set forth in Section 1	associated will be m ictions. Inter	with the Natura aintained for rest on the trac	al Gas each cked ba	Leak Abate of the Co lance will b	ement Pro ompany's	ogram. three
27C	DISPOSITION						
	The NGLAPMA Dee the end of the m beginning with the general rate case or	ost recently effective da	/ recorded ca ate of rates a	alendar pprove	year, will	l be am	ortized

Issued by Justin Lee Brown Senior Vice President

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PRC	POSED TARIFF	<u> 300013</u>		CHAPTER 21
SOUTHWEST GAS CORPORATION			SHI	EET 10 OF 44
P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff	Canceling	1st Revised Original	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.	<u>45.9</u> <u>45.9</u>
	<u>PRELIMINARY</u> (Conti			
29. <u>TAX MEMORANDUM AC</u>	COUNT (TMA)			
29A. PURPOSE				
differences between actually-incurred ind depreciation. The differences resultin changes, tax accou and (3) elective ta	n the Company' come tax expense account shall g from (1) net nting changes, t ax law changes licy changes. T	s authorized inc ses, including re have separate revenue change ax procedural ch , tax accounting	e difference resulting ome tax expenses a pair deductions and e line items detailir es, (2) mandatory ta anges, tax policy ch g changes, tax proo blished in accordance	and its bonus ng the ax law anges, cedural
29B. TRACKING PROCE	DURES			
difference between	authorized inces. The TMA sh	come tax expen	tracking the calenda ses and actually-in ate line items detaili	curred
1. Net revenue cha	inges,			
2. Mandatory tax changes, or tax	•	•	changes, tax proc	cedural
 Elective tax law or tax policy cha 	•	counting change	es, tax procedural ch	anges,
Interest on the track this Preliminary Stat		be calculated as	set forth in Section	12B of

PROPOSED TARIFF SHEETS

Issued by Justin Lee Brown Senior Vice President

CA TY 2021 GRC

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SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

Canceling Original C

PRELIMINARY STATEMENT (Continued)

29. TAX MEMORANDUM ACCOUNT (TMA)

29C. DISPOSITION

The TMA shall be reviewed in the Company's GRC proceedings until a Commission decision closes the account. The TMA December 31 balance, at the end of the last estimated calendar year, will be amortized beginning with the effective date of rates approved in the Company's next general rate case or other ratesetting application.

29D. REPORTING

The Company will timely notify the Commission of any tax-related changes, including tax-related accounting changes, or tax-related procedural changes that materially affect, or may materially affect, revenues and any revenue differences if applicable. A "material affect" means a potential increase or decrease of \$3 million or more to the Company's California jurisdictions.

Advice Letter No. <u>A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No.

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SOUTHWEST GAS CORPORATION			SHI	EET 12 OF
P.O. Box 98510				
Las Vegas, Nevada 89193-8510		1st Revised	Cal. P.U.C. Sheet No.	45.11
California Gas Tariff	Canceling	Original	Cal. P.U.C. Sheet No.	45.11
		•		

HELD FOR FUTURE USE

Advice Letter No. <u>A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No.

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SUITE		GAS	PRO	POSED TA	RIFF S	HEETS			CHA	021 GRC PTER 21 13 OF 44
P.O. Bo Las Ve	ox 9851	0 evada	89193-8510	Canceling			evised evised	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	No. 45	
			1	PRELIMIN (C	ARY S Continu		<u>ENT</u>			
31.	<u>OFFI</u>	CEF	COMPENSATI	<u>ON MEMC</u>	RANI	DUM AC	COUNT	Г — 2019 <u>(</u> ОСМА-:	<u>2019)</u>	
	31C.	The		maintain tl	his ac	count by		g quarterly entries available) as follo	•	nual
		1.	Authorized Con	npensation	Suba	ccount				
				f any value	e set a	aside to	be paid	es, benefits, and to its officers as		
		2.	Total Compens	ation Suba	ccour	nt				
			A debit entry ec consideration o			•		nefits, and all othe	÷r	
	31D. DISPOSITION The OCMA-2019 December 31 balance, at the end of the most recent recorded calendar year, will be amortized beginning with the effective date rates approved in the Company's next general rate case or other ratesettir application.									
							e of			

Advice Letter No. <u>A.19-08-</u>____ Decision No. _____

Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective_____ Resolution No._____

PROPOSED TARIFF SHEETS

SOUTHWEST GAS CORPORATION			311	EET 14 OF 4
P.O. Box 98510		and Deviced		45 44
Las Vegas, Nevada 89193-8510		2nd Revised	Cal. P.U.C. Sheet No.	45.14
California Gas Tariff	Canceling	1st Revised	Cal. P.U.C. Sheet No.	45.14

HELD FOR FUTURE USE

Advice Letter No. <u>A.19-08-</u>____ Decision No. _____

Issued by Justin Lee Brown Senior Vice President

Date Filed August 30, 2019 Effective Resolution No._____

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

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 Cal. P.U.C. Sheet No.
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 Canceling
 Cal. P.U.C. Sheet No.
 65

RATES APPLICABLE		_	F RATES CALIFOR		SERV	ICE AI	<u>REA [</u> ^	1]
								-
		Charges [2]						
Schedule No. and Type of Charge	Margin	and Adjustments	Subtotal Gas Usage Rate		Other Surch CPUC	<u>narges</u> PPP	Gas C	Effective ost Sales Rat
	Indigin		5 Usaye Male				043 0	
GS-10-Residential Gas Service Basic Service Charge	\$5.75							\$5.75
Cost per Therm	ψ0.70							ψ0.75
Baseline Quantities	\$.84394	\$.35966	\$1.20360	\$.00247 \$.11166	\$.228	312 \$1.5458
Tier II	\$1.05802	.35966	1.41768		.00247	.11166	.228	1.7599
GS-11-Residential Air-Conditioning Gas Service								
Basic Service Charge	\$5.00							\$5.00
Cost per Therm								
Tier I	\$.84394	\$.35966	\$1.20360	\$.00247 \$		\$.228	1
Tier II Air-Conditioning	1.05802 \$.45180	.35966 .35966	1.41768 .81146		.00247 .00247	.11166 .11166	.228	
U	φ.40100	.30900	.01140		.00247	.11100	.228	1.103/
GS-12-CARE Residential Gas Service	¢ 4 00							¢ 4 00
Basic Service Charge	\$4.00							\$4.00
Cost per Therm Baseline Quantities	\$.55760	\$.35966	\$.91726	¢	.00247 \$.05199	\$ 229	312 \$1.1998
Tier II	.72886	.35966	1.08852	Ψ	.00247 \$.05199		312 \$1.1990 312 \$1.3711
			1.00002			.00100		φ1.0711
GS-15-Secondary Residential Gas Service Basic Service Charge	\$6.00							\$6.00
Cost per Therm	\$0.00 \$1.29795	\$.35966	\$1.65761	\$.00247 \$	11166	\$ 228	\$0.00 312 \$1.9998
	φ1.20700	φ	ψ1.00701	Ψ	.00247 φ	.11100	ψ.220	γ12 φ1.0000
GS-20-Multi-Family Master-Metered Gas Service Basic Service Charge	\$25.00							\$25.00
Cost per Therm	φ23.00							φ25.00
Baseline Quantities	\$.84394	\$.35966	\$1.20360	\$.00247 \$.11166	\$.228	312 \$1.5458
Tier II	1.05802	.35966	1.41768	,	.00247	.11166	.228	
GS-25-Multi-Family Master-Metered Gas								
Service-Submetered								
Basic Service Charge	\$25.00							\$25.00
Cost per Therm								
Baseline Quantities	\$.84394	\$.35966	\$1.20360	\$	1	.11166	\$.228	,
Tier II Submatered Discount per Occupied Space	1.05802	.35966	1.41768		.00247	.11166	.228	
Submetered Discount per Occupied Space	(\$8.68)							(\$8.68)
GS-35-Agriculture Employee Housing & Nonprofit Group Living Facility Gas Service								
Basic Service Charge	\$8.80							\$8.80
Cost per Therm	ψ0.00							ψ0.00
First 100	\$.48067	\$.35966	\$.84033	\$.00247 \$.05199	\$.228	812 \$1.1229
Next 500	.32835	.35966	.68801		.00247	.05199	.228	
Next 2,400	.20649	.35966	.56615		.00247	.05199	.228	.8487
Over 3,000	.07292	.35966	.43258		.00247	.05199	.228	.7151
GS-40-Core General Gas Service								
(non-Covered Entities)	• • • • • •							.
Basic Service Charge	\$11.00							\$11.00
Transportation Service Charge	\$780.00							\$780.00
Cost per Therm	¢ 7/770	¢ 25066	¢1 10744	¢	00247 @	11166	¢ 000	210 ¢1 4400
First 100 Next 500	\$.74778 \$.55738	\$.35966 .35966	\$1.10744 .91704	\$.00247 \$.00247	.11166 .11166	\$.228 .228	
Next 2,400	\$.55736 \$.40506	.35966	.76472		.00247 .00247	.11166	.226	
Over 3,000	\$.23809	.35966	.59775		.00247	.11166	.228	
			· · · •					

Advice Letter No. A-19-08-Decision No._____

Justin Lee Brown Senior Vice President

Effective ______ Resolution No. _____

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

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_ Cal. P.U.C. Sheet No. __

Cal. P.U.C. Sheet No. 66

RATES APPLICABLE		_	F RATES <u>CALIFOR</u>		ERVICE	<u>AREA [</u> 1]		
		Charges [2] and	Subtotal Gas	Other	Surcharges		Effective	
Schedule No. and Type of Charge	Margin		Usage Rate	CPU		Gas Cost	Sales Rate	
GS-40-Core General Gas Service (Covered Entities)								
Basic Service Charge Transportation Service Charge	\$11.00 \$780.00						\$11.00 \$780.00	
Cost per Therm First 100	\$.74778	\$.30689	\$ 1.05467	\$.002	47 \$.11166	\$.22812	\$ 1.39692	
Next 500	\$.55738	.30689	.86427	φ .002·		.22812	1.20652	
Next 2,400	\$.40506		.71195	.002		.22812	1.05420	
Over 3,000	\$.23809	.30689	.54498	.0024	47 .11166	.22812	.88723	
GS-50-Core Natural Gas Service for Motor Vehicles								
Basic Service Charge	\$25.00						\$25.00	
Cost per Therm	\$.16371	\$.35966	\$.52337	\$.0024	47 \$.11166	\$.22812	\$.86562	
GS-60-Core Internal Combustion Engine Gas Service								
Basic Service Charge	\$25.00						\$25.00	
Cost per Therm	\$.26227	\$.35966	\$.62193	\$.002	47 \$.11166	\$.22812	\$.96418	
GS-66-Core Small Electric Power Generation Gas Service								
Basic Service Charge Cost per Therm	\$25.00 \$.35418	\$.35966	\$.71384	\$.002	47	\$.22812	\$25.00 \$.94443	
	¢ 100110	ų	¢	φ .co2		¥ .==0 .=	ψ lo l l lo	
GS-70-Noncore General Gas Transportation Service								
Basic Service Charge	\$100.00						\$100.00	
Transportation Service Charge	\$780.00						\$780.00	
Cost per Therm	\$.18001	\$.28424	\$.46425	\$.002	47 \$.11166		\$.57838	
GS-VIC City of Victorville Gas Service								
Basic Service Charge	\$11.00						\$ 11.00	
Transportation Service Charge Cost per Therm	\$780.00 \$.22888	\$.35966	\$.58854	\$.002	47	\$.22812	\$780.00 \$.81913	
TFF-Transportation Franchise Fee Surcharge Provision								
TFF Surcharge per Therm							\$.00331	
TDS – Transportation Distribution System Shrinkage Charge								
TDS Charge per Therm							\$.00116	
MHPS-Master-Metered Mobile Home Park Safety Inspection Provision								
MHPS Surcharge per Space per Month	_						\$.21000	

Advice Letter No. A.19-08-____ Decision No.

Issuea by Justin Lee Brown Senior Vice President

Date Flied Effective Resolution No.

Canceling

SOUTHWEST GAS CORPOR	ATION				-	ET 17 OF 44
P.O. Box 98510	10				Cal DILC Shoot No.	67
Las Vegas, Nevada 89193-85' California Gas Tariff					_ Cal. P.U.C. Sheet No Cal. P.U.C. Sheet No.	
				•		
		• • • • • = • •	IENT OF RAT			
RATES APPLIC	CABLE T	O SOUTHE	RN CALIFORI	NIA DIVISION	NSCHEDULES [1]	
[1] Customers taking only transpor components of the Effective Sal shrinkage calculated by multiplyin of 0.51%. The PGA Balancing Act for a period of 12 months. The Surcharge.	es Rate, pl ng the curre ccount Adju	us a Transport ently effective G stment is appli	ation Service Ch as Cost rate per cable to custome	harge of \$780 pe therm by the Los rs converting fro	er month and an amount for d st and Unaccounted For Gas pe m sales service to transportatic	istribution ercentage on service
[2] The Charges and Adjustments ap	oplicable to	each tariff rate	schedule include	s the following co	omponents:	
Charges and Adjustments	GS-10, GS-11, GS-12, GS-15, GS-20, GS-25,	GS-40 (non- Covered Entities), GS-50, GS-60,	GS-40, (Covered			
Description	GS-35,	GS-66	Entities)	GS-70	GS-VIC	
Upstream Intrastate Charges						
Storage	\$.01586	\$.01586		\$.01586	
Variable		.07520	.07520	\$.07520	.07520	
Upstream Interstate Reservation Charges		.05394	.05394		.05394	
IRRAM Surcharge		.03888	.03888	.03888	.03888	
Balancing Account Adjustments		.00000	.00000	.00000		
FCAM*		.11098	.11098	.10536	.11098	
ITCAM		.00890	.00890	.00890	.00890	
GHGBA**			.00000	.00000		
Non-Covered Entities [a]		.05353		.05353	.05353	
Covered Entities [a]			.00076			
NERBA		.00057	.00057	.00057	.00057	
NGLAPBA		.00180	.00180	.00180	.00180	
Total Rate Adjustment	\$.35966	\$.30689	\$.28424	\$.35966	
	Ŧ		+		* ******	
* The FCAM surcharge includes an and recorded revenues intended to ** Pursuant to D.15-10-032. Compare ** Pursuant to D.15-10-032.	o recover th	ese costs.				Ũ

Pursuant to D.15-10-032, Company costs incurred to comply with the California Air Resources Board (ARB) natural gas supplier Cap-and-Trade Program are to be included in transportation rates and recovered from Non-Covered Entities. Covered Entities, who are directly regulated by the ARB, are only responsible for paying for emission costs related to lost and unaccounted for gas (LUAF).

[a] Pursuant to D.18-03-017, Covered and non-Covered entities have a component to recover the 2015-2017 net compliance costs and proceeds amortized over a twelve month period. Also included are the 2018 GHG costs which are amortized over an eighteen month period.

Advice Letter No. A.19-08-____ Decision No.____

Issued by Justin Lee Brown Senior Vice President

August 30, 2019 Date Filed Effective Resolution No.

CA TY 2021 GRC

CHAPTER 21

Canceling

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

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Cal. P.U.C. Sheet No. 68

	STATE	MENT O	F RATES					
RATES APPLICABLE 1	<u>FO NORT</u>	HERN CA	ALIFORNI	IA SERV	<u>ICE AR</u>	<u>EA [</u> 1] [2	2]	
		Charges [3] and	Subtotal Gas				Effective	
Schedule No. and Type of Charge	Margin	Adjustments	Usage Rate	CPUC	PPP	Gas Cost	Sales Rate	-
GN-10-Residential Gas Service Basic Service Charge	\$5.75						\$5.75	
Cost per Therm Baseline Quantities Tier II	\$.77118 .89641	\$.15668 .15668	\$.92786 1.05309	\$.00247 .00247	\$.06290 .06290	\$.30339 .30339	\$1.29662 1.42185	R I
GN-12-CARE Residential Gas Service Basic Service Charge	\$4.60						\$4.60	
Cost per Therm Baseline Quantities	\$.52493	\$.15668	\$.68161	\$.00247	\$.05199	\$.30339	\$1.03946	1
Tier II	.62511	.15668	.78179	.00247	.05199	.30339	1.13964	R
GN-15-Secondary Residential Gas Service Basic Service Charge Cost per Therm	\$6.00 \$.95173	\$.15668	\$1.10841	\$.00247	\$.06290	\$.30339	\$6.00 \$1.47717	
GN-20-Multi-Family Master-Metered Gas Service								
Basic Service Charge Cost per Therm	\$25.00						\$25.00	
Baseline Quantities Tier II	2.77118 .89641	\$.15668 .15668	\$.92786 1.05309	\$.00247 .00247	\$.06290 .06290	\$.30339 .30339	\$1.29662 1.42185	R I
GN-25-Multi-Family Master-Metered Gas Service-Submetered							* ~ = ~~	
Basic Service Charge Cost per Therm	\$25.00						\$25.00	
Baseline Quantities Tier II Submetered Discount per Occupied Space	0.577118 .89641 .89641 (\$ 9.58)	\$.15668 .15668	\$.92786 1.05309	00247 .00247 .00247	\$.06290 .06290	\$.30339 .30339	\$1.29662 1.42185 (\$9.58)	R
GN-35-Agriculture Employee Housing & Nonprofit Group Living Facility Gas Service								
Basic Service Charge Cost per Therm	\$ 8.80						\$ 8.80	
First 100 Next 500 Next 2,400 Over 3,000	\$.42107 .31754 .21675 .06880	\$.15668 .15668 .15668 .15668	\$.57775 .47422 .37343 .22548	\$.00247 .00247 .00247 .00247	\$.05199 .05199 .05199 .05199	\$.30339 .30339 .30339 .30339	\$.94207 .80810 .69430 .52452	R R R
GN-40-Core General Gas Service (non-Covered Entities)								
Basic Service Charge Transportation Service Charge	\$11.00 \$780.00						\$11.00 \$780.00	
Cost per Therm First 100 Next 500 Next 2,400 Over 3,000	\$.64944 .48198 .33973 12751	\$.15668 .15668 .15668 15668	.63866 .49641	\$.00247 .00247 .00247 .00247	.06290 .06290	\$.30339 .30339 .30339 .30339	\$ 1.17488 1.00742 .86517 65295	R
Over 3,000	.12751	.15668	.28419	.00247	.06290	.30339	.65295	

Advice Letter No. A.19-08-____ Decision No.

Issued by Justin Lee Brown Senior Vice President

Canceling

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

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Cal. P.U.C. Sheet No.

STATEMENT OF RATES

RATES APPLICABLE TO NORTHERN CALIFORNIA SERVICE AREA [1] [2]

	Margin	Charges [3] and Adiustments	Subtotal Gas Usage Rate	Other Surcharges CPUC PPP Gas C	Effective Cost Sales Rate
GN-40-Core General Gas Service	5		- 3		
Covered Entities)					
Basic Service Charge	\$11.00				\$ 11.00
Transportation Service Charge	\$780.00				\$780.00
Cost per Therm	• • • • • • • •	* 40004	* 7 5005 *	00047 \$ 00000 \$ 000	
First 100		\$.10391	\$.75335 \$		
Next 500	.48198	.10391	.58589	.00247 .06290 .303	
Next 2,400	.33973	.10391	.44364	.00247 .06290 .303	
Over 3,000	.12751	.10391	.23142	.00247 .06290 .303	.60018
GN-50-Core Natural Gas Service for Motor Vehicles					
Basic Service Charge	\$ 25.00				\$ 25.00
Cost per Therm	\$.03132	\$.15668	\$.18800 \$.00247 \$.06290 \$.303	39 \$.55676
GN-60-Core Internal Combustion Engine Gas					
Service					
Basic Service Charge	\$ 25.00				\$ 25.00
Cost per Therm	\$.71521	\$.15668	\$.87189	\$.00247 \$.06290 \$.303	39 \$ 1.24065
N-66-Core Small Electric Power Generation Gas Service					
Basic Service Charge	\$ 25.00				\$ 25.00
Cost per Therm		\$.15668	\$.87189	\$.00247 \$.303	
N-70-Noncore General Gas Transportation Service Basic Service Charge					\$ 100.00
Transportation Service Charge	\$ 780.00				\$ 780.00
Cost per Therm	\$.12545	(\$.00327)	\$.12218	\$.00247 \$.06290	\$.18755
FF-Transportation Franchise Fee Surcharge Provision					
TFF Surcharge per Therm					\$.00448
DS – Transportation Distribution System					\$ 100110
Shrinkage Charge					
TDS Charge per Therm					\$.00228
					ψ.00220
IHPS-Master-Metered Mobile Home Park Safety Inspection Provision					
MHPS Surcharge per Space per Month					\$.21000
with o ourcharge per opace per month					ψ.21000

Advice Letter No. A.19-08-Decision No.

Issued by Justin Lee Brown Senior Vice President

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

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STATEMENT OF RATES

RATES APPLICABLE TO NORTHERN CALIFORNIA SERVICE AREA [1] [2]

[1] Customers taking only transportation service will pay the Effective Sales Rate less the Interstate Reservation and Gas Cost components of the Effective Sales Rate, plus a Transportation Service Charge of \$780 per month and an amount for distribution shrinkage calculated by multiplying the currently effective Gas Cost rate per therm by the Lost and Unaccounted For Gas percentage of 0.75%. The PGA Balancing Account Adjustment is applicable to customers converting from sales service to transportation service for a period of 12 months. The volume charge for customer-secured natural gas transportation will also be subject to the TFF Surcharge.

[2] A Franchise Fee differential of 2.5% will be applied to monthly billings calculated for all rate schedules for all customers within the limits of the Town of Truckee.

[3] The Charges and Adjustments applicable to each tariff rate schedule includes the following components:

Charges and Adjustments Description	GN-10, GN-40 (non- GN-12, Covered GN-15, Entities), GN-20, GN-50, GN-25, GN-60, GN-35, GN-66	GN-40, (Covered Entities)	GN-70
Upstream Intrastate Charges			
Storage	\$.02174	\$.02174	
Variable	.20533	.20533	
IRRAM Surcharge	.01249	.01249	\$.01249
Balancing Account Adjustments			
FCAM*	(.13851)	(.13851)	(.07139)
GHGBA**			
Non-Covered Entities [a]	.05353		.05353
Covered Entities [a]		.00076	
NERBA	.00051	.00051	.00051
NGLAPBA	.00159	.00159	.00159
Total Rate Adjustment	\$.15668	\$.10391	(\$.00327)

The FCAM surcharge includes an amount of (\$.07139) per therm related to the difference between Southwest Gas' authorized margin and recorded revenues intended to recover these costs.

Pursuant to D.15-10-032, Company costs incurred to comply with the California Air Resources Board (ARB) natural gas supplier Cap- and-Trade Program are to be included in transportation rates and recovered from Non-Covered Entities. Covered Entities. who are directly regulated by the ARB, are only responsible for paying for emission costs related to lost and unaccounted for gas (LUAF).

[a] Pursuant to D.18-03-017, Covered and non-Covered entities have a component to recover the 2015-2017 net compliance costs and proceeds amortized over a twelve month period. Also included are the 2018 GHG costs which are amortized over an eighteen month period.

Advice Letter No. <u>A.19-08-</u> Decision No._____

Issued by Justin Lee Brown Senior Vice President

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

> Issued by Justin Lee Brown Senior Vice President

Date Filed August 30, 2019 Effective Resolution No.

_____ Cal. P.U.C. Sheet No. ___

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	STATE	EMENT C	F RATES				
RATES APPLICABI	<u>_E TO SC</u>	DUTH LA	KE TAHO	E SERV	ICE AR	<u>EA [</u> 1]	
Schodule No. and Turse of Charge	Morgin	Charges [2] and	Subtotal Gas	<u>Other Su</u> CPUC	rcharges PPP	Cao Coat	Effective
Schedule No. and Type of Charge	Margin	Adjustments	Usage Rate	CPUC	PPP	Gas Cost	Sales Rate
SLT-10-Residential Gas Service Basic Service Charge	\$5.75						\$5.75
Cost per Therm	φ0.75						φ0.75
Baseline Quantities	\$.60458	\$.24752	\$.85210	\$.00247	\$.06290	\$.30339	\$1.22086
Tier II	.71473	.24752	.96225	.00247	.06290	.30339	1.33101
SLT-12-CARE Residential Gas Service							
Basic Service Charge	\$4.60						\$4.60
Cost per Therm							
Baseline Quantities	\$.37348	\$.24752	\$.62100	\$.00247	\$.05199		
Tier II	.46160	.24752	.70912	.00247	.05199	.30339	1.06697
SLT-15-Secondary Residential Gas Service							
Basic Service Charge	\$6.00	A 04750	* 4 05450	• • • • • • • •	*	*	\$6.00
Cost per Therm	\$.80400	\$.24752	\$1.05152	\$.00247	\$.06290	\$.30339	\$1.42028
SLT-20-Multi-Family Master-Metered Gas Service							
Basic Service Charge	\$11.00						\$11.00
Cost per Therm	φ11.00						φ11.00
Baseline Quantities	\$.60458	\$.24752	\$.85210	\$.00247	\$.06290	\$.30339	\$1.22086
Tier II	.71473	.24752	.96225	.00247	.06290	.30339	1.33101
SLT-25-Multi-Family Master-Metered Gas							
Service-Submetered	_						
Basic Service Charge	\$11.00						\$11.00
Cost per Therm	¢ 00450	¢ 04750	¢ 05040	¢ 00047	¢ 00000	¢ 00000	¢ 4 00000
Baseline Quantities Tier II	\$.60458 .71473	\$.24752 .24752	8.85210 .96225	00247 0.00247 \$	\$.06290 .06290	\$.30339 .30339	
Submetered Discount per Occupied Space	(\$11.28)	.24732	.90225	.00247	.00290	.30339	(\$11.28)
SLT-35-Agriculture Employee Housing & Nonprofit Group Living Facility Gas Service	(\$11.20)						(\$11.20)
Basic Service Charge	\$ 8.80						\$ 8.80
Cost per Therm							
First 100	\$.36367	\$.24752	\$.61119	\$.00247	\$.05199	•	
Next 500	.29470	.24752	.54222	.00247	.05199	.30339	.90007
Next 2,400	.22574	.24752	.47326	.00247	.05199	.30339	.83111
Over 3,000	.10709	.24752	.35461	.00247	.05199	.30339	.71246
SLT-40-Core General Gas Service (non-Covered Entities)							
Basic Service Charge	\$11.00						\$11.00
Transportation Service Charge	\$780.00						\$780.00
Cost per Therm							
First 100	\$.59231	\$.24752	\$.83983	\$.00247	\$.06290		\$1.20859
Next 500	.50610	.24752	.75362	.00247	.06290	.30339	1.12238
Next 2,400	.41990	.24752	.66742	.00247	.06290	.30339	
Over 3,000	.27159	.24752	.51911	.00247	.06290	.30339	.88787

Advice Letter No. <u>A.19-08-</u>

Decision No.

Canceling _

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

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Cal. P.U.C. Sheet No.

Cal. P.U.C. Sheet No. 72

STATEMENT OF RATES RATES APPLICABLE TO SOUTH LAKE TAHOE SERVICE AREA [1] Charges [2] Subtotal Gas Effective Schedule No. and Type of Charge and Other Surcharges Margin Adjustments Usage Rate CPUC PPP Gas Cost Sales Rate SLT-40-Core General Gas Service (Covered Entities) \$11.00 \$11.00 **Basic Service Charge** Transportation Service Charge \$780.00 \$780.00 Cost per Therm \$.78706 First 100 \$.59231 \$.19475 \$.00247 \$.06290 \$.30339 \$1.15582 Next 500 .70085 .06290 .30339 1.06961 50610 19475 00247 .19475 Next 2.400 .41990 .61465 .00247 .06290 .30339 .98341 Over 3,000 .20246 .19475 .39721 .00247 .06290 .30339 .76597 SLT-50-Core Natural Gas Service for Motor Vehicles **Basic Service Charge** \$11.00 \$11.00 Cost per Therm \$.48769 \$.24752 \$.73521 \$.00247 \$.06290 \$.30339 \$1.10397 SLT-60-Core Internal Combustion Engine Gas Service \$ 11.00 Basic Service Charge \$ 11.00 \$.24752 \$ 58988 \$.00247 \$.06290 \$.30339 Cost per Therm \$.34236 \$.95864 SLT-66-Core Small Electric Power Generation Gas Service **Basic Service Charge** \$ 11.00 \$ 11.00 Cost per Therm \$.34236 \$.24752 \$.58988 \$.00247 \$.30339 \$.89574 SLT-70-Noncore General Gas Transportation Service Basic Service Charge \$ 100.00 \$ 100.00 Transportation Service Charge \$ 780.00 \$ 780.00 \$.44027 Cost per Therm \$.35270 \$.08757 \$.00247 \$.06290 \$.50564 TFF-Transportation Franchise Fee Surcharge Provision TFF Surcharge per Therm \$.00448 TDS-Transportation Distribution System Shrinkage Charge TDS Charge per Therm \$.00228 MHPS-Master-Metered Mobile Home Park Safety Inspection Provision MHPS Surcharge per Space per Month \$.21000

Advice Letter No. <u>A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown Senior Vice President Date Filed <u>August 30, 2019</u> Effective <u>Resolution No.</u>

SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

Canceling ______ Cal. P.U.C. Sheet No. ____ Canceling ______ Cal. P.U.C. Sheet No. ____

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STATEMENT OF RATES

RATES APPLICABLE TO SOUTH LAKE TAHOE SERVICE AREA [1]

[1] Customers taking only transportation service will pay the Effective Sales Rate less the Interstate Reservation and Gas Cost components of the Effective Sales Rate, plus a Transportation Service Charge of \$780 per month and an amount for distribution shrinkage calculated by multiplying the currently effective Gas Cost rate per therm by the Lost and Unaccounted For Gas percentage of 0.75%. The PGA Balancing Account Adjustment is applicable to customers converting from sales service to transportation service for a period of 12 months. The volume charge for customer-secured natural gas transportation service will also be subject to the TFF Surcharge.

[2] The Charges and Adjustments applicable to each tariff rate schedule includes the following components:

Charges and Adjustments Description	SLT-10, SLT-12, SLT-15, SLT-20, SLT-25, SLT-35,	SLT-40 (non- Covered Entities), SLT-50, SLT-60, SLT-66	SLT-40, (Covered Entities)	SLT-70
Upstream Interstate Charges				
Storage	\$.0	2174	\$.02174	
Reservation	.2	0533	.20533	
IRRAM Surcharge	.0	2206	.02206	\$.02206
Balancing Account Adjustments				
FCAM*	0.)	5694)	(.05694)	.01018
GHGBA**				
Non-Covered Entities [a]	.0	5353		.05353
Covered Entities [a]			.00076	
NERBA	.0	0062	.00062	.00062
NGLAPBA	.0	0118	.00118	.00118
Total Rate Adjustment	\$.2	4752	\$.19475	\$.08757

* The FCAM surcharge includes an amount of \$.01018 per therm related to the difference between Southwest Gas' authorized margin and recorded revenues intended to recover these costs.

** Pursuant to D.15-10-032, Company costs incurred to comply with the California Air Resources Board (ARB) natural gas supplier Cap- and-Trade Program are to be included in transportation rates and recovered from Non-Covered Entities. Covered Entities, who are directly regulated by the ARB, are only responsible for paying for emission costs related to lost and unaccounted for gas (LUAF).

[a] Pursuant to D.18-03-017, Covered and non-Covered entities have a component to recover the 2015-2017 net compliance costs and proceeds amortized over a twelve month period. Also included are the 2018 GHG costs which are amortized over an eighteen month period.

Advice Letter No. A.19-08-___ Decision No. _____

Issued by Justin Lee Brown Senior Vice President

Schedule Nos. GS-10/GN-10/SLT-10

RESIDENTIAL GAS SERVICE

<u>APPLICABILITY</u>

Applicable to gas service to customers which consists of direct domestic gas usage in a residential dwelling for space heating, air conditioning, cooking, water heating, and other residential uses. This schedule is available only to primary residences.

TERRITORY

Throughout the Company's certificated California service areas, except as may hereafter be provided.

<u>RATES</u>

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The credit will display as a line item on the customer's bill. The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given.

Climate	Summer Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83
No. Lake Tahoe	0.66	2.11	3.09
So. Lake Tahoe	0.72	2.04	3.09
Truckee	0.72	2.17	3.55

The baseline daily quantity in therms for all individually-metered residential uses are:

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commissinon Decision18-03-017, the 2018 CA Climate Credit will be distributed in October.

		Issued by	Date Filed August 30, 2019
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PROF	POSED TAR	IFF SHEETS	(CHAPTER 2
SOUTHWEST GAS CORPORATION				SHEET 25 OF 4
P.O. Box 98510				
Las Vegas, Nevada 89193-8510		4th Revised	Cal. P.U.C. Sheet No.	81
California Gas Tariff	Canceling	3rd Revised	Cal. P.U.C. Sheet No.	81

Schedule No. GS-11

RESIDENTIAL AIR-CONDITIONING GAS SERVICE

APPLICABILITY

Applicable to gas service to customers which consists of direct domestic gas usage in a residential dwelling for air conditioning in conjunction with space heating, cooking, water heating, and other residential uses. This schedule is available as an option only to primary residences with installed natural gas air-conditioning systems for customers who would otherwise receive service pursuant to Schedule No. GS-10, Residential Gas Service of this California Gas Tariff.

TERRITORY

Throughout the Company's certificated gas service areas in its Southern California Division, except as may hereafter be provided.

RATES

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The credit will display as a line item on the customer's bill. The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given.

The Tier I and summer season Tier II daily quantities in therms for all individually-metered residential uses are:

	Summer		
Climate	Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83

For billing purposes all summer season quantities sold each month in excess of the Tier II quantities shall be billed at the Gas Air-Conditioning rate, and all winter season quantities sold each month in excess of the Tier I quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commission Decision 18-03-017, the 2018 CA Climate Credit will be distributed in October.

		Issued by	Date Filed	August 30, 2019
Advice Letter No.	A.19-08-	Justin Lee Brown	Effective	
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Las Vegas, Nevada 89193-8510		4th Revised	Cal. P.U.C. Sheet No.	83
California Gas Tariff	Canceling	3rd Revised	Cal. P.U.C. Sheet No.	83

Schedule Nos. GS-12/GN-12/SLT-12

CARE RESIDENTIAL GAS SERVICE

APPLICABILITY

Applicable to gas service to customers whose qualifying income does not exceed 200 percent of the Federal poverty level, pursuant to California Alternate Rates for Energy (CARE) program eligibility requirements. This service is available only to primary residences.

TERRITORY

Throughout the Company's certificated California service areas, except as may hereafter be provided.

<u>RATES</u>

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The credit will display as a line item on the customer's bill. The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given. The CA Climate Credit will be applied after the California Alternate Rates for Energy (CARE) is applied to the customer's bill to ensure the customer receives the maximum benefit of the CARE program.

The baseline daily quantity in therms for all individually-metered residential uses are:

	Summer		
Climate	Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer		
	Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83
No. Lake Tahoe	0.66	2.11	3.09
So. Lake Tahoe	0.72	2.04	3.09
Truckee	0.72	2.17	3.55

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commission Decision18-03-017, the 2018 CA Climate Credit will be distributed in October.

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Issued by Justin Lee Brown Senior Vice President

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 4th Revised
 Cal. P.U.C. Sheet No. ___

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 3rd Revised
 Cal. P.U.C. Sheet No. ___

Schedule Nos. GS-20/GN-20/SLT-20

MULTI-FAMILY MASTER-METERED GAS SERVICE

APPLICABILITY

Applicable to gas service for cooking, water heating, space heating, and other residential usages supplied to multi-family accommodations through one meter on a single premise in accordance with Rule No. 18 of this California Gas Tariff. This schedule is closed to new installations.

TERRITORY

Throughout the Company's certificated California service areas, except as may hereafter be provided.

<u>RATES</u>

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given. The master-metered customer will receive one credit for each resident being served through the master-meter. It is the responsibility of the master-metered customer to pass the CA Climate Credit on to the resident.

The baseline daily quantity in therms per residential unit are:

Climate	Summer Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer		
	Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83
No. Lake Tahoe	0.66	2.11	3.09
So. Lake Tahoe	0.72	2.04	3.09
Truckee	0.72	2.17	3.55

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commission Decision18-03-017, the 2018 CA Climate Credit will be distributed in October.

		Issued by	Date Filed	August 30. 2019
Advice Letter No.	A.19-08-	Justin Lee Brown	Effective	
Decision No.		Senior Vice President	Resolution N	lo

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SOUTHWEST GAS CORPORATION P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff

1st Revised Cal. P.U.C. Sheet No. Canceling Original

Cal. P.U.C. Sheet No.

Schedule Nos. GS-20/GN-20/SLT-20

MULTI-FAMILY MASTER-METERED GAS SERVICE

(Continued)

RATES (Continued)

Upon completion of an application and verification by a state licensed physician, surgeon or osteopath, an additional monthly medical allowance of 25 therms will be provided for hemiplegic/paraplegic/guadriplegic persons, multiple sclerosis/scleroderma patients and persons who are being treated for a life-threatening illness and have a compromised immune system who are full-time residents in a household served under this schedule.

If the customer qualifying for the standard medical allowance can demonstrate to the Company's satisfaction that the 25-therm allowance is insufficient to meet the life-support and comfort requirements of the eligible resident, the Company shall make a determination as to the additional quantity required and round such quantity to the next higher 25 therms.

The number of therms shall be determined in accordance with the provisions of Rule No. 2C of this California Gas Tariff.

For billing purposes, the baseline quantity shall be determined by multiplying the allowable baseline quantity per residential unit by the number of qualifying residential units.

Minimum Charge:

The minimum charge per meter per month is the basic service charge.

SPECIAL CONDITIONS

- Residential service under this schedule includes service to residential units and mobile 1. home units, but does not include enterprises such as rooming houses, boarding houses, dormitories, rest homes, military barracks, stores, restaurants, service stations, and other similar establishments.
- As a condition to service under this schedule, a master-meter customer must attach 2. to his application for such service a Declaration of Eligibility for Baseline Rates stating the number of occupied units to be billed. The total baseline allowance will be determined on this declaration.
- It is the responsibility of the customer to advise the Company within 15 days following 3. any change in the number of residential dwelling units and mobile home spaces utilizing gas service. Failure to do so may result in the loss of baseline rates.

The number of residential units eligible for baseline allowances is subject to verification by the Company. In the event the Company ascertains a customer's ineligibility of a baseline allowance, an appropriate adjusted bill may be rendered to the customer.

Issued by Justin Lee Brown Senior Vice President

Date Filed	August 30, 2019
Effective	
Resolution N	lo.

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SOUTHWEST GAS CORPORATION			SF	IEET 29 OF 4
P.O. Box 98510 Las Vegas, Nevada 89193-8510		1st Revised	Cal. P.U.C. Sheet No.	90
California Gas Tariff	Canceling	Original	Cal. P.U.C. Sheet No.	90
	HELD FOR F	UTURE USE		

Advice Letter No. <u>A.19-08-</u>____ Decision No. _____

Issued by Justin Lee Brown Senior Vice President Date Filed <u>August 30, 2019</u> Effective Resolution No.

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SOUTHWEST GAS CORPORATI P.O. Box 98510	PROPOSED TARIF	F SHEETS	-	CA TY 2021 GRC CHAPTER 21 SHEET 30 OF 44
Las Vegas, Nevada 89193-8510 California Gas Tariff	Canceling		Cal. P.U.C. Sheet No Cal. P.U.C. Sheet No	
	Schedule Nos. GS	-25/GN-25/SLT-2	5	
MULTI-FAMILY N	ASTER-METERE (Cont	D GAS SERVICE inued)	- SUBMETERED	
RATES (Continued)				
The baseline daily quantity	in therms per res	idential unit are:		
Climate Zone	Summer Season (May - Oct.)	Winter Off-Peak (Mar., Apr. & Nov		N
Barstow	0.39	1.12	2.11	-
Needles	0.23	0.53	0.92	
Victorville	0.39	1.25	2.04	1
	Summer Season (June - Oct.)	Winter Off-Peak (Apr., May & Nov		
Big Bear	0.46	1.45	2.83	- 1
No. Lake Tahoe	0.66	2.11	3.09	
So. Lake Tahoe	0.72	2.04	3.09	1
Truckee	0.72	2.17	3.55	1
				N

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

Upon completion of an application and verification by a state licensed physician, surgeon or osteopath, an additional monthly medical allowance of 25 therms will be provided for hemiplegic/paraplegic/quadriplegic persons, multiple sclerosis/scleroderma patients and persons who are being treated for a life-threatening illness and have a compromised immune system who are full-time residents in a household served under this schedule.

If the customer qualifying for the standard medical allowance can demonstrate to the Company's satisfaction that the 25-therm allowance is insufficient to meet the life-support and comfort requirements of the eligible resident, the Company shall make a determination as to the additional guantity required and round such guantity to the next higher 25 therms.

The number of therms shall be determined in accordance with the provisions of Rule No. 2C of this California Gas Tariff.

For billing purposes, the baseline quantity shall be determined by multiplying the allowable baseline quantity per residential unit by the number of qualifying residential units.

Issued by Justin Lee Brown Senior Vice President

Date Filed	August 30, 2019	
Effective	•	
Resolution No.		Т

Schedule No. GS-VIC

CITY OF VICTORVILLE NATURAL GAS SERVICE

<u>APPLICABILITY</u>

Applicable for natural gas service for resale to the City of Victorville Municipal Utility Services at the Southern California Logistics Airport.

RATES

The Customer shall pay the following charges to receive natural gas service under this schedule:

- 1. <u>Basic Service Charge</u>: The Basic Service Charge per month is the charge per meter as set forth in the currently effective Statement of Rates of this California Gas Tariff.
- 2. <u>Transportation Service Charge</u>: The Transportation Service Charge per month is the charge as set forth in the currently-effective Statement of Rates of this California Gas Tariff.
- 3. <u>Volume Charge</u>: An amount equal to the applicable Volume Charge per therm of gas received by the Company for the account of the Customer. These charges are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Minimum Charge

The minimum charge per month is the Basic Service Charge plus the Transportation Service Charge, if applicable.

Advice Letter No. <u>A.19-08-</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No. D

PROP	OSED	TARIFF	SHEETS

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SOUTHWEST GAS CORPORATION			SHE	ET 32 OI
P.O. Box 98510				
Las Vegas, Nevada 89193-8510		1st Revised	Cal. P.U.C. Sheet No.	120.1
California Gas Tariff	Canceling	Original	Cal. P.U.C. Sheet No.	120.1
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HELD FOR FUTURE USE

Advice Letter No. <u>A.19-08-</u> Decision No._____ Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No.

PROP	OSED	TARIFF	SHEETS

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		SHE	ET 33 OF
	1st Revised	Cal. P.U.C. Sheet No.	120.2
Canceling	Original	Cal. P.U.C. Sheet No.	120.2
	Canceling		1st Revised Cal. P.U.C. Sheet No.

HELD FOR FUTURE USE

Advice Letter No. <u>A.19-08-</u> Decision No._____ Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No. D

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Las Vegas, Nevada 89193-8510 2nd Revised Cal. P.U.C. Sheet No. 145 California Gas Tariff Canceling 1st Revised Cal. P.U.C. Sheet No. 145 LIST OF SPECIAL CONTRACTS AND DEVIATIONS Name and Type or Class Most Comparable Name and Type or Class Contract Schedule No. Differences Execution Date	SOUTHWEST GAS CORPO P.O. Box 98510		D TARIFF SHEE	ETS		CHA	2021 GRC APTER 21 34 OF 44
CommissionMost ComparableAuthorizationRegular TariffName andType or ClassNumberLocation of Customerof ServiceExecution DateSchedule No.Differences	Las Vegas, Nevada 89193-85	510 Cance	eling	2nd Revised 1st Revised			
Name andType or ClassAuthorizationRegular TariffLocation of Customerof ServiceExecution Dateand DateSchedule No.Differences	LIST	OF SPECIAL	CONTRACTS	S AND DEVIA	TIONS		
Location of Customer of Service Execution Date and Date Schedule No. Differences	Name and	Type or Class		Authorization		[.] Tariff	
			Execution Date		Schedule No.		nces
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Date Filed August 30, 2019 Effective Resolution No.

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			CORPORATION	1		SHE	ET 35 OF 44
Las Ve	ox 98510 egas, Ne nia Gas	vada 8	9193-8510	Canceling	<u>1st Revised</u> Original	Cal. P.U.C. Sheet No Cal. P.U.C. Sheet No	
				RULE	NO. 3		
				APPLICATION F	OR SERVICE		
А.	<u>CUST</u>	OME	RAPPLICAT	ION			
	1.	serv Ree of th Com	ice to establi stablishment ne applicant,	ish credit in acco of Credit of this all applicants s easonably require	rdance with Rule California tariff an hall provide such	ire each applicant fo No. 6, Establishmen d to establish the id other information a This information incl	t and entity s the
		a.	Legal name	of applicant(s).			
		b.	Name of ap	plicant's spouse o	or co-applicant.		D
		C.	Date of birth	1.			T
		d.	Date and pla	ace of application			T T
		e.	Location of	premises to be se	erved.		
		f.	Address to v	which bills are to	be mailed or delive	ered.	L T
		g.	Date applica	ant will be ready f	or gas service.		
		h.	Whether the	e premises have b	been previously su	pplied with gas.	
		i.	Purposes fo	r which gas servi	ce is to be used.		T
		j.	Rate schedu	ule desired (if opt	ional schedules ar	e available).	T
		k.	Telephone n	number.			T D
		Ι.	Whether ap	plicant is owner, a	agent or tenant of	oremises.	T
		m.	Whether app	olicant or other pe	rmanent resident i	s elderly and/or disab	oled. T
	0	 .		<i></i>			D
	2.		d party notific				
		who disc sucł	m they wish ontinuance ir	n notified in the n accordance wit s name, address	event that their h Rule No. 11 of	lisabled lists a third service is schedule this California Gas umber shall be note	ed for Tariff,
		to re	eceive a cop	by of the termination		that third parties co Company shall infor f this service.	

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CHAPTER 21

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2.O. Box 98510 as Vegas, Neva California Gas Ta	da 89193		Canceling		1st Revised Original		
			RU	LE NO. 6			
	<u>EST</u>	ABLISHME		EESTABL	ISHMENT O	<u>F CREDIT</u>	
Each applica Company be					ablish credit	to the satisfaction	of the
A. <u>ESTABL</u>	ISHME	ENT OF CF	REDIT				
1. T	he app	licant's cre	dit will be d	eemed es	tablished:		
а	0	f any bills	for service	e to be fu	irnished by	ny to secure the pa the Company und california Gas Tariff;	ayment
b				•	itor satisfac rvice reques	tory to the Compa ted; or	any to
С	p ir 1 C	aid all bills n Rule No. 2 consecu pplicant fo company, p	for gas ser 11, Section utive month or service	vice on th A.1 of th ns immed previously ch service	e average w is California liately prior / ceased to e occurred w	of the Company, ar vithin a period as se Gas Tariff for a pe to the date whe take service fro vithin two years fro	et forth riod of en the m the
d		applicant Company.	can other	wise estat	olish credit	to the satisfaction	of the
fo C S C S S	or nonp sustome Sections condition uch ma	bayment of ers of the s A.1.c. ar n for estab aster-meter	bills by the Company nd A.1.d. V plishing cre ed establis	e landlord by estab Vhere prio dit, proof hment for	, the resider lishing cred or service is of prompt p the immedia	h is subject to terminatial tenants may be natial tenants may be it as set forth about s being considered bayment while resident tely preceding 12 m y equivalent.	ecome ove in I as a ding at

Advice Letter No. A.19-08-Decision No._____

Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No.

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/egas, Nevada 89193-8510		1st Revised	Cal. P.U.C. Sheet No	176 176*
ornia Gas Tariff	Canceling	Original	Cal. P.U.C. Sheet No	170
	RULE N	IO. 7		
	DEPOS	SITS		
AMOUNT TO ESTABLIS	<u>H CREDIT</u>			
The amount of deposit r monthly bill, or for Small bill.				
AMOUNT TO REESTABI	<u>_ISH CREDIT</u>			
1. Former Customers	3			
during the last 12 applicant may be	months of their for required to pay	ormer service for such former bills	service was disconti nonpayment of bills, and reestablish crea maximum monthly b	such dit by

- 2. Present Customers
 - a. A customer whose service has been discontinued for nonpayment of bills may be required to pay such bills and deposit an amount equal to twice the estimated maximum monthly bill or for Small Business Customers, twice the estimated monthly average bill.

for Small Business Customers, twice the estimated monthly average bill.

b. If a customer receives a bill that is two months past due or becomes delinquent in the payment of a total of six monthly bills within a 12 consecutive month period, such customer may be required to reestablish credit by depositing an amount not to exceed twice the estimated maximum monthly bill. Unless the delinquency in payment is due to nonpayment of all or a portion of a backbill, which occurred as a result of a billing or metering error, Small Business Customers may be required to reestablish credit by depositing an amount not to exceed twice the estimated average monthly bill. A Small Business Customer may enroll in the Company's Automatic Payment Program once within a twelve month consecutive period, in lieu of a cash deposit for reestablishing service.

C. APPLICABILITY TO UNPAID ACCOUNTS

Deposits prescribed herein are applicable to unpaid bills for gas service when such service has been discontinued. Deposits will not be applied as payment for past due bills to avoid discontinuance of service.

Advice Letter No. <u>A.19-08-</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date Filed August 30, 2019 Effective Resolution No. D

PROPOSED	TARIFF	SHEETS

RULE NO. 8

NOTICES

A. NOTICES TO CUSTOMERS

- 1. Any notice the Company may give to any customer supplied with gas by the Company, under and pursuant to the effective Rules of the Company, may be given by written notice, either delivered at the address specified in the customer's application for gas service or in the customer's contract in case such customer has a contract for said service, or properly enclosed in a sealed envelope and deposited in any United States Post Office postage prepaid, addressed to the customer as above stated.
- 2. Customers electing Electronic Billing will receive notices regarding their electronic bill or other informational bill inserts through electronic mail.

B. NOTICES FROM CUSTOMERS

Any notice a customer may give to the Company, under and pursuant to the effective Rules of the Company, may be given by written notice, addressed to any of the Company's offices, postage prepaid, and deposited for delivery by the United State Postal Service.

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Advice Letter No.<u>A.19-08-</u> Decision No._____ Issued by Justin Lee Brown Senior Vice President CA TY 2021 GRC CHAPTER 21 SHEET 39 OF 44

	egas, Ne nia Gas	evada 89193-8510 5 Tariff	Canceling	Cal. P.U.C. Sheet No Cal. P.U.C. Sheet No	215			
			Rule No.	16				
			GAS SERVICE EX (Continue)					
Α.	<u>GEN</u>	<u>ERAL</u> (Continued	d)					
	5.	Private Lines						
	The Company shall not be required to connect Service Facilities to or serve any Applicant from gas facilities that are not owned, operated and maintained by the Company.							
	6.	Special or Adde	ed Facilities					
	Any special or added facilities the Company agrees to install at the request of Applicant will be installed at Applicant's expense.							
	7.	Temporary Serv	vice Facilities					
	Facilities installed for temporary service or for operations of speculative character or questionable permanency shall be made in accordance with the fundamental installation and ownership provisions of this Rule, except that all charges and refunds shall be made under the provisions of Rule No. 13, Temporary Service of this California Gas Tariff.							
	8.	Contracts						
	Each Applicant requesting service may be required to execute written contracts prior to the Company performing its work to establish service. Such contracts shall be in the form on file with the Commission.							

Advice Letter No. A.19-08-____ Decision No.

Issued by Justin Lee Brown Senior Vice President

Date Filed August 30, 2019 Effective Resolution No.

		UPUSED TARIFF :	SHEETS		CHAPTER 21 ET 40 OF 44		
SOUTHWEST GAS CO P.O. Box 98510	ORPORATION			3HE	ET 40 OF 44		
Las Vegas, Nevada 89 California Gas Tariff	9193-8510	Canceling	Original	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.			
		RULE N	O. 16				
GAS SERVICE EXTENSIONS (Continued)							
	G. EXCESS FLOW VALVE AND SERVICE LATERAL SHUT-OFF VALVE						
The installation of an Excess Flow Valve or Service Lateral Shut-Off Valve shall be performed on all newly installed or replaced Service Laterals connected to the Company's distribution system before the service is activated as provided by this Rule. Nothing in this Rule prevents the Company from installing or specifying, in its sole discretion, the installation of an Excess Flow Valve or a Service Lateral Shut-Off Valve in additional service types.							
1. Appli	cable Servic	e Lateral types					
a.	a. A single Service Lateral to one single-family residence (SFR);						
b.	Service La		le Excess Flow	ently with the prima Valve may be insta ch Service);			
C.	c. A Branch Service to a SFR installed off a previously installed SFR Service Lateral that does not contain an Excess Flow Valve;				d SFR		
d.	d. Multifamily residences with known customer loads not exceeding 5,500 SCFH per service at time of service installation based on installed meter capacity;						
e.	with a kno		d not exceeding {	by a single Service 5,500 SCFH, at the apacity; and,			
f.	Service L	ateral Shut-Off	Valve or, if po	at exceeds 5,500 S ossible, based on cess Flow Valve, s	sound		

Advice Letter No. A.19-08-Decision No._____

Issued by Justin Lee Brown Senior Vice President

Date Filed August 30, 2019 Effective ____ Resolution No._____

CA TY 2021 GRC

SOUTH	WEST	<u>P</u> GAS CORPORATIO	N	SHEETS		CHAPTER 21 ET 41 OF 44	
P.O. Bo	x 98510 jas, Nev) /ada 89193-8510	Canceling	Original	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.		
			RULE N	IO. 16			
			<u>GAS SERVICE E</u> (Contin				
G.	-	SS FLOW VALV	(<u>E AND SERVICE </u> inued)	LATERAL SHUT-	OFF VALVE	N	
	2. The Company is not required to install an Excess Flow Valve if one or more of the following conditions are present:						
	a. The Service Lateral does not operate at a pressure of 10 psig or greater throughout the year;						
	 b. The Company has prior experience with contaminants in the gas stream that could interfere with the Excess Flow Valve's operation or cause loss of service to a customer; 						
	c. An Excess Flow Valve could interfere with the necessary operation or maintenance activities such as blowing liquids from the Service Lateral; or						
	d. An Excess Flow Valve meeting the performance standards in 49 C.F.R. § 192.381 is not commercially available to the Company.						
	3. The Applicant shall provide the Company information concerning the gas usage and demand requirements. The Excess Flow Valve or Service Lateral Shut-Off Valve will be designed and constructed so that suitable gas capacity is available and satisfactory to the Company.						
	4.		ral Shut-Off Valve		ntain the Excess Flo n the Branch Service		
	5.	replacement or Off Valve unles Service Lateral provided by noncompliance	maintenance of the s that work is may that is either: due s Rule 16(F)(2)(b) with any of thes special or added fa	e Excess Flow Va de necessary by solely to meet the ; performed to e tariff schedule	ated with the inst live or Service Later the relocation of a Applicant's conveni- redress a Cus s; or is due solely company agrees to i	al Shut- main or ence as stomer's to the	

Advice Letter No. A.19-08-Decision No._____

Issued by Justin Lee Brown Senior Vice President

Date Filed August 30, 2019 Effective ____ Resolution No.

CA TY 2021 GRC

SOUTHWEST		ORATION					SHE	ET 42 OF 4	4
P.O. Box 9851 Las Vegas, Ne California Gas	vada 89193-	-8510	Canceling		Original	Cal. P.U.C. She Cal. P.U.C. She			-
			RUL	E NO. 16					
		G	<u>AS SERVIC</u> (Cc	<u>CE EXTEN</u> ontinued)	ISIONS				
		<u>/ VALVE A</u> [(Continue		CE LATER	AL SHUT-(OFF VALVE			N
6.	on their e the conc	existing Se litions in	rvice Later	al if the lo (2) are	ad does no not presen	ess Flow Valv ot exceed 5,50 t. In such ir	00 SC	FH and	
		ny costs a ustomer.	ssociated	with the i	nstallation	that shall be	paid	by the	
		ne Compa preeable da		nstall the	Excess F	low Valve a	t a r	nutually	
7.	Service I	Lateral, th	e Compan	y shall pe		Flow Valve or installation s le date.		•	N

Advice Letter No. A.19-08-Decision No. Issued by Justin Lee Brown Senior Vice President

Date FiledAuEffectiveResolution No.

Date Filed August 30, 2019

CA TY 2021 GRC

CHAPTER 21

	PRO	OPOSED TARIFF S	SHEETS	С	HAPTER 21
	IWEST GAS CORPORATION	l		SHEI	ET 43 OF 44
Las Ve	gas, Nevada 89193-8510 nia Gas Tariff	Canceling	1st Revised Original	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.	
		RULE N	O. 16		
		GAS SERVICE E (Continu			
Н.	EXCEPTIONAL CASES				Г
	When the application of ratepayers, the Compar special ruling or for the upon.	ny or Applicant ma	ay refer the matt	er to the Commissio	on for a
Ι.	DEFINITIONS FOR RUI	<u>_E NO. 16</u>			г
	Advance: Cash payme done by the Company w			-	y work
	Applicant: A person or a	agency requesting	the Company to	supply gas service.	
	Contribution: In-kind s Company at any time du Company's total estimat by Applicant's allowance	uring the Company ed installed cost o	y's work on an ex	tension which is part	of the
	Distribution Main: The pressure and which are			•	ibution
	Excavation: All necess install extension facilitie disposal of spoil as req replacement.	s, including furnis	shing of any imp	orted backfill materi	al and
	Excess Flow Valve: A d by automatically closing consequences of Servic	in the event of a	a Service Lateral	0	
	Franchise Area: Public where the Company ha governmental bodies ha	as a legal right to	• •		
	Insignificant Loads: Sm lighting, etc.	all operating load	ls, such as log lig	ghters, barbecues, o	utdoor
	Intermittent Loads: Loa discontinuance for a time		opinion of the	Company, are subj	ject to

Issued by Justin Lee Brown Senior Vice President

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CA TY 2021 GRC

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PROPOSED TARIFF SHEETS

P.O. Box 98510 Las Vegas, Nevada 89193-8510 California Gas Tariff	Canceling	1st Revised Original	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.		
	RULE N	IO. 16			
	GAS SERVICE E (Contin				
I. <u>DEFINITIONS FOR RU</u>	JLE NO. 16 (Contin	nued)			
Meter Set Assembly: associated pipe and fit		stomer meter, serv	vice pressure regula	ator and	
Permanent Service: S and established charac		•			
Premises: All of the real property and apparatus employed in a single enterprise on an integral parcel of land undivided (except in the case of industrial, agricultural, oil field, resort enterprises and public or quasi-public institutions), by a dedicated street, highway or other public thoroughfare, or a railway. Automobile parking lots constituting a part of and adjacent to a single enterprise may be separated by an alley from the remainder of the premises served.					
Protective Structures: Fences, retaining walls (in lieu of grading), barriers, posts, barricades and other structures as required by the Company.					
Residential Development: Five or more dwelling units in two or more buildings located on a single parcel of land.					
Residential Subdivision which may be identifie dwellings may be con builders working on a c	ed by filed subdiving structed about the	ision plans or an	area in which a g	roup of	
Seasonal Service: Ga			•		
Service Delivery Point: Where the Company's Service Lateral is connected to Applicant's pipe (house line), normally adjacent to the location of the Meter Set Assembly.					
Service Lateral: The extending from the poi Point, which is normally	nt of connection at	the Distribution N			
Service Lateral Shut-O located near the Servio by the Company to ma	ce Lateral that is s	afely accessible t	o the personnel aut		

Issued by Justin Lee Brown Issued by Senior Vice President

Date Filed August 30, 2019 Effective Resolution No.

Proposed Tariff Sheets Redlined

Las Vegas, Nevada 89193-851 California Gas Tariff	0 <u>1st</u> Revised Cal. P.U.C. S Canceling <u>Original</u> Cal. P.U.C. S			
	TABLE OF CONTENTS (Continued)			
RATE <u>SCHEDULE</u>	DESCRIPTION	CAL. P.U.C. <u>SHEET_NOS.</u>		
GS-10/GN-10/SLT-10	Residential Gas Service	79 – 80		
GS-11	Residential Air-Conditioning Gas Service	81 - 82		
GS-12/GN-12/SLT-12	CARE Residential Gas Service	83 - 86		
GS-15/GN-15/SLT-15	Secondary Residential Gas Service	87		
GS-20/GN-20/SLT-20	Multi-Family Master-Metered Gas Service	88 – 90<u>89</u>		
	Held for Future Use	90		
GS-25/GN-25/SLT-25	Multi-Family Master-Metered Gas Service – Submetered	91 – 93		
GS-35/GN-35/SLT-35	Agricultural Employee Housing and Nonprofit Group Living Facility Gas Service	94 – 103		
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GS-50/GN-50/SLT-50	Core Natural Gas Service for Motor Vehicles	105 - 106		
GS-60/GN-60/SLT-60	Core Internal Combustion Engine Gas Service 107			
GS-66/GN-66/SLT-66	Core Small Electric Power Generation Gas Serv	ice 108		
GS-70/GN-70/SLT-70	Noncore General Gas Transportation Service	109 – 117		
GS-VIC	City of Victorville Natural Gas Service	118 – 120		
GS-LUZ	LUZ Solar Partners Ltd. Natural Gas Service	<u> 120.1 – 120.3</u>		
	Held for Future Use	120.1 – 120.2		
G-PPPS	Surcharge to Fund Public Purpose Programs	121 – 122		
G-IRRAM	Rate to Fund Infrastructure Reliability and Replacement Programs	122.1		

Advice Letter No. <u>944 A.19-08-</u> Decision No. <u>14-06-028</u> Issued by Justin Lee Brown <u>Senior</u> Vice President Date File@e_18, 2014_August 30, 2019 Effective_____ Resolution No._____

9. FIXED COST ADJUSTMENT MECHANISM (FCAM) (Continued)

9F. ACCOUNTING PROCEDURE (Continued)

Southern California		No	Northern California		South Lake Tahoe		
\$	10,536,839	\$	3,058,364	\$	1,295,802		
\$	9,181,094	\$	2,682,587	\$	1,202,878		
\$	7,928,940	\$	2,458,069	\$	1,123,212		
\$	5,893,755	\$	2,041,785	\$	956,015		
\$	4,745,155	\$	1,484,429	\$	772,079		
\$	5,117,956	\$	1,133,746	\$	638,228		
\$	4,587,021	\$	807,902	\$	514,870		
\$	4,675,775	\$	717,601	\$	481,607		
\$	4,975,853	\$	764,380	\$	502,944		
\$	3,688,419	\$	957,477	\$	617,512		
\$	5,106,129	\$	1,580,674	\$	860,012		
\$	8,473,760	\$	2,549,107	\$	1,143,044		
\$	74,910,696	\$	20,236,121	\$	10,108,203		
	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	 \$ 10,536,839 \$ 9,181,094 \$ 7,928,940 \$ 5,893,755 \$ 4,745,155 \$ 5,117,956 \$ 4,587,021 \$ 4,675,775 \$ 4,975,853 \$ 3,688,419 \$ 5,106,129 \$ 8,473,760 	\$ 10,536,839 \$ 9,181,094 \$ 7,928,940 \$ 5,893,755 \$ 4,745,155 \$ 4,745,155 \$ 5,117,956 \$ 4,587,021 \$ 4,675,775 \$ 4,975,853 \$ 3,688,419 \$ 5,106,129 \$ 8,473,760 \$	\$ 10,536,839 \$ 3,058,364 \$ 9,181,094 \$ 2,682,587 \$ 7,928,940 \$ 2,458,069 \$ 5,893,755 \$ 2,041,785 \$ 4,745,155 \$ 1,484,429 \$ 5,117,956 \$ 1,133,746 \$ 4,675,775 \$ 717,601 \$ 4,975,853 \$ 764,380 \$ 3,688,419 \$ 957,477 \$ 5,106,129 \$ 1,580,674 \$ 8,473,760 \$ 2,549,107	\$ 10,536,839 \$ 3,058,364 \$ \$ 9,181,094 \$ 2,682,587 \$ \$ 7,928,940 \$ 2,458,069 \$ \$ 5,893,755 \$ 2,041,785 \$ \$ 4,745,155 \$ 1,484,429 \$ \$ 5,117,956 \$ 1,133,746 \$ \$ 4,675,775 \$ 717,601 \$ \$ 4,975,853 \$ 764,380 \$ \$ 3,688,419 \$ 957,477 \$ \$ 5,106,129 \$ 1,580,674 \$ \$ 8,473,760 \$ 2,549,107 \$		

ANNUAL 2019 MARGIN

2. An entry to record interest on the Fixed Cost Balancing Account balance after entry (1) above, calculated as set forth in Section 12B of this Preliminary Statement.

Advice Letter No	
Decision No.	1086

Issued by Justin Lee Brown Senior Vice President Notestantiked 30, 2018 August 30, 2019 Effective Resolutional August 1, 2019

18. ENVIRONMENTAL COMPLIANCE COST MEMORANDUM ACCOUNT (ECCMA)

18A. PURPOSE

The purpose of the ECCMA is to record the Company's allocated portion of California Air Resources Board (ARB) administrative fees associated with the implementation of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006.

18B. APPLICABILITY

Costs recorded in the EECMA will apply to all customer classes, excluding the Company's "self-reporting" customers that are directly billed by the ARB.

18C. ACCOUNTING PROCEDURES

The Company shall make the following entries to the ECCMA:

- 1. Debit entries equal to the cost of the Company's allocation of the ARB administrative fees;
- 2. Credit entries for the recovery of any ECCMA amounts that may be authorized by the Commission; and
- 3. An entry to record interest on the ECCMA balance after entries (1) and (2) above are calculated as set forth in Section 12B of these Preliminary Statements.
- 18D. DISPOSITION

Costs recorded in the account may be recovered in rates only after request by the Company and approval by the Commission. The ECCMA December 31 balance, at the end of the last estimated calendar year, will be amortized beginning with the effective date of rates approved in the Company's next general rate case or other ratesetting application.

20. INFRASTRUCTURE RELIABILITY AND REPLACEMENT ADJUSTMENT MECHANISM (IRRAM)

20A. PURPOSE

The purpose of the IRRAM is to balance the difference between the revenue requirements associated with Commission-approved programs with recorded revenues to recover these costs. The IRRAM will allow the Company to establish rates to recover the revenue requirement on these programs between general rate cases.

20B. APPLICABILITY

This IRRAM provision applies to bills for service under the rate schedules in the Company's California service areas excluding service provided under a Special Contract or any other exclusion provided for by the Commission.

20C. REVISION DATE

The Company will file an advice letter with the proposed IRRAM Adjustments by October <u>31November 30</u> of each year, with a requested effective date of January 1 of the following year.

20D. FORECAST PERIOD VOLUMES

The volumes of gas, expressed in therms, to be utilized hereunder shall be the volumes estimated to be delivered during the 12 calendar-month period immediately following the Revision date.

20E. INFRASTRUCTURE RELIABILITY AND REPLACEMENT BALANCING ACCOUNT ADJUSTMENT

The Infrastructure Reliability and Replacement Balancing Account (IRRBA) Adjustment shall consist of a rate per therm to recover or return the amounts accumulated in the IRRBA plus an amount to recover the estimated annual revenue requirement, for each Commission-approved program included in the IRRAM.

Issued by Justin Lee Brown <u>Senior</u> Vice President D**56974180**<u>7</u> <u>15, 2017</u> <u>August 30, 2019</u> Effective <u>March 13, 2017</u> Resolution No.

21. PENSION BALANCING ACCOUNT (PBA)

21A. PURPOSE

The PBA is a two-way balancing account recorded in the general ledger of the Company. The purpose of this account is to balance the difference between authorized and actual amounts associated with the Company pension fund that are allocable to California. <u>The PBA was established Pursuant pursuant</u> to D.14-06-028, effective June 12, 2014, the PBA will continue through the effective date of rates approved in the Company's next general rate case.

21B. ACCOUNTING PROCEDURES

Debit and or credit entries will be made at the end of each calendar year equal to the difference between pension amounts that were allocated to California and embedded in authorized rates, and actual pension amounts allocable to California, using the same allocation methodology approved in <u>D.14-06-028the</u> <u>Company's most recent general rate case</u>.

21C. DISPOSITION

The PBA <u>December 31</u> balance, <u>at the end of the most recently recorded</u> <u>calendar year</u>, will be amortized beginning with the effective date of rates approved in the Company's next general rate case <u>or other ratesetting</u> <u>application</u>.

Advice Letter No. <u>1033 A.19-08-</u> Decision No. Issued by Justin Lee Brown <u>Senior</u> Vice President D**560 Trilety <u>15, 2017 August 30, 2019</u> Effective <u>March 13, 2017</u> Resolution No.**

	5th-Revised	Cal. P.U.C. Sheet No.	44
Canceling	4th-Revised	Cal. P.U.C. Sheet No.	44

PRELIMINARY STATEMENT (Continued)

22. MOBILE HOME PARK CONVERSION BALANCING ACCOUNT (MHPCBA)

22A. PURPOSE

The MHPCBA is a two-way balancing account for the purpose of recording and recovering the incremental revenue requirement associated with converting submetered residents at mobile home parks from master-metered natural gas service to direct utility service. The Company is authorized to establish the MHPCBA pursuant to Decision (D.) 14-03-021. A separate MHPCBA will be maintained for each of the Company's California rate jurisdictions.

22B. APPLICABILITY

The MHPCBA provision applies to all rate schedules, excluding customers served under a Special Contract or any other exclusion provided for by the Commission.

22C. REVISION DATE

Annually, the Company shall file a Tier I Advice Letter to update the MHPCBA adjustment rates using the month ended **December 31**September 30 MHPCBA balance.

22D. FORECAST PERIOD VOLUMES

The volumes of gas, expressed in therms, to be utilized hereunder shall be the volumes estimated to be delivered during the 12 calendar-month period immediately following the Revision Date.

22E. ACCOUNTING

The Company will maintain separate subaccounts in the MHPCBA for its costs up to and including the customer's meter ("to the meter" costs) and for the reimbursable costs for work performed beyond the Company's meter ("beyond the meter" costs).

- 1. The Company shall make the following entries to the "to the meter" MHPCBA subaccount at the end of each month:
 - a. A debit entry for incremental O&M start-up costs, such as program development, customer outreach and administration expenses, not otherwise recovered in rates;

Issued by Justin Lee Brown <u>Senior</u> Vice President Баңгияна <u>15, 2017 August 30, 2019</u> Effective <u>March 13, 2017</u> Resolution No.

PRELIMINARY STATEMENT

(Continued)

22. <u>MOBILE HOME PARK CONVERSION BALANCING ACCOUNT (MHPCBA)</u> (Continued)

- b. A debit entry equal to the revenue requirement associated with the Company's actual "to the meter" facilities cost. The revenue requirement is defined as an amount equal to the depreciation expense, property tax and return on plant in service. Depreciation expense will be calculated using the Company's authorized depreciation rates. Property tax will be calculated at the Company's authorized effective tax rates. Return on investment will be calculated at the Company's authorized pre-tax return on rate base;
- c. A credit entry equal to the MHPCBA Adjustment Rate, excluding franchise taxes and uncollectible accounts expense, multiplied by the applicable volumes delivered during the month;
- d. An entry to record interest on the balance calculated as set forth in Section 12B of this Preliminary Statements.
- 2. The Company will make the following entries to the "beyond the meter" MHPCBA subaccount at the end of each month:
 - a. A debit entry equal to the revenue requirement related to the "beyond the meter" costs incurred, which includes amortization expense, all related taxes, and authorized return on investment at the Company's authorized pre-tax return on rate base. "Beyond the meter" costs are recorded as a regulatory asset and will be amortized over a period of ten years;
 - b. A credit entry equal to the ten year straight line amortization of the "beyond the meter" subaccount, as established in the Company's next general rate case;
 - c. An entry to record interest on the balance calculated as set forth in Section 12B of this Preliminary Statements.

22F. MHPCBA ADJUSTMENT RATES

A MHPCBA Adjustment Rate will be established for each of the Company's rate jurisdictions. The MHPCBA Adjustment Rates will be determined by dividing the December 31<u>September 30</u> balances recorded in the "to the meter" MHPCBA subaccounts by the total Forecast Period volumes. The MHPCBA Adjustment Rates shall be set forth in the currently-effective Statement of Rates of this California Gas Tariff. <u>"Beyond the meter" balances will be amortized over a ten-</u>

Advice Letter No. <u>1033 A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown <u>Senior</u> Vice President **Effective** <u>15, 2017August 301, 2019</u> Effective <u>March 13, 2017</u> Resolution No.

	2nd Revised	Cal. P.U.C. Sheet No.	45.3
Canceling	1st -Revised	Cal. P.U.C. Sheet No.	45.3

PRELIMINARY STATEMENT (Continued)

24. GREENHOUSE GAS MEMORANDUM ACCOUNT (GHGMA)

24A. PURPOSE

The purpose of the GHGMA is to track the Company's administrative and outreach costs incurred to comply with the California Air Resources Board's (ARB) natural gas supplier Cap-and-Trade Program. The Company is authorized to establish the GHGMA pursuant to Decisions 14-12-040 and 15-10-032.

24B. APPLICABILITY

Costs recorded in the GHGMA will apply to all customer classes excluding end-use customers who emit 25,000 metric tons of CO2e or more per year and are directly regulated by the ARB and any other customers who elect to opt-in to direct regulation under ARB's rules.

24C. ACCOUNTING

The Company shall make the following entries to the GHGMA:

- 1. Debit entries equal to the Company's associated administrative and outreach costs that are directly associated with its Cap-and-Trade Program; and
- 2. An entry to record interest on the balance calculated as set forth in Section 12B of this Preliminary Statement.

24D. DISPOSITION

Costs recorded in the account may be recovered in rates only after request by the Company and approval by the Commission. The GHGMA December 31 balance, at the end of the last estimated calendar year, will be amortized beginning with the effective date of rates approved in the Company's next general case or other ratesetting application.

Advice Letter No. <u>1033 A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown <u>Senior</u> Vice President D**5607 15, 2017 August 30, 2019** Effective <u>March 13, 2017</u> Resolution No.

PRELIMINARY STATEMENT (Continued)

26. <u>NEW ENVIRONMENTAL REGULATORY BALANCING ACCOUNT (NERBA)</u> (Continued)

26D. NERBA ADJUSTMENT RATE

The Company shall annually file a Tier 2 Advice Letter to update the NERBA rate with a requested effective date of January 1 of the following year. The NERBA rate shall be calculated by using the year end NERBA balance divided by the volumes of gas estimated to be delivered during the 12 calendar-month period immediately following the adjustment date. The NERBA rate shall be set forth in the currently-effective Statement of Rates of this California Gas Tariff.

27. <u>NATURAL GAS LEAK ABATEMENT PROGRAM MEMORANDUM ACCOUNT</u> (NGLAPMA)

27A. PURPOSE

The purpose of the NGLAPMA is to track the Company's incremental administrative costs associated with the implementation of the Natural Gas Leak Abatement Program. The Company is authorized to establish the NGLAPMA pursuant to Decision 17-06-015.

27B. TRACKING PROCEDURES

The Company shall maintain the NGLAPMA by tracking the incremental administrative costs associated with the Natural Gas Leak Abatement Program. Separate accounts will be maintained for each of the Company's three California rate jurisdictions. Interest on the tracked balance will be calculated as set forth in Section 12B of this Preliminary Statement.

27C. DISPOSITION

<u>The NGLAPMA December 31 balance of lincremental administrative costs, at</u> <u>the end of the most recently recorded calendar year</u>, <u>tracked in the NGLAPMA</u> may be recovered in rates only after a request by the Company and approval by the Commission will be amortized beginning with the effective date of rates approved in the Company's next general rate case or other ratesetting application.

Issued by Justin Lee Brown <u>Senior</u> Vice President SaptEmbler 1, 2017August 30, 2019 Effective July 14, 2017 Resolution No.

<u>PRELIMINARY STATEMENT</u> (Continued)

29. TAX MEMORANDUM ACCOUNT (TMA)

29A. PURPOSE

The purpose of the TMA is to track any revenue difference resulting from differences between the Company's authorized income tax expenses and its actually-incurred income tax expenses, including repair deductions and bonus depreciation. The account shall have separate line items detailing the differences resulting from (1) net revenue changes, (2) mandatory tax law changes, tax accounting changes, tax procedural changes, tax policy changes, and (3) elective tax law changes, tax accounting changes. The TMA is established in accordance with Decision (D.) 17-06-006.

Pursuant to D. 17-06-006, authorized income tax expenses for 2019 and 2020, shall be calculated by first escalating the 2014 tax expenses authorized in D.14-06-028 by the post-test year margin (PTYM) annual adjustments authorized from 2015 through 2018 and then annually escalating the 2.75 percent annual PTYM adjustments through 2019 and 2020. The Company's calculated authorized income tax expenses for 2019 and 2020 are \$11,479,459 and \$11,795,144, respectively.

29B. TRACKING PROCEDURES

The Company shall maintain the TMA by separately tracking the calendar year difference between authorized income tax expenses and actually-incurred income tax expenses. The TMA shall include separate line items detailing the differences resulting from:

- 1. Net revenue changes,
- 2. Mandatory tax law changes, tax accounting changes, tax procedural changes, or tax policy changes, and
- 3. Elective tax law changes, tax accounting changes, tax procedural changes, or tax policy changes.

Interest on the tracked balance will be calculated as set forth in Section 12B of this Preliminary Statement.

Issued by Justin Lee Brown <u>Senior</u> Vice President

<u>PRELIMINARY STATEMENT</u> (Continued)

29. TAX MEMORANDUM ACCOUNT (TMA)

29C. DISPOSITION

The TMA shall be reviewed in the Company's GRC proceedings until a Commission decision closes the account. Amounts tracked in the TMA may be recovered or refunded in rates only after a request by the Company and approval by the Commission. The TMA December 31 balance, at the end of the last estimated calendar year, will be amortized beginning with the effective date of rates approved in the Company's next general rate case or other ratesetting application.

29D. REPORTING

The Company will timely notify the Commission of any tax-related changes, including tax-related accounting changes, or tax-related procedural changes that materially affect, or may materially affect, revenues and any revenue differences if applicable. A "material affect" means a potential increase or decrease of \$3 million or more to the Company's California jurisdictions.

Advice Letter No. <u>1043 A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown <u>Senior</u> Vice President Date Filety <u>14, 2017August 30, 2019</u> Effective <u>July 14, 2017</u> Resolution No.

Original

<u>PRELIMINARY STATEMENT</u> (Continued)
30. OFFICER COMPENSATION MEMORANDUM ACCOUNT (OCMA)
30A. PURPOSE
The purpose of the OCMA is to track California allocable compensation paid or owed to the Company's officers in the event of a triggering event ¹ . The OCMA is established in accordance with Decision 17-06-006.
30B. TRACKING PROCEDURES
In the event of a triggering event, the Company shall maintain the OCMA by tracking the date and amount of allocable salaries, bonuses, benefits, and all other consideration of any value paid or owed to the Company's officers, as defined below:
Salaries: Payroll data for Officer base salaries. Bonuses: Variable Pay/Incentive Compensation Plan. Benefits: Employer portion of health and welfare premiums. Other Consideration: Officer perquisites in payroll data and/or invoices, deferred compensation Company match.
30C. DISPOSITION
The OCMA balance will be reviewed in the Company's GRC proceeding to determine if any excess compensation ² paid and awarded to an officer following a triggering event should be refunded or allowed to be recovered in rates. The OCMA shall remain open and any balance tracked in the account shall be reviewed in every GRC proceeding until a Commission decision closes the account.
¹ -"A 'triggering event' occurs if, after January 1, 2013, an electrical corporation or gas corporation violates a federal or state safety regulation with respect to the plant and facility of the utility and, as a proximate cause of that violation, ratepayers incur a financial

² "Excess compensation' means any annual salary, bonus, benefits, or other consideration of any value, paid to an officer of an electrical corporation or gas corporation that is in excess of one million dollars (\$1,000,000)." Cal. P. U. Code § 706(a)(1).

Advice Letter No. <u>1044</u> A.19-08-Decision No. Issued by Justin Lee Brown <u>Senior</u> Vice President Date Filety <u>28, 2017August 30, 2019</u> Effective <u>August 27, 2017</u> Resolution No.

PRELIMINARY STATEMENT (Continued)

31. OFFICER COMPENSATION MEMORANDUM ACCOUNT – 2019 (OCMA-2019)

31C. ACCOUNTING PROCEDURE (Continued)

The Company shall maintain this account by making quarterly entries (or annual entries where applicable when quarterly data is not available) as follows:

1. Authorized Compensation Subaccount

A credit entry equal to the salaries, bonuses, benefits, and all other consideration of any value set aside to be paid to its officers as authorized in D.14-06-28 and modified by D.17-06-006.

2. Total Compensation Subaccount

A debit entry equal to the salaries, bonuses, benefits, and all other consideration of any value paid to its officers.

31D. DISPOSITION

Amounts tracked in the <u>The</u> OCMA-2019 <u>December 31 balance, at the end of</u> the most recently recorded calendar year, may will be addressed amortized beginning with the effective date of rates approved in the Company's next <u>GRCgeneral rate case</u> or other appropriate Commission proceeding and may be refunded to customers in rates rates etting application.

Issued by Justin Lee Brown Senior Vice President

December 20,	<u>-2018August 30, 2019</u>
Effective	January 1, 2019
Resolution No.	E-4963

PRELIMINARY STATEMENT (Continued)

32. <u>DAIRY BIOMETHANE PILOT PROJECT SOLICITATION DEVELOPMENT</u> <u>MEMORANDUM ACCOUNT (DBPPSDMA)</u>

32A. PURPOSE

The purpose of the DBPPSDMA is to track the Company's solicitation development expenditures related to the implementation of Health & Safety Code Section 39730.7(d)(2), which directs gas corporations to implement not less than five dairy biomethane pilot projects to demonstrate interconnection to the common carrier pipeline system, in accordance with the implementation and selection criteria framework adopted in Decision (D.) 17-12-004. The Company is authorized to establish the DBPPSDMA pursuant to D.17-12-004.

32B. TRACKING PROCEDURES

The Company shall maintain the DBPPSDMA by tracking the expenditures for solicitation development associated with the Dairy Biomethane Pilot Projects. Separate accounts will be maintained for each of the Company's three California rate jurisdictions. Interest on the tracked balance will be calculated as set forth in Section 12B of the Preliminary Statement.

32C. DISPOSITION

Costs recorded in the account may be recovered in rates only after request by the Company and approval by the Commission.

Advice Letter No. <u>1089A.19-08-</u> Decision No. _____ Issued by Justin Lee Brown Senior Vice President
 Date:
 August 30, 2019

 Effective
 January 1, 2019

 Resolution No.
 E-4963

Canceling

Cal. P.U.C. Sheet No. _____ Cal. P.U.C. Sheet No. _____

year period beginning with the Company's first general rate case after the MHPs is cutover to direct service through the Company's gas distribution system.

Advice Letter No._____ Decision No. _____ Issued by Justin Lee Brown <u>Senior</u> Vice President Date Filed _____ Effective _____ Resolution No._____ Canceling

STATEMENT OF RATES RATES APPLICABLE TO SOUTHERN CALIFORNIA SERVICE AREA [1] Charges [2] and Subtotal Gas Other Surcharges Effective Schedule No. and Type of Charge Margin Adjustments Usage Rate CPUC PPP Gas Cost Sales Rate GS-10-Residential Gas Service \$5.00 **Basic Service Charge** \$5.00 Cost per Therm \$.22812 \$1.40292 **Baseline Quantities** \$.73989 \$.32078 \$1,06067 \$ 00247 \$ 11166 \$.91116 .32078 1.23194 .00247 .22812 Tier II .11166 1.57419 GS-11-Residential Air-Conditioning Gas Service **Basic Service Charge** \$5.00 \$5.00 Cost per Therm \$.00247 \$.11166 Tier I \$ 73989 \$.32078 \$1 06067 \$.22812 \$1.40292 Tier II 91116 .32078 1.23194 .00247 11166 .22812 1.57419 .36995 .69073 .11166 .22812 1.03298 Air-Conditioning .32078 .00247 \$ GS-12-CARE Residential Gas Service \$4.00 **Basic Service Charge** \$4.00 Cost per Therm \$.80291 **Baseline Quantities** \$ 48213 \$ 32078 \$.00247 \$.05199 \$.22812 \$1.08549 Tier II .61915 .32078 .93993 .00247 05199 .22812 \$1.22251 GS-15-Secondary Residential Gas Service **Basic Service Charge** \$6.00 \$6.00 Cost per Therm \$1.13141 \$.32078 \$1.45219 \$.00247 \$.11166 \$.22812 \$ 1.79444 GS-20-Multi-Family Master-Metered Gas Service **Basic Service Charge** \$25.00 \$25.00 Cost per Therm \$.73989 \$.32078 \$1.06067 \$.00247 \$.11166 \$.22812 \$1.40292 **Baseline Quantities** Tier II .91116 .32078 1.23194 .00247 .11166 .22812 1.57419 GS-25-Multi-Family Master-Metered Gas Service-Submetered Basic Service Charge \$25.00 \$25.00 Cost per Therm **Baseline Quantities** \$.73989 \$.32078 \$1.06067 \$.00247 \$.11166 \$.22812 \$1.40292 Tier II .91116 .32078 1.23194 .00247 .11166 .22812 1.57419 Submetered Discount per Occupied Space (\$7.69) (\$7.69) GS-35-Agriculture Employee Housing & Nonprofit Group Living Facility Gas Service **Basic Service Charge** \$8.80 \$880 Cost per Therm First 100 .41293 \$.32078 \$.00247 \$.05199 \$.22812 \$1.01629 \$.73371 \$ Next 500 .27550 .32078 .59628 .00247 .05199 .22812 .87886 .05199 Next 2,400 .16556 .32078 .48634 .00247 .22812 .76892 .36582 .05199 Over 3,000 .04504 .32078 .00247 .22812 .64840 GS-40-Core General Gas Service (non-Covered Entities) Basic Service Charge \$11.00 \$11.00 Transportation Service Charge \$780.00 \$780.00 Cost per Therm First 100 \$.65339 \$.32078 \$.97417 \$.00247 \$.11166 \$.22812 \$1 31642 Next 500 \$.48160 .32078 .80238 .00247 .11166 .22812 1.14463 Next 2,400 \$.34417 .32078 .66495 .00247 .11166 .22812 1.00720 Over 3,000 \$.19352 .32078 .51430 .00247 .11166 .22812 .85655

Advice Letter No. <u>1102</u> Decision No._____ Issued by Justin Lee Brown Senior Vice President Date File<mark>elay 1, 2019August 30, 2019</mark> Effective <u>May 1, 2019</u> Resolution No. Г

Canceling <u>125th</u> Revised Cal. P.U.C. Sheet No.

RATES APPLICABLE	STATE		_						⊏∆ [1]	
KATES APPLICADLE	10 300					ASERV				
		Ch	arges [2]	•						
Schedule No. and Type of Charge	Margin	Ad	and justments		btotal Gas sage Rate	 Other Surcha	PPP	Ģ	Bas Cost	Effective Sales Rat
GS-40-Core General Gas Service (Covered Entities)										
Basic Service Charge Transportation Service Charge Cost per Therm	\$11.00 \$780.00									\$11.00 \$780.00
First 100	\$.65339	\$.26801	\$.92140	\$.00247 \$.	11166	\$.22812	\$ 1.26365
Next 500	\$.48160		.26801		.74961		11166		.22812	1.09186
Next 2,400 Over 3,000	\$.34417 \$.19352		.26801 .26801		.61218 .46153		11166 11166		.22812 .22812	.95443 .80378
GS-50-Core Natural Gas Service for Motor Vehicles										
Basic Service Charge Cost per Therm	\$25.00 \$.12843	\$.32078	\$.44921	\$.00247 \$.	11166	\$.22812	\$25.00 \$.79146
GS-60-Core Internal Combustion Engine Gas Service										
Basic Service Charge	\$25.00									\$25.00
Cost per Therm	\$.19171	\$.32078	\$.51249	\$.00247 \$.	11166	\$.22812	\$.85474
GS-LUZ-Solar Electric Generation Gas Service										4-0 0 0
Basic Service Charge Cost per Therm	\$50.00 \$.05497	\$.10612	\$.16109	\$.00247				\$50.00 \$.16356
GS-66-Core Small Electric Power Generation Gas Service	·	·								·
Basic Service Charge	\$25.00									\$25.00
Cost per Therm	\$.27990	\$.32078	\$.60068	\$.00247		\$.22812	\$.83127
GS-70-Noncore General Gas Transportation Service										
Basic Service Charge	\$100.00									\$100.00
Transportation Service Charge Cost per Therm	\$780.00 <mark>\$</mark> .14040	\$.24536	\$.38576	\$.00247 \$.	11166			\$780.00 \$. <mark>4998</mark> 9
GS-VIC City of Victorville Gas Service										
Basic Service Charge	\$11.00									\$ 11.00
Transportation Service Charge Cost per Therm	\$780.00 \$.39123	\$.32078	\$.71201	\$.00247		\$.22812	\$780.00 \$. <mark>94260</mark>
TFF-Transportation Franchise Fee Surcharge Provision										
TFF Surcharge per Therm	_									\$.00243
TDS – Transportation Distribution System Shrinkage Charge										
TDS Charge per Therm										\$.00173
MHPS-Master-Metered Mobile Home Park Safety Inspection Provision MHPS Surcharge per Space per Month	_									
										\$.21000

Advice Letter No. <u>1102</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date File<mark>May 1, 2019August 30, 2019</mark> Effective <u>May 1, 2019</u> Resolution No.

59th Revised Cal. P.U.C. Sheet No. 67 Canceling 57th Revised Cal. P.U.C. Sheet No. 67

STATEMENT OF RATES RATES APPLICABLE TO SOUTHERN CALIFORNIA DIVISION SCHEDULES [1]

[1] Customers taking only transportation service will pay the Effective Sales Rate less the Interstate Reservation and Gas Cost components of the Effective Sales Rate, plus a Transportation Service Charge of \$780 per month and an amount for distribution shrinkage calculated by multiplying the currently effective Gas Cost rate per therm by the Lost and Unaccounted For Gas percentage of 0.7651%. The PGA Balancing Account Adjustment is applicable to customers converting from sales service to transportation service for a period of 12 months. The volume charge for customer-secured natural gas transportation will also be subject to the TFF Surcharge.

[2] The Charges and Adjustments applicable to each tariff rate schedule includes the following components:

Charges and Adjustments Description	GS-10, GS-11, GS-12, GS-15, GS-20, GS-25, GS-35,	GS-40 (non- Covered Entities), GS-50, GS-60, GS-66	GS-40, (Covered Entities)	GS-70	GS-VIC	GS-LUZ
Upstream Intrastate Charges						
Storage	\$.01586	\$.01586		\$.01586	
Variable		.07520	.07520	\$.07520	.07520	
Upstream Interstate Reservation Charges		.05394	.05394		.05394	
IRRAM Surcharge		.00000	.00000	.00000		
Balancing Account Adjustments						
FCAM*		.11098	.11098	.10536	.11098	\$.10536
ITCAM		.00890	.00890	.00890	.00890	
GHGBA**						
Non-Covered Entities [a]		.05353		.05353	.05353	
Covered Entities [a]			.00076			.00076
NERBA		.00057	.00057	.00057	.00057	
NGLAPBA		.00180	.00180	.00180	.00180	
Total Rate Adjustment	\$.32078	\$.26801	\$.24536	\$.32078	\$.10612

* The FCAM surcharge includes an amount of \$.10536 per therm related to the difference between Southwest Gas' authorized margin and recorded revenues intended to recover these costs.

** Pursuant to D.15-10-032, Company costs incurred to comply with the California Air Resources Board (ARB) natural gas supplier Capand-Trade Program are to be included in transportation rates and recovered from Non-Covered Entities. Covered Entities, who are directly regulated by the ARB, are only responsible for paying for emission costs related to lost and unaccounted for gas (LUAF).

[a] Pursuant to D.18-03-017, Covered and non-Covered entities have a component to recover the 2015-2017 net compliance costs and proceeds amortized over a twelve month period. Also included are the 2018 GHG costs which are amortized over an eighteen month period.

1087	
	1087

Issued by Justin Lee Brown Senior Vice President Batternbor 30, 2018<u>August 30, 2019</u> Effective January 1, 2019 Resolution No.

	STATE	EMENT O	F RATES				
RATES APPLICABLE T	O NORT	HERN C	ALIFORNI	IA SERV	<u>ICE AR</u>	<u>EA [</u> 1] [2	2]
Schedule No. and Type of Charge	Margin	Charges [3] and Adiustments	Subtotal Gas Usage Rate	<u>Other Su</u> CPUC	<u>rcharges</u> PPP	Gas Cost	Effective Sales Rate
			g				
GN-10-Residential Gas Service Basic Service Charge Cost per Therm	\$5.00						\$5.00
Baseline Quantities Tier II	\$.77998 .89079	\$.14419 .14419	\$.92417 1.03498	\$.00247 .00247	\$.06290 .06290	\$.30339 .30339	\$1.29293 1.40374
GN-12-CARE Residential Gas Service							
Basic Service Charge Cost per Therm	\$4.00						\$4.00
Baseline Quantities Tier II	\$.53447 .62312	\$.14419 .14419	\$.67866 .76731	\$.00247 .00247	05199 .05199 05199	\$.30339 .30339	\$1.03651 1.12516
GN-15-Secondary Residential Gas Service							
Basic Service Charge Cost per Therm	\$6.00 \$.93665	\$.14419	\$1.08084	\$.00247	\$.06290	\$.30339	\$6.00 \$1.44960
GN-20-Multi-Family Master-Metered Gas Service							
Basic Service Charge	\$25.00						\$25.00
Cost per Therm Baseline Quantities Tier II	\$.77998 .89079	\$.14419 .14419	\$.92417 1.03498	\$.00247 .00247	\$.06290 .06290	\$.30339 .30339	\$1.29293 1.40374
GN-25-Multi-Family Master-Metered Gas							
Service-Submetered Basic Service Charge	\$25.00						\$25.00
Cost per Therm Baseline Quantities	\$.77998	\$.14419	\$.92417	\$.00247	\$.06290	\$.30339	\$1.29293
Tier II	.89079	.14419	1.03498	.00247	.06290	.30339	1.40374
Submetered Discount per Occupied Space	(\$11.01)						(\$11.01)
GN-35-Agriculture Employee Housing & Nonprofit Group Living Facility Gas Service	_						
Basic Service Charge Cost per Therm	\$ 8.80						\$ 8.80
First 100	\$.42356	\$.14419	\$.56775	\$.00247	\$.05199	\$.30339	\$.92560
Next 500	.32004	.14419	.46423	.00247	.05199	.30339	.82208
Next 2,400 Over 3,000	.21925 .07130	.14419 .14419	.36344 .21549	.00247 .00247	.05199 .05199	.30339 .30339	.72129 .57334
GN-40-Core General Gas Service (non-Covered Entities)							
Basic Service Charge Transportation Service Charge	\$11.00 \$780.00						\$11.00 \$780.00
Cost per Therm	• • • • • • =	• • • • • • •	• ====·	• • • • • • • •	A	• • • • • • •	A 4 - 10 -
First 100 Next 500	\$.64135 .51194	\$.14419 .14419	\$.78554 .65613	\$.00247 .00247	\$.06290 .06290	\$.30339 .30339	\$1.15430 1.02489
Next 2,400	.38596	.14419	.53015	.00247	.06290	.30339	.89891
Over 3,000	.20102	.14419	.34521	.00247	.06290	.30339	.71397

Advice Letter No. <u>1102</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date Fileday 1, 2019August 30, 2019 Effective <u>May 1, 2019</u> Resolution No.

	124th Revised	Cal. P.U.C. Sheet No.	69
Canceling	123rd Revised	Cal. P.U.C. Sheet No.	69

STATEMENT OF RATES

RATES APPLICABLE TO NORTHERN CALIFORNIA SERVICE AREA [1] [2]

		С	harges [3] and	Sı	ıbtotal Gas		Other Su	rch	ardes			F	ffective
	Margin	Ac	djustments		sage Rate		CPUC		PPP	C	Gas Cost	_	ales Rate
GN-40-Core General Gas Service													
Covered Entities)												^	11.00
Basic Service Charge	\$11.00												11.00
Transportation Service Charge	\$780.00											\$1	80.00
Cost per Therm	¢ 04405	۴	00440	¢	70077	ሱ	00047	¢	00000	ሱ	20220	e 4	40450
First 100	\$.64135	\$		\$.73277	\$		\$.06290	ф		\$ 1	.10153
Next 500	.51194		.09142		.60336		.00247		.06290		.30339		.97212
Next 2,400	.38596		.09142		.47738		.00247		.06290		.30339		.84614
Over 3,000	.20102		.09142		.29244		.00247		.06290		.30339		.66120
GN-50-Core Natural Gas Service for Motor													
Vehicles	_												
Basic Service Charge	\$ 25.00												25.00
Cost per Therm	\$.10723	\$.14419	\$.25142	\$.00247	\$.06290	\$.30339	\$.62018
GN-60-Core Internal Combustion Engine Gas													
Service													
Basic Service Charge	\$ 25.00											\$ 2	25.00
Cost per Therm	\$.30193	\$.14419	\$.44612	\$.00247	\$.06290	\$.30339	\$.81488
SN-66-Core Small Electric Power Generation													
Gas Service													
Basic Service Charge	\$ 25.00											\$ 3	25.00
Cost per Therm	\$.29153	\$.14419	\$.43572	\$.00247			\$.30339		.74158
•				1									
GN-70-Noncore General Gas Transportation													
Service													
Basic Service Charge	\$ 100.00											\$	100.00
Transportation Service Charge	\$ 780.00											\$	780.00
Cost per Therm	\$.18129	(\$.01576)	\$.16553	\$.00247	\$.06290			\$.23090
FF-Transportation Franchise Fee Surcharge													
Provision													
TFF Surcharge per Therm												\$.00278
•													
DS – Transportation Distribution System													
Shrinkage Charge												¢	00170
TDS Charge per Therm												\$.00170
/IHPS-Master-Metered Mobile Home Park													
Safety Inspection Provision													
MHPS Surcharge per Space per Month												\$.21000
MHPS Surcharge per Space per Month												\$.21000

Advice Letter No. <u>1102</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date FilMay 1, 2019<u>August 30, 2019</u> Effective <u>May 1, 2019</u> Resolution No.

74th-Revised Cal. P.U.C. Sheet No. 70 Canceling 72nd-Revised Cal. P.U.C. Sheet No. 70

STATEMENT OF RATES

RATES APPLICABLE TO NORTHERN CALIFORNIA SERVICE AREA [1] [2]

[1] Customers taking only transportation service will pay the Effective Sales Rate less the Interstate Reservation and Gas Cost components of the Effective Sales Rate, plus a Transportation Service Charge of \$780 per month and an amount for distribution shrinkage calculated by multiplying the currently effective Gas Cost rate per therm by the Lost and Unaccounted For Gas percentage of 0.5675%. The PGA Balancing Account Adjustment is applicable to customers converting from sales service to transportation service for a period of 12 months. The volume charge for customer-secured natural gas transportation will also be subject to the TFF Surcharge.

[2] A Franchise Fee differential of 2.5% will be applied to monthly billings calculated for all rate schedules for all customers within the limits of the Town of Truckee.

[3] The Charges and Adjustments applicable to each tariff rate schedule includes the following components:

Charges and Adjustments Description	GN-10, GN-40 (non GN-12, Covered GN-15, Entities), GN-20, GN-50, GN-25, GN-60, GN-35, GN-66	GN-40, (Covered Entities)	GN-70
Upstream Intrastate Charges			
Storage	\$.02174	\$.02174	
Variable	.20533	.20533	
IRRAM Surcharge	.00000	.00000	\$.00000
Balancing Account Adjustments			
FCAM*	(.13851)	(.13851)	(.07139)
GHGBA**			
Non-Covered Entities [a]	.05353		.05353
Covered Entities [a]		.00076	
NERBA	.00051	.00051	.00051
NGLAPBA	.00159	.00159	.00159
Total Rate Adjustment	\$.14419	\$.09142	(\$.01576)

* The FCAM surcharge includes an amount of (\$.07139) per therm related to the difference between Southwest Gas' authorized margin and recorded revenues intended to recover these costs.

** Pursuant to D.15-10-032, Company costs incurred to comply with the California Air Resources Board (ARB) natural gas supplier Cap- and-Trade Program are to be included in transportation rates and recovered from Non-Covered Entities. Covered Entities, who are directly regulated by the ARB, are only responsible for paying for emission costs related to lost and unaccounted for gas (LUAF).

[a] Pursuant to D.18-03-017, Covered and non-Covered entities have a component to recover the 2015-2017 net compliance costs and proceeds amortized over a twelve month period. Also included are the 2018 GHG costs which are amortized over an eighteen month period.

Advice Letter No. <u>1087</u> Decision No. Issued by Justin Lee Brown Senior Vice President Nation No.

Schedule No. and Type of Charge	Margin		harges [2] and ljustments		btotal Gas sage Rate		Other Su CPUC	rcha	arges PPP	Ga	as Cost	Effective Sales Rate
SLT-10-Residential Gas Service												
Basic Service Charge	\$ 5.00											\$5.00
Cost per Therm												
Baseline Quantities	\$.34482	\$.22546	\$.57028	\$.00247	\$.06290	\$.30339	\$.93904
Tier II	.43236		.22546		.65782		.00247		.06290		.30339	1.02658
SLT-12-CARE Residential Gas Service												
Basic Service Charge	\$4.00											\$4.00
Cost per Therm												
Baseline Quantities	\$.17009	\$.22546	\$.39555	\$.00247	\$.05199	\$.30339	\$.75340
Tier II	.24012		.22546		.46558		.00247		.05199		.30339	.82343
SLT-15-Secondary Residential Gas Service												
Basic Service Charge	\$6.00											\$6.00
Cost per Therm	\$.47664	\$.22546	\$.70210	\$.00247	\$.06290	\$.30339	\$1.07086
SLT-20-Multi-Family Master-Metered Gas Service												
Basic Service Charge	\$11.00											\$11.00
Cost per Therm												
Baseline Quantities	\$.34482	\$.22546	\$.57028	\$.00247	\$.06290	\$.30339	\$.93904
Tier II	.43236		.22546		.65782		.00247		.06290		.30339	1.02658
SLT-25-Multi-Family Master-Metered Gas Service-Submetered	_											
Basic Service Charge	\$11.00											\$11.00
Cost per Therm												
Baseline Quantities	\$.34482	\$.22546	\$.57028	\$		\$.06290	\$.30339	\$.93904
Tier II	.43236		.22546		.65782		.00247		.06290		.30339	1.02658
Submetered Discount per Occupied Space	(\$7.69)											(\$ 7.69)
SLT-35-Agriculture Employee Housing & Nonprofit Group Living Facility Gas Service												
Basic Service Charge	\$ 8.80											\$ 8.80
Cost per Therm First 100	\$.26072	\$	22546	¢	.48618	\$.00247	¢	.05199	\$.30339	\$.84403
Next 500	¢ .20072 20574	φ	.22546 .22546	φ	.40010 .43120	φ	.00247	φ	.05199	Φ	.30339	ъ
Next 2,400	.15077		.22546		.43120		.00247		.05199		.30339	.73408
Over 3.000	.05620		.22546		.28166		.00247		.05199		.30339	.63951
SLT-40-Core General Gas Service (non-Covered Entities)					.20100							
Basic Service Charge	\$11.00											\$11.00
Transportation Service Charge	\$780.00											\$780.00
Cost per Therm												
First 100	\$.45811	\$.22546	\$.68357	\$.00247	\$.06290	\$.30339	\$1.05233
Next 500	.38939		.22546		.61485		.00247		.06290		.30339	.98361
Next 2,400	.32068		.22546		.54614		.00247		.06290		.30339	.91490
Over 3,000	.20246		.22546		.42792		.00247		.06290		.30339	.79668

Advice Letter No. <u>1102</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date Fileday <u>1, 2019August 30, 2019</u> Effective <u>May 1, 2019</u> Resolution No.

	STATEMENT OF RATES					
RATES APPLICABI	LE TO SO	OUTH LAP	<u>KE TAHOE</u>	E SERVICE	<u>AREA [</u> 1]	
Schedule No. and Type of Charge	Margin	Charges [2] and Adjustments	Subtotal Gas Usage Rate		<u>ges</u> PP Gas Cost	Effective Sales Rate
	warym	Aujustinents	Usaye Nale		F Gas Cost	Sales Nale
SLT-40-Core General Gas Service (Covered Entities)						
Basic Service Charge Transportation Service Charge Cost per Therm	\$11.00 \$780.00					\$11.00 \$780.00
First 100 Next 500 Next 2,400	\$.45811 .38939 .32068	\$.17269 .17269 .17269	\$.63080 .56208 .49337	.00247 .0	6290\$.303396290.303396290.30339	\$.99956 .93084 .86213
Over 3,000	.20246	.17269	.37515		6290 .30339	.74391
SLT-50-Core Natural Gas Service for Motor Vehicles						
Basic Service Charge Cost per Therm	\$11.00 \$.22096	\$.22546	(\$.44642	\$.00247 \$.0	6290 \$.30339	\$11.00 \$ <mark>81518</mark>
		φ.22340	(φ.44042	φ .00247 φ .0	0290 φ .30339	φ.01010
SLT-60-Core Internal Combustion Engine Gas Service						
Basic Service Charge Cost per Therm	\$ 11.00 \$.25140	\$.22546	\$.47686	\$.00247 \$.0	6290 \$.30339	\$ 11.00 \$. <mark>84562</mark>
SLT-66-Core Small Electric Power Generation Gas Service						
Basic Service Charge Cost per Therm	\$ 11.00 \$.25140	\$.22546	\$.47686	\$.00247	\$.30339	\$ 11.00 \$.78272
SLT-70-Noncore General Gas Transportation						
Basic Service Charge Transportation Service Charge Cost per Therm	\$ 100.00 \$ 780.00 \$.18433	\$.06551	\$.24984	\$.00247 \$.0	6290	\$ 100.00 \$ 780.00 \$.31521
TFF-Transportation Franchise Fee Surcharge Provision						• • • • • • • •
TFF Surcharge per Therm TDS-Transportation Distribution System						\$.00278
Shrinkage Charge TDS Charge per Therm						\$.00170
MHPS-Master-Metered Mobile Home Park Safety Inspection Provision						
MHPS Surcharge per Space per Month						\$.21000

Advice Letter No. <u>1102</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date File<mark>kilay 1, 2019August 30, 2019</mark> Effective <u>May 1, 2019</u> Resolution No.

STATEMENT OF RATES

RATES APPLICABLE TO SOUTH LAKE TAHOE SERVICE AREA [1]

[1] Customers taking only transportation service will pay the Effective Sales Rate less the Interstate Reservation and Gas Cost components of the Effective Sales Rate, plus a Transportation Service Charge of \$780 per month and an amount for distribution shrinkage calculated by multiplying the currently effective Gas Cost rate per therm by the Lost and Unaccounted For Gas percentage of 0.5675%. The PGA Balancing Account Adjustment is applicable to customers converting from sales service to transportation service for a period of 12 months. The volume charge for customer-secured natural gas transportation service will also be subject to the TFF Surcharge.

[2] The Charges and Adjustments applicable to each tariff rate schedule includes the following components:

Charges and Adjustments Description	SLT-10, SLT-12, SLT-15, SLT-20, SLT-25, SLT-35,	SLT-40 (non- Covered Entities), SLT-50, SLT-60, SLT-66	SLT-40, (Covered Entities)	SLT-70
Upstream Interstate Charges				
Storage	\$.0	2174	\$.02174	
Reservation	.2	0533	.20533	
IRRAM Surcharge	.0	0000	.00000	\$.00000
Balancing Account Adjustments				
FCAM*	0.)	5694)	(.05694)	.01018
GHGBA**				
Non-Covered Entities [a]	.0	5353		.05353
Covered Entities [a]			.00076	
NERBA	.0	0062	.00062	.00062
NGLAPBA	.0	0118	.00118	.00118
Total Rate Adjustment	\$.2	2546	\$.17269	\$.06551

* The FCAM surcharge includes an amount of \$.01018 per therm related to the difference between Southwest Gas' authorized margin and recorded revenues intended to recover these costs.

** Pursuant to D.15-10-032, Company costs incurred to comply with the California Air Resources Board (ARB) natural gas supplier Cap- and-Trade Program are to be included in transportation rates and recovered from Non-Covered Entities. Covered Entities, who are directly regulated by the ARB, are only responsible for paying for emission costs related to lost and unaccounted for gas (LUAF).

[a] Pursuant to D.18-03-017, Covered and non-Covered entities have a component to recover the 2015-2017 net compliance costs and proceeds amortized over a twelve month period. Also included are the 2018 GHG costs which are amortized over an eighteen month period.

Advice Letter No.	1087	
Decision No.		

Issued by Justin Lee Brown Senior Vice President Battember 30, 2018<u>August 30, 2019</u> Effective January 1, 2019 Resolution No. Schedule Nos. GS-10/GN-10/SLT-10

RESIDENTIAL GAS SERVICE

<u>APPLICABILITY</u>

Applicable to gas service to customers which consists of direct domestic gas usage in a residential dwelling for space heating, air conditioning, cooking, water heating, and other residential uses. This schedule is available only to primary residences.

TERRITORY

Throughout the Company's certificated California service areas, except as may hereafter be provided.

<u>RATES</u>

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The credit will display as a line item on the customer's bill. The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given.

Climate	Summer Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83
No. Lake Tahoe	0.66	2.11	3.09
So. Lake Tahoe	0.72	2.04	3.09
Truckee	0.72	2.17	3.55

The baseline daily quantity in therms for all individually-metered residential uses are:

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commissinon Decision18-03-017, the 2018 CA Climate Credit will be distributed in October.

Advice Letter No.	1072 A.19-08-
Decision No.	18-03-017

Issued by Justin Lee Brown Senior Vice President Date FIMedy <u>14, 2018August 30, 2019</u> Effective <u>July 1, 2018</u> Resolution No.

Ν

N/I

Schedule No. GS-11

RESIDENTIAL AIR-CONDITIONING GAS SERVICE

<u>APPLICABILITY</u>

Applicable to gas service to customers which consists of direct domestic gas usage in a residential dwelling for air conditioning in conjunction with space heating, cooking, water heating, and other residential uses. This schedule is available as an option only to primary residences with installed natural gas air-conditioning systems for customers who would otherwise receive service pursuant to Schedule No. GS-10, Residential Gas Service of this California Gas Tariff.

TERRITORY

Throughout the Company's certificated gas service areas in its Southern California Division, except as may hereafter be provided.

<u>RATES</u>

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The credit will display as a line item on the customer's bill. The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given.

The Tier I and summer season Tier II daily quantities in therms for all individually-metered residential uses are:

Climate	Summer Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83

For billing purposes all summer season quantities sold each month in excess of the Tier II quantities shall be billed at the Gas Air-Conditioning rate, and all winter season quantities sold each month in excess of the Tier I quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commission Decision 18-03-017, the 2018 CA Climate Credit will be distributed in October.

Advice Letter No.	1072 A.19-08-
Decision No.	18-03-017

Issued by Justin Lee Brown Senior Vice President Date F**Iddy <u>14</u>, <u>2018August 30, 2019</u> Effective <u>July 1, 2018</u> Resolution No.**

N/I

Schedule Nos. GS-12/GN-12/SLT-12

CARE RESIDENTIAL GAS SERVICE

APPLICABILITY

Applicable to gas service to customers whose qualifying income does not exceed 200 percent of the Federal poverty level, pursuant to California Alternate Rates for Energy (CARE) program eligibility requirements. This service is available only to primary residences.

TERRITORY

Throughout the Company's certificated California service areas, except as may hereafter be provided.

<u>RATES</u>

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The credit will display as a line item on the customer's bill. The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given. The CA Climate Credit will be applied after the California Alternate Rates for Energy (CARE) is applied to the customer's bill to ensure the customer receives the maximum benefit of the CARE program.

The baseline daily quantity in therms for all individually-metered residential uses are:

Climate	Summer Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83
No. Lake Tahoe	0.66	2.11	3.09
So. Lake Tahoe	0.72	2.04	3.09
Truckee	0.72	2.17	3.55

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commission Decision18-03-017, the 2018 CA Climate Credit will be distributed in October.

Advice Letter No.	<u>1072</u> A.19-08-
Decision No.	18-03-017

Issued by Justin Lee Brown Senior Vice President Date Flday 14, 2018August 30. 2019 Effective <u>July 1, 2018</u> Resolution No. Schedule Nos. GS-20/GN-20/SLT-20

MULTI-FAMILY MASTER-METERED GAS SERVICE

APPLICABILITY

Applicable to gas service for cooking, water heating, space heating, and other residential usages supplied to multi-family accommodations through one meter on a single premise in accordance with Rule No. 18 of this California Gas Tariff. This schedule is closed to new installations.

TERRITORY

Throughout the Company's certificated California service areas, except as may hereafter be provided.

<u>RATES</u>

The commodity charges and basic service charge are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Customers on this schedule may receive the California (CA) Climate Credit, if applicable, annually each April.^[1] The CA Climate Credit will be issued to all active accounts receiving natural gas service on the date the credit is given. The master-metered customer will receive one credit for each resident being served through the master-meter. It is the responsibility of the master-metered customer to pass the CA Climate Credit on to the resident.

The baseline daily quantity in therms per residential unit are:

	Summer		
Climate	Season	Winter Off-Peak	Winter Peak
Zone	(May - Oct.)	(Mar., Apr. & Nov.)	(DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer		
	Season	Winter Off-Peak	Winter Peak
	(June - Oct.)	(Apr., May & Nov.)	(DecMarch)
Big Bear	0.46	1.45	2.83
No. Lake Tahoe	0.66	2.11	3.09
So. Lake Tahoe	0.72	2.04	3.09
Truckee	0.72	2.17	3.55

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

^[1]Due to cycle billing, some customers may receive the CA Climate Credit on their May bills. Pursuant to Commission Decision18-03-017, the 2018 CA Climate Credit will be distributed in October.

		Issued by	Date Filed	August 30. 2019
Advice Letter No.	A.19-08-	Justin Lee Brown	Effective	
Decision No.		Senior Vice President	Resolution No.	

N/I

Schedule Nos. GS-20/GN-20/SLT-20

MULTI-FAMILY MASTER-METERED GAS SERVICE

(Continued)

RATES (Continued)

Upon completion of an application and verification by a state licensed physician, surgeon or osteopath, an additional monthly medical allowance of 25 therms will be provided for hemiplegic/paraplegic/quadriplegic persons, multiple sclerosis/scleroderma patients and persons who are being treated for a life-threatening illness and have a compromised immune system who are full-time residents in a household served under this schedule.

If the customer qualifying for the standard medical allowance can demonstrate to the Company's satisfaction that the 25-therm allowance is insufficient to meet the life-support and comfort requirements of the eligible resident, the Company shall make a determination as to the additional quantity required and round such quantity to the next higher 25 therms.

The number of therms shall be determined in accordance with the provisions of Rule No. 2C of this California Gas Tariff.

For billing purposes, the baseline quantity shall be determined by multiplying the allowable baseline quantity per residential unit by the number of qualifying residential units.

CARE Program Discount:

If an individual submetered tenant of a multi-family master-metered customer meets the eligibility criteria established in Schedule Nos. GS-12/GN-12/SLT-12 of this California Gas Tariff, the tenant shall be eligible for the CARE discount.

For billing purposes, the Company will bill the master-metered customer the discounted rate for the number of eligible submetered tenants. It is the responsibility of master-metered customers to pass the CARE discount to the eligible tenant and to notify the Company when the submetered tenant moves. Recertification of eligibility will be required every two years and whenever a submetered tenant moves.

Minimum Charge:

The minimum charge per meter per month is the basic service charge.

Sch	edule Nos. GS-20/GN-20	/SLT-20
MULTI-FAM	IILY MASTER-METERED (Continued)	GAS SERVICE
SPECIAL CONDITIONS		
home units, but does no	ot include enterprises su st homes, military barra	rvice to residential units and mobile ich as rooming houses, boarding icks, stores, restaurants, service
to his application for such	service a Declaration of l units to be billed. The	haster-meter customer must attach Eligibility for Baseline Rates stating total baseline allowance will be
any change in the numb	per of residential dwelling	Company within 15 days following g_units_and_mobile_home_spaces the loss of baseline rates.
verification by the Comp	any. In the event the C	aseline allowances is subject to Company ascertains a customer's a adjusted bill may be rendered to
[Issued by	Date Maiesh 23, 2011 August 30, 2019

	1st -Revised_	Cal. P.U.C. Sheet No.	92
Canceling	Original	Cal. P.U.C. Sheet No.	92

Schedule Nos. GS-25/GN-25/SLT-25

<u>MULTI-FAMILY MASTER-METERED GAS SERVICE – SUBMETERED</u> (Continued)

(00)

RATES (Continued)

The baseline daily quantity in therms per residential unit are:

Climate Zone	Summer Season (May - Oct.)	Winter Off-Peak (Mar., Apr. & Nov.)	Winter Peak (DecFeb)
Barstow	0.39	1.12	2.11
Needles	0.23	0.53	0.92
Victorville	0.39	1.25	2.04
	Summer Season	Winter Off-Peak	Winter Peak
Big Bear	<u>(June - Oct.)</u> 0.46	<u>(Apr., May & Nov.)</u> 1.45	(DecMarch) 2.83
No. Lake Tahoe	0.40	2.11	3.09
So. Lake Tahoe	0.72	2.04	3.09
Truckee	0.72	2.17	3.55

For billing purposes all quantities sold each month in excess of the baseline quantities shall be billed at the Tier II rate.

Upon completion of an application and verification by a state licensed physician, surgeon or osteopath, an additional monthly medical allowance of 25 therms will be provided for hemiplegic/paraplegic/quadriplegic persons, multiple sclerosis/scleroderma patients and persons who are being treated for a life-threatening illness and have a compromised immune system who are full-time residents in a household served under this schedule.

If the customer qualifying for the standard medical allowance can demonstrate to the Company's satisfaction that the 25-therm allowance is insufficient to meet the life-support and comfort requirements of the eligible resident, the Company shall make a determination as to the additional quantity required and round such quantity to the next higher 25 therms.

The number of therms shall be determined in accordance with the provisions of Rule No. 2C of this California Gas Tariff.

For billing purposes, the baseline quantity shall be determined by multiplying the allowable baseline quantity per residential unit by the number of qualifying residential units.

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Rule I	No
	~ 1 4

Issued by Justin Lee Brown <u>Senior</u> Vice President BoteFilber 23, 2015August 30, 2019 Effective <u>December 23, 2015</u> Resolution No.

Schedule No. GS-VIC

CITY OF VICTORVILLE NATURAL GAS SERVICE

APPLICABILITY

Applicable for natural gas service for resale to the City of Victorville Municipal Utility Services at the Southern California Logistics Airport, as specified in contracts 12016 and 12019.

<u>RATES</u>

The Customer shall pay the following charges to receive natural gas service under this schedule:

- 1. <u>Basic Service Charge</u>: The Basic Service Charge per month is the charge per meter as set forth in the currently effective Statement of Rates of this California Gas Tariff.
- 2. <u>Transportation Service Charge</u>: The Transportation Service Charge per month is the charge as set forth in the currently-effective Statement of Rates of this California Gas Tariff.
- 3. <u>Volume Charge</u>: An amount equal to the applicable Volume Charge per therm of gas received by the Company for the account of the Customer. These charges are set forth in the currently-effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Minimum Charge

The minimum charge per month is the Basic Service Charge plus the Transportation Service Charge, if applicable.

Advice Letter No.	944 A.19-08-
Decision No.	14-06-028

Issued by Justin Lee Brown <u>Senior</u> Vice President Date Filtere 18, 2014<u>August 30, 2019</u> Effective Resolution No.

Schedule No. GS-LUZ

LUZ SOLAR PARTNERS LTD. NATURAL GAS SERVICE

<u>APPLICABILITY</u>

Applicable for natural gas service to the LUZ Solar Partners Ltd. VIII and IX in Southern California, as specified in contracts 12003 and 12009.

RATES

The Customer shall pay the following charges to receive natural gas service under this schedule:

- 1. <u>Basic Service Charge</u>: The Basic Service Charge per month is the charge per meter as set forth in the currently effective Statement of Rates of this California Gas Tariff.
- 2. <u>Volume Charge</u>: An amount equal to the applicable Volume Charge per therm of gas received by the Company for the account of the Customer. These charges are set forth in the currently effective Statement of Rates of this California Gas Tariff and are incorporated herein by reference.

Minimum Charge

The minimum charge per month is the Basic Service Charge plus the Transportation Service Charge, if applicable.

BILLING ADJUSTMENTS

Rates may be adjusted to reflect any applicable taxes, franchise or other fees, regulatory surcharges, and interstate or intrastate pipeline charges or penalties that may occur.

The number of therms to be billed shall be determined in accordance with Rule No. 2C of this California Gas Tariff.

In addition to the charges described above, the customer shall be responsible for any gas costs, taxes and/or fees incurred by the Company in taking delivery of customer secured natural gas from upstream suppliers.

CURTAILMENT OF SERVICE

Service under this schedule may be curtailed in accordance with the curtailment provisions of Rule No. 20 of this California Gas Tariff.

Advice Letter No.	944<u>A.19-08-</u>
Decision No.	14-06-028

Issued by Justin Lee Brown <u>Senior</u> Vice President Date Filence 18, 2014<u>August 30, 2019</u> Effective______ Resolution No._____

Schedule No. GS-LUZ

Canceling

LUZ SOLAR PARTNERS LTD. NATURAL GAS SERVICE (Continued)

FORCE MAJEURE

<u>Relief From Liability</u>. Neither party shall be liable for damages to the other on account of "force majeure" occasioned by any act, omission or circumstances occasioned by or in consequence of any acts of God, strikes, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrests and restraints of rulers and people, civil disturbances, explosions, breakage or accident to machinery or lines of pipe, depletion of or temporary failure of gas supply, the binding order of any court or governmental authority which has been resisted in good faith by all reasonable legal means, and any other cause, whether of the kind herein enumerated or not, and not within the control of the party claiming suspension and which by the exercise of due diligence such party is unable to prevent or overcome. Failure to settle or prevent any strikes or other controversy with employees or with anyone purporting or seeking to represent employees shall not be considered to be a matter within the control of the party claiming suspension.

<u>Liabilities Not Relieved</u>. Neither the customer nor the Company shall be relieved from liability in the event of its concurring negligence or failure on its part to use due diligence to remedy the force majeure and remove the cause with all reasonable dispatch, nor shall such causes or contingencies affecting performance of any agreement relieve either party from its obligations to make payments when due in respect of gas theretofore delivered.

SPECIAL CONDITIONS

- 1. Definitions of the principal terms used in this schedule are contained in Rule No. 1 of this California Gas Tariff.
- 2. All rates and conditions are subject to revision and modification as a result of Commission order.
- 3. All terms and conditions of Rule No. 21 of this California Gas Tariff shall apply to the transportation of customer-secured natural gas under this schedule.
- 4. The Company will take receipt of customer's gas from an interconnect with Pacific Gas and Electric Company and deliver the equivalent quantity of natural gas to the customer or for the account of the customer.
- 5.<u>1. The customer's full requirements service loads are prohibited from being displaced</u> through use of alternate fuels or bypass pipeline service.

1st Revised Cal. P.U.C. Sheet No. 145 Cal. P.U.C. Sheet No. _ Canceling <u>Original</u> 145 LIST OF SPECIAL CONTRACTS AND DEVIATIONS Commission Most Comparable Authorization **Regular Tariff** Type or Class Name and Number Contract Location of Customer of Service Execution Date and Date Schedule No. Differences City of Victorville Industrial GS-70/ 09-15-05 Advice Letter **Special** Victorville, California No. 744 GN-70/ Agreement SLT-70

Advice Letter No.	944 <u>A.19-08-</u>
Decision No.	14-06-028

Issued by Justin Lee Brown Senior Vice President Date FileD 18, 2014 August 30, 2019 June 12, 2014 Effective Resolution No.

APPLICATION FOR SERVICE

A. <u>CUSTOMER APPLICATION</u>

- 1. <u>In addition to the information The the</u> Company will<u>may</u> require each prospective customerapplicant for gas service to establish credit in accordance with Rule No. 6, Establishment and Reestablishment of Credit of this California tariff and to establish the identity of the applicant, all applicants shall provide such other information as the Company may reasonably require for gas service. This the following information upon application for serviceincludes, but is not limited to:
 - a. Legal name of applicant(s).
 - b. Name of applicant's spouse or co-applicant.
 - c. Identification (Social Security number or driver's license number).
 - d.c. Date of birth.
 - e.d. Date and place of application.
 - e. Location of premises to be served.
 - f. Address to which bills are to be mailed or delivered.
 - g. Date applicant will be ready for <u>gas</u> service.
 - h. Whether the premises have been previously supplied with gas.
 - i. Purposes for which <u>gas</u> service is to be used.
 - j. Address to which bills are to be mailed or delivered.
 - k. Rate schedule <u>desired</u> to be applied where <u>(if optional schedules are</u> <u>available</u>rates are in effect).
 - I. Telephone number.
 - m. Third party identification, address and telephone number, at the option of an elderly and/or disabled applicant.
 - n. Whether applicant is owner, agent or tenant of premises.
 - o. Whether applicant or other permanent resident is elderly and/or disabled.
 - p. Such other information as the Company may reasonably require.
- 2. Third party notification:

If an applicant or customer who is elderly and/or disabled lists a third party whom they wish notified in the event that their service is scheduled for discontinuance in accordance with Rule No. 11 of this California Gas Tariff,

		Issued by	Date Mfaceh 23, 2011 August 30, 2019
Advice Letter No.	864 A.19-08-	John P. HesterJustin Lee Bro	own April 24, 2@ffective
Decision No.		Senior Vice President	Resolution No

 Canceling
 Cal. P.U.C. Sheet No.

 Cal. P.U.C. Sheet No.
 Cal. P.U.C. Sheet No.

such third party's name, address, and telephone number shall be noted on the application for service.

The Company shall establish procedures to ensure that third parties consent to receive a copy of the termination notice. The Company shall inform all customers at least once annually of the availability of this service.

	Issued by Date Filed	
Advice Letter No.	John P. HesterJustin Lee Brown	Effective_
Decision No	Senior Vice President Resolution No.	

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ESTABLISHMENT AND REESTABLISHMENT OF CREDIT

Each applicant for service will be required to establish credit to the satisfaction of the Company before service will be rendered.

A. ESTABLISHMENT OF CREDIT

- 1. The applicant's credit will be deemed established:
 - a. If applicant for residential service is the principal owner of the premises to be served, or is the principal owner of real estate within the district of the Company in which service is requested, adequate proof of which may be required by the Company; or
 - b.<u>a.</u> If applicant for nonresidential service is the principal owner of the premises to be served, with an equity satisfactory to the Company, adequate proof of which may be required by the Company; or
 - e.b. If applicant makes a deposit with the Company to secure the payment of any bills for service to be furnished by the Company under the application as provided in Rule No. 7 of this California Gas Tariff; or
 - **d.**<u>c.</u> If applicant furnishes a guarantor satisfactory to the Company to secure payment of bills for the service requested; or
 - e.d. If applicant has previously been a customer of the Company, and has paid all bills for gas service on the average within a period as set forth in Rule No. 11, Section A.1 of this California Gas Tariff for a period of 12 consecutive months immediately prior to the date when the applicant for service previously ceased to take service from the Company, provided such service occurred within two years from the date of the new application for service; or
 - f.e. If applicant can otherwise establish credit to the satisfaction of the Company.
- 2. In the case of a master-metered establishment which is subject to termination for nonpayment of bills by the landlord, the residential tenants may become customers of the Company by establishing credit as set forth above in Sections A.1.c. and A.1.d. Where prior service is being considered as a condition for establishing credit, proof of prompt payment while residing at such master-metered establishment for the immediately preceding 12 months shall be acceptable to the Company as a satisfactory equivalent.

<u>DEPOSITS</u>

A. <u>AMOUNT TO ESTABLISH CREDIT</u>

The amount of deposit required to establish credit is twice the estimated maximum monthly bill, or for Small Business Customers, twice the estimated monthly average bill.

B. <u>AMOUNT TO REESTABLISH CREDIT</u>

1. Former Customers

Where an applicant is a former customer whose service was discontinued during the last 12 months of their former service for nonpayment of bills, such applicant may be required to pay such former bills and reestablish credit by depositing an amount equal to twice the estimated maximum monthly bill-for the service desired, or for Small Business Customers, twice the estimated monthly average bill.

- 2. Present Customers
 - a. A customer whose service has been discontinued for nonpayment of bills may be required to pay such bills and deposit an amount equal to twice the estimated maximum monthly bill or for Small Business Customers, twice the estimated monthly average bill.
 - b. If a customer receives a bill that is two months past due or becomes delinquent in the payment of a total of six monthly bills within a 12 consecutive month period, such customer may be required to reestablish credit by depositing an amount not to exceed twice the estimated maximum monthly bill. Unless the delinquency in payment is due to nonpayment of all or a portion of a backbill, which occurred as a result of a billing or metering error, Small Business Customers may be required to reestablish credit by depositing an amount not to exceed twice the estimated average monthly bill. A Small Business Customer may enroll in the Company's Automatic Payment Program once within a twelve month consecutive period, in lieu of a cash deposit for reestablishing service.

C. <u>APPLICABILITY TO UNPAID ACCOUNTS</u>

Deposits prescribed herein are applicable to unpaid bills for gas service when such service has been discontinued. Deposits will not be applied as payment for past due bills to avoid discontinuance of service.

Canceling

<u>NOTICES</u>

A. NOTICES TO CUSTOMERS

- 1. Any notice the Company may give to any customer supplied with gas by the Company, under and pursuant to the effective Rules of the Company, may be given by written notice, either delivered at the address specified in the customer's application for gas service or in the customer's contract in case such customer has a contract for said service, or properly enclosed in a sealed envelope and deposited in any United States Post Office postage prepaid, addressed to the customer as above stated.
- Customers electing Electronic Billing will receive notices through regarding their electronic bill or other informational bill inserts or via U.S. through electronic mail.

B. NOTICES FROM CUSTOMERS

Any notice a customer may give to the Company, under and pursuant to the effective Rules of the Company, may be given by written notice, delivered at addressed to any of the Company's offices or properly enclosed in a sealed envelope and deposited in any United States Post Office, postage prepaid, and addressed theretodeposited for delivery by the United State Postal Service.

Rule No. 16		
		GAS SERVICE EXTENSIONS (Continued)
Α.	GENE	ERAL (Continued)
	5.	Private Lines
		The Company shall not be required to connect Service Facilities to or serve any Applicant from gas facilities that are not owned, operated and maintained by the Company.
	6.	Special or Added Facilities
		Any special or added facilities the Company agrees to install at the request of Applicant will be installed at Applicant's expense.
		In accordance with <i>The Pipeline Inspection, Protection, Enforcement and Safety</i> <i>Act of 2006</i> and Title 49, Section 192.383 of the Code of Federal Regulations, the installation of an excess flow valve, as defined in Rule No. 1 of this California Gas Tariff, shall be performed by the Company on new or replaced single residence service lines. If any other customer requests the installation of an excess flow valve, the Company shall perform the installation subject to the feasibility of such installation, and the customer assuming responsibility for all costs associated with installation.
	7.	Temporary Service Facilities
		Facilities installed for temporary service or for operations of speculative character or questionable permanency shall be made in accordance with the fundamental installation and ownership provisions of this Rule, except that all charges and refunds shall be made under the provisions of Rule No. 13, Temporary Service of this California Gas Tariff.
	8.	Contracts
		Each Applicant requesting service may be required to execute written contracts prior to the Company performing its work to establish service. Such contracts shall be in the form on file with the Commission.

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Canceling

Cal. P.U.C. Sheet No. _____ Cal. P.U.C. Sheet No. _____

	RULE NO. 16
	GAS SERVICE EXTENSIONS (Continued)
	S FLOW VALVE AND SERVICE LATERAL SHUT-OFF VALVE
perfo Com Rule. sole	tallation of an Excess Flow Valve or Service Lateral Shut-Off Valve shall be need on all newly installed or replaced Service Laterals connected to the ny's distribution system before the service is activated as provided by this lothing in this Rule prevents the Company from installing or specifying, in its pecretion, the installation of an Excess Flow Valve or a Service Lateral Shut-Off in additional service types.
<u>1.</u>	Applicable Service Lateral types
	a. A single Service Lateral to one single-family residence (SFR);
	A Branch Service to a SFR installed concurrently with the primary SFR Service Lateral (i.e. a single Excess Flow Valve may be installed to protect both the Service Lateral and the Branch Service);
	 A Branch Service to a SFR installed off a previously installed SFR Service Lateral that does not contain an Excess Flow Valve;
	Multifamily residences with known customer loads not exceeding 5,500 SCFH per service at time of service installation based on installed meter capacity;
	A single, small commercial customer served by a single Service Lateral with a known customer load not exceeding 5,500 SCFH, at the time of meter installation, based on installed meter capacity; and,
	For Service Laterals with meter capacity that exceeds 5,500 SCFH, a Service Lateral Shut-Off Valve or, if possible, based on sound engineering analysis and availability, an Excess Flow Valve, shall be installed.

Advice Letter No. <u>A.19-08-</u> Decision No._____ Issued by Justin Lee Brown Senior Vice President

Date Filed <u>Au</u> Effective Resolution No.

Date Filed August 30, 2019

Canceling

Cal. P.U.C. Sheet No. _____ Cal. P.U.C. Sheet No. _____

RULE NO. 16
GAS SERVICE EXTENSIONS (Continued)
G. EXCESS FLOW VALVE AND SERVICE LATERAL SHUT-OFF VALVE INSTALLATION (Continued)
2. The Company is not required to install an Excess Flow Valve if one or more of the following conditions are present:
a. The Service Lateral does not operate at a pressure of 10 psig or greater throughout the year;
b. The Company has prior experience with contaminants in the gas stream that could interfere with the Excess Flow Valve's operation or cause loss of service to a customer;
c. An Excess Flow Valve could interfere with the necessary operation or maintenance activities such as blowing liquids from the Service Lateral; or
d. An Excess Flow Valve meeting the performance standards in 49 C.F.R. § 192.381 is not commercially available to the Company.
3. The Applicant shall provide the Company information concerning the gas usage and demand requirements. The Excess Flow Valve or Service Lateral Shut-Off Valve will be designed and constructed so that suitable gas capacity is available and satisfactory to the Company.
2.4. The Company will construct, own, operate and maintain the Excess Flow Valve or Service Lateral Shut-Off Valve in connection with the Branch Service and/or Service Lateral installation.
3.5. The Company shall pay for all costs associated with the installation, replacement or maintenance of the Excess Flow Valve or Service Lateral Shut-Off Valve unless that work is made necessary by the relocation of a main or Service Lateral that is either: due solely to meet the Applicant's convenience as provided by Rule 16(F)(2)(b); performed to redress a Customer's noncompliance with any of these tariff schedules; or is due solely to the addition of any special or added facilities that the Company agrees to install at the request of Applicant.

Advice Letter No. <u>A.19-08-</u> Decision No. Issued by Justin Lee Brown Senior Vice President Date FiledAugust 30, 2019EffectiveResolution No.

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Canceling

Cal. P.U.C. Sheet No. _____ Cal. P.U.C. Sheet No. _____

		RULE NO. 16
		GAS SERVICE EXTENSIONS (Continued)
<u>G.</u>		ESS FLOW VALVE AND SERVICE LATERAL SHUT-OFF VALVE ALLATION (Continued)
	<u>6.</u>	The Customer has the right to request that an Excess Flow Valve be installed on their existing Service Lateral if the load does not exceed 5,500 SCFH and the conditions in Rule 16(G)(2) are not present. In such instances, the Company shall notify the Customer of the following:
		a. Any costs associated with the installation that shall be paid by the Customer.
		b. The Company shall install the Excess Flow Valve at a mutually agreeable date.
	6. 7.	If a Customer requests the installation of an Excess Flow Valve on their existing Service Lateral, the Company shall perform the installation subject to the practicability of the installation at a mutually agreeable date.

Advice Letter No. <u>A.19-08-</u> Decision No. Issued by Justin Lee Brown Senior Vice President

Date Filed Effective Resolution No.___

Date Filed August 30, 2019

RULE NO. 16

Canceling

GAS SERVICE EXTENSIONS (Continued)

H. EXCEPTIONAL CASES

When the application of this Rule appears impractical or unjust to either party or the ratepayers, the Company or Applicant may refer the matter to the Commission for a special ruling or for the approval of special conditions which may be mutually agreed upon.

I. DEFINITIONS FOR RULE NO. 16

Advance: Cash payment made to the Company prior to the initiation of any work done by the Company which is not covered by allowances.

Applicant: A person or agency requesting the Company to supply gas service.

Contribution: In-kind services and/or the value of all property conveyed to the Company at any time during the Company's work on an extension which is part of the Company's total estimated installed cost of its facilities or cash payments not covered by Applicant's allowances.

Distribution Main: The Company's gas facilities, which are operated at distribution pressure and which are designed to supply three or more services.

Excavation: All necessary trenching, backfilling and other digging as required to install extension facilities, including furnishing of any imported backfill material and disposal of spoil as required, surface repair and replacement, landscape repair and replacement.

Excess Flow Valve: A device designed to restrict the flow of gas in a customer's natural gas service line <u>Service Lateral</u> by automatically closing in the event of a <u>service line Service Lateral</u> break, thus mitigating the consequences of <u>service line Service Lateral</u> failures.

Franchise Area: Public streets, roads, highways and other public ways and places where the Company has a legal right to occupy under franchise agreements with governmental bodies having jurisdiction.

Insignificant Loads: Small operating loads, such as log lighters, barbecues, outdoor lighting, etc.

Intermittent Loads: Loads which, in the opinion of the Company, are subject to discontinuance for a time or at intervals.

RULE NO. 16

Canceling

GAS SERVICE EXTENSIONS

(Continued)

DEFINITIONS FOR RULE NO. 16 (Continued) Ι.

Meter Set Assembly: Consists of the customer meter, service pressure regulator and associated pipe and fittings.

Permanent Service: Service which, in the opinion of the Company, is of a permanent and established character. This may be continuous, intermittent or seasonal in nature.

Premises: All of the real property and apparatus employed in a single enterprise on an integral parcel of land undivided (except in the case of industrial, agricultural, oil field, resort enterprises and public or quasi-public institutions), by a dedicated street, highway or other public thoroughfare, or a railway. Automobile parking lots constituting a part of and adjacent to a single enterprise may be separated by an alley from the remainder of the premises served.

Protective Structures: Fences, retaining walls (in lieu of grading), barriers, posts, barricades and other structures as required by the Company.

Residential Development: Five or more dwelling units in two or more buildings located on a single parcel of land.

Residential Subdivision: An area of five or more lots for residential dwelling units which may be identified by filed subdivision plans or an area in which a group of dwellings may be constructed about the same time, either by a builder or several builders working on a coordinated basis.

Seasonal Service: Gas service to establishments which are occupied seasonally or intermittently, such as seasonal resorts, cottages or other part-time establishments.

Service Delivery Point: Where the Company's Service Lateral is connected to Applicant's pipe (house line), normally adjacent to the location of the Meter Set Assembly.

Service Lateral: The pipe, valves, Meter Set Assemblies and associated equipment extending from the point of connection at the Distribution Main to the Service Delivery Point, which is normally on Applicant's Premises.

Service Lateral Shut-Off Valve: A curb valve or other valve or manually operated valve located near the Service Lateral that is safely accessible to the personnel authorized by the Company to manually shut off gas flow to the Service Lateral.

CHAPTER 22 Post-Test Year Ratemaking Mechanism

Company Witness: Timothy S. Lyons

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA POST-TEST YEAR RATEMAKING ADJUSTMENT CHAPTER 22

The Company is proposing a Post-Test Year (PTY) ratemaking adjustment for years 2022 through 2025. The proposed PTY ratemaking adjustment is 2.75 percent and is consistent with the settlement agreement and decision in the Company's last general rate case in A.12-12.024. Chapter 22 is presented in two distinct parts.

The first part shows a summary of the margin for each PTY, which is developed by applying a 2.75 percent adjustment to the previous year's authorized margin.

The second part includes the calculation of rates by rate schedule necessary to recover the margin developed for each PTY assuming 2.75 percent increase in margin for all rate schedules.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA RATE JURISDICTION CALCULATION OF POST TEST YEAR MARGIN ADJUSTMENTS TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

Line	No.		-	7	с	4	5	9	7
	2025	(f)	24,148,922	664,095	24,813,017	4,119,203	28,932,221	17.06%	19.81%
	2024	(e)	23,502,600 \$	646,322	24,148,922 \$	4,151,224	28,300,146	17.66%	20.41%
Attrition Year	2023	(e)	22,873,577 \$	629,023	23,502,600 \$	3,248,159	26,750,759	14.20%	16.95%
+	2022	(p)	22,261,389 \$	612,188	22,873,577 \$	635,226	23,508,803	2.85%	5.60%
	2021	(c)	22,261,389 \$		22,261,389 \$		22,261,389	0.00%	
Attrition	Percent	(q)	\$	2.75%	↔	I	I		
	Description	(a)	Prior Year Margin After Rate Relief	Add: Attrition Adjustment @ 2.75%	Margin before Infrstructure Adjustment	North Lake Tahoe Lateral Adjustment	Revenue After Infrastructure Adjustment	Add: Attrition Adjustment % (Line 17 / Line 1)	Total Attrition Rate (2.75% + Line 6)
Line	No.		~	7	с	4	5	9	7

CA TY 2021 GRC CHAPTER 22 SHEET 2 OF 12

NCA CCOSS and Rate Design 2021 vFinal.xlsx

C22 PTYM

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA NORTH LAKE TAHOE LATERAL PROJECT TEST YEAR TWELVE MONTHS ENDED DECEMBER 31, 2021

	Description		2021		Estimated 2022	_	Estimated 2023		Estimated 2024		Estimated 2025	Line No.
	(a)		(q)		(c)		(p)		(e)		(f)	
North La Gross P	North Lake Tahoe Lateral Project Gross Plant Replaced	လ လ	5,000,000 5,000,000	ଓ ଓ	20,000,000 25,000,000	မ မ	5,000,000 30,000,000	\$	30,000,000	\$	30,000,000	~ ~
Accumu	Accumulated Depreciation	⇔	(57,321)	θ	(401,246)	φ	(1,031,777)	θ	(1,719,628)	θ	(2,407,479)	ო
Net Pla	Net Plant (Line 2 + Line 3)	φ	4,942,679	φ	24,598,754	φ	28,968,223	φ	28,280,372	မ	27,592,521	4
Accumu	Accumulated Deferred Income Tax	⇔	(20,388)	θ	(170,868)	φ	(528,302)	θ	(896,943)	θ	(1,223,526)	5
Mains F	Mains Rate Base (Line 4 + Line 5)	θ	4,922,291	φ	24,427,886	φ	28,439,922	φ	27,383,429	မ	26,368,996	9
Rate of	Rate of Return		7.76%		7.76%		7.76%		7.76%		7.76%	7
Rate o	Rate of Return Revenue (Line 6 * Line 7)	ω	381,965	φ	1,895,580	φ	2,206,909	φ	2,124,927	မ	2,046,208	ω
Revenu	Revenue Conversion Factor		1.42		1.42		1.42		1.42		1.42	0
Reven	Revenue Requirement (Line 8 * Line 9)	⇔	541,599	θ	2,687,795	φ	3,129,238	θ	3,012,993	θ	2,901,375	10
Reven	Revenue Requirement	ω	541,599	φ	2,687,795	φ	3,129,238	φ	3,012,993	မ	2,901,375	11
Depred	Depreciation Expense (2.29% per year) Property Tax	လ လ	57,321 36,306	မာ	343,926 216,438	မ မ	630,530 391,455	ଓ ଓ	687,851 418,360	မ မ	687,851 408,306	12
Total F	Total Revenue Requirement	Ь	635,226	မ	3,248,159	φ	4,151,224	φ	4,119,203	မ	3,997,532	14

C22 NLT Lateral

ine		<u>.</u>		000/			oose	ed Margin R	lates			000-	Lir
No.	Description	Schedule		2021		2022		2023		2024		2025	No
	(a)	(b)		(c)		(d)		(e)		(f)		(g)	
	Primary Residential Gas Service	GN-10/											
1	Basic Service Charge	GN-12	\$	5.75	\$	5.75	\$	5.75	\$	5.75	\$	5.75	1
	Commodity Charge												
2	Baseline Quantities		\$	0.77118	\$	0.82141	\$	0.98187	\$	1.20787	\$	1.47192	2
3	Tier II		\$	0.89641	\$	0.94664	\$	1.10710	\$	1.33310	\$	1.59715	3
	Secondary Residential Gas Service	GN-15											
4	Basic Service Charge Commodity Charge		\$	6.00	\$	6.00	\$	6.00	\$	6.00	\$	6.00	2
5	All Usage		\$	0.95173	\$	1.01081	\$	1.19952	\$	1.46530	\$	1.77585	ţ
	Multi Earrich Master Material Oca Oarrian												
6	Multi-Family Master Metered Gas Service Basic Service Charge	GN-20	\$	25.00	\$	25.00	\$	25.00	\$	25.00	\$	25.00	
0	Commodity Charge		Ψ	20.00	Ψ	20.00	Ψ	20.00	Ψ	20.00	Ψ	20.00	
7	Baseline Quantities		\$	0.77118	\$	0.82141	\$	0.98187	\$	1.20787	\$	1.47192	
3	Tier II		\$	0.89641	\$	0.94664	\$	1.10710	\$	1.33310	\$	1.59715	
	Multi-Family Master Metered Gas Service -												
	Submetered	GN-25											
9	Basic Service Charge		\$	25.00	\$	25.00	\$	25.00	\$	25.00	\$	25.00	
0	Submeter Discount		\$	(9.58)	\$	(9.58)	\$	(9.58)	\$	(9.58)	\$	(9.58)	
	Commodity Charge												
1	Baseline Quantities		\$	0.77118	\$	0.82141	\$	0.98187	\$	1.20787	\$	1.47192	
2	Tier II		\$	0.89641	\$	0.94664	\$	1.10710	\$	1.33310	\$	1.59715	
	Core General Gas Service	GN-35/											
3	Basic Service Charge	GN-40	\$	11.00	\$	11.00	\$	11.00	\$	11.00	\$	11.00	
4	Transportation Service Charge Commodity Charge		\$	780.00	\$	780.00	\$	780.00	\$	780.00	\$	780.00	
5	First 100		\$	0.64944	\$	0.68926	\$	0.81645	\$	0.99559	\$	1.20489	
6	Next 500		\$	0.48198	\$	0.51153	\$	0.60592	\$	0.73887	\$	0.89420	
7	Next 2400		\$	0.33973	\$	0.36056	\$	0.42709	\$	0.52080	\$	0.63029	
8	Over 3000		\$	0.12751	\$	0.13533	\$	0.16030	\$	0.19547	\$	0.23656	
0	Core Natural Gas Service for Motor Vehicles	GN-50	¢	25.00	¢	25.00	¢	25.00	¢	25.00	¢	25.00	
9	Basic Service Charge Commodity Charge		\$	25.00	\$	25.00	\$	25.00	\$	25.00	\$	25.00	
0	All Usage		\$	0.03132	\$	0.03336	\$	0.03985	\$	0.04900	\$	0.05970	
	Core Internal Combustion Engine Gas Service	GN-60											
1	Basic Service Charge		\$	25.00	\$	25.00	\$	25.00	\$	25.00	\$	25.00	
~	Commodity Charge		^	0 74504	¢	0.00470	^	4 50444	¢	0 54050	<i>•</i>	0.50004	
2	All Usage		\$	0.71521	\$	0.92173	\$	1.58144	\$	2.51058	\$	3.59621	
2	Core Small Electric Power Generation Gas Service	GN-66	¢	25.00	¢	25.00	¢	25.00	¢	25.00	¢	25.00	
3	Basic Service Charge Commodity Charge		\$	25.00	\$	25.00	\$	25.00	\$	25.00	\$	25.00	
4	All Usage		\$	0.71521	\$	0.92173	\$	1.58144	\$	2.51058	\$	3.59621	
	Noncore General Gas Transportation Service	GN-70											
5	Basic Service Charge	0.110	\$	100.00	\$	100.00	\$	100.00	\$	100.00	\$	100.00	
6	Transportation Service Charge		\$	780.00	\$	780.00	\$	780.00	\$	780.00	\$	780.00	
5	Commodity Charge		Ψ	100.00	Ψ	100.00	Ψ	100.00	Ψ	100.00	Ψ	100.00	
27	All Usage		\$	0.12545	\$	0.15281	\$	0.24020	\$	0.36329	\$	0.50711	2
			Ψ	5.12070	Ψ	5.10201	Ψ	5.2 1020	Ψ	5.00020	Ψ	5.00711	

ine.	No.		~	0 0 4	5	6	œ	o ()	- 6	13	15 16	18	19 20	22 23 24 24
rain	Revenues	(ĝ)	1,134,303	7,434,608 3,792,748 12,361,659	715,830	7,057,678 7,773,508	\$ 20,135,167	600 9,533	10,281	00	0 0 0	10,281	209,858 9,360	696,845 972,720 609,258 193,699
ed Ma	n n n n n n n n n n n n n n n n n n n		\$	\$ \$ \$ 2 0) (1	ŝ	\$	\$ 20	တ တပ	မလ	လ လ	တ တ တ	ο φ	აა	တ တ တ တ
Proposed Margin	Rates	(f)	5.75	0.82141 0.94664	6.00	1.01081		25.00 0.82141		25.00 (9.58)	0.82141 0.94664		11.00 780.00	0.68926 0.51153 0.36056 0.13533
			\$	လ လ	ŝ	θ		မ မ	÷		φ φ		လ လ	ភ ភ ភ ភ
lts nes	Sales	(e)		9,050,994 4,006,522 13,057,516		6,982,234 6,982,234	20,039,750	11,606 156	11,762		000	11,762		1,011,005 1,901,594 1,689,766 1,431,347
Test Year Billing Units of Volumes	Transport	(p)		9,050,994 4,006,522 13,057,516		6,982,234 6,982,234	20,039,750	11,606 156	11,762		0 0 0	11,762		1,011,005 1,901,594 1,689,766 1,431,347
Test Number of	Bills	(c)	197,270	197,270	119,305	119,305	316,575	24	24	00		24	19,078 12	(
Schedule .	No.	(q)	GN-10/ GN-12		GN-15		·	GN-20		GN-25			GN-35/ GN-40	
	Description	(a)	Primary Residential Gas Service Basic Service Charge Commodity Charge	Commonly criange Baseline Quantities Tier II Total Primary Residential Gas Service	Secondary Residential Gas Service Basic Service Charge Commodity Charge	All Usage Total Secondary Residential Gas Service	Total Residential Gas Service	Multi-Family Master Metered Gas Service Basic Service Charge Commodity Charge Baseline Quantities	Total Multi-Family Master Metered Gas Service	Multi-Family Master Metered Gas Service - Submetered Basic Service Charge Submeter Discount Commodity Charge	Baseline Quantities Tier II Total Mutti- Fam Sub	Total Multi-Family Master Metered Gas Service	Core General Gas Service Basic Service Charge Transportation Service Charge Commodity Charge	First 100 Next 500 Next 2400 Over 3000
ine	No.	I I				9	ω	9 10	12	13	15 16	18	19 20	22 23 24

Line		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	40	41	42	43
//argin Revenues	(6)	006	6,040 6,940	600	186 786	0	00	40,800 318,240	151,227 510,267	\$ 23,355,181	0	153,624	\$ 23,508,805	\$ 23,508,803	2
ed Mai		\$	မာ	φ	မာ	θ	မာ	6 69	မာ	\$ 23	θ	θ	\$ 23	\$ 23	φ
Proposed Margin Rates Reven	(f)	25.00	0.03336	25.00	0.92173	25.00	0.92173	100.00 780.00	0.15281						
		θ	\$	θ	\$	θ	θ	လ လ	θ						
lits nes Sales	(e)		181,069 181,069		202 202		00		00	26,266,495					
Test Year Billing Units f Volumes Transport	(p)		181,069 181,069		202		00		989,670 989,670	27,256,165					
Test Number of Bills	(c)	36	36	24	24	0	0	408 420	408	336,145					
Schedule No.	(q)	GN-50		GN-60		GN-66		GN-70			G-T				
Description	(a)	Core Natural Gas Service for Motor Vehicles Basic Service Charge	commouly charge All Usage Total Core Natural Gas Service for Motor Vehicles	Core Internal Combustion Engine Gas Service Basic Service Charge Commodity Charge	All Usage Total Core Internal Combustion Engine Gas Service	Core Small Electric Power Generation Gas Service Basic Service Charge	All Usage Total Core Small Electric Power Generation Gas Service	Noncore General Gas Transportation Service Basic Service Charge Transportation Service Charge	Commount Charge All Usage Total Noncore General Gas Transportation Service	Total All Schedules	Special Contract Gas Service	Other Operating Revenues	Total Operating Revenue	Total Revenue Requirement	Over/Under Recovery
Line		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	40	41	42	43

Line	No.			0 0 4	5	6	8	o 1	12	13	15 16 17	18	19 20	22 23 23	25
argin	Revenues	(B)	1,134,303	\$ 8,886,935 \$ 4,435,636 \$ 14,456,874	715,830	8,375,325 9,091,155	\$ 23,548,029	600 11,396	12,169	00	0 0 0	12,169	209,858 9,360	825,436 1,152,219 721,686 229,442	3,148,001
ed Ma	Å		ŝ	\$ \$ \$ 4 4	φ	မ က က	\$ 23	မ မ	e A A	လ လ	မ မ မ	φ	აა		ω
Proposed Margin	Rates	(f)	5.75	0.98187 1.10710	6.00	1.19952		25.00 0.98187	1.10710	25.00 (9.58)	0.98187 1.10710		11.00 780.00	0.81645 0.60592 0.42709 0.16030	
			\$	လ လ	φ	\$		<i>ତ</i> ଚ	Ð	မ မ	လ လ		မ မ		
Its	Sales	(e)		9,050,994 4,006,522 13,057,516		6,982,234 6,982,234	20,039,750	11,606	11,762		000	11,762		1,011,005 1,901,594 1,689,766 1,431,347	6,033,712
Test Year Billing Units of Volumes	Transport	(p)		9,050,994 4,006,522 13,057,516		6,982,234 6,982,234	20,039,750	11,606	11,762		0 0 0	11,762		1,011,005 1,901,594 1,689,766 1,431,347	6,033,712
Test Number of	Bills	(c)	197,270	197,270	119,305	119,305	316,575	24	24	00	0	24	19,078 12		19,078
Schedule	No.	(q)	GN-10/ GN-12		GN-15			GN-20		GN-25			GN-35/ GN-40		
	Description	(a)	Primary Residential Gas Service Basic Service Charge	commount onlarge Baseline Quantities Tier II Total Primary Residential Gas Service	Secondary Residential Gas Service Basic Service Charge Commodity Charge	All Usage Total Secondary Residential Gas Service	Total Residential Gas Service	Multi-Family Master Metered Gas Service Basic Service Charge Commodity Charge Baseline Quantities	Tet TI Total Multi-Family Master Metered Gas Service	Multi-Family Master Metered Gas Service - Submetered Basic Service Charge Submeter Discount Commodity Charge	Baseline Quantities Tier II Total Muti- Fam Sub	Total Multi-Family Master Metered Gas Service	Core General Gas Service Basic Service Charge Transportation Service Charge Commodity Charge	First 100 Next 2400 Over 3000	Total Core General Gas Service
Line	No.		~	0 0 4	5	9	œ	6 1	12	13	15 16 17	18	19 20	22 24 23	25

Line No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	40	41	42	43
<i>M</i> argin Revenues	(B)	006	7,216 8,116	600	319 919	0	00	40,800 318,240	237,720 596,760	\$ 27,313,994	0	179,664	\$ 27,493,658	\$ 27,493,658	(0)
ed Ma		⇔	မာ	÷	မာ	÷	မာ	 со со	မာ	\$ 27	θ	θ	\$ 27	\$ 27	θ
Proposed Margin Rates Reven	(f)	25.00	0.03985	25.00	1.58144	25.00	1.58144	100.00 780.00	0.24020						
		θ	θ	θ	\$	θ	θ	လ လ	θ						
ൃഗ	(e)		181,069 181,069		202 202		00		00	26,266,495					
Test Year Billing Units f Volumes Transport	(p)		181,069 181,069		202		00		989,670 989,670	27,256,165					
5	(c)	36	36	24	24	0	0	408 420	408	336,145					
Schedule No.	(q)	GN-50		GN-60		GN-66		GN-70			G-T				
Description	(a)	Core Natural Gas Service for Motor Vehicles Basic Service Charge	Commounty criarige All Usage Total Core Natural Gas Service for Motor Vehicles	Core Internal Combustion Engine Gas Service Basic Service Charge	All Usage Total Core Internal Combustion Engine Gas Service	Core Small Electric Power Generation Gas Service Basic Service Charge	All Usage All Usage Total Core Small Electric Power Generation Gas Service	Noncore General Gas Transportation Service Basic Service Charge Transportation Service Charge	Commounty criarige All Usage Total Noncore General Gas Transportation Service	Total All Schedules	Special Contract Gas Service	Other Operating Revenues	Total Operating Revenue	Total Revenue Requirement	Over/Under Recovery
Line No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	40	41	42	43

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Line										
		Schedule	Number of	Test Year Billing Units f Volumes	its nes		Proposed Margin	ed Mai	ain	Line
No.	Description	No.	Bills	Transport	Sales	[Rates	R	Revenues	No.
	(a)	(q)	(c)	(p)	(e)		(f)		(g)	
~	Primary Residential Gas Service Basic Service Charge	GN-10/ GN-12	197,270			θ	5.75	\$	1,134,303	
0 0 4	Commony Charge Baseline Quantities Tier II Total Primary Residential Gas Service		197,270	9,050,994 4,006,522 13,057,516	9,050,994 4,006,522 13,057,516	\$	1.20787 1.33310	\$ 10 \$ 17 \$ 17	\$ 10,932,379 \$ 5,341,075 \$ 17,407,757	0 0 4
100 വ	Secondary Residential Gas Service Basic Service Charge Commodity Charge All Usage	GN-15	119,305	6,982,234	6,982,234	6 69	6.00 1.46530	\$ 5 0 0 0	\$ 715,830 \$ 10,231,086	10 വ
~ 8	rotal Secondary restoration das Service Total Residential Gas Service		316,575	0,302,234	0,902,234 20,039,750			\$ 28	\$ 28,354,673	~ 8
6 11 10	Multi-Family Master Metered Gas Service Basic Service Charge Commodity Charge Baseline Quantities Tier II	GN-20	24	11,606 156	11,606 156	ଚ ଚଚ	25.00 1.20787 1.33310	ა აა	600 14,018 208	9 11 9
12	Total Multi-Family Master Metered Gas Service		24	11,762	11,762			θ	14,826	12
13 15 17 17	Multi-Family Master Metered Gas Service - Submetered Basic Service Charge Submeter Discount Commodity Charge Baseline Quantities Tier II Total Muti-Fam Sub	GN-25	0000	000	000	 ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ	25.00 (9.58) 1.20787 1.33310	တ က က က	00 000	13 15 17 17
18	Total Multi-Family Master Metered Gas Service		24	11,762	11,762			φ	14,826	18
19 21 21	Core General Gas Service Basic Service Charge Transportation Service Charge Commodity Charge First 100 Next 500	GN-35/ GN-40	19,078 12	1,011,005 1 901 594	1,011,005 1 901 594		11.00 780.00 0.99559 0.73887		209,858 9,360 1,006,543	19 21 20
23 24 25	Next 2400 Over 3000 Total Core General Gas Service		19,078	1,689,766 1,431,347 6,033,712	1,689,766 1,431,347 6,033,712	ک دہ د	0.19547	မ မ မ	880,029 279,784 3,790,598	23 25 25

Line	No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	41	42	43
rgin	Revenues	(g)	006	8,873 9,773	600	507 1,107	0	00	40,800 318,240	359,535 718,575	\$ 32,889,552	216,339	\$ 33,105,891	\$ 33,105,891	(1)
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Proposed Margin	Rates	(f)	25.00	0.04900	25.00	2.51058	25.00	2.51058	100.00 780.00	0.36329					
			θ	θ	θ	Ś	θ	⇔	လ လ	⇔					
lits nes	Sales	(e)		181,069 181,069		202 202		00		00	26,266,495				
Test Year Billing Units of Volumes	Transport	(p)		181,069 181,069		202		00		989,670 989,670	27,256,165				
Test Number of	Bills	(c)	36	36	24	24	0	0	408 420	408	336,145				
Schedule	No.	(q)	GN-50		GN-60		GN-66		GN-70						
	Description	(a)	Core Natural Gas Service for Motor Vehicles Basic Service Charge	Commony charge All Usage Total Core Natural Gas Service for Motor Vehicles	Core Internal Combustion Engine Gas Service Basic Service Charge	All Usage All Usage Total Core Internal Combustion Engine Gas Service	Core Small Electric Power Generation Gas Service Basic Service Charge	All Usage All Usage Total Core Small Electric Power Generation Gas Service	Noncore General Gas Transportation Service Basic Service Charge Transportation Service Charge	All Usage All Usage Total Noncore General Gas Transportation Service	Total All Schedules	Other Operating Revenues	Total Operating Revenue	Total Revenue Requirement	Over/Under Recovery
Line	No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	41	42	43

	-	Tes	Test Year Billing Units	lits		C	-		-
Description	schedule No.	Number of Bills	Volumes Transport	nes Sales		Propos Rates	Proposed Margin ites Reven	largin Revenues	No.
(a)	(q)	(c)	(p)	(e)		(f)		(B)	
Primary Residential Gas Service Basic Service Charge	GN-10/ GN-12	197,270			\$	5.75	\$	1,134,303	~
commount ontarge Baseline Quantities Tier II Total Primary Residential Gas Service		197,270	9,050,994 4,006,522 13,057,516	9,050,994 4,006,522 13,057,516	လ လ	1.47192 1.59715	\$ 13,3 \$ 6,3	\$ 13,322,319 \$ 6,399,008 \$ 20,855,630	0 0 4
Secondary Residential Gas Service Basic Service Charge Commodity Charge All Usage Total Secondary Residential Gas Service	GN-15	119,305 119,305	6,982,234 6,982,234	6,982,234 6,982,234		6.00 1.77585	\$ 12,5 \$ 13,55	\$ 715,830 <u>\$ 12,399,397</u> \$ 13,115,227	- 22 2
Total Residential Gas Service		316,575	20,039,750	20,039,750			\$ 33,6	\$ 33,970,857	ø
Multi-Family Master Metered Gas Service Basic Service Charge Commodity Charge Baseline Quantities Tier II Total Multi-Family Master Metered Gas Service	GN-20	24	11,606 156 11,762	11,606 156 11,762	ა აა	25.00 1.47192 1.59715	မ မ မ	600 17,083 249 17,932	9 11 12
Multi-Family Master Metered Gas Service - Submetered Basic Service Charge Submeter Discount Commodity Charge Baseline Quantities Tier II Total Muti- Fam Sub	GN-25	00 0	000	000	မ မ မ	25.00 (9.58) 1.47192 1.59715	မ မ မ မ	00 000	115 115 115
Total Multi-Family Master Metered Gas Service		24	11,762	11,762			÷ \$	17,932	18
Core General Gas Service Basic Service Charge Transportation Service Charge Commodity Charge First 100 Next 500 Next 2400 Over 3000	GN-35/ GN-40	19,078	1,011,005 1,901,594 1,689,766 1,431,347	1,011,005 1,901,594 1,689,766	<u></u>	11.00 780.00 1.20489 0.89420 0.63029 0.23656	~~~~ ·	209,858 9,360 1,218,151 1,700,407 1,065,040	22 20 22 22 24
Total Core General Gas Service		19,078	6,033,712	6,033,712			\$	4,541,420	25

Line	No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	41	42	43
rgin	Revenues	(g)	006	10,809 11,709	600	726 1,326	0	00	40,800 318,240	501,867 860,907	\$ 39,404,151	259,190	\$ 39,663,341	\$ 39,663,342	(1)
ed Ma	Å		θ	မာ	ŝ	မာ	ŝ	မာ	လ လ	မာ	\$ 30	θ	\$ 30	\$ 30	φ
Proposed Margin	Rates	(f)	25.00	0.05970	25.00	3.59621	25.00	3.59621	100.00 780.00	0.50711					
			ŝ	\$	\$	Ф	\$	Ф	ଓ ଓ	Ф					
iits nes	Sales	(e)		181,069 181,069		202 202		00		00	26,266,495				
Test Year Billing Units f Volumes	Transport	(p)		181,069 181,069		202		00		989,670 989,670	27,256,165				
Test Number of	Bills	(c)	36	36	24	24	0	0	408 420	408	336,145				
Schedule	No.	(q)	GN-50		GN-60		GN-66		GN-70						
	Description	(a)	Core Natural Gas Service for Motor Vehicles Basic Service Charge	commount onarige All Usage Total Core Natural Gas Service for Motor Vehicles	Core Internal Combustion Engine Gas Service Basic Service Charge	All Usage Total Core Internal Combustion Engine Gas Service	Core Small Electric Power Generation Gas Service Basic Service Charge	All Usage All Usage Total Core Small Electric Power Generation Gas Service	Noncore General Gas Transportation Service Basic Service Charge Transportation Service Charge	All Usage Total Noncore General Gas Transportation Service	Total All Schedules	Other Operating Revenues	Total Operating Revenue	Total Revenue Requirement	Over/Under Recovery
Line	No.		26	27 28	29	30 31	32	33 34	35 36	37 38	39	40	41	42	43

CHAPTER 23 Proxy Statement

Company Witness: Theodore K. Wood



2019 Proxy Statement

Notice of 2019 Annual Meeting of Shareholders To Be Held on May 2, 2019

March 22, 2019



Dear Shareholder:

You are cordially invited to the Annual Meeting of Shareholders of Southwest Gas Holdings, Inc. scheduled to be held on Thursday, May 2, 2019, at Cili Restaurant at Bali Hai Golf Club, 5160 Las Vegas Blvd. South, Las Vegas, Nevada 89119, commencing at 3:00 p.m. PDT. Your Board of Directors looks forward to greeting personally those shareholders able to attend.

The Notice of Annual Meeting of Shareholders and the Proxy Statement contain details of the business to be conducted at the Annual Meeting. Your Board of Directors asks you to support the director nominees and to follow its recommendations with respect to the other proposals set forth in the Proxy Statement, which include increasing the authorized shares of Company common stock and approving the Company's reincorporation from California to Delaware.

It is important that your shares are represented and voted at the meeting regardless of the number of shares you own and whether or not you plan to attend. Accordingly, we request you vote, as instructed in the Notice of Internet Availability of Proxy Materials or proxy card, via the internet, by telephone or on the proxy card, as promptly as possible. If you received only a notice in the mail or by email, you may also request a paper proxy card to submit your vote by mail, if you prefer. However, we encourage you to vote via the internet or by telephone because it is more convenient, conserves natural resources and reduces printing costs and postage fees.

Your interest and participation in the affairs of our company are greatly appreciated.

Sincerely yours,

ohn P.

John P. Hester *President and Chief Executive Officer*



NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

March 22, 2019

NOTICE IS HEREBY GIVEN that the Annual Meeting of Shareholders of Southwest Gas Holdings, Inc. ("we," "us" or the "Company") will be held on Thursday, May 2, 2019, at 3:00 p.m. PDT, at Cili Restaurant at Bali Hai Golf Club, 5160 Las Vegas Blvd. South, Las Vegas, Nevada 89119, for the following purposes:

- (1) To elect eleven directors of the Company;
- (2) To consider and act upon a proposal to amend the Articles of Incorporation of the Company to increase the authorized shares of Common Stock from 60,000,000 to 120,000,000 shares;
- (3) To consider and act upon a proposal to approve the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary;
- (4) To approve, on a non-binding advisory basis, the Company's executive compensation;
- (5) To ratify the selection of PricewaterhouseCoopers LLP as the independent registered public accounting firm for the Company for fiscal year 2019;
- (6) To approve the adjournment of the Annual Meeting, if necessary, to solicit additional proxies in the event that there are not sufficient votes at the time of the Annual Meeting to approve Proposal 2 or Proposal 3; and
- (7) To transact such other business as may properly come before the meeting or any adjournment thereof.

The Board of Directors of the Company established March 5, 2019 as the record date for the determination of shareholders entitled to vote at the Annual Meeting and to receive notice thereof.

Please review the proxy statement and vote, at your earliest convenience, using any of the following methods:

Call the phone number listed on your proxy card to vote **BY TELEPHONE**

- Usit the website listed on your proxy card to vote VIA THE INTERNET
- Sign, date and return your proxy card in the enclosed postage-paid envelope to vote **BY MAIL**
- Attend the meeting to vote IN PERSON

Your vote is very important. Please submit your proxy even if you plan to attend the Annual Meeting.

By Order of the Board of Directors

Karen S. Haller Executive Vice President/Chief Legal and Administrative Officer and Corporate Secretary

Important Notice Regarding the Availability of Proxy Materials for the Shareholder Meeting to be held on

May 2, 2019: Pursuant to rules promulgated by the Securities and Exchange Commission ("SEC"), we have elected to provide access to our proxy materials by notifying you of the availability of our proxy materials on the internet. On or about March 22, 2019, an important Notice Regarding the Availability of Proxy Materials (the "Notice of Internet Availability") will be sent to our shareholders of record, and a paper copy of the proxy materials will be sent to employee investment plan participants and those shareholders of record who have requested a paper copy. Brokers and other nominees who hold shares on behalf of beneficial owners will be sending their own similar notice regarding availability of proxy materials. In accordance with SEC rules, you may access our proxy materials and 2018 Annual Report to Shareholders at *www.proxydocs.com/swx* or *www.swgasholdings.com/proxymaterials*, which provide for anonymous access. The Notice of Internet Availability also includes instructions for shareholders to request, at no charge, a printed copy of the proxy materials.

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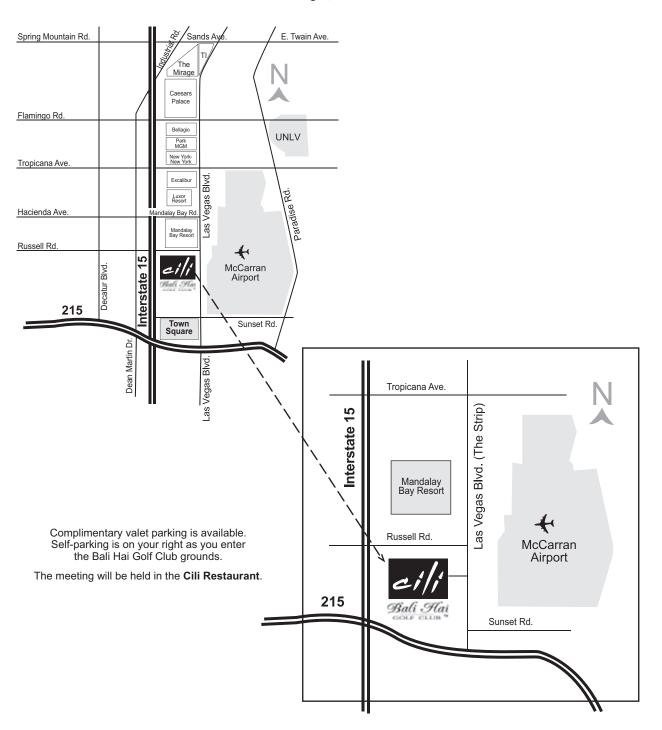
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LOCATION OF 2019 SOUTHWEST GAS HOLDINGS, INC.

ANNUAL MEETING OF SHAREHOLDERS

Cili Restaurant at Bali Hai Golf Club 5160 Las Vegas Blvd. South Las Vegas, NV 89119



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PROXY STATEMENT

ANNUAL MEETING OF SHAREHOLDERS

To Be Held on May 2, 2019

GENERAL INFORMATION

We are providing these proxy materials to you in connection with the solicitation of proxies by the Board of Directors (the "Board") of Southwest Gas Holdings, Inc. ("we," "us," or the "Company") for the 2019 Annual Meeting of Shareholders and for any adjournment or postponement of the Annual Meeting. The Annual Meeting will be held on Thursday, May 2, 2019, at 3:00 p.m. PDT, at Cili Restaurant at Bali Hai Golf Club, 5160 Las Vegas Blvd. South, Las Vegas, Nevada 89119.

We are sending a Notice of Internet Availability of Proxy Materials ("Notice") and making this Proxy Statement, a form of Proxy Card and our 2018 Annual Report to Shareholders available to shareholders on our website at *www.swgasholdings.com/proxymaterials* on or about March 22, 2019. We also will be mailing these materials to certain shareholders and to those shareholders who request paper or e-mail copies of the proxy materials on or about March 22, 2019.

What is the purpose of the Annual Meeting?

At the Annual Meeting, shareholders will act upon the matters outlined in the Notice of Annual Meeting of Shareholders and described in these materials, including:

- The election of eleven directors of the Company;
- To approve an increase in the authorized shares of Company Common Stock from 60,000,000 to 120,000,000 shares;
- The approval of the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary;
- The approval, in a non-binding advisory vote, of the Company's executive compensation;
- The ratification of the selection of PricewaterhouseCoopers LLP as the independent registered public accounting firm for the Company for fiscal year 2019;
- To approve the adjournment of the Annual Meeting, if necessary, to solicit additional proxies in the event that there
 are not sufficient votes at the time of the Annual Meeting to approve Proposal 2 or Proposal 3; and
- The transaction of other business, if properly presented at the meeting.

Who is entitled to vote at the Annual Meeting?

Only shareholders of record at the close of business on March 5, 2019, the record date for the Annual Meeting, are entitled to receive notice of and to vote at the meeting. If you were a shareholder of record on that date, you are entitled to vote all of the shares that you held on that date at the meeting, or any adjournment or postponement of the meeting.

If you wish to vote in person at the Annual Meeting, you must provide proof of identification, e.g., driver's license, state picture identification or passport.

How many votes do I have?

You have one vote for each share of the Company's common stock ("Common Stock") you owned as of the record date for the Annual Meeting.

How do I vote?

If your shares are registered directly in your name, you are the holder of record of those shares and can vote your shares either in person at the Annual Meeting or by proxy whether or not you attend the meeting. To vote by proxy, you must either:

- Vote over the internet at *www.proxypush.com/swx* by following the instructions provided in the Notice or Proxy Card;
- Vote by telephone by calling toll-free 1-866-883-3382 on a touch-tone telephone and following the instructions as prompted; or
- Request and complete a Proxy Card, sign it and return it in the postage-paid envelope that will be provided to you. The Notice has instructions on how to request a Proxy Card if you did not receive printed materials.

If you hold your shares in a brokerage account or through a bank or other holder of record, you are the beneficial owner of the shares, and the shares are held in "street name." Your broker, bank or other holder of record (collectively referred to as "broker") is sending these proxy materials to you. As the beneficial owner, you have the right to direct your broker how to vote by following the instructions provided by your broker or to vote in person at the Annual Meeting. Shares held in street name may be voted in person at the Annual Meeting only if the shareholder obtains a legal proxy from the broker that holds the shares giving the shareholder the right to vote the shares.

If you hold your shares indirectly in the Southwest Gas Corporation Employees' Investment Plan (the "EIP"), you have the right to direct the EIP trustee how to vote your shares by following the instructions from the EIP trustee accompanying the Proxy Statement. If you do not direct the EIP trustee how to vote your shares, then the EIP trustee will vote your shares in the same proportion as the shares for which timely instructions were received from other EIP participants.

Can I revoke or change my vote?

Yes, a record holder can revoke or change a vote at any time prior to the voting of shares at the Annual Meeting by (a) casting a new vote by telephone or over the internet; (b) sending a new Proxy Card with a later date; (c) sending a written notice of revocation that is received on or prior to May 1, 2019, by mail to EQ Shareowner Services, Southwest Gas Holdings, Inc., P.O. Box 64945, Saint Paul, MN 55164-0945; or (d) voting in person at the Annual Meeting. If a broker, bank, trustee or other nominee holds your shares, you must contact them in order to find out how to change your vote.

What are the Board's recommendations?

The Board's recommendations are set forth within the description of each proposal in this Proxy Statement. In summary, the Board recommends a vote:

- FOR the election of the nominated slate of directors (see Proposal 1);
- FOR increasing the authorized shares of Company Common Stock from 60,000,000 to 120,000,000 shares (see Proposal 2);
- FOR the approval of the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary (see Proposal 3);
- FOR the approval, on an advisory basis, of the Company's executive compensation (see Proposal 4);
- FOR the ratification of the selection of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm for fiscal year 2019 (see Proposal 5); and
- FOR the approval of the adjournment of the Annual Meeting, if necessary, to solicit additional proxies in the event that there are not sufficient votes at the time of the Annual Meeting to approve Proposal 2 or Proposal 3 (see Proposal 6).

How many votes must be present to hold the Annual Meeting?

In order to conduct business at the Annual Meeting, the holders of a majority of the shares of Common Stock entitled to vote must be represented in person or by proxy at the meeting. This is called a quorum. As of the close of business on the record date, 53,108,242 shares of Common Stock were outstanding. Therefore, the presence, in person or by proxy, of the holders of at least 26,554,122 shares of Common Stock will be required to establish a quorum at the Annual Meeting. Proxies received but marked as abstentions and broker non-votes will be included in the calculation of the votes considered to be present at the meeting.

A "broker non-vote" occurs when a broker lacks discretionary authority to vote on a "non-routine" proposal and a beneficial owner fails to give the broker voting instructions on that matter. The rules of the New York Stock Exchange (the "NYSE") determine whether matters presented at the Annual Meeting are "routine" or "non-routine" in nature. The election of directors is considered a "non-routine" matter. Similarly, the proposals to approve the Company's reincorporation from California to Delaware, to approve the Company's executive compensation (on a non-binding, advisory basis) and to approve adjournment of the Annual Meeting are considered "non-routine" matters. Therefore, beneficial owners who hold their shares in street name must provide voting instructions to their brokers in order for their broker to vote their shares on these matters. The increase in authorized shares of Company Common Stock and the ratification of the selection of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm for fiscal year 2019 are each considered a "routine" matter, and brokers will have discretionary authority to vote on these matters without any instructions from the beneficial owners.

What vote is required to approve each Proposal?

The eleven nominees for director who receive the highest number of votes "FOR" their election will be elected as directors. This is called a "plurality vote". However, our Board has adopted a Majority Voting Policy, which is reflected in our Corporate Governance Guidelines. Pursuant to this policy, any director who receives a greater number of votes "WITHHELD" from his or her election than votes "FOR" his or her election must promptly submit his or her resignation to the Board following the certification of the election results. For more details of our majority voting policy, see "GOVERNANCE OF THE COMPANY—Majority Voting Policy" below.

The affirmative vote of a majority of the shares outstanding on the record date (March 5, 2019) is necessary to approve the increase in the authorized number of shares of Company Common Stock to 120,000,000 shares and the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary.

The affirmative vote of a majority of shares of Common Stock represented and voting at a duly held Annual Meeting at which a quorum is present (which shares of Common Stock voting affirmatively also constitute at least a majority of the required quorum) is necessary to ratify PricewaterhouseCoopers LLP's selection as the independent registered public accounting firm for the Company for fiscal year 2019; to approve, on an advisory basis, the Company's executive compensation; and to approve the adjournment of the Annual Meeting, if necessary, to solicit additional proxies. Although the result of the vote to approve executive compensation is non-binding, the Board will consider the outcome of the vote when making future executive compensation decisions.

How are my votes counted?

- Election of Directors: You may vote "FOR all nominees (except as marked)" or "WITHHELD from all nominees." If you mark "FOR all nominees (except as marked)," your votes will be counted for all of the director nominees you do not mark. Abstentions and broker non-votes will not be counted as votes cast and will, therefore, have no effect on the election of directors.
- Approval to Increase Authorized Shares of Company Common Stock: You may vote "FOR," "AGAINST," or "ABSTAIN" with respect to the increase of authorized shares of Company Common Stock. If you "ABSTAIN" or if your shares are treated as a broker non-vote, your votes will be counted for purposes of establishing a quorum but will be treated as voting "AGAINST" approval of the proposal.
- Approval of the Company's Reincorporation from California to Delaware: You may vote "FOR," "AGAINST," or "ABSTAIN" with respect to the proposal to approve the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary. If you "ABSTAIN" or if your shares are treated as a broker non-vote, your votes will be counted for purposes of establishing a quorum but will be treated as voting "AGAINST" approval of the proposal.
- Advisory Vote to Approve Executive Compensation: You may vote "FOR," "AGAINST" or "ABSTAIN" with respect to the advisory vote to approve the Company's executive compensation. The result of this vote is non-binding. However, the Board will consider the outcome of the vote when making future executive compensation decisions. Abstentions and broker non-votes will not be counted as votes cast and will, therefore, have no effect on the approval of this proposal.
- Ratification of the selection of PricewaterhouseCoopers LLP: You may vote "FOR," "AGAINST" or "ABSTAIN" with respect to the ratification of the selection of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm for fiscal year 2019. Abstentions and broker non-votes will not be counted as votes cast and will, therefore, have no effect on the outcome of this proposal.

• Approval of Adjournment of the Annual Meeting, if Necessary, to Solicit Additional Proxies: You may vote "FOR," "AGAINST" or "ABSTAIN" with respect to the approval of adjournment of the Annual Meeting, if necessary, to solicit additional proxies. Abstentions and broker non-votes will not be counted as votes cast and will, therefore, have no effect on the approval of this proposal.

We will appoint an inspector of election in advance of the meeting to tabulate votes, to ascertain whether a quorum is present, and to determine the voting results on all matters presented to Company shareholders.

What if I do not vote for any or all of the matters listed on my Proxy Card?

As a shareholder of record, if you return a signed Proxy Card without indicating your vote on any or all of the matters to be considered at the Annual Meeting, your shares will be voted "FOR" the director nominees listed on the Proxy Card, "FOR" approval of the amendment to the Company's Articles of Incorporation to increase the authorized number of shares of the Company's Common Stock, "FOR" approval of the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary, "FOR" the advisory vote to approve executive compensation, "FOR" the ratification of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm for fiscal year 2019, and "FOR" the approval of the adjournment of the Annual Meeting, if you have not voted otherwise on a particular proposal. With respect to any other matter that properly comes before the Annual Meeting, Michael J. Melarkey and José A. Cárdenas, the proxies designated by the Board and identified in the accompanying Proxy Card, will vote all proxies granted to them at their discretion.

Can the shares that I hold in a brokerage account or the EIP be voted if I do not instruct my broker or the EIP trustee?

- Shares held in street name: If you do not instruct your broker to vote your shares of Common Stock held in street name, your broker has the discretion to vote your shares on all routine matters scheduled to come before the Annual Meeting. For "non-routine" matters, your broker does not have discretion to vote your shares and, if you do not give your broker voting instructions, your shares will be considered broker non-votes. The election of directors, the proposal to approve the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary, the advisory vote to approve executive compensation and the proposal to approve adjournment of the Annual Meeting to solicit additional proxies are considered "non-routine" matters, and in order to vote on these matters, you will need to instruct your broker on how to vote your shares. The increase in authorized shares of Company Common Stock and the ratification of the selection of the Company's independent registered public accounting firm are considered "routine," and your broker will have the discretion to vote your shares unless you provide voting instructions.
- Shares held in the EIP: If you do not provide instructions to the EIP trustee for the shares of Common Stock that you hold in the EIP, then the EIP trustee will vote your shares in the same proportion as the shares for which timely instructions were received from other EIP participants.

Are proxy materials available on the internet?

Complete copies of the Notice of 2019 Annual Meeting of Shareholders, this Proxy Statement and the 2018 Annual Report to Shareholders are available at *www.swgasholdings.com/proxymaterials*.

Why did I receive a Notice instead of a full set of the proxy materials?

The Securities and Exchange Commission ("SEC") rules allow us to furnish our proxy materials via the internet. Accordingly, we sent to the majority of our shareholders a Notice for this year's Annual Meeting of Shareholders. Instructions on how to access the proxy materials via the internet or to request a paper or e-mail copy can be found in the Notice. In addition, shareholders may request to receive proxy materials in printed form by mail or e-mail on an ongoing basis by submitting a request to us at *www.investorelections.com/swx*. A shareholder's election to receive proxy materials by mail or e-mail will remain in effect until the shareholder terminates it. If multiple shareholders reside at the same address, each shareholder will receive their own proxy materials, unless the shareholder instructs otherwise.

What happens if the Annual Meeting is postponed or adjourned?

If the Annual Meeting is postponed or adjourned, your proxy will still be valid and may be voted at the postponed or adjourned meeting. You will still be able to change or revoke your proxy until it is voted.

Who is soliciting my proxy?

Your proxy is being solicited by the Board, and the Company will bear the entire cost of the proxy solicitation. Morrow Sodali LLC ("Morrow"), 470 West Ave, Stamford, CT 06902 has been employed to assist in obtaining proxies from certain shareholders at an estimated cost of \$9,000, plus certain expenses. Arrangements have also been made with brokerage houses and other custodians, nominees and fiduciaries to send proxies and proxy materials to you, if your shares are held in "street name." Morrow will reimburse them for their expenses in providing the materials to you on our behalf. In addition, solicitation by our directors, officers or employees in person or by telephone, e-mail or facsimile may supplement solicitation of proxies. No additional compensation will be paid for such services.

GOVERNANCE OF THE COMPANY

Board of Directors

Under the provisions of the California Corporations Code and the Company's Bylaws, the Company's business, property and affairs are managed by or under the direction of the Board. The Board is kept informed of the Company's business through discussions with the Chief Executive Officer and other officers and by reviewing reports and other materials provided to it by management at the Board and committee meetings.

Independence

The Board determines the independence of our directors by applying the independence principles and standards established by the New York Stock Exchange ("NYSE") and included in our Corporate Governance Guidelines. Our guidelines require that the Board be comprised of a majority of independent directors, consistent with the NYSE rules. The Board determined that directors Boughner, Cárdenas, Chestnut, Comer, Hanneman, Lewis-Raymond, Mariucci, Melarkey, Thoman, Thomas and Thornton have no material relationships with the Company and are independent ("Independent Directors"). The Board also determined that all of the members of the Audit, Compensation, and Nominating and Corporate Governance Committees are independent.

In making these determinations, the Board reviewed all transactions or relationships with the Company using a definition of "material relationships" that (i) includes the criteria listed in Section 303A of the listing requirements of the NYSE and (ii) presumes that matters not subject to disclosure pursuant to Item 404 of Regulation S-K of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and matters above the Item 404 threshold which are authorized by Southwest Gas Corporation's regulatory tariffs, are not "material relationships." The definition of "material relationships" for directors on the Audit Committee also includes the criteria listed in Section 10A(m)(3) of the Exchange Act. The definition of "material relationships" for directors serving on the Compensation Committee also includes the criteria listed in Section 16(b) of the Exchange Act and Section 162(m) of the Internal Revenue Code as it existed prior to the 2017 amendment. The independence criteria used are included in the Company's Corporate Governance Guidelines, which are available on the Company's website at *www.swgasholdings.com*. The Board based its independence determination primarily on a review of the responses of the directors and officers to questions regarding employment and compensation history, affiliations and family relationships, discussions with directors, and a review of Company payment histories.

In concluding that the directors listed above are independent, the Board reviewed transactions pursuant to which we purchased approximately \$1.8 million in datacenter and communications-related products and services in 2018 from Switch, Inc. (NYSE: SWCH) or its subsidiaries ("Switch"). Director Thomas and certain members of his family have an equity interest in Switch, and director Thomas is a director of Switch, Inc. The Nominating and Corporate Governance Committee, excluding director Thomas, has reviewed the Switch transaction annually since 2011 under the Company's policy for related person transactions, taking into account all relevant information, and has determined each year that director Thomas does not have a direct or indirect material interest in the transaction. The principal considerations in this determination are that the relationship with Switch was negotiated on an arm's-length basis in the ordinary course of business, the transaction represents less than 1% of Switch's annual revenues and director Thomas and his relatives and affiliates hold, collectively, a minority interest in Switch, which does not involve any relative of director Thomas acting as an officer or employee of Switch or in any similar capacity. The transaction also represents less than 1% of our annual operations and maintenance expense. Based on the committee's recommendation and its own review, the Board has determined that director Thomas is an Independent Director.

Board Meetings

The Board held five regular meetings in 2018 and an organizational meeting immediately following the 2018 Annual Meeting of Shareholders. Each incumbent director attended more than 75% of the Board and committee meetings on which he or she served during 2018. Non-management directors meet in executive session, without management present, at least four times a year, and the Independent Directors are expected to meet at least once a year. These sessions are presided over by Michael J. Melarkey, Chairman of the Board (the "Chair"), who is the current "Presiding Director."

Board Leadership Structure

The policy of the Board is that the role of Chair should be separate from that of the Chief Executive Officer. The Chair is elected annually, at the organizational meeting, by the full Board. Every three years or upon a Chair's

resignation, retirement, or failure to be reelected to the Board by shareholders, the Board conducts an in-depth assessment of potential candidates for that position. The Board believes that this leadership structure is the appropriate structure for the Company at this time because it allows the Board to exercise true independent oversight of management. It is the Board's intention to reelect director Melarkey as Chair, subject to his reelection as a director at the Annual Meeting of Shareholders.

The Board believes the structure described above provides strong leadership for our Board, while positioning our Chief Executive Officer as the leader of the Company for our investors, counterparties, employees and other stakeholders. The Board believes that the current structure, which includes an independent Chairman serving as Presiding Director, helps ensure independent oversight over the Company and allows the Chief Executive Officer to focus his energies on management of the Company.

All members of the Board are independent, with the exception of the Chief Executive Officer. A number of the independent Board members are currently serving or have served as directors or as members of senior management of other public companies and large institutions. All of the Board committees are comprised solely of Independent Directors, each with a different Independent Director serving as Chair of the committee. The Board believes that the number of independent experienced directors that make up our Board, along with the independent oversight of the Board by the non-executive Chair, benefits the Company and its shareholders.

The Board recognizes that in the event that circumstances facing the Company change, a different leadership structure may be in the best interests of the Company and its shareholders.

Risk Oversight

The entire Board is responsible for reviewing and overseeing the Company's internal risk management processes and policies to help ensure that the Company's corporate strategy is functioning as directed and that necessary steps are taken to foster a culture of risk-aware and risk-adjusted decision making throughout the Company.

Regulation by various state and federal utility regulatory commissions is one of the key risks that the Company's utility subsidiary faces. The limits imposed on Southwest Gas Corporation as a public utility permeate its business operating model (including pricing of services, authorized areas of service and obligations to serve the public). Other risks affecting the Company include risks associated with credit, liquidity, cybersecurity and operational matters and have evolved with changes in the natural gas distribution and utility infrastructure services industries.

The Board receives regular reports from management in areas of material risk to the Company, including credit risk, liquidity risk and operational risk. Credit and liquidity risks are addressed in the review of capital budgets and ongoing capital requirements. Liquidity risks are also addressed in the review of gas supply acquisition and related regulatory cost recovery. Operational risks are addressed in the review of operating budgets, key performance indicators and regulatory compliance requirements, including pipeline safety requirements. Cybersecurity is a priority that is regularly addressed by the Board with the relevant functional leaders of the Company. The full Board receives these reports, as well as regular reports on the Company's enterprise risk management program, from management to help enable it to oversee and manage the Company's risks in these areas. Oversight responsibility rests with the full Board and is not assigned to any of the Board committees.

Board and Management Approach to Sustainability

The Company strives to make a positive impact on our employees, customers and the environment, and we are dedicated to improving energy efficiency, protecting the environment, and supporting our communities. We have been implementing sustainable business practices in key aspects of our operations, with a goal of refining these practices and rolling them out to the entire Company over time. For example, in 2019, Southwest Gas Corporation released its Sustainability Report, reporting on the sustainable practices in our utility operations, among other things. In addition to demonstrating our ongoing commitment to sustainable and responsible business practices, the Sustainability Report also highlights our commitment to providing assistance to local communities and customers in Southwest Gas Corporation's service territories.

Please visit our website at *www.swgasholdings.com* to view our Sustainability Report and future updates that we post as we roll out our sustainable business practices to other aspects of our business. The information on our website is not a part of or incorporated into this proxy statement.

Committees of the Board

The standing committees of the Board are the Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. The committees are composed solely of Independent Directors as outlined above. The table below shows the directors who are currently members or chairs of each committee.

Name of Director	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee
Robert L. Boughner	1		\checkmark
José A. Cárdenas	1		Chairman
Thomas E. Chestnut		\checkmark	\checkmark
Stephen C. Comer	1	Chairman	
LeRoy C. Hanneman, Jr.*	1	\checkmark	
John P. Hester			
Jane Lewis-Raymond	1		\checkmark
Anne L. Mariucci		\checkmark	\checkmark
Michael J. Melarkey		\checkmark	\checkmark
A. Randall Thoman	Chairman	\checkmark	
Thomas A. Thomas	1		1
Leslie T. Thornton	1	1	

Mr. Hanneman has attained retirement age, as specified in the Corporate Governance Guidelines, and will retire from Board service immediately prior to the 2019 Annual Meeting.

The *Audit Committee*, whose functions are discussed here and below under the caption "Audit Committee Information," is a separately designated standing committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. The committee meets periodically with management to consider, among other things, the adequacy of the Company's internal control and financial reporting process. The committee also discusses these matters with the Company's independent registered public accounting firm, internal auditors and Company financial personnel. The Board has determined that directors Comer and Thoman each qualify as an "*audit committee financial expert*," as the term is defined in Item 407(d)(5)(ii) of Regulation S-K under the Exchange Act. The Audit Committee held five meetings during 2018.

The *Compensation Committee* is responsible for determining Chief Executive Officer compensation and making recommendations to the Board annually on such matters as directors' fees and benefit programs, executive compensation and benefits, and compensation and benefits for all other Company employees. The committee's responsibilities, as outlined in its charter, can be delegated to subcommittees made up of committee members. The committee receives recommendations from management on the amount and form of executive and director compensation, and the committee has the ability to directly employ consultants to assess the executive compensation program and director compensation, which it routinely does. The committee is also responsible for the "Compensation Committee Report" and related disclosures contained in this Proxy Statement. The Compensation Committee held four meetings during 2018.

The *Nominating and Corporate Governance Committee* is responsible for making recommendations to the Board regarding nominees to be proposed for election as directors; evaluating the Board's size, composition, organization, processes, practices and committee structures; and developing the criteria for the selection of directors. The committee will consider director candidates suggested by shareholders. The process for selecting directors is addressed in more detail below under the caption "Selection of Directors." The committee is also charged with the responsibility of developing and recommending to the Board corporate governance principles and implementing and monitoring compliance with the Company's Code of Business Conduct and Ethics. The Nominating and Corporate Governance Committee held five meetings during 2018.

The charters for the Audit, Compensation and Nominating and Corporate Governance Committees, the Company's Corporate Governance Guidelines and the Company's Code of Business Conduct and Ethics that applies to all employees, officers and directors are available on the Company's website at *www.swgasholdings.com*. Print versions of these documents are available to shareholders upon request directed to the Corporate Secretary, Southwest Gas Holdings, Inc., 5241 Spring Mountain Road, Las Vegas, NV 89150.

Selection of Directors

We believe the Board should be composed of individuals with varied, complementary backgrounds, who possess certain core competencies, some of which may include broad experience in business, finance or administration and familiarity with national and international business matters. Additional factors that will be considered in the selection process include the following:

- Independence from management;
- Diversity, age, education and geographic location;
- Knowledge and business experience;
- Integrity, leadership, reputation and ability to understand the Company's business;
- Existing commitments to other businesses and boards; and
- The current number and competencies of our existing directors.

We define "diversity" in a broad sense, i.e., age, race, color, gender, geographic origin, ethnic background, religion, disability and professional experience. Neither the Nominating and Corporate Governance Committee nor the Board has a policy with regard to the consideration of diversity in identifying director nominees. However, the Nominating and Corporate Governance Committee takes diversity into consideration as it does the other factors listed above in selecting the director nominees for approval by the Board. The Nominating and Corporate Governance Committee does not assign a specific weight to any one factor.

The Nominating and Corporate Governance Committee will consider director candidates suggested by shareholders by applying the criteria for candidates described above and considering the additional information referred to below. Shareholders who would like to suggest a director candidate should write to the Company's Corporate Secretary and include:

- A statement that the writer is a shareholder and is proposing a candidate for consideration as a director nominee;
- The name of and contact information for the candidate;
- A statement of the candidate's business and educational experience;
- Information regarding each of the factors listed above, sufficient to enable the committee to evaluate the candidate;
- A statement detailing any relationship between the candidate and the Company, Company affiliates and any competitor of the Company;
- Detailed information about any relationship or understanding between the proposing shareholder and the candidate;
- Information on the candidate's share ownership in the Company; and
- The candidate's written consent to being named a nominee and serving as a director, if elected.

The Nominating and Corporate Governance Committee has an ongoing program for identifying and evaluating potential director candidates. When seeking a candidate for director, the Nominating and Corporate Governance Committee may solicit suggestions from incumbent directors, management or others. As candidates are identified, their qualifications are reviewed in light of the selection criteria outlined above. Whether any of such candidates are selected depends upon the current director composition, the dynamics of the Board and the ongoing requirements of the Company (see "Board Evaluation and Succession Planning" below).

Shareholders may also nominate a person for election to the Board at an annual meeting by giving written notice to the Company not less than 120 days prior to the first anniversary of the date of the proxy statement for the preceding year's annual meeting, or within 10 days after notice is mailed or public disclosure is made regarding either a change of the annual meeting by more than 30 days or a special meeting at which directors are to be elected. In order to make such a nomination, a shareholder is required to include in the written notice the following:

- As to each person whom the shareholder proposes to nominate for election or reelection as a director, all the information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required pursuant to Regulation 14A of the Exchange Act;
- Each person's written consent to being named a nominee and serving as a director, if elected;
- The name and address of the proposing shareholder or beneficial owner; and
- The class and number of shares of the Common Stock held directly or indirectly by the proposing shareholder.

All candidates for the Board also may be required to complete a director questionnaire provided by the Company.

The foregoing summary of the Company's shareholder director nomination procedure is not complete and is qualified in its entirety by reference to the full text of the Company's Bylaws that have been publicly filed with the SEC and are available at *www.sec.gov*.

Board Evaluation and Director Succession Planning

Each year, the Board and its committees conduct self-evaluations of their respective performances. These processes are overseen by the Nominating and Corporate Governance Committee and are reviewed annually to ensure that they are effective and that all appropriate feedback is being sought and obtained. As part of the Board's most recent self-evaluation process, the directors considered various topics relating to Board composition, structure, effectiveness and responsibilities, as well as the overall mix of director skills, experience and backgrounds. The Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee self-evaluation processes are led by their respective committee chairs, as provided in the committee charters. Each committee performance evaluation includes a review of the committee charter to consider the necessity and appropriateness of changes.

Annual evaluations are a key component of the director nomination process and director succession planning. In planning for succession, the Nominating and Corporate Governance Committee and the Board consider the results of Board evaluations, as well as other appropriate information, including the overall mix of tenure and experience of the Board, the types of skills and experience desirable for future Board members and the needs of the Board and its committees at the time. Recent succession planning discussions have focused on the size and composition of the Board, including Board diversity, and anticipated director retirements.

Given the importance of recruiting qualified, independent directors to serve as directors of the Company, the Board believes that it is prudent to conduct an organized search for potential director candidates in order to preserve the high quality of the Board and maintain its diversity of experience. Following the 2016 annual meeting of shareholders, director Cárdenas was named Chairman of the Nominating and Corporate Governance Committee to lead the execution of our succession plans over the course of the next several years. In 2018, the process led to the selection of two new directors, Jane Lewis-Raymond and Leslie T. Thornton, who began Board service on January 1, 2019.

Majority Voting Policy

The Company's Corporate Governance Guidelines set forth our majority voting policy for directors, which states that, in an uncontested election, if any director nominee receives a greater number of votes "withheld" from his or her election than votes "FOR" his or her election (a "Majority Withheld Vote"), the director nominee must promptly tender his or her resignation to the Board following certification of the shareholder vote.

The Nominating and Corporate Governance Committee must promptly consider the tendered resignation and make a recommendation to the Board as to whether to accept or reject the tendered resignation, or whether other action should be taken. The Nominating and Corporate Governance Committee in making its recommendation, and the Board in making its decision, may each consider any factors or other information that it considers appropriate and relevant, including, but not limited to:

- the stated reasons, if any, why shareholders withheld their votes and whether they can be cured;
- the director's tenure;
- the director's qualifications;
- · the director's past and expected future contributions to the Company; and
- the overall composition of the Board.

The Board will act on the Nominating and Corporate Governance Committee's recommendation within 90 days following certification of the shareholder vote. The Board may accept a director's resignation or reject the resignation. Thereafter, the Company will promptly publicly disclose the Board's decision whether to accept or reject the tendered resignation and its rationale for rejecting the tendered resignation, if applicable.

If the Board accepts a director's resignation, or if a nominee for director is not elected and the nominee is not an incumbent director, then the Board, in its sole discretion, may fill any resulting vacancy or may decrease the size of the Board, in each case pursuant to our Bylaws. If a director's resignation is not accepted by the Board, such director will continue to serve until the next annual meeting and until his or her successor is duly elected, or his or her earlier resignation or removal.

Any director who tenders his or her resignation pursuant to this policy may not participate in the Nominating and Corporate Governance Committee's recommendation or the Board's decision to accept or reject the tendered resignation. If each member of the Nominating and Corporate Governance Committee receives a Majority Withheld Vote at the same election, then the Independent Directors who do not receive a Majority Withheld Vote must appoint another committee to consider any tendered resignations and recommend to the Board whether to accept such resignations.

Through this policy, the Board seeks to be accountable to all shareholders and to respect the rights of shareholders to express their views through their votes for directors. However, the Board also deems it important to preserve sufficient flexibility to make sound evaluations based on the relevant circumstances in the event of a Majority Withheld Vote against a specific director. For example, the Board may wish to assess whether the sudden resignations of one or more directors would materially impair the effective functioning of the Board. Accordingly, the Board's policy is intended to allow the Board to react to situations that could arise if the resignation of multiple directors would prevent a key committee from achieving a quorum or would otherwise adversely impact the Company.

Transactions with Related Persons

The Company has written policies and procedures for the review, approval or ratification of any transaction in which the Company was, is or will be a participant, the amount involved exceeds \$120,000 and any Director or Officer of the Company, any Director nominee, any person who is the beneficial owner of more than 5% of the Common Stock, or any immediate family members of the foregoing (each, a "Related Person"), had a direct or indirect material interest ("Related Person Transactions"). Under the Corporate Governance Guidelines, prior to entering into a potential Related Person Transaction, including transactions that involve less than \$120,000, the Related Person or applicable business unit leader must notify the General Counsel who will assess whether the transaction is a Related Person Transaction. If the General Counsel is involved in the transaction, the Chair of the Nominating and Corporate Governance Committee will assess the transaction. If it is determined that a transaction is a Related Person Transaction, the details of the transaction will be submitted to the Nominating and Corporate Governance Committee for review.

The Nominating and Corporate Governance Committee will approve and ratify the Related Person Transaction only if the committee determines that the transaction is not inconsistent with the best interests of the Company and may, in its discretion, impose any conditions it deems appropriate on the Company or the Related Person in connection with the Related Person Transaction.

Each transaction with a related person is unique and must be assessed on a case-by-case basis. The Company did not enter into any reportable Related Person transactions in 2018. In determining whether or not a transaction is inconsistent with the best interests of the Company, the Nominating and Corporate Governance Committee considers all of the relevant facts and circumstances available to the committee, including without limitation:

- The related person's interest in the proposed transaction;
- The approximate dollar value of the amount involved in the proposed transaction;
- The approximate dollar value of the amount of the related person's interest in the proposed transaction without regard to the amount of any profit or loss;
- Whether the transaction is proposed to be, or was, undertaken in the ordinary course of business of the Company;
- Whether the transaction is proposed to be, or was, entered into on terms no less favorable to the Company than terms that could have been reached with an unrelated third party;
- The purpose of, and the potential benefits to the Company from, the transaction;
- The impact on a director's independence in the event the related person is a director, an immediate family member of a director or an entity in which a director is a partner, shareholder or executive officer; and
- Any other information regarding the transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Directors and Officers Share Ownership Guidelines

In order to better align the interests of management and the Board with those of all shareholders, the Company has adopted Common Stock ownership guidelines for directors and officers.

Each non-employee director is required to retain at least five times the value of his or her annual cash retainer in Common Stock (or equivalents). Each non-employee director is required to fulfill the requirement within five years of being elected to the Board. All non-employee directors are currently in compliance with these guidelines.

Each Company officer and each officer of Southwest Gas Corporation is required to accumulate Common Stock with a target value equal to a multiple of the officer's base salary, ranging from one times base salary for vice presidents, three times base salary at the senior vice president level and above, and five times base salary for the Chief Executive Officer. If an officer has not yet reached the applicable target ownership requirement, he or she is required to retain a portion of the shares of Common Stock acquired from any stock option exercise or the vesting of restricted stock units or performance shares. The applicable retention rate is 75% for the Chief Executive Officer and

50% for all other officers. Qualified shares include Common Stock owned directly by the officer or his or her spouse, Common Stock held by the officer or his or her spouse in the Company's 401(k) or Dividend Reinvestment Plan and restricted stock units which have been granted but are subject to time vesting requirements. Similar to the requirement for Company officers, certain senior officers of Centuri Construction Group, including Centuri's Chief Executive Officer, are required to defer cash compensation into a deferral plan account with returns based on Centuri's financial performance. The target value in 2018 for Centuri's Chief Executive Officer is three times base salary. Beginning in 2019 the target value will be two times base salary. Beginning in 2019, the Centuri Chief Executive Officer will be required to accumulate Company Common Stock with a target value equal to two times base salary.

Pledging, Hedging and Other Transactions in Company Securities

Our Insider Trading Policy prohibits directors and executive officers of the Company from pledging Company securities as collateral for a loan. Transactions by directors and executive officers in Company securities involving short sales, puts, calls or other derivative securities, on an exchange or in any other organized market, are prohibited. Directors and executive officers are also prohibited from entering into hedging, monetization transactions or similar arrangements involving Company securities. We believe these prohibitions ensure that levels of stock ownership in accordance with our stock ownership guidelines are effective in aligning each individual's interests with those of our shareholders.

Compensation Committee Interlocks and Insider Participation

Board members who served on the Compensation Committee during 2018 were directors Chestnut, Comer, Hanneman, Mariucci, Melarkey, and Thoman. None of these directors has ever been an officer or employee of the Company or any of its subsidiaries. No member of the Compensation Committee had any relationship requiring disclosure under any paragraph of Item 404 of Regulation S-K of the Exchange Act. None of the Company's executive officers served as a director or a member of a compensation committee (or other committee serving an equivalent function) of any other entity, an executive officer of which served as a director of the Company or member of the Compensation Committee during 2018.

Director Attendance at Annual Meetings

We strongly support and encourage each member of our Board to attend our annual meeting of shareholders. Last year, all of the director nominees, except directors Lewis-Raymond and Thornton, who were not yet serving as directors, attended the 2018 Annual Meeting of Shareholders.

Communications with Directors

Any shareholder and other interested parties who would like to communicate with the Board, the Presiding Director or any individual director can write to:

Southwest Gas Holdings, Inc. Corporate Secretary 5241 Spring Mountain Road P.O. Box 98510 Las Vegas, Nevada 89193-8510

Depending on the subject matter, the Corporate Secretary will either:

- · Forward the communication to the director or directors to whom it is addressed;
- Attempt to handle the inquiry directly, for example, where it is a request for information about the Company or a stock-related matter; or
- Not forward the communication, if it is primarily commercial in nature, or if it relates to an improper or irrelevant topic.

At each regular Board meeting, management presents a summary of all communications received since the last Board meeting which were not previously forwarded and such communications are made available to all of the directors.

Securities Ownership by Directors, Director Nominees, Executive Officers, and Certain Beneficial Owners

Directors, Director Nominees and Executive Officers. The following table discloses all Common Stock beneficially owned by the Company's directors, the nominees for director and the executive officers of the Company, as of March 5, 2019.

Directors, Nominees & Executive Officers	No. of Shares of Common Stock Beneficially Owned ⁽¹⁾	Percent of Outstanding Common Stock
Robert L. Boughner	38,270	*
José A. Cárdenas	20,353	*
Thomas E. Chestnut	29,023	*
Stephen C. Comer	30,122(2)	*
LeRoy C. Hanneman, Jr. ⁽⁸⁾	27,672 ⁽³⁾	*
John. P. Hester	60,909 ⁽⁴⁾⁽⁵⁾	*
Jane Lewis-Raymond	1,710	*
Anne L. Mariucci	29,643	*
Michael J. Melarkey	32,290	*
A. Randall Thoman	24,416 ⁽⁶⁾	*
Thomas A. Thomas	29,770	*
Leslie T. Thornton	1,710	*
Gregory J. Peterson	13,115	*
Paul M. Daily		*
Karen S. Haller	23,383 ⁽⁵⁾⁽⁷⁾	*
Eric DeBonis	7,063	*
Other Executive Officers	69,701	*
All Directors and Executive Officers	439,150	0.83%

* Represents less than 1% of the issued and outstanding shares of the Company's Common Stock as of March 5, 2019.

(1) Common Stock holdings listed in this column only include restricted stock units that are vested as of March 5, 2019 or those that are scheduled to vest within 60 days after that date.

- (2) The holdings include 5,127 shares over which Mr. Comer has shared voting and investment power with his spouse through a family trust.
- (3) The holdings include 4,475 shares over which Mr. Hanneman has shared voting and investment control with his spouse through a family trust.
- (4) The holdings include 7,765 shares over which Mr. Hester's spouse has voting and investment control.
- (5) Number of shares does not include 28,018 shares held by the Southwest Gas Corporation Foundation, which is a charitable trust. Mr. Hester, Mr. Justin Brown, and Ms. Haller are trustees of the Foundation but disclaim beneficial ownership of the shares held by the foundation.
- (6) The holdings include 3,240 shares over which Mr. Thoman has shared voting and investment power with his spouse through a family trust.
- (7) The holdings include 996 shares over which Ms. Haller's spouse has voting and investment control.
- (8) Mr. Hanneman has attained retirement age, as specified in the Corporate Governance Guidelines, and will retire from Board service immediately prior to the 2019 Annual Meeting and is therefore not a director nominee. The total for Mr. Hanneman includes 23,197 shares that will vest upon his retirement, which will be within 60 days of the record date (March 5, 2019).

Beneficial Owners. The following table discloses all Common Stock beneficially owned by anyone that the Company believes beneficially owns more than 5% of the Company's outstanding shares of Common Stock based solely on the Company's review of filings with the SEC pursuant to Section 13(d) or 13(g) of the Exchange Act.

Beneficial Owner	No. of Shares Beneficially Owned	Percent of Outstanding Common Stock
BlackRock Inc. ⁽¹⁾ 55 East 52 nd Street New York, New York 10055	6,235,560	11.74%
The Vanguard Group, Inc. ⁽²⁾ 100 Vanguard Blvd. Malvern, Pennsylvania 19355	5,353,726	10.08%
T. Rowe Price Associates, Inc. ⁽³⁾ 100 E. Pratt Street Baltimore, Maryland 21202	3,013,031	5.67%

(1) According to a Schedule 13G/A filed on January 31, 2019, BlackRock Inc. has sole voting power over 6,034,734 shares, no voting power over 200,826 shares and sole dispositive power over all of the shares beneficially owned.

(2) According to a Schedule 13G/A filed on February 11, 2019, The Vanguard Group, Inc. has sole voting power over 49,060 shares, shared dispositive power over 50,533 shares, and sole dispositive power over 5,303,193 of the shares beneficially owned.

(3) According to a Schedule 13G filed on February 14, 2019, T. Rowe Price Associates, Inc. has sole voting power over 555,313 shares and sole dispositive power over all of the shares beneficially owned.

Section 16(a) Beneficial Ownership Reporting Compliance

The Company has procedures in place to assist directors and executive officers in complying with Section 16(a) of the Exchange Act, which includes the preparation of forms for filing. Based solely upon a review of filings with the SEC and written representations, the Company believes that all of our directors and executive officers complied during 2018 with the reporting requirements of Section 16(a) of the Exchange Act.

General

The authorized number of directors is currently fixed at twelve, but due to the retirement of Mr. Hanneman immediately prior to the Annual Meeting, the number of directors of the Company will be eleven at the time of our Annual Meeting. At our Annual Meeting, shareholders will elect directors to hold office until the next annual meeting of shareholders or until their successors shall be elected and duly qualified.

Based on the recommendation of the Nominating and Corporate Governance Committee, the Board has nominated Robert L. Boughner, José A. Cárdenas, Thomas E. Chestnut, Stephen C. Comer, John P. Hester, Jane Lewis-Raymond, Anne L. Mariucci, Michael J. Melarkey, A. Randall Thoman, Thomas A. Thomas, and Leslie T. Thornton to serve as directors of the Company. All of the nominees are independent under the NYSE corporate governance rules except for Mr. Hester. Each of the nominees, except Ms. Lewis-Raymond and Ms. Thornton, was elected to his or her present term of office by shareholders at our 2018 Annual Meeting. Ms. Lewis-Raymond and Ms. Thornton were elected by the Board and began service on January 1, 2019. If any nominee for any reason is unable or unwilling to serve, the proxies may be voted for such substitute nominee as the proxy holder may determine, unless the Board, in its discretion, reduces the number of directors serving on the Board.

Vote Required

The eleven nominees for director who receive the highest number of votes "FOR" election will be elected as directors. Pursuant to our Majority Voting Policy, if any director nominee receives a greater number of votes "WITHHELD" from his or her election than "FOR" his or her election, such director nominee must promptly tender his or her resignation. For more details of our majority voting policy, see "GOVERNANCE OF THE COMPANY—Majority Voting Policy" above.

Names, Qualifications and Reasons for Selection of Nominees

The director nominees, as outlined below, possess core competencies in management, operations, finance, administration and strategic transactions, and they have significant expertise in the industries that matter most to our business. The nominees have also demonstrated personal integrity and strong leadership while overseeing impressive growth in both of the Company's business segments. They bring diverse and unique perspectives, are able to challenge management and also possess vast experience with mergers and acquisitions. We believe that the nominees' skills and experience, including their combined knowledge of financial, legal and regulatory matters, enhance the Board's ability to make decisions that create shareholder value.

The names of the nominees, their principal occupation and the Board's reasons for their selection are set forth below. Except as noted, each of the nominees has held the position listed beside their name for at least the past five years.

Robert L. Boughner

Mr. Boughner, 66, has more than 30 years of executive management and more than 20 years of board-level experience with substantial experience in highly regulated industries, including casino gaming and financial services. He retired from Boyd Gaming Corporation (NYSE: BYD) in August 2016 after a 40-year career with Boyd, most recently serving as Boyd's Executive Vice President and Chief Business Development Officer. In that role, he oversaw business development and resort operations, as well as the acquisition and integration of various hotel and casino assets. Prior to that appointment. Mr. Boughner held other senior executive positions with Boyd for the design, development, operation and expansion of hotels and casinos. During various phases of his career with Boyd his roles included primary accountability for new market expansion, top line and profit margin growth and optimization of significant administrative and business processes. He continues as a member of Boyd's board of directors where he has served since 1996. Mr. Boughner is a Senior Partner with Global Market Advisors, an international hospitality and gaming advisory firm. Previously, Mr. Boughner served as an independent director for 20 years on boards of subsidiaries of Western Alliance Bancorporation (NYSE: WAL), including Bank of Nevada and Western Alliance Bank, during periods of asset acquisition, multiple rounds of capital-raising and rapid expansion in Nevada, California and Arizona. Mr. Boughner is involved in various educational, philanthropic and civic organizations.

José A. Cárdenas

Mr. Cárdenas, 66, has been Senior Vice President and General Counsel for Arizona State University (ASU) since January 2009. In addition to serving as chief legal officer of the University, he serves as a representative on and to the boards of directors of ASU affiliated and related entities such as the ASU Foundation. From 1982 through 2008, Mr. Cárdenas was a partner in the Phoenix based law firm of Lewis and Roca. He was the firm's managing partner (chief executive) from 1999 to 2003 and then the firm's chairman from 2003 through 2008. Mr. Cárdenas is a native of Las Vegas, Nevada. He received his undergraduate degree from the University of Nevada, Las Vegas in 1974 and a law degree from Stanford University Law School in 1977. Mr. Cárdenas has been admitted to practice law in Arizona, California, the Ninth Circuit Court of Appeals and the United States Supreme Court and is a member of various bar associations, including the Hispanic National Bar Association. Mr. Cárdenas was a member of the board of directors of Swift Transportation Company until the completion of its merger with Knight Transportation, Inc. in 2017. He is active in community and charitable activities, including service as a trustee of the Virginia G. Piper Charitable Trust. He is a past chairman of the boards of Greater Phoenix Leadership, Valley of the Sun United Way, the Translational Genomics Research Institute and O'Connor House.

Private Investor Retired Gaming Executive

Director Since: 2008

Board Committees: Audit, Nominating and Corporate Governance

Qualifications, Skills and Experience

The Board determined that Mr. Boughner should serve as a director of the Company because of his business and leadership experience with Boyd both in Nevada and nationally, as well as his experience as a director of Boyd and Western Alliance Bancorporation entities.

Senior Vice President and General Counsel Arizona State University

Director Since: 2011

Board Committees: Audit, Nominating and Corporate Governance (Chair)

Qualifications, Skills and Experience

The Board determined that Mr. Cárdenas should serve as a director because of his business and legal experience and his leadership experience as a director of Swift Transportation Company and as a trustee or chairman for a number of private foundations and institutes.

Thomas E. Chestnut

Mr. Chestnut, 68, was the owner, President and Chief Executive Officer of Chestnut Construction Company from 1990 until 2013. After serving in Vietnam with the U.S. Army, he began a career in the construction industry in 1972 with Del Webb Corporation. Leaving Del Webb in 1980 as Manager of Commercial Operations, Mr. Chestnut took a position with The Wray Company, a commercial contractor and wholly owned subsidiary of Weyerhaeuser Company. He remained with Wray until 1990 when he founded Chestnut Construction Company in Tucson, Arizona, Mr. Chestnut is a past president and life director of the Arizona Builders Alliance and a past president of the Arizona Building Chapter of the Associated General Contractors of America. He is a past chair and life trustee of the Carondelet Foundation, a member and past president of the Tucson Conquistadores and a member and past director of the Centurions of St. Mary's Hospital. Mr. Chestnut was named the 2001 Tucson Small Business Leader of the Year by the Tucson Metropolitan Chamber of Commerce and the 2002 Arizona Small Business Person of the Year by the United States Small Business Administration.

Stephen C. Comer

Mr. Comer, 69, received his degree in business administration from California State University Northridge in 1972. He began his career with Arthur Andersen LLP in Los Angeles and established Arthur Andersen's Las Vegas office, as its managing partner, in 1985. Leaving Arthur Andersen in 2002, Mr. Comer took a position as partner with Deloitte & Touche LLP and was promoted to managing partner of its Nevada practice in 2004. He retired in 2006. Mr. Comer served as a director of Pinnacle Entertainment, Inc., until its acquisition in 2018. He is a member of the American Institute of Certified Public Accountants and the Nevada Society of Certified Public Accountants and holds a professional CPA license in the State of Nevada. He is also involved in numerous civic, educational and charitable organizations.

Retired Construction Executive

Director Since: 2004 **Board Committees:** Compensation, Nominating and Corporate Governance

Qualifications, Skills and Experience

The Board determined that Mr. Chestnut should serve as a director of the Company because of his business experience in the residential and commercial construction businesses and his leadership experience in managing his construction business. In addition, the Board based its recommendation on his knowledge of the business and operations of the Company, resulting from his service as a director since 2004.

Retired Managing Partner Deloitte & Touche LLP

Director Since: 2007 Board Committees: Audit, Compensation (Chair)

Qualifications, Skills and Experience

The Board determined that Mr. Comer should serve as a director of the Company because of his business, accounting and auditing experience with Arthur Andersen LLP and Deloitte & Touche LLP and his leadership positions with both entities, as well as his experience as a director of Pinnacle Entertainment, Inc.

John P. Hester

Mr. Hester, 56, has been President and Chief Executive Officer since March 2015 and was named President in August 2014. Mr. Hester joined the Company in 1989, and has been named to various positions at Southwest Gas, such as Director/Regulatory Affairs and Systems Planning in 2002, Vice President/Regulatory Affairs and Systems Planning in 2003, Senior Vice President/ Regulatory Affairs and Energy Resources in 2006, and Executive Vice President in 2013. Prior to joining Southwest Gas, he worked at the Illinois Department of Energy and Natural Resources, as well as the Illinois Commerce Commission. He received his bachelor's and master's degrees in economics from Northern Illinois University. Mr. Hester is a past trustee of the Las Vegas Metro Chamber of Commerce and currently serves on the American Gas Association Board of Directors, the Catholic Charities of Southern Nevada Board of Trustees and the College of Southern Nevada Foundation Board of Trustees.

President and Chief Executive Officer Southwest Gas Holdings, Inc. Southwest Gas Corporation

Director Since: 2015 Board Committees: None

Qualifications, Skills and Experience

The Board determined that Mr. Hester should serve as a director because, as President and Chief Executive Officer of the Company, he has an intimate working knowledge of all aspects of the Company's operations.

Jane Lewis-Raymond

Ms. Lewis-Raymond, 52, has served the natural gas industry as an attorney and executive for nearly three decades. Currently, Ms. Lewis-Raymond is an attorney with Parker Poe Adams and Bernstein LLP, where she started in 2017. She retired from Piedmont Natural Gas Company Inc. in 2016, where she was a senior officer and member of the Executive Management Team since 2006, leading top line growth and measurable strategic and sustainability directives to build longterm value for shareholders. Earlier in her career, she was with the American Gas Association, as Vice President of Regulatory Affairs. Ms. Lewis-Raymond is the Co-chair for the Teach For America Charlotte-Piedmont Triad Advisory Board and serves on the National Advisory Council for Teach For America, the Board of Directors for MeckEd, the Steering Committee for The Keystone Energy Board, and is a member of Women Executives. She is a graduate of the University of Maryland and an Order of the Coif graduate of the University of Maryland School of Law.

Anne L. Mariucci

Ms. Mariucci, 61, has over 30 years of experience in homebuilding and real estate. Prior to 2003, Ms. Mariucci held a number of senior executive management roles with Del Webb Corporation and was responsible for its large-scale community development and homebuilding business. She also served as President of Del Webb following its merger with Pulte Homes, Inc. in 2001 until 2003. Since 2003, she has been affiliated with the private equity firm Hawkeye Partners (Austin, Texas). Ms. Mariucci received her undergraduate degree in accounting and finance from the University of Arizona and completed the corporate finance program at the Stanford University Graduate School of Business. She serves as a director of CoreCivic, Inc. (NYSE: CXW), Taylor Morrison Home Corporation (NYSE: TMHC), Berry Petroleum (NASDAQ: BRY), Banner Health, the Arizona State University Foundation and the Fresh Start Women's Foundation. Ms. Mariucci is a past chairman of the Arizona Board of Regents and served on the board from 2006 to 2014. She is a past director of the Arizona State Retirement System, HonorHealth and Action Performance Companies, as well as a past trustee of the Urban Land Institute.

Counsel

Parker Poe Adams & Bernstein LLP Retired Executive Piedmont Natural Gas Company, Inc.

Director Since: 2019 **Board Committees:** Audit, Nominating and Corporate Governance

Qualifications, Skills and Experience

The Board determined that Ms. Lewis-Raymond should serve as a director of the Company because of her legal experience and work as a natural gas industry senior executive. In addition, her experience in corporate governance initiatives relating to enterprise risk management, cybersecurity and crisis management planning were key to the Board's recommendation.

Private Investor

Retired Real Estate Development and Homebuilding Executive

Director Since: 2006 **Board Committees:** Compensation, Nominating and Corporate Governance

Qualifications, Skills and Experience

The Board determined that Ms. Mariucci should serve as a director of the Company because of her experience as a director of other publicly traded companies, business and financial expertise and experience in the housing industry with Del Webb Corporation and Pulte Homes and throughout the Company's service territories.

Michael J. Melarkey

Mr. Melarkey, 69, was a partner in the law firm of Avansino, Melarkey, Knobel, Mulligan & McKenzie for more than 35 years until the firm's merger in 2015 with McDonald, Carano and Wilson, a statewide Nevada law firm (MCW). He received his undergraduate degree from the University of Nevada, Reno, his law degree from the University of San Francisco and his masters in laws in taxation from New York University. Mr. Melarkey was actively engaged in private legal practice in Reno, Nevada from 1976 until his firm's merger with MCW in 2015. Following the merger. Mr. Melarkey was named Of Counsel with MCW. Mr. Melarkey is a former member of the American Bar Association and the International Association of Gaming Lawyers and is licensed to practice law in the State of Nevada. He is a trustee of the Bretzlaff Foundation, the Robert S. and Dorothy J. Keyser Foundation, the Roxie and Azad Joseph Foundation and the E. L. Wiegand Trust. He is Vice President of Miami Oil Producers, Inc. and from 2015 until 2017 held management positions and ownership interests in the Pioneer Crossing Casino in Fernley, Nevada, the Pioneer Crossing Casino in Dayton, Nevada and the Pioneer Crossing Casino in Yerington, Nevada. He also serves as a director of numerous mutual funds, including fourteen registered investment companies advised by Gabelli Funds, LLC, five registered investment companies advised by Keeley-Teton Advisors, LLC and seven registered investment companies advised by Teton Advisors, Inc. He serves on the Audit Committee of the GDL Fund.

A. Randall Thoman

Mr. Thoman, 67, received his degree in accounting from the University of Utah and has been a Certified Public Accountant for more than 30 years. He began his career with Deloitte & Touche LLP and became a Partner in June 1991. For 15 years, Mr. Thoman was the Partner with primary responsibility for the technical interpretation and application of accounting principles and audit standards and the review of all reporting issues and financial statements for Nevada-based companies registered with the SEC. Mr. Thoman retired from Deloitte & Touche LLP in October 2009. Mr. Thoman served on the board of SHFL Entertainment, Inc. until its acquisition in 2013.

Retired Partner Avansino, Melarkey, Knobel, Mulligan & McKenzie

Director Since: 2004 Chairman of the Board Board Committees: Compensation, Nominating and Corporate Governance

Qualifications, Skills and Experience

The Board determined that Mr. Melarkey should serve as a director because of his business and legal experience, his leadership abilities as a trustee for a number of private foundations and as a director of a number of mutual funds. In addition, the Board based its recommendation on his knowledge of the business and operations of the Company, resulting from his service as a director since 2004.

Retired Partner Deloitte & Touche LLP

Director Since: 2010 Board Committees: Audit (Chair), Compensation

Qualifications, Skills and Experience

The Board determined that Mr. Thoman should serve as a director of the Company because of his business, accounting and auditing experience with Deloitte & Touche LLP, his leadership positions at the firm and his experience with SEC reporting and compliance, as well as his prior experience as a director of another publicly traded company.

Thomas A. Thomas

Mr. Thomas, 61, received his undergraduate degree in finance and his juris doctorate from the University of Utah. After obtaining his law degree, he joined Valley Bank of Nevada and held various executive positions with the bank until its merger with Bank of America in 1992. After the merger, he became managing partner of Thomas & Mack Co., an investment management and commercial real estate development company with properties and developments in Nevada, California, Arizona, and Utah. Mr. Thomas is a member of the board of directors of Switch, Inc. (NYSE: SWCH). He is actively involved in numerous charitable organizations including the Opportunity Village Foundation, the UNLV Foundation Advisory Board, the Las Vegas Rotary Club and the BYU President's Leadership Council. He was instrumental in establishing the Thomas & Mack Legal Clinic and Moot Court Facility at the UNLV Boyd School of Law.

Leslie T. Thornton

Ms. Thornton, 60, began her career in the utility industry as a senior executive in 2011 for WGL Holdings, Inc. (WGL) and Washington Gas Light Company, a wholly-owned subsidiary of WGL, and served in elevated roles until becoming the Senior Vice President, Merger Transition Counsel. During her WGL tenure, Ms. Thornton earned her Master of Laws degree in National Security Law with a cybersecurity focus and provided legal counsel on a broad range of issues including critical infrastructure cybersecurity and data protection. Before joining WGL, Ms. Thornton was a partner at two Washington D.C. based national law firms. In the Clinton administration, she served in various senior roles including Chief of Staff to the U.S. Secretary of Education. Since 2005, she has been a member of the board of directors for Career Education Corporation (NASDAQ: CECO), where she serves on the Audit Committee and chairs the Compliance and Risk Committee. Recently, Ms. Thornton joined the Advisory Board of Encrypted Sensors, a security technology start-up, and is a Board Leadership Fellow for the National Association of Corporate Directors where she is a frequent speaker on governance, compliance, and cybersecurity and data protection. Ms. Thornton serves on the Board of Trustees for the University of the District of Columbia David A. Clarke School of Law, and the Board of Governors for the District of Columbia Bar, among other activities. She is a graduate of the University of Pennsylvania and Georgetown University Law Center.

Managing Partner Thomas & Mack Co. LLC

Director Since: 2008

Board Committees: Audit, Nominating and Corporate Governance

Qualifications, Skills and Experience

The Board determined that Mr. Thomas should serve as a director because of his banking and business experience and his familiarity with the commercial markets throughout the Company's service territories.

Retired Executive

WGL Holdings, Inc. & Washington Gas Light Company

Director Since: 2019 Board Committees: Audit, Compensation

Qualifications, Skills and Experience

The Board determined that Ms. Thornton should serve as a director because of her legal experience, service as a utility industry senior executive, and her expertise in the area of critical infrastructure cybersecurity and data protection.

APPROVAL OF THE AMENDMENT TO ARTICLES OF INCORPORATION TO INCREASE AUTHORIZED SHARES OF COMMON STOCK (Proposal 2 on the Proxy Card)

The Board Recommends that Shareholders Vote **"FOR"** this Proposal

General

Shareholders are being asked to approve an amendment to Article V of the Company's Articles of Incorporation increasing the number of shares of Common Stock which the Company has authority to issue from 60,000,000 shares to 120,000,000 shares. Increasing the number of shares of Common Stock will result in a total of 127,000,000 authorized shares of common, preferred and preference stock (combined), with a total par value of \$160,000,000. No change will be made to the number of authorized shares of preferred and preference stock. An affirmative vote of a majority of the shares of the Company's Common Stock outstanding on March 5, 2019, the record date, is required to approve the proposed amendment.

As of March 5, 2019, there were 53,108,242 shares of Common Stock issued out of the 60,000,000 shares authorized. There are no outstanding shares of preferred or preference stock. The Company therefore has an 89% ratio of issued shares to authorized shares, leaving only 6,891,758 shares available to be issued in the future.

The proposal to increase the number of shares of authorized Common Stock is designed to ensure that the Company has the ability to issue Common Stock to meet its ongoing capital requirements or a portion thereof. The Company's utility segment operates in jurisdictions with growing populations and opportunities for investment through infrastructure replacement. The Company's utility infrastructure services segment continues to expand the markets and customers it serves. In order to meet advantageous market conditions, provide service to its growing customer base and take advantage of future acquisition opportunities, the Company needs the ability to finance such endeavors, or a portion thereof, through the issuance and sale of additional Common Stock. The increase in authorized shares of Common Stock will also ensure that shares would be available, as needed, for issuance in connection with equity compensation plans, stock splits, stock dividends, options, warrants, rights, acquisitions, and other corporate purposes. The Board of Directors believes that the availability of additional shares for such purposes without delay or the necessity for a special shareholders meeting will be beneficial to the Company.

No further action or authorization by you, the shareholders, would be necessary prior to the issuance of the additional shares of Common Stock, unless required by applicable law, regulatory requirements, or by the rules of any stock exchange on which the Company's securities are listed. A shareholder vote is generally required in connection with any transaction which requires an amendment to the Company's Articles of Incorporation, any merger or sale of substantially all of the assets of the Company, and, under the California Corporations Code, any reorganization in which the Company's shareholders would own less than five-sixths of the voting power of the surviving corporation.

The holders of any of the additional shares of Common Stock issued in the future will have the same rights and privileges as the holders of the shares of Common Stock currently authorized and outstanding.

Although the Board of Directors has no present intention of doing so, it could issue shares of Common Stock that could make it more difficult or discourage an attempt to obtain control of the Company by means of a merger, tender offer, proxy contest, or other means. Such shares could be used to create voting or other impediments or to discourage persons seeking to gain control of the Company. Other measures previously approved by shareholders that are designed to address change in control attempts include the Board's ability to issue blank-check Preferred Stock and the supermajority requirements described in Article IV-A of the Articles of Incorporation for approval of any business combination of the Company with any shareholder who beneficially owns 10% or more of the outstanding shares of the Company's Common Stock.

While the Company may consider effecting a new equity offering of Common Stock in the proximate future for purposes of raising additional capital or otherwise, the Company, as of the date hereof and except for the Company's currently authorized equity shelf programs or as outlined above, has no immediate plans, arrangements, commitments, or understandings with respect to the issuance of any shares of such stock.

Vote Required

The affirmative vote of the majority of the outstanding shares of Common Stock of the Company is required to approve the proposal to amend the Company's Articles of Incorporation increasing the number of shares of Common Stock which the Company has authority to issue from 60,000,000 shares to 120,000,000 shares.

The Board Recommends that Shareholders Vote **"FOR"** this Proposal

General

On February 26, 2019, the Board approved a proposal to change the state of incorporation of the Company from California to Delaware (the "Reincorporation"), subject to the approval of the Company's shareholders. If approved by the Company's shareholders, the Reincorporation will be effected through the merger of the Company with and into a newly formed wholly-owned subsidiary of the Company incorporated in the State of Delaware solely for the purpose of effecting the Reincorporation ("Southwest Gas Delaware"). The name of the Company after the Reincorporation will remain "Southwest Gas Holdings, Inc." For purposes of the discussion below, the Company as it currently exists as a corporation organized under the laws of the State of California is sometimes referred to as "Southwest Gas California."

The Board considered several factors in reaching this decision, including the corporate governance objectives of the Company, the ability to enhance long-term shareholder value, the differences between California and Delaware state corporate laws, and other advantages and disadvantages of Reincorporation. The Board believes that the choice of state domicile is important because state corporate law governs the internal affairs of a corporation. Management and boards of directors of corporations look to state corporate law and judicial interpretations of state law to guide their decision-making on many key issues, including the appropriate governance policies and procedures, satisfaction of fiduciary obligations to shareholders, compliance with legal requirements in the corporation's business operations, and consideration of key strategic alternatives for the corporation, including mergers, acquisitions, and divestitures. The Board believes that it is essential for the Company to be able to draw upon well-established principles of corporate law provide a reliable foundation on which the Company's governance decisions can be based, and the Board believes that the Company's shareholders will benefit from the responsiveness of Delaware corporate law to their needs. In addition to the benefits of being a Delaware corporation, the Board has proposed as part of the Reincorporation to preserve certain key stockholders rights that are currently held by its shareholders as a matter of California law, including the right to call special shareholder meetings and act by written consent.

After careful consideration of these factors, the Board believed that it is in the best interest of the Company and its shareholders to effectuate the Reincorporation.

General Background and Principal Reasons for Reincorporation

The State of Delaware has been a leader in adopting a comprehensive and coherent set of corporate laws that are responsive to the evolving legal and business needs of corporations organized under Delaware law. The Board's decision to reincorporate in the State of Delaware was driven primarily by Delaware's history of comprehensiveness and flexibility of its corporate laws and its tradition of promoting progressive principles of corporate governance. Specifically, the Board believes that there are several benefits in the Reincorporation, as summarized below.

Predictability, Flexibility and Responsiveness of Delaware Law

Delaware courts have, over many years, established a jurisprudence that is significantly more thorough, predictable, and broadly applied with respect to principles of corporate governance than most, if not all, other jurisdictions. The Delaware General Corporation Law ("DGCL") is generally acknowledged to be the most advanced and flexible statutory corporation code in the United States. The Delaware legislature is particularly responsive to developments in modern corporate law and Delaware has proven sensitive to changing needs of corporations and their shareholders. The Delaware General Assembly each year considers and adopts statutory amendments in an effort to ensure that the DGCL continues to be responsive to the changing legal and business needs of corporations. The Delaware Secretary of State is viewed as particularly user-friendly, flexible and responsive (as compared to other states) in its administration of the filings and interactions required for mergers, acquisitions and other corporate transactions, thereby reducing complications and delays that can arise in time sensitive transactions.

Consequently, Delaware has become the preferred state of incorporation for most publicly-traded companies in the United States and, as a result of the large number of major corporations being domiciled in Delaware, Delaware

courts were often the first and most influential to address important new issues relating to corporate governance and rights and obligations of shareholders and corporations. As a result, courts of and corporations organized under the laws of other states, including California, have often looked to Delaware law for guidance for such issues, and the DGCL and Delaware administrative practices have become comparatively well-known and widely understood. Corporations domiciled in Delaware are often at an advantage over their peers that are organized under the laws of other states, including many California corporations, in that Delaware corporations can draw upon these well-developed, firmly established and consistently interpreted principles of corporate law when making business and legal decisions. The Board therefore anticipates that the DGCL will provide greater efficiency, clarity, predictability and flexibility in the Company's legal affairs and corporate governance decisions than is presently available under California law. The Board further believes that any direct benefit that the DGCL provides to the Company indirectly benefits the shareholders, who are the Company's owners. In addition, Delaware case law provides a body of law defining the proper duties and decision making processes expected of boards of directors in evaluating potential or proposed extraordinary corporate transactions, which will further benefit the Company's shareholders.

Delaware's court system also provides swift and efficient resolutions in corporate litigation involving complex corporate issues. Delaware has a specialized court of equity called the Court of Chancery that hears and decides corporate law cases, and appeals to Delaware's Supreme Court can be decided quickly. The Delaware Court of Chancery operates under rules that are intended to ensure litigation of disputes in a timely and effective way, keeping in mind the timelines and constraints of business decision-making and market dynamics, and routinely handles cases involving complex corporate issues with a level of experience and a degree of sophistication and understanding unmatched by other courts in the country. The appellate process on decisions emanating from the Court of Chancery is similarly streamlined and highly responsive in cases involving complex corporate issues, and the justices of Delaware appellate courts tend to have substantial experience with corporate cases because of the relatively higher volume of these cases in the Delaware courts. The fact that issues of corporate governance are frequently addressed first in Delaware contributes to an efficient and expert court system and bar. In contrast, California does not have a similar specialized court established to hear only corporate law cases. Rather, disputes involving questions of California corporate law are either heard by the California Superior Court, the general trial court in California that hears all manner of cases, or, if federal jurisdiction exists, a federal district court. These courts hear many different types of cases, and the cases may be heard before judges or juries with limited corporate law experience. As a result, corporate law cases brought in California may not proceed as expeditiously as cases brought in Delaware and the outcomes in such courts may be less consistent or predictable. The highly specialized nature of the Delaware court system is therefore widely believed to result in more consistent and timely rulings.

Enhanced Ability to Attract and Retain Qualified Candidates for Board and Management

We experience increasing competition in recruiting and retaining talented individuals to serve on our management team and Board of Directors. The Board believes that the comparatively stable and predictable corporate environment afforded by Delaware would enable the Company to compete more effectively with other public companies in the recruitment and retention of talented and experienced directors and officers. Not only is Delaware law more familiar to directors and officers, it also offers greater certainty and stability from the perspective of those who serve as corporate officers and directors because the parameters of director and officer liability, including protection for shareholders from possible abuses by directors and officers, are more extensively addressed in Delaware court decisions and are therefore better defined and better understood than under California law. It should also be noted that directors' personal liability is not, and cannot be, eliminated under Delaware law for intentional misconduct, bad faith conduct, unlawful dividend payments or unlawful stock purchases or redemptions, or any transaction from which the director derives an improper personal benefit. The Board therefore believes that the comparatively stable and predictable corporate environment afforded by Delaware would not only enhance its ability to recruit and retain directors and officers in the future, but also provide appropriate protection for shareholders from possible abuses by directors and officers to continue to make independent decisions in good faith on behalf of the Company.

Ability to Have the Delaware Courts Serve as the Exclusive Forum for the Adjudication of Certain Legal Matters

To ensure that we get the full benefits of Delaware's corporate legal framework, the Board has decided to include in the Certificate of Incorporation of Southwest Gas Delaware (the "Delaware Certificate") a provision providing that the Delaware courts are the exclusive forum for the adjudication of certain legal actions.

Under the exclusive forum provision contained in the Delaware Certificate, the Court of Chancery in the state of Delaware will be the exclusive forum for certain actions involving the Company, unless we consent to an alternative forum. Based on the proposed language in the Delaware Certificate, the Delaware courts would be the exclusive forum for (i) derivative actions brought by or on behalf of us, and (ii) direct actions brought by a stockholder against

the Company or any of its directors or officers, alleging a violation of the DGCL, the Delaware Certificate or the Bylaws of Southwest Gas Delaware (the "Delaware Bylaws" and, together with the Delaware Certificate, the "Delaware Incorporation Documents") or a breach of fiduciary duties or other violation of Delaware decisional law relating to the internal affairs of the Company.

The exclusive forum provision contained in the Delaware Certificate is intended to assist us in avoiding multiple lawsuits in multiple jurisdictions on matters relating to the corporate law of Delaware, which will be our state of incorporation if this Proposal is approved. We believe that the exclusive forum provision in the Delaware Certificate will reduce the risk that we could become subject to duplicative litigation in multiple forums, as well as the risk that the outcome of cases in multiple forums could be inconsistent, even though each forum purports to follow Delaware law. Any of these could expose the Company to increased expenses or losses.

The exclusive forum provision contained in the Delaware Certificate would only regulate the forum where our stockholders may file claims relating to the specified intra-corporate disputes noted above. The exclusive forum provision does not contain any restrictions on the ability of our stockholders to bring such claims, nor the remedies available if such claims are ultimately successful; rather it attempts to prevent us from being forced to waste corporate assets defending against duplicative suits.

Although the Board believes that the designation of the Delaware Court of Chancery as the exclusive forum for intracorporate disputes serves the best interests of the Company and our shareholders as a whole, the Board also believes that we should retain the ability to consent to an alternative forum on a case-by-case basis. Specifically, where the Board determines that our interests and those of our stockholders are best served by permitting a dispute to proceed in a forum other than the Delaware Court of Chancery, the exclusive forum provision in the Delaware Certificate permits us to consent to the selection of such alternative forum.

The Board believes that our stockholders will benefit from having intra-corporate disputes litigated in the Delaware Court of Chancery. Although some plaintiffs might prefer to litigate such matters in a forum outside of Delaware because they perceive another court as more convenient or more favorable to their claims (among other reasons), the Board believes that the substantial benefits to us and our stockholders as a whole from designating the Delaware Court of Chancery as the exclusive forum for intra-corporate disputes outweigh these concerns. The Delaware Court of Chancery is widely regarded as the preeminent court for the determination of disputes involving a corporation's internal affairs in terms of precedent, experience and focus. The Delaware Court of Chancery's considerable expertise has led to the development of a substantial and influential body of case law interpreting Delaware's corporate disputes. In addition, the Delaware Court of Chancery has developed streamlined procedures and processes that help provide decisions for litigating parties on a relatively expedited basis. This accelerated schedule can limit the time, cost, and uncertainty of litigation for all parties. Furthermore, there is a significant risk that allowing stockholders to bring such highly sophisticated matters in forums with little familiarity or experience in corporate governance leaves stockholders at risk that foreign jurisdictions may misapply Delaware law.

Without the exclusive forum provision in the Delaware Certificate, we remain exposed to the possibility of plaintiffs using our geographically diverse operational base to bring claims against us in multiple jurisdictions or choosing a forum state for litigation that may not apply Delaware law to our internal affairs in the same manner as the Delaware courts would be expected to do.

Possible Negative Consequences of Reincorporation

Notwithstanding the belief of the Board as to the benefits to the Company's shareholders of the Reincorporation, it should be noted that Delaware law has generally been criticized by some commentators on the grounds that it does not afford minority shareholders the same substantive rights and protections as are available in a number of other states, including California. The Reincorporation may make it more difficult for minority shareholders to influence our policies. In addition, franchise taxes payable by the Company in Delaware may be greater than the equivalent or other similar taxes currently payable by the Company in California. The Delaware Incorporation Documents, as compared to the Company's existing Articles of Incorporation (the "California Articles") and Bylaws (the "California Bylaws" and, together with the California Articles, the "California Incorporation Documents") under California laws, contain or eliminate certain provisions that may have the effect of reducing the rights of minority shareholders. Certain key provisions of our governance structure that would change as a result of the Reincorporation include:

Filling a Vacancy on the Board. Under California law, any vacancy on the board other than one created by removal
of a director may be filled by the board. A vacancy created by removal of a director may be filled by the board only
if authorized by the articles of incorporation or a bylaw approved by the corporation's shareholders; the California

Incorporation Documents do not give the Board this right. As a result, under the California Incorporation Documents, shareholders generally have the right to fill vacancies on the Board and have the sole right to fill vacancies on the Board created by removal of a director. The Delaware Certificate, however, provides that unless the Board otherwise determines, newly created directorships resulting from any increase in the authorized number of directors or any vacancies on the Board resulting from the death, resignation, retirement, disqualification, removal from office or other cause shall be filled only by a majority vote of the directors then in office, though less than a quorum, or by a sole remaining director, and not by the stockholders.

- Number of Directors on the Board. Under the California Bylaws and California law, any change outside of the
 established range of directors set forth in the California Bylaws or a change in the established range must be
 approved by the shareholders. Under the Delaware Bylaws, either the stockholders or the Board may amend the
 provision of the Delaware Bylaws setting the established range of directors, and thus stockholder approval will not
 be required to change the range of the number of directors.
- Exclusive Forum Selection Provision. As discussed above, the Delaware Certificate contains an exclusive forum selection provision whereby the Delaware courts serve as the exclusive forum for the adjudication of certain legal matters, which provision was not part of the California Incorporation Documents.

The Board has considered the possible disadvantages of the Reincorporation and has concluded that the potential benefits outweigh the possible disadvantages.

In addition, the Board recognized that our existing governance structure has served us well for years as a public company. Accordingly, the Board determined, in connection with the Reincorporation, to maintain the following key provisions of our governance structure even though they would not be required under Delaware law:

- Shareholder Ability to Call Special Shareholders' Meeting. Under California law, a holder of 10 percent or more of our outstanding stock may call a special meeting of shareholders; Delaware law does not contain any such requirement. The Company had previously revised the default rule in California, and the California Bylaws instead provide that holders of not less than one-third of the voting shares of the Company then issued and outstanding may call a special meeting of shareholders. We have elected to follow the same provision as it exists in the California Bylaws and provide in our Delaware Bylaws that holders of not less than one-third of the voting shares of the Company are entitled to call a special meeting of the stockholders.
- Shareholder Power to Act by Written Consent. Under California law and the California Incorporation Documents, shareholders of the Company may act by written consent with respect to any action that could otherwise be taken at a meeting of shareholders. Stockholders of Southwest Gas Delaware will also have the same written consent rights under the Delaware Bylaws.
- Majority Voting Policy. The California Articles provide that no shareholder shall be entitled to cumulative voting rights as to any election of directors, and we have elected to include the same provision in the Delaware Certificate. As a result, directors of Southwest Gas Delaware will continue to be elected by a plurality of the votes cast. If our shareholders vote to approve the Reincorporation, we will maintain our majority voting policy as it is currently in effect. Under our majority voting policy, a director who receives more "withheld" votes than "for" votes must offer his or her resignation as a director to the Board. The independent Nominating and Corporate Governance Committee of the Board will consider the offer of resignation and will recommend to the Board whether to accept or reject the tendered resignation. The Board retains discretion in evaluating the tendered resignation and will consider all factors deemed relevant. The majority voting policy requires that the Board make its decision on the resignation within 90 days of the shareholders' meeting and to publicly disclose such decision.

It should also be noted that the interests of our directors and executive officers in voting on the Reincorporation proposal may be different from, or in addition to, those of shareholders generally because, for example, some substantive provisions of California and Delaware law apply only to directors and officers. See "Interest of the Company's Directors and Executive Officers in the Reincorporation" below. For a comparison of shareholders' rights and the material substantive provisions that apply to the Board and executive officers under Delaware and California law, see "Significant Differences Between the Charters and Bylaws of Southwest Gas California and Southwest Gas Delaware and Between the Corporate Laws of California and Delaware" below. The Board has considered these interests, among other matters, in reaching its decision to approve the Reincorporation and to recommend that our shareholders vote in favor of this Proposal.

Mechanics and Consequences of Reincorporation

The Reincorporation will be accomplished by means of a merger (the "Merger") pursuant to the terms and conditions of the Agreement and Plan of Merger (the "Merger Agreement") between the Company and Southwest Gas Delaware. Under the Merger Agreement, the Company will merge with and into Southwest Gas Delaware, and the Company will cease to exist, and Southwest Gas Delaware will become the surviving entity following the

effectiveness of the Merger (the "Effective Date"). The existing holders of the Company's Common Stock will own all of the outstanding shares of common stock of Southwest Gas Delaware, and no change in ownership will result from the Reincorporation.

Other than the change in corporate domicile, the Reincorporation will not result in any change in the Company's business operations, board composition or term, assets, liabilities or net worth, or physical location, nor will it result in any change of our current employees, including management, or in their title or responsibilities. Upon consummation of the Reincorporation, our daily business operations will continue as they are presently conducted at the Company's current principal executive office located at 5241 Spring Mountain Road, Las Vegas, Nevada 89150, and our telephone number will remain (702) 876-7237. The consolidated financial condition and results of operations of Southwest Gas Delaware immediately after consummation of the Reincorporation. The Company believes that there will be no material accounting impact as a result of the Reincorporation. If the Reincorporation is approved, at the Effective Date, Southwest Gas Delaware will be the successor-in-interest to the Company and the shareholders of the Company will become stockholders of Southwest Gas Delaware.

If the Reincorporation is approved, at the Effective Date, each outstanding share of the Company's Common Stock will automatically be converted into one share of common stock of Southwest Gas Delaware. Each of the equity compensation plans currently maintained by the Company immediately prior to the Reincorporation will be assumed and continued by Southwest Gas Delaware, and each pre-Reincorporation equity award to purchase or receive shares of the Company's Common Stock under such plans will convert into an equity award to purchase or receive an equivalent number of shares of Southwest Gas Delaware common stock with no other changes in the terms and conditions of such award. The Company's other employee benefit arrangements in effect immediately prior to the Reincorporation would also be continued by Southwest Gas Delaware upon the terms and subject to the conditions of such plans in effect immediately prior to the Reincorporation. In addition, Southwest Gas Delaware, as successor-in-interest to the Company, will succeed to the Company's rights and obligations under the officer change in control agreements to which the Company is currently a party.

SHARE CERTIFICATES CURRENTLY ISSUED FOR THE COMPANY'S SHARES WILL AUTOMATICALLY REPRESENT SHARES IN SOUTHWEST GAS DELAWARE UPON COMPLETION OF THE MERGER, AND SHAREHOLDERS WILL NOT BE REQUIRED TO SURRENDER OR EXCHANGE SHARE CERTIFICATES AS A RESULT OF THE REINCORPORATION.

If the Reincorporation is approved, at the Effective Date, the Company will be governed by the Delaware Certificate, the Delaware Bylaws and the DGCL. Although the Delaware Incorporation Documents contain many provisions that are similar to the provisions of the California Incorporation Documents, there are important differences between the Delaware Incorporation Documents and the California Incorporation Documents and between the DGCL and the California Corporations Code that are described in further detail below. See "Significant Differences Between the Charters and Bylaws of Southwest Gas California and Southwest Gas Delaware and Between the Corporate Laws of California and Delaware" below.

The Company's Common Stock is currently listed for trading on the New York Stock Exchange ("NYSE") under the ticker symbol "SWX." If the Reincorporation is approved, at the Effective Date, the Company's registration statements on file with the SEC immediately prior to the Reincorporation will be assumed by Southwest Gas Delaware, and the shares of common stock of Southwest Gas Delaware would continue to be traded on NYSE without interruption, under the same symbol.

Effectiveness of Reincorporation

If the shareholders approve the Reincorporation at the Annual Meeting, we currently intend to cause the Reincorporation to become effective as soon as reasonably practicable following the Annual Meeting, subject to the completion of certain legal formalities, including obtaining certain consents and approval by third parties and providing certain notices to regulatory authorities. We have determined that a written notice must be provided to the Arizona Corporation Commission 120 days prior to the Effective Date of the Merger. The Merger Agreement also provides that the Merger Agreement may be terminated and the Merger may be abandoned at any time before the Effective Date and for any reason by the Board of Directors of either the Company or Southwest Gas Delaware or both, notwithstanding the approval, if obtained, of the principal terms of the Merger Agreement by the shareholders of the Company, or the adoption of the Merger Agreement by the sole shareholder of Southwest Gas Delaware, or both. Furthermore, the Merger Agreement may be amended at any time prior to the Effective Date, either before or after the shareholders have voted to adopt this Proposal, subject to applicable law. The Company will re-solicit shareholder approval of the Reincorporation if the terms of the Merger Agreement are changed in any material respect that requires shareholder approval.

Significant Differences Between the Charters and Bylaws of Southwest Gas California and Southwest Gas Delaware and Between the Corporate Laws of California and Delaware

The following summarizes a comparison of certain key provisions between the California Incorporation Documents and Delaware Incorporation Documents, as well as certain provisions of California and Delaware corporate laws. The comparison highlights important differences, but is not intended to list all differences, and is qualified in its entirety by reference to such documents and to the respective General Corporation Laws of the States of California and Delaware. Shareholders are encouraged to read the Delaware Certificate, the Delaware Bylaws, the California Articles and the California Bylaws in their entirety. The Delaware Certificate and Delaware Bylaws are attached to this Proxy Statement, and the California Bylaws and California Articles are filed publicly as exhibits to our periodic reports with the SEC.

Provision	Southwest Gas California	Southwest Gas Delaware			
Authorized Shares	120,000,000 shares of Common Stock, par value \$1.00 per share (or 60,000,000 shares of Common Stock if Proposal 2 above is not approved); 5,000,000 shares of Preferred Stock, without par value; 2,000,000 shares of Preference Stock, par value \$20.00 per share.	No change. 120,000,000 shares of common stock, par value \$1.00 per share (or 60,000,000 shares of common stock if Proposal 2 above is not approved); 5,000,000 shares of Preferred Stock, without par value; 2,000,000 shares of Preference Stock, par value \$20.00 per share.			
Vote Required to Elect Director	Under California law, cumulative voting for election of directors is permitted if the shareholder provides advance notice of the intent to exercise cumulative voting. California law also permits public companies to eliminate cumulative voting by the approval of shareholders. The California Articles provide that no stockholder shall be entitled to cumulative voting rights as to the election of directors, and thus directors are elected by a plurality of the votes cast. The Company has also implemented a majority voting policy for uncontested elections.	No change. Under Delaware law, cumulative voting is not permitted unless the corporation provides for cumulative voting rights in its certificate of incorporation. The default voting standard for the election of directors under Delaware law is a plurality vote; however, the certificate of incorporation or bylaws may specify a different standard for the election of directors, such as a majority of the votes cast. The Delaware Certificate provides that no stockholder shall be entitled to cumulative voting rights as to the election of directors. The Delaware Bylaws provide that directors shall be elected by a plurality of the votes cast. The majority voting policy for uncontested elections will also be maintained.			
Number of Directors on the Board	Under California law, although a change in the number of directors must generally be approved by shareholders, the board may fix the exact number of directors within a stated range set forth in the articles of incorporation, if that stated range has been approved by the shareholders. Any change outside of the established range or a change in the established range must be approved by the shareholders. The California Bylaws provide that the number of directors will neither be fewer than 9 nor greater than 13, with the exact number of the board.	Under Delaware law, the number of directors is fixed by or in the manner provided in the bylaws, unless the certificate of incorporation fixes the number of directors. The Delaware Certificate does not fix a number of directors. The Delaware Bylaws provide that the number of directors will neither be fewer than 9 nor greater than 13, with the exact number of directors to be fixed by resolution of the board.			

Provision	Southwest Gas California	Southwest Gas Delaware			
Filling a Vacancy on the Board	Under California law, any vacancy on the board other than one created by removal of a director may be filled by the board. If the number of directors is less than a quorum, a vacancy may be filled by the unanimous written consent of the directors then in office, by the affirmative vote of a majority of the directors at a meeting, or by a sole remaining director. A vacancy created by removal of a director may be filled by the board only if authorized by the articles of incorporation or a bylaw approved by the corporation Documents do not give the Board this right.	Under Delaware law, vacancies and newly created directorships may be filled by a majority of the directors then in office (even though less than a quorum) or by a sole remaining director, unless otherwise provided in the certificate of incorporation or bylaws. The Delaware Certificate provides that unless the Board otherwise determines, newly created directorships resulting from any increase in the authorized number of directors or any vacancies on the Board resulting from the death, resignation, retirement, disqualification, removal from office or other cause shall be filled only by a majority vote of the directors then in office, though less than a quorum, or by a sole remaining director, and not by the stockholders.			
Removal of Directors	Under California law, any director, or the entire board of directors, may be removed, with or without cause, with the approval of a majority vote of the shareholders.	No change. Under Delaware law, any director, or the entire board, may be removed, with or without cause, with the approval of a majority of the outstanding shares entitled to vote at an election of directors.			
Ability of Shareholders to Call Special Meetings	Under California law, a special meeting of shareholders may be called by the board of directors, the chairman of the board, the president, or the holders of shares entitled to cast not less than 10% of the votes at such meeting and such persons as are authorized by the articles of incorporation or bylaws.	No change. Under Delaware law, a special meeting of stockholders may be called by the board of directors or by any person authorized in the certificate of incorporation or the bylaws. The Delaware Bylaws provide that a special meeting of shareholders may be called by the Chief Executive Officer of			
	The California Bylaws provide that a special meeting of shareholders may be called by the Chief Executive Officer of the Company (or other officers acting for such person), the Board, or holders of not less than one-third (1/3) of the voting shares then issued and outstanding.	the Company (or other officers acting for such person), the Board, or holders of not less than one-third (1/3) of the voting shares then issued and outstanding.			
Shareholder Action by Written Consent	California law provides that shareholder action by written consent is available unless otherwise provided in a company's articles of incorporation. The Company has not opted out of this default rule.	Substantially similar. The Delaware Bylaws provide that an action to be taken at any annual or special meeting of stockholders may be taken without a meeting if a consent in writing shall be signed by the holders of outstanding shares having not less than the minimum number of votes required to authorize or take such action at such meeting at which all shares entitled to vote thereon were present and voted.			

Provision	Southwest Gas California	Southwest Gas Delaware		
Amendment of Bylaws	The California Bylaws provide that the bylaws may be amended by the affirmative vote of a majority of shares outstanding (or by the written consent of such shareholders).	Substantially similar. The Delaware Certificate and the Delaware Bylaws provide that the Bylaws may be amended by the affirmative vote of a majority of shares outstanding (or by the written consent of such stockholders) or by the		
	The California Bylaws provide that the Board may also adopt, amend or repeal any section of the California Bylaws; provided, however, that shareholder approval is required for any change in the size of the Board outside of the established range or a change in the established range. See " <i>Number of</i> <i>Directors on the Board</i> " above.	affirmative vote of a majority of the members of the Board.		
Exclusive Forum Selection Provision	The California Articles and the California Bylaws do not contain an exclusive forum selection provision.	The Delaware Certificate contains an exclusive forum selection provision that provides that the Court of Chancery in the state of Delaware will be the exclusive forum for certain actions involving Southwest Gas Delaware, unless Southwest Gas Delaware consents to an alternative forum.		
Interested Shareholder Transaction and Business Combination	California law does not provide any specific restrictions on an interested shareholder effecting a business combination.	No change. Under Section 203 of the DGCL, a Delaware corporation is prohibited from engaging in a "business combination" with an "interested stockholder" (i.e., a stockholder acquiring		
	The California Articles contain a provision whereby certain business combinations with a "dominant stockholder," generally a person who acquires 10% or more of the outstanding voting stock, require the affirmative vote of at least 85% of the outstanding shares of Southwest Gas California, subject to certain exceptions.	15% or more of the Company's outstanding voting stock) for three years following the date that such person or entity becomes an interested stockholder without board approval. Section 203 makes certain types of unfriendly or hostile corporate takeovers, or other non-board approved transactions involving a corporation and one or more of its significant stockholders, more difficult. Delaware companies may opt out of Section 203 if the company's original certificate of incorporation expressly elects not to be governed by Section 203.		
		The Delaware Certificate elects not to be governed by Section 203 of the DGCL, and therefore Section 203 will not apply to Southwest Gas Delaware following the Reincorporation. However, the Delaware Certificate contains the same business combination restrictions currently in the California Articles.		

Provision	Southwest Gas California	Southwest Gas Delaware			
Stockholder Vote Required to Approve Merger or Sale of Company	Except in limited circumstances, California law generally requires the affirmative vote of a majority of the outstanding shares entitled to vote of both the acquiring and target corporations in order to approve a merger, including the affirmative vote of each class of outstanding stock. In addition, California law requires that a sale of all or substantially all of the assets of a corporation be approved by the holders of the outstanding shares representing a majority of the voting power of the corporation selling its assets.	No change. Similar to California law, except in limited circumstances, Delaware law generally requires that the holders of the outstanding shares representing a majority of the voting power of both the acquiring and target corporations approve a statutory merger, and require that a sale of all or substantially all of the assets of a corporation be approved by the holders of the outstanding shares representing a majority of the voting power of the corporation selling its assets.			
Restrictions on Cash Merger	Under California law, a merger may not be consummated for cash if the purchaser owns more than 50% but less than 90% of the then outstanding shares unless either: (i) all of the shareholders consent, which is not practical for a public company, or (ii) the Commissioner of Corporations approves the merger. This may have the effect of making a "cash-out" merger by a majority shareholder more difficult to accomplish.	Delaware law does not have an analogous provision.			
Dividend	Under California law, a corporation may not pay dividends or otherwise make other distribution to its shareholders unless either: (i) the corporation's retained earnings immediately prior to the proposed distribution equal or exceed the amount of the proposed distribution; or (ii) immediately after giving effect to the distribution, the corporation's assets (exclusive of goodwill, capitalized research and development expenses and deferred charges) would be at least equal to one and one fourth (1 ½) times its liabilities (not including deferred taxes, deferred income and other deferred credits), and the corporation's current assets would be at least equal to its current liabilities (or one and one fourth (1 ½) times its current liabilities if the average pre-tax and pre-interest expense earnings for the preceding two fiscal years were less than the average interest expense for such years). These tests are applied to California corporations on a consolidated basis.	Delaware law is generally more flexible than California law with respect to payment of dividends and implementing share repurchase programs. Delaware law generally provides that a corporation may redeem or repurchase its shares out of its surplus. In addition, Delaware law generally provides that a corporation may declare and pay dividends out of surplus, or if there is no surplus, out of net profits for the fiscal year in which the dividend is declared and/or for the preceding fiscal year. Surplus is defined as the excess of a corporation's net assets (i.e., its total assets minus its total liabilities) over the capital associated with issuances of its common stock. Moreover, Delaware permits a board of directors to reduce its capital and transfer such amount to its surplus.			

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Elimination of Director Personal Liability for Monetary Damages

Southwest Gas California

California law permits a corporation to eliminate the personal liability of directors for monetary damages, except where such liability is based on:

(i) Intentional misconduct or knowing and culpable violation of law;

 (ii) Acts or omissions that a director believes to be contrary to the best interests of the corporation or its shareholders or that involve the absence of good faith on the part of the director;

(iii) Receipt of an improper personal benefit;

(iv) Acts or omissions that show reckless disregard for the director's duty to the corporation or its shareholders, where the director in the ordinary course of performing a director's duties should be aware of a risk of serious injury to the corporation or its shareholders;

 (v) Acts or omissions that constitute an unexcused pattern of inattention that amounts to an abdication of the director's duty to the corporation and its shareholders;

(vi) Transactions between the corporation and a director who has a material financial interest in such transaction; or

(vii) Liability for improper distributions, loans or guarantees.

The California Articles eliminate the liability of directors for monetary damages to the fullest extent permissible under California law.

Southwest Gas Delaware

Substantially similar. Delaware law permits a corporation to eliminate the personal liability of directors for monetary damages, except where such liability is based on:

 (i) Breaches of the director's duty of loyalty to the corporation or its stockholders;

 (ii) Acts or omissions not in good faith or involving intentional misconduct or knowing violations of law;

(iii) The payment of unlawful dividends or unlawful stock repurchases or redemption; or

(iv) Transactions in which the director received an improper personal benefit.

Such a limitation of liability provision also may not limit a director's liability for violation of, or otherwise relieve the company or directors from the necessity of complying with, federal or state securities laws, or affect the availability of non-monetary remedies such as injunctive relief or rescission.

To the fullest extent permitted by Delaware statutory or decisional law, the Delaware Certificate eliminates the liability of directors to the Company or its stockholders for monetary damages for breach of duty as a director.

Indemnification

Southwest Gas California

Indemnification is permitted by California law, provided the requisite standard of conduct is met. California law requires indemnification when the indemnitee has defended the action successfully on the merits. Indemnification is permitted under California law only for acts taken in good faith and believed to be in the best interests of the company and its shareholders.

Expenses incurred by an officer or director in defending an action may be paid in advance, if the director or officer undertakes to repay such amounts if it is ultimately determined that he or she is not entitled to indemnification. California law authorizes a corporation to purchase indemnity insurance for the benefit of its officers, directors, employees and agents whether or not the corporation would have the power to indemnify against the liability covered by the policy.

California law permits a corporation to provide rights to indemnification beyond those provided therein to the extent such additional indemnification is authorized in the corporation's articles of incorporation. Thus, if so authorized, rights to indemnification may be provided pursuant to agreements or bylaw provisions which make mandatory the permissive indemnification provided by California law.

The California Certificate and Bylaws authorize indemnification to the fullest extent permissible under California law and includes additional substantive and procedural provisions to clarify the application of indemnification rights.

Southwest Gas Delaware

Substantially similar. Indemnification is permitted by Delaware law, provided the requisite standard of conduct is met. Delaware law requires indemnification of expenses when the individual being indemnified has successfully defended any action on the merits or otherwise. Indemnification is permitted under Delaware law for acts in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the company.

Delaware law generally permits indemnification of expenses, including attorneys' fees, actually and reasonably incurred in the defense or settlement of a derivative or third party action, provided there is a determination by a majority vote of a disinterested quorum of the directors, by independent legal counsel or by the stockholders that the person seeking indemnification acted in good faith and in a manner reasonably believed to be in the best interests of the corporation. Without court approval, however, no indemnification may be made in respect of any derivative action in which such person is adjudged liable for negligence or misconduct in the performance of his or her duty to the corporation. Expenses incurred by an officer or director in defending an action may be paid in advance, if the director or officer undertakes to repay such amounts if it is ultimately determined that he or she is not entitled to indemnification. Delaware law authorizes a corporation to purchase indemnity insurance for the benefit of its directors, officers, employees and agents whether or not the corporation would have the power to indemnify against the liability covered by the policy. Delaware law permits a Delaware corporation to provide indemnification in excess of that provided by statute.

The Delaware Bylaws authorize indemnification to the fullest extent permissible under Delaware law and include additional substantive and procedural provisions to clarify the application of indemnification rights that are substantially similar to the California Certificate and Bylaws.

Interest of the Company's Directors and Executive Officers in the Reincorporation

The shareholders should be aware that the Company's directors and executive officers in voting on the Reincorporation proposal may have interests in the transaction that are different from, or in addition to, the interests of the shareholders generally. For example, the Reincorporation may provide officers and directors of the Company with more clarity and certainty in the reduction of their potential personal liability, and strengthen the ability of directors to resist takeover bids. The Board has considered these interests, among other matters, in reaching its decision to approve the Reincorporation and to recommend that our shareholders vote in favor of this Proposal.

Certain U.S. Federal Income Tax Consequences

The following discussion summarizes certain U.S. federal income tax consequences of the Reincorporation to holders of our Common Stock. The discussion is based on the Internal Revenue Code of 1986, as amended (the "Code"), regulations promulgated under the Code by the U.S. Treasury Department (including proposed and temporary regulations), rulings, current administrative interpretations and official pronouncements of the Internal Revenue Service (the "IRS"), and judicial decisions, all as currently in effect and all of which are subject to differing interpretations or to change, possibly with retroactive effect. Such change could materially and adversely affect the tax consequences described below. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any of the tax consequences described herein.

This discussion is for general information only, and does not purport to discuss all aspects of U.S. federal income taxation that may be important to a particular holder in light of its investment or tax circumstances or to holders subject to special tax rules, such as partnerships, subchapter S corporations or other pass-through entities, banks, financial institutions, tax-exempt entities, insurance companies, regulated investment companies, real estate investment trusts, trusts and estates, dealers in stocks, securities or currencies, traders in securities that have elected to use the mark-to-market method of accounting for their securities, persons holding our Common Stock as part of an integrated transaction, including a "straddle," "hedge," "constructive sale," or "conversion transaction," persons whose functional currency for tax purposes is not the U.S. dollar and persons subject to the alternative minimum tax provisions of the Code. This discussion does not include any description of the tax laws of any state or local governments, or of any foreign government, that may be applicable to a particular holder.

This discussion is directed solely to holders that hold our Common Stock as capital assets within the meaning of Section 1221 of the Code, which generally means as property held for investment. In addition, the following discussion only addresses "U.S. persons" for U.S. federal income tax purposes, generally defined as beneficial owners of our Common Stock who are:

- Individuals who are citizens or residents of the United States;
- Corporations (including an entity treated as a corporation for U.S. federal income tax purposes) created or
 organized in or under the laws of the United States or of any state of the United States or the District of Columbia;
- Estates, the income of which is subject to U.S. federal income taxation regardless of its source;
- Trusts, if a court within the United States is able to exercise primary supervision over the administration of any such trust and one or more U.S. persons have the authority to control all substantial decisions of such trust; or
- Trusts in existence on August 20, 1996 that have valid elections in effect under applicable Treasury regulations to be treated as U.S. persons.

If an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds our Common Stock, the U.S. federal income tax treatment of a partner generally will depend on the status of the partner and the activities of the partnership. A partner of a partnership holding our Common Stock should consult its own tax adviser regarding the U.S. federal income tax consequences to the partner of the Reincorporation.

This discussion does not purport to be a complete analysis of all of the tax consequences of the Reincorporation that may be relevant to holders. We urge you to consult your own tax adviser regarding your particular circumstances and the U.S. federal income and other federal tax consequences to you of the Reincorporation, as well as any tax consequences arising under the laws of any state, local, foreign or other tax jurisdiction and the possible effects of changes in U.S. federal or other tax laws.

We have not requested a ruling from the IRS or an opinion of counsel regarding the U.S. federal income tax consequences of the Reincorporation. However, we believe:

- The Reincorporation will constitute a tax-free reorganization under Section 368(a) of the Code;
- No gain or loss will be recognized by holders of Southwest Gas California Common Stock on receipt of Southwest Gas Delaware common stock pursuant to the Reincorporation;
- The aggregate tax basis of Southwest Gas Delaware common stock received by each holder will equal the
 aggregate tax basis of the Southwest Gas California Common Stock surrendered by such holder in exchange
 therefor; and
- The holding period of the Southwest Gas Delaware common stock received by each holder will include the period during which such holder held the Southwest Gas California Common Stock surrendered in exchange therefor.

Vote Required

The affirmative vote of the majority of the outstanding shares of Common Stock of the Company is required to approve the proposal for Reincorporation.

Shareholders are urged to read this proposal carefully, including all of the related appendices attached to this Proxy Statement, before voting on the Reincorporation. The discussion above summarizes material provisions of the Reincorporation and is subject to and qualified in its entirety by the Merger Agreement in substantially the form attached hereto as Appendix A, the Delaware Certificate of Incorporation in substantially the form attached hereto as Appendix B; and the Delaware Bylaws in substantially the form attached hereto as Appendix C. Copies of the California Articles and California Bylaws are filed with the SEC as exhibits to the Company's periodic or current reports and will be sent to shareholders free of charge upon written request to Southwest Gas Holdings, Inc., Attention: Corporate Secretary, 5241 Spring Mountain Rd., Las Vegas, Nevada 89150.

COMPENSATION DISCUSSION AND ANALYSIS

This Compensation Discussion and Analysis describes our 2018 executive compensation program, the compensation decisions made by the Compensation Committee (the "Committee") under our executive compensation program and the factors considered in making such decisions. This section focuses on the compensation of the Company's named executive officers ("NEOs") for fiscal 2018, who were:

- John P. Hester, President and Chief Executive Officer (the "CEO")
- Gregory J. Peterson, Senior Vice President/Chief Financial Officer
- Paul M. Daily, President and Chief Executive Officer, Centuri Construction Group, Inc.
- Karen S. Haller, Executive Vice President/Chief Legal and Administrative Officer and Corporate Secretary
- Eric DeBonis, Senior Vice President/Operations, Southwest Gas Corporation
- Roy R. Centrella, former Senior Vice President/Chief Financial Officer (retired March 30, 2018)

Through our reorganization in 2017, Southwest Gas Corporation (the predecessor publicly held parent company, "Southwest") and Centuri Construction Group, Inc. (previously a subsidiary of Southwest, "Centuri") became subsidiaries of the Company, a newly created holding company. Southwest is the primary entity in our natural gas operations business segment (the "utility segment"), and Centuri is the primary entity in our utility infrastructure services segment (the "utility infrastructure services segment").

In connection with the reorganization, Messrs. Hester and Centrella and Ms. Haller retained officer positions with Southwest, while also becoming officers of the Company. Also, during 2017, Mr. DeBonis, Senior Vice President/ Operations of Southwest, and Mr. Daily, President and Chief Executive Officer of Centuri, were designated executive officers of the Company based on the significance of their positions within the overall organization. On March 30, 2018, Mr. Centrella retired from Southwest and the Company. On April 1, 2018, Mr. Peterson was designated as an executive officer based upon his assumption of the role of Senior Vice President/Chief Financial Officer of both the Company and Southwest. Each of these officers were determined to be NEOs due to their position as CEO, Chief Financial Officer or one of the other three most highly compensated officers of the Company during 2018. Therefore, this Compensation Discussion and Analysis addresses the compensation programs of the Company, including elements of Southwest and Centuri compensation, where and as applicable to each of the NEOs. In this Compensation Discussion and Analysis, we sometimes refer to Messrs. Hester, Peterson and DeBonis and Ms. Haller as the "Southwest Officers," which term also includes Mr. Centrella for periods prior to April 2018.

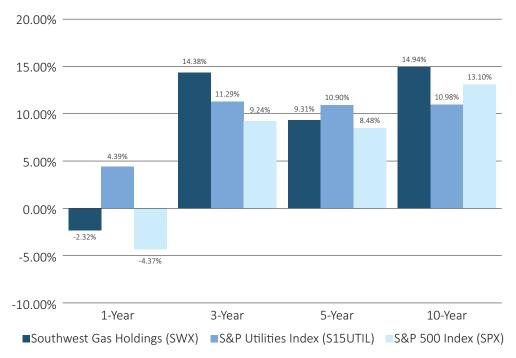
Executive Summary

2018 Business Results

Calendar year 2018 reflects not only a year of strong operational and financial performance, but the advancement of many strategic initiatives, which are laying the groundwork for our continued success. We believe that our compensation programs, by focusing on the core fundamentals of our businesses and incentivizing long-term financial performance, have been and will continue to be successful at motivating the operational and strategic achievements that foster the creation of shareholder value. Recent accomplishments include the following:

- Basic earnings per share in 2018 of \$3.69.
- Annualized dividends declared per share were \$1.80 in 2016, \$1.98 in 2017 and \$2.08 in 2018. In February 2019, the Board increased the quarterly dividend from 52 cents per share to 54.5 cents per share (\$2.18 on an annual basis and a 4.8% increase), effective with the June 2019 payment.
- Centuri record revenues of \$1.5 billion were experienced in 2018, an increase of \$276 million, or 22%, compared to 2017.
- Southwest Gas Corporation added 32,000 net new customers (1.6% growth rate) in 2018.

We have continued to deliver positive returns to our shareholders, generating total shareholder returns (stock price appreciation and reinvested dividends) as shown in the following chart. Over the three-, five- and ten-year periods ending December 31, 2018, we have delivered more value, as expressed by annualized total shareholder return, than the S&P 500 Index.



Total Shareholder Return

Incentive Compensation Structure

The Committee believes our incentive compensation program (i) is a competitive program relative to our competitors for executive talent, (ii) aligns with best practices recommended by our compensation consultant, (iii) responds to shareholder expectations for pay-for-performance alignment and (iv) provides the appropriate linkage between executive compensation and the Company's long-term business strategy. The structure provides for cash-based annual incentive awards. Also, for Southwest Officers, long-term equity compensation comprised of performance-based equity compensation measured over the three-year performance period ("Performance Shares") and time-lapse restricted stock units ("time-lapse RSUs") are provided, and for Centuri officers, long-term incentives based on Centuri's financial performance is included. Under this structure, a greater portion of our NEOs' total compensation is at-risk and variable based on performance relative to metrics that are more directly aligned with customer and shareholder interests. Beginning in 2019, Mr. Daily, the Centuri CEO, will also be eligible to receive performance-based and time-based equity compensation.

Annual Incentive Compensation Paid for 2018 Performance

The Company and Southwest exceeded their respective net income targets of adjusted consolidated net income of \$168.5 million for the Company and adjusted utility segment net income of \$129 million for Southwest in fiscal 2018. Centuri surpassed its target pretax income goal of \$60.9 million and exceeded threshold performance under this metric. These performances, coupled with achievements under applicable operational, safety and individual goals, resulted in Messrs. Hester, Peterson and Centrella and Ms. Haller receiving annual incentive awards equal to 125% of their respective target awards, Mr. DeBonis receiving an award equal to 124% of his target award and Mr. Daily receiving an award equal to 145% of his target award (each as a specified percentage of base salary).

In the calculation of actual results under the adjusted net income measures for the Company and Southwest, the Committee excluded the benefits of the change to the federal corporate income tax rate pursuant to the Tax Cuts and Jobs Act of 2017 (the "TCJA"), and impacts of changes in the cash surrender value of Company-owned life insurance policies. See "Details of Compensation Program—Annual Incentive Compensation" below.

Past Company performance has established a strong financial platform for sustainable growth into the future, and these recent accomplishments are expected to contribute to our ability to provide total shareholder returns over the long term. Going forward, we expect further alignment between executive compensation and shareholder returns under our incentive compensation structure, as well as Centuri's long-term incentive plan (as discussed in more detail below).

Commitment to Best Practices

We maintain executive compensation policies that are consistent with sound corporate governance and best practices. We annually review our executive compensation program and make changes where appropriate for our business, customers, and shareholders. Key policies include:

- Stock ownership (or equivalent) guidelines for NEOs and directors, with retention thresholds set at a competitive and meaningful multiple of annual base salary or Board retainer fees.
- Compensation Committee composed only of Independent Directors.
- Independent compensation consultant retained by the Committee, which has no other business with the Company.
- Change in control arrangements which do not provide for excise tax gross-ups or severance amounts greater than three times base salary.
- Double trigger equity acceleration following a change in control.
- No dividends paid on unvested stock-based awards until the underlying awards have vested.
- No tax reimbursements or gross-ups for benefits or perquisites.
- Clawback policy that is broader than current draft SEC regulations and which permits the Company to recover from our NEOs cash or equity incentive compensation in certain circumstances.
- Annual review of peer group used to assess executive compensation.
- Annual say-on-pay vote for shareholders.
- Anti-pledging and anti-hedging policies that apply to all of our executives and directors.

Compensation Program Objectives, Key Considerations and Principles

Philosophy and Objectives

The overall objectives of our executive compensation program are to:

- · Recruit, retain, reward and motivate executive talent;
- Align the interests of the NEOs with those of the Company, its customers and its shareholders;
- · Provide internally equitable and externally competitive compensation opportunities; and
- Recognize and reward performance that meets or exceeds the Company's targets.

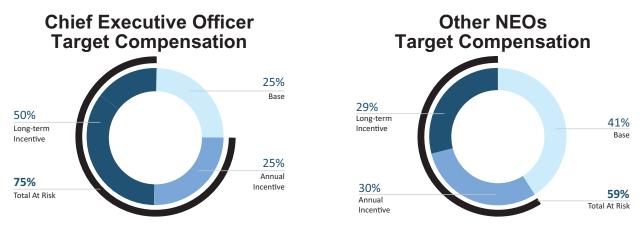
Specifically, the Committee developed our executive compensation program to address the key business considerations and related compensation principles discussed below:

- Executive pay should be highly aligned with Company performance. The Committee is firmly committed to
 providing the Company's executives with incentive compensation opportunities that are directly tied to the
 measures of performance that it believes lead to shareholder value creation. We recognize that the compensation
 program should reward strong performance. Accordingly, a significant portion of each NEO's total direct
 compensation is earned only by achieving annual and long-term performance goals.
- Use of equity-based incentives, combined with stock ownership requirements, is key to aligning management interests with the Company's shareholders. The Committee seeks to align Southwest Officer interests with customers and shareholders by (i) delivering long-term incentive compensation in the form of equity, (ii) requiring meaningful officer stock ownership, and (iii) providing significant components of incentive compensation based on total shareholder return and financial performance measures, which foster growth in both our regulated and unregulated business segments. Centuri's annual and long-term incentives are also primarily based on Centuri financial performance metrics that are meaningful for shareholders, and Mr. Daily is required to invest in a deferral plan option with returns based on Centuri's financial performance. Beginning in 2019, Mr. Daily will also be eligible to receive performance-based and time-based equity compensation and be required to hold a multiple of his base salary in Company stock.
- Performance for our customers fosters enhanced shareholder value. In our utility segment, we strive to work collaboratively with regulators to achieve positive results for both customers and shareholders, and we recognize that customer satisfaction and the Company's safety record are both essential elements in the regulatory process. Safety is also critical to the success of our utility infrastructure services segment, and safety goals carry significant weight under Centuri's annual incentive plan. By emphasizing our core mission and values of safety, service and reliability, the Committee believes that it motivates achievements that are the platform for increased shareholder returns.
- Compensation programs should discourage undue risk-taking. The performance measures employed in the Company's incentive compensation programs, in addition to being reflective of the Company's core mission and business strategies, are also interdependent such that overemphasis by management in one area (such as cost containment) has the potential to negatively impact performance in other areas (such as customer satisfaction ratings and incident response times). We believe that the tension between the measures mitigates risk. We further mitigate risk by capping incentive award payouts and by setting target opportunities at levels that strike a reasonable balance among base salary and both annual and long-term incentives.

• The executive compensation program should be prospective. The Committee does not take into consideration the results of previously earned performance awards and the deferral of cash compensation in establishing the appropriate level of future compensation. The Committee does, however, take into consideration the Company's past performance in determining the long-term performance awards and in setting new performance targets.

Pay for Performance

With respect to each of our NEOs, all annual cash incentives and long-term incentives were "at risk" performancebased compensation, as those awards are either variable based on the level of performance against incentive targets or are subject to continued employment and stock price performance during a three-year vesting period. The portion of total direct compensation designed to be at risk pay depends upon the NEO's position and the ability of that position to influence outcomes, as well as compensation market factors and risk mitigation considerations. Mr. Hester, the Company's CEO, has the largest portion of pay at risk. In 2018, the percentage of his targeted total direct compensation opportunity at risk was approximately 75%. For the other NEOs, the average percentage of such compensation at risk was approximately 59%.



Compensation Program Administration

Role of the Committee

The Committee administers our executive compensation programs. The Committee annually reviews and approves the corporate goals and objectives relevant to the CEO's compensation, the CEO's performance in relation to such goals and objectives and, together with the other Independent Directors of the Board, the CEO's actual compensation. The Committee also reviews, together with the CEO, and approves the salaries and incentive compensation for the other executive officers. The Committee's Charter is available on the Company's website at www.swgasholdings.com.

Role of Management

Management, including the NEOs, provides guidance to, and receives direction from, the Committee regarding executive compensation. Management annually provides information to the Committee regarding what it believes to be appropriate levels of the various elements of direct compensation (including target awards for incentive compensation), as well as the thresholds, targets and maximums of the performance measures. Information is gathered from Company operating data, external independent surveys and publicly available compensation comparisons. Decisions regarding CEO compensation are made solely by the Committee in executive session.

Role of Independent Compensation Consultant

While consultants may be retained by management to assess executive compensation, the Committee has the authority, independent of management, to employ and retain consultants to assist it in establishing the executive compensation objectives and in determining whether the objectives have been satisfied. In 2018, the Committee engaged Pay Governance as an independent consultant to perform a competitive pay benchmarking analysis of the Southwest Officers, independent from management's recommendations. Pay Governance's engagement with the Committee also included a review and analysis of director compensation and Centuri CEO compensation. Pay Governance did not receive any fees from the Company for services other than the fees paid with respect to executive and director compensation services.

For 2018, the Committee analyzed whether the work of Pay Governance or any other executive compensation adviser raised any conflict of interest, taking into consideration all relevant factors, including those set forth in Rule 10C-1(b)(4)(i) through (vi) under the Exchange Act. The Committee determined, based on its analysis of all relevant factors, that no conflicts of interest were present. One compensation consultant engaged by management, Korn Ferry, provided services in the area of executive compensation, but also performed more than \$120,000 of services for the Company in other areas. In 2018, the Company paid Korn Ferry \$33,785 for executive officer compensation consulting and a total of \$214,366 in the areas of rate case support, executive coaching, organization design and executive succession.

How We Determine Amounts Paid for Each Element of Compensation

We operate in a competitive environment for talented executives, and the Committee analyzes a variety of information as it seeks to identify competitive levels of compensation within the relevant markets in which we operate.

Peer Group

The companies in the compensation peer group for the Southwest Officers were selected because they represent those companies considered by the Committee to be the most comparable to the Company in terms of business operations, operational complexity, revenue, market capitalization and overall financial performance. For 2018, the peer group was composed of 13 companies in the utility industry, which at the time of selection had no less than half and no more than twice the reported revenue of the Company.

- Atmos Energy Corporation
- Avista Corporation
- Black Hills Corporation
- Great Plains Energy, Inc.
- New Jersey Resources Corporation
 Vectren Corporation
- Northwestern Corporation
- ONE Gas, Inc.

- Pinnacle West Capital Corporation
- PNM Resources, Inc.
- Portland General Electric Company
- Spire Inc.
- Westar Energy, Inc.

Compensation Review

Pay Governance performed comprehensive competitive compensation benchmarking, which included assessments of all elements of compensation for the Southwest Officers. The competitive compensation benchmarking data reviewed by the Committee included base salary, annual incentive compensation and long-term incentive compensation found in the proxy statements filed by companies in the peer group. The structures of the incentive, deferred compensation and supplemental retirement programs of the Company were also reviewed in comparison to peer company programs.

To supplement the executive compensation information derived from its study of the peer group with respect to the Southwest Officers, as well as to identify the relevant market for Mr. Daily, the Committee also reviewed and considered executive compensation benchmarking data provided by management and compensation surveys prepared by FMI Compensation and Meridian Compensation Partners LLC. Statistical analysis was employed based on relative total annual revenues in order to adjust for size differences and to determine competitive pay rates for our NEOs based upon the data derived from the surveys.

Benchmarking of Compensation

In reference to the data and analyses discussed above, the Committee reviewed competitive target compensation levels for each NEO relative to the 50th percentile of the relevant market. For each NEO position, base salary, target total cash compensation (base salary plus annual incentive award) and target total direct compensation (base salary plus annual incentive award plus the target value of long-term incentive compensation) were benchmarked and analyzed at the median level. The Committee found that base salaries, target total cash compensation and target total direct compensation for each of the Southwest Officers were generally aligned with the relevant market benchmarks.

In 2017, the Committee determined that Mr. Daily's target annual incentive opportunity was above the median level for peer companies and that his target long-term opportunity was below the median level, but that his target total direct compensation was competitive with the relevant market. The levels of the various elements of Mr. Daily's compensation were originally determined through the negotiation of Mr. Daily's employment agreement in 2016.

For 2018, Mr. Daily agreed to a rebalancing of his annual and long-term incentive compensation. In 2018, Mr. Daily received an increase to his base salary, while his short-term incentive opportunity decreased. Beginning in 2019, Mr. Daily will be required to hold two times his base pay in Company stock as part of an increase to his long-term incentive opportunity. This requirement aligns Mr. Daily's and shareholder interests by providing a link to Company performance, while still retaining the link to Centuri performance via the requirement that Mr. Daily defer cash compensation in the Centuri salary deferral plan.

Other elements of overall compensation for the NEOs (perquisites, welfare benefits, retirement benefits and posttermination benefits) were implemented at various times over the past several years to remain competitive with the relevant market. In determining the Company's overall compensation, we annually compare elements of direct compensation and the level of other benefits with those of the relevant market to ensure the Company remains competitive.

Consideration of 2018 Say-on-Pay Vote

The Company holds an annual say-on-pay advisory vote regarding executive compensation. At the 2018 annual meeting of shareholders, approximately 98% of the votes cast were in favor of the compensation of the NEOs as described in the proxy statement for the 2018 annual meeting. The Board and Committee reviewed these final vote results and determined that, given the significant level of support, no changes to our executive compensation philosophy, policies and decisions were necessary based solely on the vote results. Nevertheless, as discussed in this Compensation Discussion and Analysis, the Committee's activities in fiscal year 2018 demonstrate our ongoing commitment to ensure our executive compensation remains aligned with the interests of our shareholders and current market practices. Additionally, we determined that our shareholders should vote on a say-on-pay proposal each year. The Board recommends that you vote FOR Proposal 4 at the Annual Meeting. For more information, see "ADVISORY VOTE TO APPROVE THE COMPANY'S EXECUTIVE COMPENSATION" in this Proxy Statement.

Details of Compensation Program

The nature of the Company's operations and competitive considerations have led the Committee to design and employ compensation programs that we believe are comparable to compensation programs widely used in the natural gas operations and utility infrastructure services industries, as applicable. To accomplish our objectives, our programs are designed to respond to changing market conditions and to offer a broad spectrum of compensation opportunities. Performance is the critical component of our programs, and both individual and overall Company performance can impact an NEO's level of compensation on an annual basis.

Why We Pay Each Element

The elements of executive compensation for the NEOs and the purpose for providing each element are described below:

Element	Purpose	Summary of Features
Base Salary	 Recognize leadership responsibilities and value of executive's position to the Company. Serve as a competitive compensation foundation. 	 Targeted at 50th percentile of relevant peer group companies. Adjustments are made based upon the value of the position to the business, individual performance and pay relative to the appropriate market.
Annual Incentive Plans	 Encourage and reward NEO contributions in achieving short-term performance goals. Align management interests with customers and shareholders. Address individual performance goals for the NEOs. 	 Awards paid out annually in cash. NEO award values are subject to downward adjustment for failure to satisfy individual goals. No awards paid if financial performance is below certain minimum levels.
Long-Term Incentives	 Provide executives with long-term performance goals to work toward. Align management interests with customers and shareholders. Retain management with awards subject to service vesting. 	 Centuri's long-term incentive is a cash plan, but will include an opportunity for compensation in Company equity beginning in 2019. Southwest Officers receive long-term incentives through both time-lapse restricted stock units and Performance Shares. Centuri and Southwest performance awards are earned based on three-year financial performance.
Executive Health, Welfare and Retirement Benefits	 Provide executives reasonable and competitive benefits. Encourage savings for retirement. Retain executives with pension benefits subject to service vesting. 	 Health and welfare benefits consistent with standard benefits provided to all employees. 401(k) plan and non-qualified deferred compensation plans allow for deferral of compensation and Company contributions. Qualified and supplemental non-qualified pension benefits.
Southwest Change in Control Agreements	 Ensure attention and dedication to performance without distraction in the circumstance of a potential change in control. Enables executives to maintain objectivity with respect to merger or acquisition offers considered by the Board. 	 Double trigger change in control severance agreements without any excise tax gross-up. Accelerated vesting of equity awards upon certain terminations following change in control. Potential increase to supplemental pension benefit.
Centuri CEO Employment Agreement	 Ensure attention and dedication to performance without distraction in the circumstance of a potential change in control. Provide an incentive to enter into executive employment relationship. Protect the Company's interests. 	 Two-year term, with automatic renewals. Provides change in control severance and severance outside of change in control scenario. Supplemental deferred compensation contributions. Non-competition and non-solicitation restrictive covenants.

Base Salaries

Salaries for the Company's NEOs are established based on the scope of their responsibilities, taking into account competitive market compensation paid by the peer group and additional salary survey data for similar positions. The competitive market processes discussed above were used by the Committee to help ensure that salaries are reasonable, competitive and properly address position responsibility. The range of salaries available through this review provides an objective standard to determine the appropriate level of salary for a given executive position. Salaries are reviewed annually and are subject to mid-year adjustment to realign salaries with market levels after taking into consideration individual responsibilities, performance, inflation and experience.

Annual Incentive Compensation

We establish cash incentive opportunities on an annual basis, expressed as a percentage of each individual's base salary. The target level of annual incentive opportunities granted to Southwest Officers is based primarily on the competitive compensation benchmarking. The value of Mr. Daily's incentive was largely the product of the negotiation of his employment agreement, as discussed above, but based on recent rebalancing the Committee determined that it falls within a reasonable range for his position. The target incentive opportunities for the NEOs were set at the following percentages of base salary for 2018:

	Incentive Opportunities (% of salary)
John P. Hester	100%
Gregory J. Peterson	60%
Paul M. Daily	100%
Karen S. Haller	65%
Eric DeBonis	50%
Roy R. Centrella (Retired)	60%

Southwest Annual Incentives. Annual incentive opportunities are payable entirely in cash.

The 2018 performance measures for Southwest Officers were tied to measures of financial performance, customer satisfaction, productivity and safety. For 2018, the Committee derived the targets for our four performance measures as follows:

- Adjusted Net Income. The primary financial measure is adjusted net income, which is measured on a consolidated basis for Messrs. Hester, Peterson, and Centrella and Ms. Haller because of their influence over both of the Company's business segments, and measured solely for the utility segment for Mr. DeBonis. Both adjusted net income measures were designed to exclude the impact of Company-owned life insurance and benefits of TCJA tax reform to more closely represent Company-driven outcomes. The target for the adjusted net income component was \$168.5 million on a consolidated basis and \$129 million for the utility segment, which were derived from Company and Southwest business plans and budgets.
- *Customer Satisfaction.* The customer satisfaction measure is based on independent customer surveys conducted in each of our utility operating divisions. The target for this component was 92% customer satisfaction, the same as 2017's target.
- Productivity. The productivity measure was designed to reward success in reaching a predetermined level of
 operations and maintenance expense per customer. The target was \$213 per customer (including non-service
 pension costs), which represents a 2% increase from the Company's 2017 target.
- Safety. The Committee chose the two components of the safety performance measure because they are oriented toward incidents associated with the Company's gas distribution systems and thereby linked to risks in areas such as regulation, operations, reputation and franchise value. The Company's 2018 target for damage per 1,000 tickets is 1.50, a higher level of achievement than the American Gas Association peer median. The target for incident response time within 30 minutes was 70%, representing a 1% improvement from the Company's 2017 target.

For plan year 2018, the weighting of the measures was as follows: Adjusted Net Income: 40%; Customer Satisfaction: 20%; Productivity: 20%; and Safety: 20%. Actual awards for each measure are determined as of year-end by comparing the Company's performance to the threshold, target and maximum levels set by the Committee at the beginning of the year for each performance measure. When threshold performance for any measure is achieved, an award with respect to that measure is earned. Award payouts can range from 70% (at threshold) to 100% (at target) to

140% (at maximum) of the assigned incentive opportunity for each measure, based on where actual results fall in the range from threshold to target to maximum. No awards are paid with respect to any measure if 80% of target adjusted net income is not achieved. We determine actual payouts through linear interpolation.

The thresholds, targets and maximums and actual results under the four core performance measures for 2018 are set forth below:

Measure	Th	reshold		Target	Ma	aximum		Actual	Weighting	Payout %
Adjusted Net Income:										
Consolidated (000s) ⁽¹⁾	\$15	51,650	\$16	8,500	\$18	35,350	\$17	79,927	40%	50.85%
Utility (000s) ⁽¹⁾	\$11	9,970	\$12	29,000	\$13	38,030	\$13	34,632	40%	49.98%
Customer Satisfaction		88%		92%		95%		95.10%	20%	28.00%
Productivity (O&M/Customer)	\$	216	\$	213	\$	210	\$ 2	211.04	20%	25.23%
Safety:										
Damage per 1,000 Tickets		1.80		1.50		1.20		1.43	10%	10.93%
Response Times w/in 30 Min.		67%		70%		73%		70.10%	10%	10.13%
Total:										

Consolidated	125%
 Utility	124%

(1) In the calculation of actual results under the adjusted net income measures, the Committee excluded the aggregate impact of the TCJA and earnings impacts of Company-owned life insurance policy value changes. Additionally, for consolidated adjusted net income, the Committee excluded net costs related to the acquisition of Linetec Services LLC in November 2018 and IntelliChoice Energy, LLC expense accruals.

The Committee has the discretion to reduce an NEO's overall award that would otherwise be earned for failure to satisfy individual performance goals. The Committee reviews the CEO's individual performance to determine whether there will be any downward adjustment. For 2018, individual performance goals for the CEO centered on promoting fundamental business strategies, maximizing customer and shareholder value, pursuing regulatory initiatives and overseeing the utility infrastructure services segment.

The CEO reviews the other executive officers' individual performances to determine whether there will be any downward adjustment in the performance awards. As a result of such review, if the CEO recommends a downward adjustment in the performance awards, the CEO will bring the matter before the Committee for review and approval. Mr. Peterson's goals were centered on investor relations activities, financial planning and execution, external reporting, regulatory compliance and strategic planning matters. Ms. Haller's goals pertain to legal matters, corporate ethics and compliance, enterprise risk management and the corporate secretary, gas resources, human resources and administrative functions. Mr. DeBonis' goals were directed to maintaining system safety and reliability, controlling operating costs and enhancing customer service. The individual performance goals for the CEO and other eligible Southwest Officers were satisfied, and there were no reductions in their awards in respect to 2018.

Adjusted net income, both on a consolidated and utility segment basis, exceeded 80% of our target, and achievements under the performance measures aggregated for a payout of 125% of the target incentive award opportunity for Ms. Haller and Messrs. Hester, Peterson and Centrella and 124% of target for Mr. DeBonis. These aggregated percentage payouts are multiplied by the total incentive opportunity (expressed above as a percentage of base salary) to determine the overall dollar value of the annual award. The following table details the actual payouts associated with the 2018 annual incentive awards for the eligible Southwest Officers:

	Incentive Opportunities (% of salary)	Total Achievement of Performance Measures (% of target)	Incentive Earned (% of salary)	Incenti	ve Earned (\$)
John P. Hester	100%	5 125%	125.0%	5 \$ 1	,125,000
Gregory J. Peterson	60%	5 125%	75.0%	\$	279,120
Karen S. Haller	65%	5 125%	81.3%	\$	341,250
Eric DeBonis	50%	5 124%	62.0%	\$	207,700
Roy R. Centrella (Retired) ⁽¹⁾	60%	5 125%	18.8%	5 \$	80,625

(1) Mr. Centrella's incentive award was prorated based on his retirement date.

<u>Centuri Annual Incentives</u>. For Centuri, the Committee selected financial performance and safety goals for the 2018 annual incentive opportunities.

- *Financial Measure*. The primary financial measure is pretax income, with a target of \$60.9 million, which was derived from Centuri's business plans and budgets.
- Safety. The safety goal is based on the American Gas Association days away from work, restricted or transferred (DART) incident rate, the industry standard measurement for safety. The target of 1.0 represents a significantly better score than the median of Centuri's competitors.

For plan year 2018, the weighting of the measures was as follows: Pretax Income: 75% and Safety: 25%.

Actual awards for each measure are determined as of year-end by comparing Centuri performance to the threshold, target and maximum levels set by the Committee at the beginning of the year for each performance measure. When threshold performance for any measure is achieved, an award with respect to that measure is earned. Award payouts can range from 65% (at threshold) to 100% (at target) to 170% (at maximum) of the assigned incentive opportunity for each measure, based on where actual results fall in the range from threshold to target to maximum. We determine actual payouts through linear interpolation.

The thresholds, targets and maximums and actual results under the two performance measures for 2018 are set forth below:

Measure	Threshold	Target	Maximum	Actual ⁽¹⁾	Weighting	Payout %
Pretax Income	\$42.6 million	\$60.9 million	\$76.1 million	\$71.7 million	75%	150%
Safety (DART)	1.62	1.00	0.31	0.69	25%	131%
Total						145%

(1) In the calculation of actual results under the pretax income measure, the Committee excluded net costs related to the acquisition of Linetec Services LLC in November 2018 and IntelliChoice Energy, LLC expense accruals.

No awards are paid in any year unless 50% of target pretax income is achieved. In 2018, pretax income exceeded 50% of target, and achievements under the other performance measure aggregated for a payout of 145% of the target incentive award opportunity for Mr. Daily. The aggregated percentage payout is multiplied by the total incentive opportunity (expressed above as a percentage of base salary) to determine the overall dollar value of the annual award. The following table details the potential and actual payouts associated with the 2018 annual incentive award to Mr. Daily:

	Incentive Opportunities (% of salary)	Total Achievement of Performance Measures (% of target)	Incentive Earned (% of salary)	Incentive Earned (\$)
Paul M. Daily	100%	145.16%	145.16%	\$830,315

Long-Term Incentive Compensation

Our long-term incentive compensation is designed to provide incentives for maintaining long-term performance and strengthening customer and shareholder value over a three-year performance period. Southwest Officers are incentivized with equity compensation. Centuri maintains a cash based long-term incentive plan for Centuri executives, including Mr. Daily, but beginning in 2019, Mr. Daily will also be eligible to be awarded Company equity as a long-term incentive. The Committee based the value of incentive awards granted to Southwest Officers primarily on the competitive compensation benchmarking, while the value of Mr. Daily's incentive award was largely the product of the negotiation of his employment agreement, but was rebalanced in 2018. For 2018, the target long-term incentive opportunities for the NEOs were set at the following percentages of base salary:

	Incentive	Incentive Opportunities (% of salary)			
	Po RSUs	erformance Shares	Cash	Total	
John P. Hester	60%	140%	_	200%	
Gregory J. Peterson	15%	15%		30%	
Paul M. Daily	_		70%	70%	
Karen S. Haller	30%	70%	_	100%	
Eric DeBonis	30%	60%		90%	
Roy R. Centrella (Retired) ⁽¹⁾	30%	70%		100%	

(1) Mr. Centrella's long-term incentive payment will be prorated based on his retirement date.

Southwest Long-Term Incentives. Long-term incentives for the Southwest Officers are composed of time-lapse RSUs and Performance Shares. The CEO's target long-term opportunity for the three-year performance period beginning in 2018 is 200% of base salary, 70% in the form of Performance Shares and 30% granted as time-lapse RSUs.

RSUs. The Committee believes that grants of time-lapse RSUs promote and encourage long-term retention and service to the Company, align the interests of our NEOs with those of our customers and shareholders through increased share ownership, and provide a balanced approach to long-term compensation. At its February 2018 meeting, the Committee approved the 2018 grants under this program, which the Board approved. The number of RSUs granted was determined based on the closing price for our Common Stock for the last trading day of 2017 (\$80.48 per share). The time-lapse RSUs granted in 2018 vest 40% one year after the award date and 30% following each of the next two years, assuming continued service.

The table below illustrates the target long-term incentive opportunity granted as time-lapse RSUs, and the number granted:

	RSU Component (% of salary)	RSU Component (\$)	RSUs Granted (#)
John P. Hester	60%	\$495,000	6,151
Gregory J. Peterson	15%	\$ 37,200	462
Karen S. Haller	30%	\$113,100	1,405
Eric DeBonis	30%	\$ 96,600	1,200
Roy R. Centrella (Retired)	30%	\$129,000	1,603

 Performance Shares. The Committee believes that the payment of long-term incentive compensation in the form of Performance Shares, measured over a three-year performance period, rewards our NEOs for improved financial performance of the Company, thereby giving them an incentive to enhance long-term customer and shareholder value. The target number of Performance Shares granted was determined based on the closing price for our Common Stock for the last trading day of 2017 (\$80.48 per share). Performance Shares granted in 2018 are earned upon achievement of financial performance goals for the three-year period from 2018 through 2020.

The table below illustrates the target long-term incentive opportunity granted as Performance Shares, and the number of Performance Shares granted:

	PS Component (% of salary)	Target PS Component (\$)	Target PSs Granted (#)
John P. Hester	140%	\$1,155,000	14,351
Gregory J. Peterson	15%	\$ 37,200	462
Karen S. Haller	70%	\$ 263,900	3,279
Eric DeBonis	60%	\$ 193,200	2,401
Roy R. Centrella (Retired) ⁽¹⁾	70%	\$ 301,000	3,740

 Mr. Centrella will be paid a prorated amount based on his time of service during the performance period. He will receive his award after the performance periods conclude.

For Performance Shares granted in 2018 to Messrs. Hester and Centrella and Ms. Haller, 60% are earnable based on a consolidated earnings per share ("EPS") performance measure, and 40% are earnable based on a utility segment return on equity ("ROE") performance measure. For Mr. DeBonis and Mr. Peterson, 60% of the Performance Shares are based on utility segment net income, and 40% are based on ROE. Since Mr. Peterson became an NEO after the Performance Share grant was made, his grant was made based on utility segment net income and ROE. Each of these measures is adjusted to remove the impact of Company-owned life insurance.

At its meeting in February 2018, the Committee established the threshold, target and maximum performance levels upon which Performance Share awards would be based for the 2018 through 2020 performance period and awarded grants of Performance Shares to the Southwest Officers, which were later approved by the Board. The target levels were based on Company and Southwest business plans and budgets and took into account such factors as budgeted capital expenditures, expected growth within the markets that the Company serves, competitive factors from other service providers, and other business considerations embedded in the Company's annual business planning process. The following table shows the three-year performance criteria for such period:

Performance Level	EPS (\$)	Utility Net Income (000s)	Return on Equity (%)	Base Percentage (%) of Target Award Earned ⁽¹⁾
Below Threshold	<\$ 9.45	<\$379,440	<6.50%	No award
Threshold	\$ 9.45	\$379,440	6.50%	50%
Target	\$10.50	\$408,000	7.50%	100%
Maximum	\$11.55	\$436,560	8.50%	150%

(1) Subject to upward or downward adjustment based on total shareholder return performance relative to a peer group.

Linear interpolation will be used to compute the percentage of the target award earned. The awards are payable in the form of Common Stock with the Southwest Officers also receiving cumulative dividend equivalents over the three-year performance period on such awards to the extent the underlying shares are earned.

If threshold performance is met, a base number of Performance Shares in a range of 50% to 150% of the target number will be earned, subject to modification based on total shareholder return relative to a peer group. Total shareholder return of the Company over the three-year period, plus dividends will be compared to total shareholder returns of peer companies in the Bloomberg Transmission Distribution List. Relative performance that places the Company at or above the 75th percentile of the peer group would result in maximum upward adjustment of the number of shares of Common Stock earned by 30%, performance in the range between the 25th and 75th percentiles would result in no adjustment, and performance at or below the 25th percentile of the peer group would result in maximum downward adjustment by 15% (provided that if a base number of shares is earned, the lowest percentage of the target number that will vest is 50%).

The Committee included the total shareholder return feature to link performance under the respective performance measures with the market's reaction to that performance. The Committee determined that the modifier should not be symmetrical because Performance Shares are 100% at risk as currently designed.

<u>Centuri Long-Term Incentives</u>. Because Centuri typically accounted for less than 20% of the Company's business on a net income basis, we have not historically granted Company equity awards to Centuri executives. However, the Committee recognized that the Centuri share of the business mix is increasing and determined to strengthen the link to Company performance through granting Company equity to the Centuri Chief Executive Officer for part of his long-term incentives commencing in 2019. For other Centuri officers, long-term incentives for Centuri are paid solely in the form of cash awards based on the achievement of Centuri-specific performance goals to provide Centuri executives with an incentive to enhance the significant component of shareholder value over which they have the most influence. The table below illustrates the target long-term incentive opportunity granted to Mr. Daily for the performance period from 2018 through 2020:

	Target Cash Long- Term Incentive (% of salary)	Target Cash Long- Term Incentive (\$)
Paul M. Daily	70%	\$385,000

The payment of incentive compensation under Centuri's long-term cash plan is measured by Centuri's compounded enterprise value ("EV") growth rate over a three-year performance period. EV is defined as earnings before interest taxes and depreciation ("EBITDA") for Centuri multiplied by an EBITDA multiple determined by the Committee at the beginning of the performance period minus Centuri net debt.

At its meeting in May 2018, the Committee established the threshold, target and maximum performance levels of EV growth for Centuri from the baseline of Centuri's EV as of 2017 year-end. The target EV growth rate level was based on Centuri's business plan and budget and took into account such factors as budgeted capital expenditures, expected growth within the markets that Centuri serves, competitive factors from other service providers and other business considerations embedded in Centuri's annual business planning process. The following table summarizes the performance goals for the performance period from 2018 through 2020:

Performance Level	Three-Year Compounded EV Growth	Percentage (%) of Target Award Earned
Below Threshold	<6.1%	No award
Threshold	6.1%	25%
Target	15.8%	100%
Maximum	33.1%	200%

Linear interpolation will be used to compute the percentage of the target award earned. Awards under the plan are to be paid in cash following the end of the performance period.

For the performance period from 2019 through 2021, Mr. Daily's long-term incentive opportunity will be 120% of base salary in connection with the ability to earn Company equity for part of his long-term incentive.

Perquisites

The Company provides a limited number of perquisites to its executive officers. The NEOs receive car allowances, annual allowances for physical examinations, and an allowance once every three years to assist in financial and estate planning. Senior executive officers are also provided social club memberships. The CEO of Centuri also receives life insurance as a perquisite.

Retirement Benefits

Southwest Retirement Benefits. Four retirement benefit plans are available to the Southwest Officers. Two of the plans, the Retirement Plan for Employees of Southwest ("Retirement Plan") and the Employee Investment Plan ("EIP"), both tax-qualified plans, are available to all Southwest employees. Two additional plans are offered to officers, the Supplemental Executive Retirement Plan ("SERP") and the Executive Deferral Plan ("EDP"). These additional plans were established to attract and retain qualified executives and to address the dollar limitations imposed on the two tax-qualified plans.

- Retirement Plan. Benefits under the Retirement Plan are based on (i) the executive's years of service with the Company, up to a maximum of 30 years, and (ii) the average of the executive's highest five consecutive years' salaries, within the final 10 years of service, not to exceed a maximum compensation level established by the Internal Revenue Service.
- SERP. The SERP is designed to supplement the benefits under the Retirement Plan to a level of 50—60% of salary. To qualify for benefits under the SERP, which is based on a 12-month average of the highest consecutive 36-months of salary, an executive is required to have reached (i) age 55, with 20 years of service with the Company, or (ii) age 65, with 10 years of service.
- *EIP*. Southwest Officers may participate in the EIP and defer salary up to the maximum annual dollar amount permitted for 401(k) plans under the Code. Investments of these deferrals are controlled by the individual executives from a selection of investment options offered through the EIP. There are no employer matching contributions for executive deferrals into the EIP.
- EDP. The EDP supplements the deferral opportunities by permitting executives to defer up to 100% of their annual salary and non-equity incentive compensation. As part of the EDP, the Company provides matching contributions up to 3.5% of annual salary, which vest immediately. Amounts deferred and Company matching contributions bear interest at 150% of the Moody's Seasoned Corporate Bond Rate (the "Bond Rate"). At retirement or termination, with five years of service with the Company, the Southwest Officers will receive EDP balances paid out at the election of the participant over a period of 10, 15 or 20 years and will be credited during the applicable payment period with interest at 150% of the average of the Bond Rate on each January 1st for the five years prior to the start of retirement.

<u>Centuri Retirement Benefits</u>. Centuri maintains three plans which provide retirement benefits for the Centuri executives, including Mr. Daily: a 401(k) plan, a non-qualified deferred compensation plan and the Centuri Long-Term Capital Investment Plan ("LTCIP").

- Centuri 401(k) Plan. Mr. Daily receives matching contributions from Centuri to his account in the Centuri 401(k) Plan, consistent with all other employees participating in the plan. Centuri matches 100% of Mr. Daily's pre-tax contributions up to the first 3% of his base salary and 50% on the next 2%. All matching contributions are subject to certain limits as determined by law.
- Non-Qualified Deferred Compensation Plan. Under a nonqualified deferred compensation plan maintained by Centuri, certain employees, including Mr. Daily, are permitted to voluntarily defer receipt of up to 80% of base salary and up to 80% of other cash compensation. Employer matching contributions in the deferred compensation plan were equal to the first 4% of the compensation deferred by the employee under the plan. Matching contributions vest immediately. Participants may allocate deferred cash amounts among (i) a group of notional accounts that mirror the gains and/or losses of various investment alternatives that do not provide for above-market or preferential earnings and (ii) an account with returns based on Centuri's financial performance ("Performance Fund") pursuant to the LTCIP.
- LTCIP. The LTCIP requires Mr. Daily to invest at least 50% of his annual incentive compensation in the Performance Fund until he meets the established investment requirement of three times his base salary. Beginning in 2019, the LTCIP investment requirement will be two times his salary as part of the rebalancing process. Performance Fund investments grow or depreciate based on the average of the Centuri's period to period EBITDA growth rate over the three most recently completed fiscal years. The maximum annual loss of the Performance Fund is negative five percent and the maximum annual gain is fifteen percent. As an incentive to Mr. Daily joining Centuri, Centuri agreed to make contributions on Mr. Daily's behalf to the Performance Fund in the first and second anniversaries of his hire date. The Centuri contribution counts towards Mr. Daily's total investment requirement under the LTCIP, but it does not negate his obligation to contribute at least 50% of his annual incentive compensation each year until the investment requirement is met.

Executive Agreements

Southwest Change in Control Agreements. The Company offers change in control agreements to the Southwest Officers to align their interests with shareholders and to retain and motivate high caliber executive talent. Providing change in control benefits is designed to reduce the reluctance of management to pursue potential change in control transactions that may be in the best interests of shareholders and helps ensure stability and continued performance during the potentially protracted process of merging with or acquiring entities subject to utility regulation. These change in control agreements do not include gross-up payments to reimburse the executive for certain excise taxes imposed under Internal Revenue Code Section 4999. Instead, the change in control agreements employ a "best net" approach whereby change in control benefits would be reduced if a reduced benefit would result in a greater after-tax benefit to the officer after the application of the excise taxes under Code Section 4999.

In February 2018, the Committee removed the value of long-term incentives from the calculation of cash severance payable under the change in control agreements. The Committee believes this modification better aligns the agreements with the relevant market and best practices.

The terms of the change in control agreements, as well as an estimate of the compensation that would have been payable had they been triggered as of fiscal year-end, are discussed in more detail under "Post-Termination Benefits" below.

<u>Centuri CEO Employment Agreement</u>. Centuri is currently a party to an employment agreement with Mr. Daily ("Employment Agreement"). Under the terms of the Employment Agreement, Mr. Daily is entitled to payments and benefits upon certain terminations of employment both in the absence of and following certain change in control events of Centuri or the Company. The termination provisions of the Employment Agreement provide Mr. Daily with a fixed amount of compensation upon termination as an incentive to forgo other opportunities in order to join or maintain employment with Centuri. At the time of entering into this agreement, we considered our aggregate potential obligations in the context of the desirability of hiring Mr. Daily, as well as the benefits of securing non-competition and other restrictive covenants included in the Employment Agreement. The Employment Agreement does not contain excise tax gross-up provisions and employs a "best net" approach to potential change in control severance payments.

More detailed discussion of the Employment Agreement, as well as an estimate of the compensation that would have been payable had various provisions been triggered as of fiscal year-end, are described in "Post-Termination Benefits" below.

Analysis of Risk in Company Executive Compensation Policies

On an annual basis, the Committee reviews, analyzes and considers whether the Company's compensation policies and practices create risks that are reasonably likely to have a material adverse effect on the Company. In 2018, the Committee concluded that the Company's compensation policies and practices do not encourage executives or other employees to take inappropriate risks that are reasonably likely to have a material adverse effect on the Company.

Deductibility of Compensation

Section 162(m) of the Internal Revenue Code currently imposes a \$1 million limit on the amount that a public company may deduct for compensation paid to an employee who is chief executive officer, chief financial officer, or another "covered employee" (as defined by Section 162(m)), or was such an employee beginning in any year after 2017. Prior to 2018, the Compensation Committee designed certain payments and awards intended to be exempt from this deduction limit as "performance-based compensation." The Tax Cuts and Jobs Acts, however, eliminated the "performance-based compensation" exception under Section 162(m) effective January 1, 2018, subject to a special rule that "grandfathers" certain awards or arrangements that were in effect on or before November 2, 2017. There can be no assurance that compensation structured prior to 2018 with the intent of qualifying as performance-based compensation awarded in 2018 and future years to covered employees in excess of \$1 million also will generally not be deductible. The Compensation Committee retains the discretion to establish the compensation paid or intended to be paid or awarded to the NEOs as the Committee may determine is in the best interest of the Company and its shareholders, and without regard to any limitation provided in Section 162(m). This discretion is an important feature of the Committee's compensation practices because it provides the Committee with sufficient flexibility to respond to specific circumstances facing the Company.

COMPENSATION COMMITTEE REPORT

As a part of the Committee's duties, it is charged with the responsibility of producing a report on executive compensation for inclusion in the Annual Report on Form 10-K and this Proxy Statement. This report is based on the Committee's review of the Compensation Discussion and Analysis and the discussion of its content with management.

The Committee, based on its review of the Compensation Discussion and Analysis and its discussions with management, recommended to the Board (and the Board has approved and directed) that this Compensation Discussion and Analysis be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, and this Proxy Statement.

Compensation Committee

Stephen C. Comer (Chair) Thomas E. Chestnut LeRoy C. Hanneman, Jr. Anne L. Mariucci Michael J. Melarkey A. Randall Thoman Leslie T. Thornton

Summary Compensation Table (2018, 2017 and 2016)

The following table includes information concerning compensation during 2018, 2017 and 2016 for the named executive officers, whom we refer to as the "NEOs."

						Change in Pension Value and Nonqualified		
Name and Principal Position	Year	Salary (\$) ⁽¹⁾	Bonus (\$) ⁽²⁾	Stock Awards (\$) ⁽³⁾	Non-Equity Incentive Plan Compensation (\$) ⁽¹⁾⁽⁴⁾	Deferred Compensation Earnings (\$) ⁽⁵⁾	All Other Compensation (\$) ⁽⁶⁾⁽⁷⁾⁽¹⁰⁾	Total (\$)
John P. Hester	2018	858,288	_	1,418,123	1,125,000	651,174	43,900	4,096,485
President and	2017	783,082	_	2,519,453	998,250	2,212,905	48,592	6,562,282
Chief Executive Officer	2016	699,344	250,000	954,002	553,725	1,289,082	40,127	3,786,280
Gregory J. Peterson ⁽⁸⁾	2018	335,353	—	63,944	279,120	274,074	23,783	976,274
Senior Vice President/	2017			_	_	_	_	_
Chief Financial Officer	2016			_	_			_
Paul M. Daily ⁽⁸⁾	2018	564,556		_	830,315	32,557	318,223	1,745,651
President and Chief	2017	535,570	_	_	609,310	20,114	302,058	1,467,052
Executive Officer for Centuri Construction, Inc.	2016	_	_	_	_	_	_	_
Karen S. Haller	2018	402,742		324,020	341,250	56,380	35,183	1,159,575
Executive Vice President/	2017	365,822		625,499	273,702	672,820	39,113	1,976,956
Chief Legal and Administrative Officer and Corporate Secretary	2016	343,492	125,000	332,155	171,896	328,869	35,655	1,337,067
Eric DeBonis	2018	327,770		249,074	207,700	26,831	36,951	848,326
Senior Vice President/	2017	314,734		504,208	207,690	502,799	31,318	1,560,749
Operations Southwest Gas Corporation	2016	301,683	_	181,412	147,393	161,968	33,031	825,487
Roy R. Centrella ⁽⁹⁾	2018	104,849		369,571	80,625	96,449	238,350	889,845
Senior Vice President/	2017	418,822		709,292	312,180	555,690	40,632	2,036,616
Chief Financial Officer (Retired)	2016	398,743	125,000	348,350	197,415	264,002	38,944	1,372,454

(1) Amounts shown in this column include any amounts deferred by the NEOs into 401(k) and nonqualified deferral plans.

(2) Amounts shown in this column represent the cash portion of the additional compensation provided to Messrs. Hester and Centrella and Ms. Haller in November 2016.

- (3) Amounts shown in this column represent the aggregate grant date fair value of awards of Performance Shares and time-lapse RSUs granted in 2016, 2017 and 2018. In each case, the amounts were determined in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 718 based on the Common Stock share price on the date of grant. The value ultimately realized by the NEO upon actual vesting of the awards may or may not be equal to this determined value. The assumptions used to calculate these amounts are included in "Note 12 - Share-Based Compensation" of Exhibit 13.01 to our 2018 Annual Report on Form 10-K. However, as required, the amounts shown exclude the impact of estimated forfeitures. Performance Share values were calculated based on the probable outcome of the performance condition as of the grant date, which was determined to equal target performance. Performance Shares generally vest upon completion of a three-year performance period, with the amount that vests based on the achievement of certain company financial targets and shareholder returns. The final amount of earned Performance Shares can range from 0% to a maximum of 195% (assuming the highest level of performance) of the amount of unearned Performance Shares granted, and upon settlement, shares of Common Stock are issued for each earned Performance Share. The value of Performance Shares granted in 2018, assuming achievement of the highest level of performance for the threeyear performance period ending December 31, 2020 and using the closing price of Common Stock as of the date of grant in accordance with ASC Topic 718, would be as follows: for Mr. Hester, \$1,935,722; for Mr. Peterson, \$62,322; for Ms. Haller, \$442,273; for Mr. DeBonis, \$323,785; and for Mr. Centrella, \$504,457. Due to his retirement, Mr. Centrella's Performance Share value will be a prorated amount based on his time of service during the performance period. The time-lapse RSUs granted in 2018 vest either three years after grant or in annual installments over the course of the three years following the grant, depending on the applicable award program and assuming the NEO continues to meet the requirements for vesting. Award agreements for Performance Shares and timelapse RSUs give holders the right to receive dividend equivalent payments as and when dividends are paid on Common Stock, which dividends are reallocated into additional equity awards of the same type and with the same vesting schedule as the original award.
- (4) Amounts shown in this column represent the cash awards paid in 2017, 2018 and 2019 for services performed in 2016, 2017 and 2018, respectively.

(5) The aggregate change in the actuarial present value of the Southwest Officers' accumulated benefit under the Retirement Plan and the SERP for 2018 and the above-market interest (in excess of 120% of the applicable federal long-term rate with compounding) earned by NEOs on executive deferral plan balances for 2018 are as follows:

	Increase in Pension Values (\$)	Above-Market Interest (\$)
Mr. Hester	519,110	132,064
Mr. Peterson	249,156	24,918
Mr. Daily	_	32,557
Ms. Haller	23,819	32,561
Mr. DeBonis		26,831
Mr. Centrella (Retired)		96,449

No amounts are payable from the pension plans before a participant attains age 55 and experiences a separation in service from the Company.

(6) Centuri's LTCIP contribution and employer matching contributions under the EDP for Southwest Officers and Centuri's 401(k) and nonqualified deferral plan for Mr. Daily in 2018, were as follows:

	LTCIP Contribution (\$)	Matching Contributions (\$)
Mr. Hester	_	28,875
Mr. Peterson	_	11,614
Mr. Daily	250,000	35,245
Ms. Haller	_	14,008
Mr. DeBonis	_	8,410
Mr. Centrella (Retired)	_	6,024

As discussed in our Compensation Discussion and Analysis, Centuri agreed to make \$250,000 in contributions to the LTCIP on Mr. Daily's behalf on the first and second anniversaries of his hire date pursuant to Mr. Daily's employment agreement to incentivize his employment with Centuri. Centuri matches 100% of Mr. Daily's pre-tax contributions up to the first 3% of his base salary under its 401(k) plan. Thereafter, Centuri matches 50% of Mr. Daily's pre-tax contributions up to the next 2% of his base salary. All matching contributions are subject to certain limits as determined by law, and Mr. Daily received \$11,000 of matching contributions in the 401(k). Employer matching contributions in Centuri's nonqualified deferral plan are equal to the first 4% of the compensation deferred under the plan, and Mr. Daily received \$24,245 of matching contributions in the nonqualified deferral plan. Matching contributions to Southwest Officers under the EDP equal 50% of the amount deferred by each officer up to 3.5% of the officer's respective annual salary.

(7) The aggregate incremental costs of the perquisites and personal benefits to the NEOs are based on the taxable value of the personal use of company cars, while the car allowance, club dues, life insurance, financial planning and physicals are based on the cost to the Company. Certain NEOs also received nominal amounts for home internet access. The life insurance benefit provided to the Southwest Officers is available generally to all salaried employees, so cost information is omitted from the table below. For Mr. Daily, the life insurance cost relates to purchase of \$1,010,000 in coverage for him. The perquisites and personal benefits, by type and amount, for 2018 are as follows:

_	Car Allowance (\$)	Club Dues (\$)	Physicals (\$)	Financial Planning (\$)	Life Insurance (\$)
Mr. Hester	10,050	2,475	2,500		_
Mr. Peterson	9,419	_	2,500		_
Mr. Daily	28,265	_	_		4,713
Ms. Haller	14,040	4,635	2,500		_
Mr. DeBonis	16,906	7,635	2,500	1,500	_
Mr. Centrella (Retired)	2,864	1,860		5,000	_

- (8) In April 2016, Mr. Daily was appointed as President and Chief Executive Officer of Centuri Construction Group, Inc. Prior to 2017, he was not a named executive officer of the Company. Mr. Peterson became Senior Vice President/Chief Financial Officer of the Company in 2018. Prior to that date he was not a named executive officer of the Company.
- (9) Mr. Centrella retired from the Company, effective March 30, 2018. The amount in the "All Other Compensation" column includes for Mr. Centrella (i) \$35,136 for the value of his Company car, \$57,884 in paid-out vacation, \$7,500 for a retirement gift, \$1,819 for the value of his electronic devices; and (ii) retirement benefits of \$94,807 and \$25,456 received in 2018 under the Retirement Plan and SERP.
- (10) A charitable donation of \$250 made by the Company on behalf of Mr. Peterson is included in the amount shown for Mr. Peterson in the "All Other Compensation" column.

Grants of Plan-Based Awards (2018)

The following table sets forth information regarding each grant of an award made under our Incentive Plans to our NEOs during the fiscal year ended December 31, 2018. All awards were granted on February 23, 2018, except for Mr. Daily's long-term cash incentive, which was granted on May 2, 2018.

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards ⁽¹⁾ Estimated Future Payouts Under Equity Incentive Plan Awards ⁽²⁾			Non-Equity Incentive Plan Awards(1) Equity Incentive Plan Awards(2) All Other Fair				Grant Date Fair Value Of Stock
Name	Award Type	Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)	Awards (#)	Awards ⁽³⁾ (\$)
John P. Hester	Annual Cash ⁽¹⁾	630,000	900,000	1,260,000	_		_	_	
	Performance Shares	—	—	_	7,176	14,351	27,985	—	992,686
	RSUs	—	_	_	—	_	_	6,151 ⁽⁴⁾	425,437
Gregory J. Peterson	Annual Cash(1)	156,307	223,296	312,614	_	_		_	_
	Performance Shares				231	462	901		31,972
	RSUs							462(4)	31,972
Paul M. Daily	Annual Cash ⁽¹⁾	371,800	572,000	972,400	_			_	
	Long-Term Cash ⁽⁵⁾	96,250	385,000	770,000					
Karen S. Haller	Annual Cash ⁽¹⁾	191,100	273,000	382,200					
	Performance Shares				1,640	3,279	6,394		226,814
	RSUs							1,405(4)	97,206
Eric DeBonis	Annual Cash ⁽¹⁾	117,250	167,500	234,500					_
	Performance Shares				1,200	2,401	4,681		166,049
	RSUs							1,200(4)	83,025
Roy R. Centrella	Annual Cash(1)	180,600	258,000	361,200					
(Retired)	Performance Shares				1,870	3,740	7,293		258,700
	RSUs					_		1,603(4)	110,871

(1) The amounts reflect the estimated payments which could have been made under the annual cash component of our incentive compensation program, based upon the participant's annual salary as of the date presented. The program provides that executive officers may receive annual cash incentive awards based on performance and profitability measures. The committee establishes annual target awards for each such officer. The actual amounts received by the NEOs for 2018 performance under the program are set forth under the "Non-Equity Incentive Plan Compensation" column in the "Summary Compensation Table." Annual cash incentive are described in further detail under "Compensation Discussion and Analysis – Incentive Compensation – Annual Incentive Compensation."

- (2) The amounts shown represent the number of shares of Common Stock that could be earned with respect to Performance Shares granted in 2018 under the long-term performance component of our incentive compensation program. The number of Performance Shares that will become earned and vested, and the resulting number of shares of Common Stock to be issued, will be determined after completion of the three-year performance period ending December 31, 2020, and the number of shares can range from 50% at threshold to a maximum of 150% of the target number, subject to 30% upward, or 15% downward, adjustment based on a total shareholder return modifier. When threshold performance is achieved, the number of shares earned will not be adjusted below 50% of the target number. Mr. Centrella will be paid a prorated amount based on his time of service during the performance period. Performance Shares are described in further detail under "Compensation Discussion and Analysis Incentive Compensation Long-Term Incentive Compensation."
- (3) The amounts shown reflect the aggregate grant date fair value (based on the closing price of Common Stock on the date of grant) of time-lapse RSUs or Performance Shares granted on February 23, 2018 to the NEOs, calculated in accordance with FASB ASC Topic 718. With respect to the Performance Shares granted, the amount represents the grant date fair value of the target award.
- (4) The amounts shown represent the number of time-lapse RSUs that were granted in 2018 under the long-term component of our incentive compensation program. Except for Mr. Centrella, the RSUs awarded vest over three years, 40% at the end of the first year and 30% at the end of each of the second and third years, assuming the NEO continues to meet the requirements for vesting, and the initial vesting occurred in the first quarter of 2019. For further details regarding the 2018 long-term components of our incentive compensation program, see "Compensation Discussion and Analysis Incentive Compensation Long-Term Incentive Compensation."
- (5) The amounts reflect the estimated payments which could be made under the long-term cash component of Mr. Daily's incentive compensation, based upon his annual salary as of December 31, 2017 as required under the Centuri LTIP for 2018. The program provides that Mr. Daily may receive a cash incentive award based on performance and profitability measures. The amount of the award that will become earned and payable will be determined after completion of the three-year performance period ending December 31, 2020, and the value can range from 10% of the target value at threshold to a maximum of 170% of the target value. This program is described in further detail under "Compensation Discussion and Analysis Incentive Compensation Long-Term Incentive Compensation."

Outstanding Equity Awards at Fiscal Year-End 2018

The following table sets forth information regarding unvested time-lapse RSUs and Performance Share awards for each of the NEOs, in each case, outstanding as of December 31, 2018.

	Stock Awards ⁽¹⁾						
Name	Number of Shares or Units of Stock That Have Not Vested (#) ⁽²⁾	Market Value of Shares or Units of Stock That Have Not Vested (\$) ⁽³⁾	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) ⁽⁴⁾	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$) ⁽³⁾			
John P. Hester	25,978	1,987,347	29,167	2,231,276			
Gregory J. Peterson	2,993	228,930	965	73,823			
Paul M. Daily	_	_		_			
Karen S. Haller	7,155	547,387	6,801	520,277			
Eric DeBonis	6,211	475,130	5,013	383,495			
Roy R. Centrella (Retired) ⁽⁵⁾	_		7,785	595,553			

(1) There were no securities underlying either unexercised stock options, which were exercisable or unexercisable, or unexercised unearned options granted under any equity incentive plan at the end of fiscal 2018.

(2) Represents time-lapse RSUs, which vest either three years after grant or in annual installments over the course of the three years following the grant, depending on the applicable award program and assuming the NEO continues to meet the requirements for vesting, as reflected in the following tables. Grants in 2018 reflected below include amounts discussed in footnote (4) to the "Grants of Plan-Based Awards (2018)" table.

Outstanding time-lapse RSUs with three-year cliff vesting, including dividends reinvested, vest as follows:

	Grants in 2016 Vests in January 2019 (#)	Grants in 2017 Vests in January 2020 (#)	Grants in 2018 Vests in January 2021 (#)(*)
Mr. Hester	5,510	5,027	_
Mr. Peterson	909	687	
Mr. Daily	_	_	_
Ms. Haller	2,008	1,560	
Mr. DeBonis	1,785	1,338	
Mr. Centrella (Retired)	_		

(*) The incentive program was changed in 2017 to provide for payouts in cash only, so after 2020 there will be no more outstanding unvested time-lapse RSUs under the program with three-year cliff vesting.

Outstanding time-lapse RSUs vesting over three years, 40% at the end of the first year and 30% at the end of each of the second and third years, granted in 2016, 2017 and 2018, including dividends reinvested, vest as follows:

	Grant Year	Vests January 2019 (#)	Vests January 2020 (#)	Vests January 2021 (#)
Mr. Hester	2018	2,529	1,896	1,896
	2017	3,474	3,474	
	2016	2,173	_	_
Mr. Peterson	2018	190	143	143
	2017	329	329	—
	2016	263	_	_
Mr. Daily	2018	_	_	_
	2017	_	_	_
	2016	_	_	_
Ms. Haller	2018	578	433	433
	2017	813	813	_
	2016	517	_	_
Mr. DeBonis	2018	493	370	370
	2017	698	698	_
	2016	459		
Mr. Centrella (Retired)	2018	_	_	_
	2017			
	2016	_	_	_

Vesting provisions of time-lapse RSUs following certain termination events are discussed below under "Post-Termination Benefits."

(3) The market value of Common Stock was \$76.50 per share, the closing price on the last trading day of 2018.

- (4) Represents Performance Shares. See footnote (2) to the "Grants of Plan-Based Awards (2018)" table and "Post-Termination Benefits" for a discussion of the vesting terms of our Performance Shares. As of fiscal year-end 2018, two tranches of Performance Shares had been granted. Assuming achievement of target performance, the number of Performance Shares indicated (plus accumulated dividends reinvested) will vest following the three-year performance period ending December 31, 2020.
- (5) Mr. Centrella will be paid a prorated amount based on his time of service during the performance period. He will receive his award after the performance periods conclude.

Stock Vested During 2018

The number of shares of Company Common Stock that vested during 2018 and the value realized on vesting (the market price at vesting) are shown in the table. There were no options to purchase Common Stock outstanding during 2018.

	Stock	Awards
Name	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$) ⁽¹⁾
John P. Hester	17,307	1,382,456
Gregory J. Peterson	2,343	187,288
Paul M. Daily		
Karen S. Haller	6,855	548,955
Eric DeBonis	4,546	363,476
Roy R. Centrella (Retired) ⁽²⁾	15,550	1,236,927

(1) For purposes of this table, such shares were valued based on the closing share price on the date of distribution.

(2) Mr. Centrella's stock awards include shares vested according to the normal vesting schedule as well as his retirement distribution.

Pension Benefits

We offer two defined benefit retirement plans to the Southwest Officers. They include the Retirement Plan, which is available to all employees of Southwest, and the SERP.

Benefits under the Retirement Plan are based on each Southwest Officer's (i) years of service with Southwest, up to a maximum of 30 years, and (ii) highest average annual salary over a period of five consecutive years within the final 10 years of service, not to exceed a maximum compensation level established by the Internal Revenue Service. Vesting in the Retirement Plan occurs after five years of service with Southwest.

The SERP is designed to supplement the benefits under the Retirement Plan to a level of 50-60% of salary, as shown in the "Salary" column of the Summary Compensation Table. Salary is based on the 12-month average of the highest 36 months of salary at the time of retirement. Vesting in the SERP occurs at age 55, with 20 years of service with Southwest.

Upon retirement, the plans will provide a lifetime annuity to the Southwest Officers, with a 50% survivor benefit to their spouses. No lump sum payments are permitted under the plans.

Messrs. Hester and Peterson are vested in both plans. Mr. Hester would receive full benefits if he were to retire as of the date of this Proxy Statement, while Mr. Peterson's benefits would be reduced by 0.25%. Ms. Haller is vested in both plans, and her benefits would be reduced by 13.75% if she retired as of the date of this Proxy Statement. Mr. DeBonis is vested only in the Retirement Plan and, if he left the Company as of the date of this Proxy Statement, his accrued benefit under the Retirement Plan would be reduced by 58.56% assuming benefits commenced at age 55. Mr. Centrella was vested to receive full benefits upon his retirement on March 30, 2018.

Pension Benefits as of December 31, 2018

The following table sets forth the number of years of credited service and present value of accumulated benefits as of December 31, 2018, and payments received during the last fiscal year, under both the Retirement Plan and the SERP for each NEO.

Name	Plan Name	Number of Years Credited Service (#)	Present Value of Accumulated Benefit (\$) ⁽¹⁾	Payments During Last Fiscal Year (\$)
John P. Hester	Retirement Plan	29	2,089,470	
	SERP	29	5,342,036	
Gregory J. Peterson	Retirement Plan	21	1,178,106	
	SERP	21	1,216,037	
Paul M. Daily	N/A	N/A	N/A	N/A
Karen S. Haller	Retirement Plan	21	1,205,730	
	SERP	21	1,557,004	
Eric DeBonis	Retirement Plan	25	1,419,431	
	SERP	25	933,748	
Roy R. Centrella (Retired)	Retirement Plan	30		94,807
	SERP	30	1,648,321	25,456

(1) The valuation method and all material assumptions applied in quantifying the present value of the accrued benefits are described in "Note 11—Pension and Other Postretirement Benefits" of Exhibit 13.01 to our 2018 Annual Report on Form 10-K.

Nonqualified Deferred Compensation (2018)

We maintain nonqualified deferred compensation plans under which our NEOs are permitted to defer base salary and other cash compensation. These plans are described in detail under "Compensation Discussion & Analysis— Retirement Benefits." The following table describes the nonqualified deferred compensation activity for each of our NEOs during fiscal year 2018.

Name	Executive Contributions in Last Fiscal Year(\$) ⁽¹⁾	Registrant Contributions in Last Fiscal Year (\$) ⁽²⁾	Aggregate Earnings in Last Fiscal Year (\$) ⁽²⁾	Aggregate Withdrawals / Distributions (\$)	Aggregate Balance at Last Fiscal Year-End (\$) ⁽³⁾
John P. Hester	499,125	28,875	245,245	_	3,901,929
Gregory J. Peterson	138,498	11,614	45,676		754,284
Paul M. Daily	334,962	274,245	121,719	—	1,308,314
Karen S. Haller	180,443	14,008	60,483	_	1,014,060
Eric DeBonis	73,682	8,410	51,774	—	854,574
Roy R. Centrella (Retired)	211,289	6,024	163,383	83,084	

(1) Amounts shown in this column are included in the "Salary" and "Non-Equity Incentive Compensation" columns of the "Summary Compensation Table."

(2) Deferred compensation earnings, which were above-market, and Company contributions are also reported in the "Change in Pension Value and Nonqualified Deferred Compensation Earnings" and the "All Other Compensation" columns, respectively, of the "Summary Compensation Table." Those amounts for the NEOs are as follows:

	Above-Market Interest	Company Contributions	Total
Mr. Hester	\$132,064	\$ 28,875	\$160,939
Mr. Peterson	24,918	11,614	36,532
Mr. Daily	32,557	274,245	306,802
Ms. Haller	32,561	14,008	46,569
Mr. DeBonis	26,831	8,410	35,241
Mr. Centrella (Retired)	96,449	6,024	102,473

(3) The amounts reported in this column that were previously reported as compensation to the NEOs in the Summary Compensation Table for previous years are as follows:

	2016	2017	2018
Mr. Hester	\$544,387	\$699,362	\$660,064
Mr. Peterson ⁽⁴⁾	_	_	175,030
Mr. Daily ⁽⁴⁾		561,750	641,764
Ms. Haller	124,495	148,885	227,012
Mr. DeBonis	104,387	115,781	108,923
Mr. Centrella (Retired)	277,122	277,507	313,762

(4) Mr. Peterson became an NEO in 2018, so 2016 and 2017 values are not reported. Mr. Daily became an NEO in 2017, so a 2016 value is not reported.

Post-Termination Benefits

Each Southwest Officer has a change in control agreement, which provides benefits upon certain termination events following a change in control. Centuri is party to an employment agreement with Mr. Daily pursuant to which he is entitled to benefits upon the occurrence of specified termination events, both following and in the absence of a change in control. Incentive programs for the NEOs also provide for vesting of awards upon the occurrence of specified termination events. Regardless of the manner in which an NEO's employment is terminated, the officer is entitled to receive the amount of any accrued but unpaid base salary, amounts contributed (or otherwise vested) under 401(k) or nonqualified deferral plans and amounts accrued and vested through Southwest's Retirement Plan and SERP.

Following Change in Control

The Southwest Officers' change in control agreements are triggered by certain termination events following a change in control of either the Company or Southwest, and the change in control provision of Mr. Daily's employment agreement is triggered by certain termination events following a change in control of Centuri or the Company. Covered termination events include (i) the termination of employment by the employer without cause and (ii) termination by the employee as a result of a significant reduction in duties, responsibilities or compensation or a change in location. If a termination event occurs within two years after a change in control (collectively referred to as a "Double Trigger Event"), the affected NEOs would receive the following benefits (as applicable):

- Salary for three years for our CEO, two and one-half years for all other Southwest Officers and two years for Mr. Daily;
- Annual incentive compensation for three years for our CEO, two and one-half years for all other Southwest Officers, and two years of incentive compensation for Mr. Daily;
- Welfare benefits including the cost of medical, dental, disability, and life insurance coverage under the current employer plans (for three years for our CEO, two and one-half years for all other Southwest Officers and two years for Mr. Daily);
- Vesting of unvested pre-2017 time-lapse RSUs;
- Additional credit that may affect eligibility, vesting and the calculation of benefits under the SERP; and
- Outplacement services of up to \$30,000.

A change in control with respect to the Company includes an acquisition by one person or a group of persons of at least 30% of the ownership of the Company, replacement of a majority of incumbent Board members or a merger or similar transaction resulting in more than a 50% change of ownership of the Company. Any of the foregoing events with respect to Southwest constitutes a change in control of Southwest. A change in control with respect to Centuri includes an acquisition by one person or a group of persons of at least 50% of the ownership of Centuri or the sale of substantially all of the assets of Centuri.

Pursuant to their change in control agreements, Southwest Officers agreed not to publicly disparage the Company. In addition, severance payable under the agreements is subject to the Southwest Officers' execution of a release of claims against the Company, which includes a covenant prohibiting disclosure of the Company's confidential information. Mr. Daily's employment agreement contains non-compete and non-solicitation provisions, which apply during his employment and for a period of two years after his employment ends, and also contains confidentiality and non-disparagement provisions.

In addition to benefits provided under the change in control agreements, Performance Share and time-lapse RSU awards of Southwest Officers provide for vesting of awards following a change in control (as described in footnote (1) to the following table).

Under the assumption that a Double Trigger Event occurred on December 31, 2018, based on the terms of the change in control agreements for the NEOs, it is estimated that the NEOs would have received the compensation presented in the following table.

Name	Salary	Incentive Compensation	Welfare Benefits	Stock Acceleration ⁽¹⁾	Outplacement Services	Additional SERP Benefits ⁽²⁾	Total
John P. Hester	\$2,700,000	\$2,700,000	\$52,965	\$2,731,106	\$30,000	\$ 336,583	\$8,550,654
Gregory J. Peterson	930,400	558,240	41,123	253,538	30,000		1,813,301
Paul M. Daily	1,350,000	2,295,000	55,134	N/A	30,000	N/A	3,730,134
Karen S. Haller	1,050,000	682,500	51,573	720,813	30,000	962,092	3,496,978
Eric DeBonis	837,500	418,750	51,278	602,962	30,000	1,280,577	3,221,067

(1) All time-lapse RSUs of the Southwest Officers would vest upon a Double Trigger Event. A pro rata portion of the target number of Performance Shares based on the number of months of service relative to the three-year performance period would vest upon a Double Trigger Event. As of December 31, 2018, the pro rata amount equaled one-third of the target number. The value of Performance Shares and time-lapse RSUs set forth above is based on the closing price of Common Stock on the last trading day of 2018 (\$76.50).

(2) Additional SERP benefits are shown on a present value basis, using the valuation method and all material assumptions described in "Note 11—Pension and Other Postretirement Benefits" of Exhibit 13.01 to our 2018 Annual Report on Form 10-K.

Absent a Change in Control

<u>Southwest Officers</u>. Incentive programs for the Southwest Officers provide for vesting of awards upon the occurrence of specified termination events in the absence of a change in control.

- Annual Incentive Plan. Southwest's annual cash incentive plan states that if employment terminates as a result of death or disability, or when the officer is eligible for retirement under our Retirement Plan, the officer will receive a prorated incentive plan payout for the portion of the performance period that the officer was employed. As of December 31, 2018, Messrs. Hester and Peterson and Ms. Haller were age 55 or older and eligible for retirement, but Mr. DeBonis was not. Accordingly, if any Southwest Officer had terminated employment on December 31, 2018 as a result of death, disability or retirement, the officer would have been entitled to receive a full incentive plan award because December 31, 2018 was the final day of the applicable performance period. The values for these payouts are set forth in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table.
- RSUs. As of December 31, 2018, each Southwest Officer held unvested time-lapse RSUs. The respective award agreements generally require the officer to be employed by us on the applicable vesting dates to receive the awarded shares, but if employment terminates earlier as a result of death or disability, or when the officer is eligible for retirement under our Retirement Plan, the officer will receive all of the unvested shares. Accordingly, if any Southwest Officer had terminated employment on December 31, 2018 as a result of death, disability or retirement, the value of the time-lapse RSUs, based on a stock price of \$76.50 per share (the closing price of Common Stock on the last trading day of 2018), that the officer would have been entitled to is: for Mr. Hester, \$1,987,347; for Mr. Peterson, \$228,930; for Ms. Haller, \$547,387; and for Mr. DeBonis, \$475,130.
- · Performance Shares. As described above under "Grants of Plan-Based Awards During 2018," we granted Performance Share awards to the Southwest Officers in February 2018 under which shares of Common Stock (plus accumulated cash dividends) will be issued to them based on Company performance from 2018 through 2020. The award agreements generally require the officer to be employed by us on the last day of the performance period to receive an award payout, but if employment terminates earlier as a result of death, disability, or retirement after reaching age 55, the officer will be entitled to a prorated award payout. In the case of disability or death, a pro rata portion of the target number of Performance Shares would be paid promptly. Following retirement, an officer would receive a payout at the end of the applicable performance period based on the Company's actual performance against the performance goals. If any Southwest Officer had terminated employment on December 31, 2018 as a result of death, disability or retirement, his or her target award for the performance period from 2018 through 2020 would have been reduced to one-third of the original target award reflecting employment for one year of the three-year performance period. The value of the prorated award payouts, based on a stock price of \$76.50 per share (which was the closing price of Common Stock on the last trading day of 2018), for each Southwest Officer is: for Mr. Hester, \$743,759; for Mr. Peterson, \$24,608; for Ms. Haller, \$173,426; and for Mr. DeBonis, \$127,832. For purposes of the retirement scenario, whereby pro rata payouts would occur based on actual performance at the end of the three-year performance period, the above amounts assume achievement of target performance and do not include any estimated amounts for accumulated dividends.

Mr. Centrella's Retirement

Mr. Centrella retired from his position as Senior Vice President/Chief Financial Officer effective March 30, 2018. Due to his retirement, he received the following payments:

- an annual incentive award of \$80,625, which reflects proration for his three months of service during 2018;
- after the required waiting period under Internal Revenue Code Section 409A, 4,966 unvested time-lapse RSUs with a value of \$392,487 based on the closing price of Common Stock at the end of the waiting period (\$79.03 on September 28, 2018); and
- 7,785 Performance Shares with a value of \$595,553 based on the closing price of Common Stock on the last trading day of 2018 (\$76.50), assuming achievement of target performance and without any estimated amounts for accumulated dividends. Mr. Centrella's Performance Share payout will be prorated to account for his retirement before the end of the performance period.

<u>Centuri</u>. In the event of termination of Mr. Daily's employment by reason of retirement, death, disability, termination for cause or without good reason, or termination without cause or for good reason, he would be provided with the benefits described below.

- Payments Made Upon Retirement, Death or Disability. Centuri's annual incentive and long-term incentive plans generally require the officer to be employed by Centuri on the date that the awards are paid to receive the cash awards, but if employment terminates earlier as a result of death or disability, or when the officer is retirement age, the officer will receive a prorated award. As of December 31, 2018, Mr. Daily was eligible for retirement under both Centuri incentive plans. If Mr. Daily had terminated employment on December 31, 2018 as a result of death, disability or retirement, he would have been entitled to receive a full annual incentive plan award because December 31, 2018 was the final day of the applicable performance period. The value for this payout is set forth in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table. If Mr. Daily had terminated employment on December 31, 2018 as a result of death, disability or retirement, his target award under Centuri's long-term incentive plan for the performance period from 2018 through 2020 would have been reduced to one-third of the original target award reflecting employment for one year of the three-year performance period, and he would have been eligible to receive a payout at the end of the applicable performance period based on Centuri's actual performance. Assuming achievement of target performance for the performance period from 2018 through 2020, the value of the cash long-term incentive that Mr. Daily would be entitled to receive would be \$157,484. In addition, in the event of termination for disability, Mr. Daily's employment agreement provides for a severance benefit equal to one year of base salary. Under the assumption that termination occurred on December 31, 2018, Mr. Daily would have been entitled to a benefit of \$675,000 pursuant to his employment agreement.
- Payments Made Upon Termination for Cause or Without Good Reason. In the event of termination for cause by Centuri or voluntary resignation by Mr. Daily without good reason, his employment agreement and incentive plans provide for no severance benefits. The employment agreement defines "good reason" as (i) any requirement that Mr. Daily relocate, (ii) material failure by the employer to comply with the compensation provisions of the employment agreement or (iii) a significant reduction in duties, responsibilities or compensation.
- Payments Made Upon Termination Without Cause or For Good Reason. In the event of a voluntary termination for good reason or termination by Centuri without cause, Mr. Daily's employment agreement provides for a severance benefit equal to two years of base salary, the value of any unpaid annual incentive from the year prior to the termination and two years of welfare benefits, including the cost of medical, dental and life insurance coverage under the current Centuri plans. Under the assumption that termination occurred on December 31, 2018, Mr. Daily would have been entitled to a benefit of \$1,394,718, including \$1,350,000 in base salary and \$44,178 in welfare benefits.

Pay Ratio Disclosure

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Item 402(u) of Regulation S-K of the Exchange Act, we are providing the following information about the relationship of the median annual total compensation of our employees and the annual total compensation of Mr. John P. Hester, our CEO. The pay ratio included in this information is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K. For 2018, our last completed fiscal year:

- the median annual total compensation of all employees of the Company and its consolidated subsidiaries (other than our CEO) was \$87,740; and
- the annual total compensation of our CEO was \$4,096,485.
- Based on this information, for 2018 the ratio of the annual total compensation of Mr. Hester, our Chief Executive Officer and President, to the median annual total compensation of all employees, as determined pursuant to Item 402(u) of Regulation S-K, was 47 to 1, which is a reasonable estimate calculated consistent with applicable rules.

To identify the median of the annual total compensation of all our employees, as well as to determine the annual total compensation of our median employee and our CEO, we took the following steps:

Given the distribution of our employee population between the United States and Canada and both of our business segments, we use a variety of pay elements to structure the compensation arrangements of our employees. Consequently, for purposes of measuring the compensation of the employees, we selected elements of compensation that represent "base salary" (compensation paid at the normal hourly rate, excluding overtime, for hourly employees and base cash salary for salaried employees) as the most appropriate measure of compensation to reflect annual compensation of our employees. Such compensation elements represent the fixed portion of each employee's compensation arrangements and are paid without regard to our financial or operational performance or individual employee workloads in a given year. This compensation measure was consistently applied to all of our employees. Approximately 732 employees were omitted from the employee population because they became employees due to the acquisition of Linetec Services, LLC in November 2018.

- Relevant compensation values of our Canadian employees were converted into U.S. dollars based on the same methodology employed in the financial statements included in our Annual Report. We identified the median employee as of December 31, 2018. The median employee is different than in 2017 due to an increase in salary for that employee. All of our employees are located in either the United States or Canada and our CEO is based in the United States. Therefore, we did not make any cost-of-living adjustments in identifying the "median employee."
- For our median employee, we combined all of the elements of such employee's compensation for 2018 in accordance with the requirements of Item 402(c)(2)(x) of Regulation S-K, resulting in annual total compensation of \$87,740. The difference between such employee's base salary and the employee's annual total compensation represents the value of such employee's annual cash bonus, overtime pay, employer contributions to a 401(k) plan, and the value of the employee portion of such employee's health care, disability and life insurance benefits (estimated for the employee and such employee's eligible dependents at \$6,551).
- With respect to the annual total compensation of our CEO, we used the amount reported in the "Total" column of our 2018 Summary Compensation Table included in this Proxy Statement plus \$13,377 in value for the employer paid portion of our CEO's health care, disability, and life insurance benefits.
- The difference between the pay ratio for 2017 and 2018 is due largely to a change in the discount rate used to calculate the present value of the change in pension value for our CEO. A relatively small change in the discount rate may significantly affect pension plan obligations and costs, and although the methodology utilized to determine the discount rate was consistent with prior years, the change in the discount rate itself had a large negative impact on the CEO's total compensation as calculated for the 2018 Summary Compensation Table. Because we do not maintain a defined benefit or other actuarial plan for employees of the business that employs the median employee, our median employee's annual total compensation was not affected by the change in discount rate.

2018 Director Compensation Table

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$) ⁽¹⁾⁽²⁾⁽³⁾	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$) ⁽⁴⁾	All Other Compensation (\$) ⁽⁵⁾	Total (\$)
Robert L. Boughner	82,500	111,731	31,423	160	225,814
José A. Cárdenas	90,000	111,731		160	201,891
Thomas E. Chestnut	82,500	111,731	48,335	160	242,726
Stephen C. Comer	95,000	111,731	39,018	1,660	247,409
LeRoy C. Hanneman, Jr.	82,500	111,731		160	194,391
Anne L. Mariucci	82,500	111,731	33,157	160	227,548
Michael J. Melarkey	140,000	111,731	49,807	160	301,698
A. Randall Thoman	97,500	111,731	22,895	160	232,286
Thomas A. Thomas	82,500	111,731	24,218	160	218,609

(1) On February 23, 2018 each director serving at that time received 1,615 restricted stock units. Because the last option awards were made in 2006, there is no need to maintain the "Options" column.

(2) The restricted stock units are valued at the closing price of Common Stock on the date of grant. The grant date fair value of the restricted stock units granted in 2018 was based on the closing price of Common Stock of \$69.17 on February 23, 2018. The amounts were determined in accordance with FASB ASC Topic 718. The assumptions used to calculate these amounts are included in "Note 12 – Share-Based Compensation" of Exhibit 13.01 to our 2018 Annual Report on Form 10-K.

(3) Stock and option awards outstanding at December 31, 2018, for each of the listed directors are as follows:

	Stock Awards	Options
Mr. Boughner	23,413	_
Mr. Cárdenas	16,688	
Mr. Chestnut	23,143	_
Mr. Comer	23,143	_
Mr. Hanneman	21,353	
Ms. Mariucci	23,143	_
Mr. Melarkey	24,804	_
Mr. Thoman	19,344	_
Mr. Thomas	23,413	

(4) The amounts in this column also reflect above-market interest on nonqualified deferred compensation balances for 2018.

(5) The All Other Compensation column represents the cost of life insurance for directors (\$160 for each of the directors) and the amount of charitable donations (\$1,500) made on behalf of Mr. Comer by the Company.

Director Compensation Narrative

Based on a review conducted by the Compensation Committee's independent consultant, Pay Governance, in 2017 of compensation paid to non-employee directors at the companies included in the peer group utilized in the Company's executive compensation processes, the committee established director compensation as a balance of cash and equity compensation. The committee adopted a retainer-based model for director cash compensation (without regular individual meeting fees) and fixed the value of annual equity grants for directors based on a set dollar amount.

The annual cash retainer for non-employee directors is \$82,500. Additional annual cash retainers for the Chairs of the Audit, Compensation, and Nominating and Corporate Governance Committees are \$15,000, \$12,500 and \$7,500, respectively. The annual cash retainer paid to our Chairman of the Board is \$140,000. Individual cash meeting fees of \$1,650 are only payable when the number of meetings of the Board or a committee exceeds regularly scheduled meetings by three or more.

Cash compensation received by the outside directors may be deferred until retirement or termination of their status as directors pursuant to the Directors Deferral Plan. Amounts deferred bear interest at 150% of the Bond Rate. At retirement or termination, such deferrals will be paid out over 5, 10, 15 or 20 years, and will be credited during the applicable payment period with interest at 150% of the average of the Bond Rate on January 1 for the five years prior to retirement or termination.

A fixed dollar value (\$130,000 for 2019) will be granted annually in the form of equity compensation under the Company's Omnibus Incentive Plan during the February Board meeting. The fixed dollar value is converted into awards representing a number of shares of Common Stock based on the closing share price for the last trading session of the most recently completed fiscal year. Under this program, each member of the Board was granted the equivalent of 1,699 shares of Common Stock on February 26, 2019.

Outside director equity compensation vests immediately upon grant, and the directors are provided the option to defer receipt of equity compensation until they leave the Board. Deferred stock units are credited with notional dividends at the same time, in the same form, and in equivalent amounts as dividends that are payable from time to time on Common Stock. Such notional dividends are valued as of the date on which they are credited to the director and are reallocated into additional deferred stock units. When a director leaves the Board, any deferred stock units of such director will be converted into shares of Common Stock.

Directors who are full-time employees of the Company or its subsidiaries receive no additional compensation for serving on the Board.

The Board Recommends a Vote **"FOR"** The Proposal to Approve The Company's Executive Compensation

General

The Company seeks your advisory vote on our executive compensation programs as described in this Proxy Statement. The Board has determined to submit an annual advisory vote on our executive compensation programs to our shareholders at each annual meeting until the Company seeks another advisory vote on the frequency of the advisory vote on executive compensation. The Board asks that you support the compensation of our NEOs as disclosed in the Compensation Discussion and Analysis section and the accompanying tables and narratives contained in this Proxy Statement. Because your vote is advisory, it will not be binding on the Board or the Company. However, the Board will review the voting results and take them into consideration when making future decisions regarding executive compensation.

Accordingly, the Board recommends that our shareholders vote "FOR," on an advisory basis, the compensation paid to our NEOs, as disclosed in this Proxy Statement pursuant to the compensation disclosure rules of the SEC, and adopt the following resolution at the Annual Meeting:

RESOLVED, that the compensation paid to the Company's NEOs, as disclosed in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the compensation tables, and the narrative disclosures that accompany the compensation tables, is hereby APPROVED.

The Company's compensation program is designed and administered by the Compensation Committee of the Board, which is composed entirely of Independent Directors and carefully considers many different factors, as described in the Compensation Discussion and Analysis, in order to provide appropriate compensation for the Company's executives. As discussed in the Compensation Discussion and Analysis, the compensation package for the Company's NEOs (who are the officers listed in the Summary Compensation Table in the Executive Compensation section) is designed to support the Company's objectives of attracting, motivating and retaining the executive talent required to achieve our corporate objectives and increase shareholder value.

The compensation program is based on the Board-approved executive compensation philosophy of (i) paying base salary at the median (50th percentile) of the amounts paid by our peer group of companies (the "relative market"), (ii) providing annual and long-term incentive awards that are designed to motivate the NEOs to focus on specific annual and long-term financial and operational performance goals and achieve superior performance while placing a significant amount of total compensation at risk, and (iii) paying total direct compensation (base salary and annual and long-term incentive awards) to be competitive with the relative market.

Consistent with the SEC rule implementing the requirement that the Company periodically include a say-on-pay proposal in its proxy statement, the vote on this proposal is advisory and is not binding on the Company, the Compensation Committee or the Board. The Compensation Committee and the Board value the opinions that shareholders express in their votes and to the extent there is any significant vote against the named executive officer compensation, we will consider the outcome of the vote when making future executive compensation decisions and evaluate whether any actions are necessary to address shareholder concerns expressed by such vote. It is expected that the next advisory vote on executive compensation will occur at the 2020 Annual Meeting of Shareholders.

We encourage you to review the complete description of the Company's executive compensation programs provided in this Proxy Statement, including the Compensation Discussion and Analysis and the accompanying compensation tables.

AUDIT COMMITTEE INFORMATION

SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM (Proposal 5 on the Proxy Card)

The Board Recommends a Vote **"FOR"** Auditor Ratification

General

The Audit Committee ("Committee") selected PricewaterhouseCoopers LLP as the independent registered public accounting firm for the Company for the year ending December 31, 2019, subject to ratification of the selection by the shareholders. PricewaterhouseCoopers LLP has been the Company's independent public accounting firm since 2002. To the Committee's knowledge, at no time has PricewaterhouseCoopers LLP had any direct or indirect financial interest in or connection with the Company or any of our subsidiaries other than for services rendered to the Company as described below.

The Committee is composed of Independent Directors and meets periodically with the Company's internal auditors and independent registered public accounting firm to review the scope and results of the audit function and the policies relating to auditing procedures. In making its annual recommendation, the Committee reviews both the audit scope and proposed fees for the coming year.

The affirmative vote of a majority of the shares represented and voting at the Annual Meeting in person or by proxy is necessary to ratify the selection of PricewaterhouseCoopers LLP as the independent registered public accounting firm for the Company. If the shareholders do not ratify our selection, other certified public accounting firms will be considered and one will be selected by the Committee to be the Company's independent registered public accounting firm for 2019.

During fiscal years 2017 and 2018, PricewaterhouseCoopers LLP provided the following audit, audit-related and other professional services for the Company. The cost and description of these services are as follows:

	2017	2018
Audit Fees ⁽¹⁾	\$2,801,100	\$3,017,000
Audit-Related Fees ⁽²⁾	56,500	258,400
Tax Fees ⁽³⁾	247,000	357,300
All Other Fees ⁽⁴⁾		1,800

(1) The services include the audit of the annual financial statements included in the Company's Annual Report on Form 10-K; the reviews of unaudited quarterly financial statements included in the Company's Quarterly Reports on Form 10-Q; subsidiary audits, consultation, and comfort letters and consents for various financings and SEC filings; and the assessment of the Company's internal control over financial reporting.

- (2) The services include benefit plan audits, regulatory audits, and regulatory compliance, including the impact of U.S. tax reform on financial information and adoption of new accounting standards.
- (3) The services include corporate tax return reviews and corporate tax planning and advice. The independent registered public accounting firm's independence is assessed with respect to tax planning and advice services to be provided, and in light of the prohibition on representing the Company on tax matters before any regulatory or judicial proceeding or providing tax services to Company executives or directors.
- (4) The services include permitted advisory services with regard to use of an automated disclosure checklist, which was not the subject of audit or audit-related services performed.

Under the Committee's charter, the Committee must pre-approve all Company engagements of PricewaterhouseCoopers LLP, unless an exception exists under the provisions of the Exchange Act or applicable SEC rules. At the beginning of each audit cycle, the Committee evaluates the anticipated engagements of the independent registered public accounting firm, including the scope of work proposed to be performed and the proposed fees, and approves or rejects each service, consistent with its preapproval policy, taking into account whether the services are permissible under applicable laws and the possible impact of each nonaudit service on PricewaterhouseCoopers LLP's independence from management. The Committee also considers whether the independent registered public accounting firm is best positioned to provide effective and efficient service, and whether the service may enhance the Company's ability to manage and control risk or improve audit quality. Throughout the year, the Committee reviews updates of the services actually provided and fees charged by PricewaterhouseCoopers LLP.

Requests for the independent registered public accounting firm to provide additional services are presented to the Committee by the Company's Chief Financial or Accounting Officer, on an as-needed basis. The Committee has delegated to the chairperson of the Committee the authority to evaluate and approve engagements on the Committee's behalf in the event that a need arises for preapproval between Committee meetings. Approval of additional services will be made consistent with the preapproval policy and will be reported to the Committee at its next scheduled meeting.

Since the effective date of the preapproval process, the Committee has approved, in advance, each new engagement of PricewaterhouseCoopers LLP, and none of those engagements made use of the de minimis exception to the preapproval requirement contained in the SEC rules.

Representatives of PricewaterhouseCoopers LLP will be present at the Annual Meeting of Shareholders. They will have the opportunity to make statements, if they are so inclined, and will be available to respond to appropriate questions.

AUDIT COMMITTEE REPORT

The Committee is composed of eight members of the Board. The Board determined that each member of the Committee qualifies as independent under the independence standards of the NYSE and the SEC. The members of the Committee are also financially literate as defined by the NYSE.

The Committee assists the Board in fulfilling its oversight responsibility by reviewing the financial information provided to shareholders and others, the system of internal control which management and the Board have established, and the audit process. Management is responsible for the Company's consolidated financial statements, for maintaining internal control over the Company's financial reporting, and for assessing the effectiveness of that control. PricewaterhouseCoopers LLP, the Company's independent registered public accounting firm, is responsible for performing an integrated audit of the Company's consolidated financial statements in accordance with generally accepted auditing standards, attesting to the effectiveness of the Company's internal control over financial reporting based on the audit, and issuing a report thereon. The Committee's role and responsibilities are to monitor and oversee these processes as set forth in a written Committee charter adopted by the Board. The Committee charter is available on the Company's website at *www.swgasholdings.com*. The Committee reviews and assesses the adequacy of the charter at least annually and recommends any changes to the Board for approval.

In fulfilling the Committee's responsibilities for 2018, the Committee:

- Reviewed and discussed the audited consolidated financial statements for the year ended December 31, 2018, with management and PricewaterhouseCoopers LLP;
- Discussed with PricewaterhouseCoopers LLP the matters required to be discussed by Auditing Standard No. 1301, *Communications with Audit Committees*, as adopted by the Public Company Accounting Oversight Board ("PCAOB"); and
- Received the written disclosures and the letter from PricewaterhouseCoopers LLP required by the applicable requirements of the PCAOB regarding their communications with the Committee concerning independence, and the Committee has discussed with PricewaterhouseCoopers LLC its independence.

Based the review and discussions referred to above, the Committee recommended to the Board that the audited consolidated financial statements for the year ended December 31, 2018 be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC.

Audit Committee

A. Randall Thoman (Chair) Robert L. Boughner José A. Cárdenas Stephen C. Comer LeRoy C. Hanneman, Jr. Jane Lewis-Raymond Thomas A. Thomas Leslie T. Thornton

APPROVAL OF ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES (Proposal 6 on the Proxy Card)

The Board Recommends a Vote "FOR" The Proposal to Approve Adjournment To Solicit Additional Proxies

General

Although it is not expected, the Annual Meeting may be adjourned for the purpose of soliciting additional proxies. Any such adjournment of the Annual Meeting may be made by approval of the affirmative vote of a majority of shares of Common Stock represented and voting at a duly held Annual Meeting in person or by proxy (which shares of Common Stock voting affirmatively also constitute at least a majority of the required quorum).

We are soliciting proxies to grant discretionary authority to adjourn the Annual Meeting, if necessary, for the purpose of soliciting additional proxies in favor of the proposal to amend the Articles of Incorporation of the Company to increase the authorized shares of Common Stock from 60,000,000 to 120,000,000 shares (Proposal 2) or the proposal to approve the Company's reincorporation from California to Delaware by means of a merger with and into a wholly-owned Delaware subsidiary (Proposal 3).

If our shareholders approve this proposal, we could adjourn or postpone the Annual Meeting to use the additional time to solicit additional proxies in favor of Proposals 2 or 3.

SUBMISSION OF SHAREHOLDER PROPOSALS

Our Bylaws establish an advance notice procedure for shareholders to make director nominations for consideration at the Company's annual meetings of shareholders. Director nominee proposals for the 2020 Annual Meeting must be received in writing by the Company on or before November 22, 2019. Any proposal to nominate a director to our Board of Directors must set forth the information required by the Company's Bylaws. See "GOVERNANCE OF THE COMPANY—Selection of Directors" for a summary of these requirements.

Shareholders may submit other business proposals for consideration at the Company's annual meetings of shareholders. In order for a shareholder business proposal to be considered for inclusion in the Company's proxy statement for the 2020 Annual Meeting, it must be in such form as is required by Rule 14a-8 of the Exchange Act and received by the Company on or before November 22, 2019.

A business proposal submitted by a shareholder pursuant to our Bylaws and outside of the process of Rule 14a-8 for the 2020 Annual Meeting must be received by us no later than November 22, 2019 and must set forth the information required by the Company's Bylaws.

OTHER MATTERS TO COME BEFORE THE MEETING

If any business not described in this Proxy Statement should come before the Annual Meeting for your consideration, it is intended that the shares represented by our proxies will be voted at their discretion. As of the date of this Proxy Statement, we know of no other matter which might be presented for shareholder action at the meeting.

By Order of the Board of Directors

Karen S. Haller Executive Vice President/Chief Legal and Administrative Officer and Corporate Secretary

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APPENDIX A

AGREEMENT AND PLAN OF MERGER OF SOUTHWEST GAS HOLDINGS, INC. (a California corporation) AND SOUTHWEST GAS HOLDINGS, INC. (a Delaware corporation)

This Agreement and Plan of Merger, dated as of [____], 2019 (the "Agreement"), is made by and between Southwest Gas Holdings, Inc., a California corporation ("Southwest Gas California"), and Southwest Gas Holdings, Inc., a Delaware corporation and wholly-owned subsidiary of Southwest Gas California ("Southwest Gas Delaware"). Southwest Gas California and Southwest Gas Delaware are sometimes referred to herein as the "Constituent Corporations."

RECITALS

Whereas, Southwest Gas Delaware is a corporation duly organized and existing under the laws of the State of Delaware and has an authorized capital of 127,000,000 shares, 120,000,000 of which are designated common stock, par value \$1.00 per share, 5,000,000 of which are designated preferred stock, no par value per share and 2,000,000 of which are designated preference stock, par value \$20.00 per share. As of the date of this Agreement, 100 shares of common stock were issued and outstanding, all of which were held by Southwest Gas California, and no shares of preferred stock or preference stock were issued and outstanding.

Whereas, Southwest Gas California is a corporation duly organized and existing under the laws of the State of California and has an authorized capital of 127,000,000 shares, 120,000,000 of which are designated common stock, par value \$1.00 per share, 5,000,000 of which are designated preferred stock, no par value per share and 2,000,000 of which are designated preference stock, par value \$20.00 per share. As of the date of this Agreement, [____] shares of common stock were issued and outstanding, and no shares of preferred stock or preference stock were issued and outstanding.

Whereas, the Board of Directors of Southwest Gas California has determined that, for the purpose of effecting the reincorporation of Southwest Gas California in the State of Delaware, it is advisable and in the best interests of Southwest Gas California and its shareholders that Southwest Gas California merge with and into Southwest Gas Delaware upon the terms and conditions herein provided.

Whereas, the respective Boards of Directors of Southwest Gas Delaware and Southwest Gas California have approved and declared the advisability of this Agreement, and have directed that this Agreement be submitted to a vote of their respective sole stockholder and shareholders and executed by the undersigned officers.

Whereas, shareholders holding a majority of the outstanding common stock of Southwest Gas California approved this Agreement on [May 2], 2019.

Whereas, the Merger is intended to qualify as a transaction governed by Section 368(a) of the Internal Revenue Code of 1986, as amended.

AGREEMENT

In consideration of the mutual agreements and covenants set forth herein, Southwest Gas Delaware and Southwest Gas California hereby agree, subject to the terms and conditions hereinafter set forth, as follows:

1. MERGER

1.1 Merger. In accordance with the provisions of this Agreement, the Delaware General Corporation Law ("*DGCL*") and the California General Corporation Law ("*CGCL*"), Southwest Gas California shall be merged with and into Southwest Gas Delaware (the "*Merger*"), the separate existence of Southwest Gas California shall cease and Southwest Gas Delaware shall survive the Merger and shall continue to be governed by the laws of the State of Delaware, and Southwest Gas Delaware shall be, and is herein sometimes referred to as, the "Surviving Corporation." The name of the Surviving Corporation shall be "Southwest Gas Holdings, Inc."

1.2 Filing and Effectiveness. Subject to applicable law, the Merger shall become effective when the following actions shall have been completed:

(a) This Agreement shall have been adopted by the sole stockholder of Southwest Gas Delaware and the principal terms of this Agreement shall have been approved by the shareholders of Southwest Gas California in accordance with the requirements of the DGCL and the CGCL, which adoption and approval by such sole stockholder of Southwest Gas Delaware and by the shareholders of Southwest Gas California has occurred as of [____], 2019 and [May 2], 2019, respectively;

(b) All of the conditions precedent to the consummation of the Merger specified in this Agreement shall have been satisfied or duly waived by the party entitled to satisfaction thereof; and

(c) A certificate of merger meeting the requirements of the DGCL (the "*Certificate of Merger*") shall have been filed with the Secretary of State of the State of Delaware and this Agreement, together with a Certificate of Ownership as provided in Section 1110 of the CGCL or the Certificate of Merger, shall have been filed with the Secretary of State of the State of California or, in the case of the applicable requirements of California law, as otherwise provided by the CGCL.

The date and time when the Merger shall become effective, as aforesaid, is herein called the "*Effective Date of the Merger*."

1.3 Effect of the Merger. Upon the Effective Date of the Merger, the separate existence of Southwest Gas California shall cease and Southwest Gas Delaware, as the Surviving Corporation, (i) shall continue to possess all of its assets, rights, powers and property as constituted immediately prior to the Effective Date of the Merger, (ii) shall be subject to all actions previously taken by its and Southwest Gas California's Board of Directors, (iii) shall succeed, without other transfer, to all of the assets, rights, powers and property of Southwest Gas California in the manner more fully set forth in Section 259 of the DGCL, (iv) shall continue to be subject to all of the debts, liabilities and obligations of Southwest Gas Delaware as constituted immediately prior to the Effective Date of the Merger, and (v) shall succeed, without other transfer, to all of the debts, liabilities and obligations of Southwest Gas California in the same manner as if Southwest Gas Delaware had itself incurred them, all as more fully provided under the applicable provisions of the DGCL and the CGCL.

2. CHARTER DOCUMENTS, DIRECTORS AND OFFICERS

2.1 Certificate of Incorporation. The Certificate of Incorporation of Southwest Gas Delaware as in effect immediately prior to the Effective Date of the Merger shall continue in full force and effect as the Certificate of Incorporation of the Surviving Corporation until duly amended in accordance with the provisions thereof and applicable law.

2.2 Bylaws. The Bylaws of Southwest Gas Delaware as in effect immediately prior to the Effective Date of the Merger shall continue in full force and effect as the Bylaws of the Surviving Corporation until duly amended in accordance with the provisions thereof and applicable law.

2.3 Directors and Officers. The directors and officers of Southwest Gas California immediately prior to the Effective Date of the Merger shall be the directors and officers of the Surviving Corporation, which such directors serving as directors until their successors shall have been duly elected and qualified or until as otherwise provided by law or the Certificate of Incorporation of the Surviving Corporation or the Bylaws of the Surviving Corporation.

3. MANNER OF CONVERSION OF STOCK

3.1 Southwest Gas California Common Stock. Upon the Effective Date of the Merger, each share of Southwest Gas California common stock, par value \$1.00 per share, issued and outstanding immediately prior thereto shall, by virtue of the Merger and without any action by the Constituent Corporations, the holder of such shares or any other person, be converted into one (1) fully paid and nonassessable share of common stock, par value \$1.00 per share, of the Surviving Corporation.

3.2 Southwest Gas California Options, Equity Incentive Plan Awards, Restricted Stock and Other Convertible Securities.

(a) Upon the Effective Date of the Merger, the Surviving Corporation shall assume and continue the Southwest Gas California 2006 Restricted Stock/Unit Plan (as amended from time to time, the "2006 Plan"), the Southwest

Gas California Management Incentive Plan (as amended from time to time, the "*MIP*"), the Southwest Gas California Omnibus Incentive Plan (together with the 2006 Plan and the MIP, the "*Incentive Plans*") and all awards then outstanding thereunder. Each Incentive Plan and each such award shall have the same terms and conditions, including the same number of shares of stock reserved or covered thereunder, as applicable, except that (i) the stock reserved or covered thereunder (or, with respect to performance goals, related thereto) shall be the common stock of the Surviving Corporation, (ii) any performance goals thereunder related to Southwest Gas California shall relate to the Surviving Corporation, and (iii) the Surviving Corporation shall have the duties, responsibilities and authorities of Southwest Gas California thereunder. Upon the Effective Date of the Merger, the Surviving Corporation shall become the successor to Southwest Gas California, and shall assume the duties, responsibilities and authorities, under each Change in Control Agreement to which Southwest Gas California is then a party.

(b) A number of shares of the Surviving Corporation's common stock shall be reserved for issuance under the Incentive Plans equal to the number of shares of Southwest Gas California common stock so reserved immediately prior to the Effective Date of the Merger.

3.3 Southwest Gas Delaware Common Stock. Upon the Effective Date of the Merger, each share of common stock, par value \$1.00 per share, of Southwest Gas Delaware issued and outstanding immediately prior thereto shall, by virtue of the Merger and without any action by Southwest Gas Delaware, the holder of such shares or any other person, be canceled and returned to the status of authorized but unissued shares, without any consideration being delivered in respect thereof.

3.4 Exchange of Certificates. After the Effective Date of the Merger, each holder of a certificate representing shares of Southwest Gas California common stock outstanding immediately prior to the Effective Date of the Merger may, at such shareholder's option, surrender the same for cancellation to an exchange agent designated by the Surviving Corporation (the "*Exchange Agent*"), and each such holder shall be entitled to receive in exchange therefor a certificate or certificates representing the number of shares of the Surviving Corporation's common stock into which the shares formerly represented by the surrendered certificate were converted as herein provided. Unless and until so surrendered, each certificate representing shares of Southwest Gas California common stock outstanding immediately prior to the Effective Date of the Merger shall be deemed for all purposes, from and after the Effective Date of the Merger, to represent the number of shares of the Surviving Corporation's common stock into which such shares of Southwest Gas California common stock into which such shares of Southwest Gas California common stock into which such shares of Southwest Gas California common stock into which such shares of Southwest Gas California common stock into which such shares of Southwest Gas California common stock were converted in the Merger.

The registered owner on the books and records of the Surviving Corporation or the Exchange Agent of any shares of stock represented by such certificate shall, until such certificate shall have been surrendered for transfer or conversion or otherwise accounted for to the Surviving Corporation or the Exchange Agent, have and be entitled to exercise any voting and other rights with respect to and to receive dividends and other distributions upon the shares of common stock of the Surviving Corporation represented by such certificate as provided above.

Each certificate representing common stock of the Surviving Corporation so issued in the Merger shall bear the same legends, if any, with respect to the restrictions on transferability as the certificates of Southwest Gas California so converted and given in exchange therefor, unless otherwise determined by the Board of Directors of the Surviving Corporation in compliance with applicable laws, or other such additional legends as agreed upon by the holder and the Surviving Corporation.

4. CONDITIONS

4.1 The obligations of Southwest Gas California under this Agreement shall be conditioned upon the occurrence of the following events:

(a) Shareholder Approval. The principal terms of this Agreement shall have been duly approved by the shareholders of Southwest Gas California, which approval was duly obtained on [May 2], 2019;

(b) Consents, Approvals or Authorizations. Any consents, approvals or authorizations that Southwest Gas California deems necessary or appropriate to be obtained in connection with the consummation of the Merger shall have been obtained, including, but not limited to, approvals with respect to federal and state securities laws; and

(c) Stock Market Listing. The Surviving Corporation's common stock to be issued and reserved for issuance in connection with the Merger shall have been approved for listing by the New York Stock Exchange.

5. GENERAL

5.1 Covenants of Southwest Gas Delaware. Southwest Gas Delaware covenants and agrees that it will, on or before the Effective Date of the Merger:

(a) Qualify to do business as a foreign corporation in the State of California and in connection therewith appoint an agent for service of process as required under the provisions of Section 2105 of the CGCL;

(b) File the Certificate of Merger with the Secretary of State of the State of Delaware;

(c) File this Agreement, together with the Certificate of Ownership, or the Certificate of Merger, with the Secretary of State of the State of California; and

(d) Take such other actions as may be required by the CGCL.

5.2 Further Assurances. From time to time, as and when required by Southwest Gas Delaware or by its successors or assigns, there shall be executed and delivered on behalf of Southwest Gas California such deeds and other instruments, and there shall be taken or caused to be taken by Southwest Gas Delaware and Southwest Gas California such further and other actions as shall be appropriate or necessary to vest or perfect in or conform of record or otherwise by Southwest Gas Delaware the title to and possession of all the property, interests, assets, rights, privileges, immunities, powers, franchises and authority of Southwest Gas Delaware are fully authorized in the name and on behalf of Southwest Gas California or otherwise to take any and all such action and to execute and deliver any and all such deeds and other instruments.

5.3 Abandonment. At any time before the Effective Date of the Merger, this Agreement may be terminated and the Merger may be abandoned for any reason whatsoever by the Board of Directors of either Southwest Gas California or of Southwest Gas Delaware, or of both, notwithstanding the approval of the principal terms of this Agreement by the shareholders of Southwest Gas California or the adoption of this Agreement by the sole shareholder of Southwest Gas Delaware, or by both.

5.4 Amendment. The Boards of Directors of the Constituent Corporations may amend this Agreement at any time prior to the Effective Date of the Merger, provided that an amendment made subsequent to applicable shareholder or shareholder approval shall not, unless approved by such shareholders or shareholders as required by law:

(a) Alter or change the amount or kind of shares, securities, cash, property and/or rights to be received in exchange for or on conversion of all or any of the shares of any class or series thereof of such Constituent Corporation;

(b) Alter or change any term of the Certificate of Incorporation of the Surviving Corporation to be effected by the Merger; or

(c) Alter or change any of the terms and conditions of this Agreement if such alteration or change would adversely affect the holders of any class or series of capital stock of any Constituent Corporation.

5.5 Governing Law. This Agreement shall in all respects be construed, interpreted and enforced in accordance with and governed by the laws of the State of Delaware and, so far as applicable, the merger provisions of the CGCL.

5.6 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

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IN WITNESS WHEREOF, this Agreement having first been approved by the resolutions of the Board of Directors of Southwest Gas Holdings, Inc., a California corporation, and Southwest Gas Holdings, Inc., a Delaware corporation, is hereby executed on behalf of each of such two corporations and attested by their respective officers thereunto duly authorized.

SOUTHWEST GAS HOLDINGS, INC.

a California corporation

By:

Name: Karen S. Haller

Title: Executive Vice President/Chief Legal and Administrative Officer and Corporate Secretary

SOUTHWEST GAS HOLDINGS, INC.

a Delaware corporation

By:

Name: Karen S. Haller

Title: Executive Vice President/Chief Legal and Administrative Officer and Corporate Secretary

APPENDIX B

CERTIFICATE OF INCORPORATION

OF

SOUTHWEST GAS HOLDINGS, INC.

a Delaware corporation

ARTICLE 1

The name of the Corporation is Southwest Gas Holdings, Inc. (the "Corporation").

ARTICLE 2

The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, in the City of Wilmington, 19801, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE 3

The nature of the business of the Corporation and the objects or purposes to be transacted, promoted or carried on by it are to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware ("Delaware General Corporation Law").

ARTICLE 4

A. The total number of shares of all classes of stock that the Corporation is authorized to issue is one hundred and twenty seven million (127,000,000) shares.

B. The Corporation is authorized to issue three classes of shares of stock, to be designated respectively, as "Preferred Stock;" "Preference Stock;" and "Common Stock." The number of shares of Preferred Stock shall be five million (5,000,000) and shall have no par value for each share; the number of shares of Preference Stock shall be two million (2,000,000) and shall have a par value of each share of said class of \$20.00 per share; the number of shares of Common Stock shall be one hundred and twenty million (120,000,000) and shall have a par value of each share of said class of \$1.00 per share.

C. Except as otherwise provided by law, shares of Preferred Stock, in preference to the holders of the Preference Stock and the Common Stock, may be issued from time to time, in one or more series. Subject to the limitations and restrictions set forth in this Article 4, the Board of Directors of the Corporation (the "Board of Directors") or a committee of the Board of Directors, to the extent permitted by law and the Bylaws of the Corporation or a resolution of the Board of Directors, by resolution or resolutions, is authorized to create or provide for any such series, and to fix or alter the designations, rights, preferences, privileges and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, including, without limitation, the authority to fix or alter the dividend rights, dividend rates, conversion rights, exchange rights, voting rights, rights and terms of redemption (including sinking and purchase fund provisions), the redemption price or prices, the dissolution preferences and the rights in respect to any distribution of assets of any wholly unissued series of Preferred Stock and the number of shares of any series so created, subsequent to the issue of that series but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

D. Except as otherwise provided by law, any of the shares of Preference Stock, in preference to the holders of the Common Stock, may be issued from time to time, in one or more series. Subject to the limitations and restrictions set forth in this Article 4, the Board of Directors or a committee of the Board of Directors, to the extent permitted by law and the Bylaws of the Corporation or a resolution of the Board of Directors, by resolution or resolutions, is authorized to create or provide for any such series, and to fix or alter the designations, rights, preferences, privileges and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, including, without limitation, the authority to fix or alter the dividend rights, dividend rates, conversion rights, the exchange rights, voting rights, rights and terms of redemption (including sinking and purchase fund provisions), the redemption

price or prices, the dissolution preferences and the rights in respect to any distribution of assets of any wholly unissued series of Preference Stock and the number of shares constituting any such series, and the designation thereof, or any of them and to increase or decrease the number of shares of any series so created, subsequent to the issue of that series but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

E. There shall be no limitation or restriction on any variation between any of the different series of Preferred Stock or Preference Stock, as applicable, as to the designations, preferences and relative, participating, optional or other special rights, and the qualifications, limitations or restrictions thereof; and the several series of Preferred Stock or Preference Stock, as applicable, may, except as hereinafter in this Article 4 otherwise expressly provided, vary in any and all respects as fixed and determined by the resolution or resolutions of the Board of Directors or by a committee of the Board of Directors, providing for the issuance of the various series; *provided, however*, that all shares of any one series of Preferred Stock or Preference Stock, as applicable, shall have the same designation, preferences and relative, participating, optional or other special rights and qualifications, limitations and restrictions.

F. Except as otherwise required by law, and subject to the voting rights and other rights, preferences and privileges above provided in this Article 4 with respect to the Preferred Stock and/or the Preference Stock or as otherwise fixed by resolution or resolutions of the Board of Directors with respect to one or more series of Preferred Stock and/or Preference Stock, as applicable, shares of Common Stock and/or the holders thereof shall have full voting rights and powers for the election of directors and for all other purposes, voting together as a single class, and each holder of the Common Stock who at the time possesses voting power for any purpose shall be entitled to one vote for each share of such stock standing in his name on the books of the Corporation. Each holder of the Common Stock shall be entitled to receive dividends as and when they are declared by the Board of Directors. Upon liquidation, distribution or winding up of the Corporation, the assets of the Corporation available for distribution to the holders of the Common Stock shall be distributed ratably among the holders of all shares of the Common Stock at the time outstanding. The Common Stock shall have no conversion, subscription or preemptive rights, nor shall it be subject to redemption, call or assessment.

ARTICLE 5

In furtherance and not in limitation of the powers conferred by law, the Board of Directors is expressly authorized to adopt, amend and repeal the Bylaws of the Corporation.

ARTICLE 6

Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

ARTICLE 7

- A. **Supermajority of Shares Required to Approve Certain Transactions.** Notwithstanding any other provisions of this Certificate of Incorporation, and notwithstanding that a lesser percentage may be permitted from time to time by applicable law, the affirmative vote of the holders of not fewer than eighty-five percent (85%) of the outstanding shares of "Voting Stock" (as hereinafter defined) of the Corporation shall be required for the approval or authorization of any "Business Combination" (as hereinafter defined) of the Corporation with any "Dominant Stockholder" (as hereinafter defined); provided, however, that the eighty-five percent (85%) voting requirement shall not be applicable if any of the following shall occur:
 - (i) The Board of Directors, by the affirmative vote of not fewer than sixty-five percent (65%) of the members thereof, expressly approves in advance the acquisition of the outstanding shares of Voting Stock that caused such Dominant Stockholder to become a Dominant Stockholder; or
 - (ii) The Board of Directors, by the affirmative vote of not fewer than sixty-five percent (65%) of the members thereof, expressly approves such Business Combination in advance of such Dominant Stockholder becoming a Dominant Stockholder; or
 - (iii) The Board of Directors, by the affirmative vote of not fewer than eighty-five percent (85%) of the members thereof, approves such Business Combination subsequent to such Dominant Stockholder becoming a Dominant Stockholder; or
 - (iv) The Board of Directors, by the affirmative vote of not fewer than eighty-five percent (85%) of the members thereof, shall determine that the cash or fair market value of the property, securities or other consideration

to be received per share by holders of Voting Stock of the Corporation (which shall include, without limitation, all Voting Stock of the Corporation retained by them) in the Business Combination is not less than the "Highest Per Share Price" or the "Highest Equivalent Per Share Price" (as these terms are hereinafter defined) paid by the Dominant Stockholder in acquiring any of its holdings of the Corporation's Voting Stock.

- B. Definitions. For the purposes of this Article 7;
 - (i) <u>Business Combination</u>. The term "Business Combination" shall include, without limitation, (a) any merger or consolidation of the Corporation with or into any Dominant Stockholder or any entity controlled by or under common control with a Dominant Stockholder, (b) any merger or consolidation of a Dominant Stockholder with or into the Corporation or any entity controlled by or under common control with the Corporation, (c) any sale, lease, exchange, transfer or other disposition of all or substantially all of the property and assets of the Corporation to a Dominant Stockholder, or any entity controlled by or under common control with a Dominant Stockholder, (d) any purchase, lease, exchange, transfer or other acquisition by the Corporation of all or substantially all of the property and assets of a Dominant Stockholder, or any entity controlled by or under common control with a Dominant Stockholder, (d) any purchase, lease, exchange, transfer or other acquisition by the Corporation of all or substantially all of the property and assets of a Dominant Stockholder, or any entity controlled by or under common control with a Dominant Stockholder, (e) any recapitalization of the Corporation that would have the effect of increasing the voting power of a Dominant Stockholder, and (f) any agreement, contract or other arrangement providing for any of the transactions described in this definition of Business Combination.
 - (ii) Dominant Stockholder. The term "Dominant Stockholder" shall mean and include any individual, corporation, partnership or other person or entity which, together with its "Affiliates" and "Associates," "Beneficially Owns" (as these terms are hereinafter defined) in the aggregate 10 percent or more of the outstanding Voting Stock of the Corporation, and any Affiliate or Associate of any such individual, corporation, partnership or other person or entity.

A Dominant Stockholder shall be deemed to have acquired a share of Voting Stock of the Corporation at the time when such Dominant Stockholder became the Beneficial Owner thereof. Without limitation, any share of Voting Stock of the Corporation that any Dominant Stockholder has the right to acquire at any time pursuant to any agreement, or upon exercise of conversion rights, warrants or options, or otherwise, shall be deemed to be Beneficially Owned by the Dominant Stockholder and to be outstanding for purposes of this subparagraph (ii).

- (iii) <u>Affiliate</u>. An "affiliate" of, or a person "affiliated" with, a specified person such as a Dominant Stockholder, is a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, the person specified.
- (iv) Associate. The term "associate," used to indicate a relationship with any person such as a Dominant Stockholder, means (a) any corporation or organization of which such person is an officer or partner or is, directly or indirectly, the beneficial owner of 10 percent or more of any class of equity securities, (b) any trust or other estate in which such person has a substantial beneficial interest or as to which such person serves as trustee or in a similar fiduciary capacity, and (c) any relative or spouse of such person, or any relative of such spouse, who has the same home as such person or who is a director or officer of such person or any of its parents or subsidiaries.
- (v) Beneficially Owns or Beneficial Owner. A "beneficial owner" of, or one who "beneficially owns," a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, (a) has the right to acquire such security through the exercise of any option, warrant or right or through the conversion of another security into such security, or (b) has or shares voting power which includes the power to vote, or to direct the voting of, such security, and/or (c) has or shares investment power which includes the power to dispose of, or to direct the disposition of, such security.
- (vi) <u>Voting Stock</u>. The term "Voting Stock" shall mean all of the outstanding shares of Common Stock (together, solely for the purpose of identifying a Dominant Stockholder, with certain authorized but unissued shares that a Dominant Stockholder is deemed to Beneficially Own), and each reference to a proportion of shares of Voting Stock shall refer to such proportion of the votes entitled to be cast by such shares.
- (vii) Highest Per Share Price and Highest Equivalent Per Share Price. The terms "Highest Per Share Price" and "Highest Equivalent Per Share Price" as used in this Article 7 shall mean the following:

The Highest Per Share Price shall mean the highest price that can be determined to have been paid at any time by the Dominant Stockholder for any share of Voting Stock. If there are any securities of the Corporation outstanding ("related securities" herein) that entitle the holder thereof to purchase, or that are convertible into, Voting Stock, the Highest Equivalent Per Share Price shall mean, with respect to each

type, class and/or series of related securities, the amount in each case determined by the affirmative vote of not fewer than eighty-five percent (85%) of the members of the Board of Directors, on whatever basis they believe in good faith to be appropriate, to be the highest per share price equivalent of the highest price that can be determined to have been paid at any time by the Dominant Stockholder for any such related securities. In determining the Highest Per Share Price and Highest Equivalent Per Share Price, all purchases of Voting Stock and related securities of the Corporation by the Dominant Stockholder shall be taken into account regardless of whether they occurred before or after the Dominant Stockholder became a Dominant Stockholder. With respect to shares of Voting Stock owned by Affiliates, Associates or other persons whose ownership is attributed to a Dominant Stockholder, if the price paid by such Dominant Stockholder for such shares is not determined by the affirmative vote of not fewer than eighty-five percent (85%) of the members of the Board of Directors, the price so paid shall be deemed to be the higher of (a) the price paid upon the acquisition thereof by the Affiliate, Associate or other person or (b) the market price of the shares in question at the time when the Dominant Stockholder became the Beneficial Owner thereof. The Highest Per Share Price and the Highest Equivalent Per Share Price shall include any brokerage commissions, transfer taxes and soliciting dealers' fees or other value paid by the Dominant Stockholder with respect to all Voting Stock and related securities acquired by the Dominant Stockholder.

C. Supermajority of Shares Required to Amend or Repeal This Certificate of Incorporation. Notwithstanding any other provisions of this Certificate of Incorporation, and notwithstanding that a lesser percentage may be permitted from time to time by applicable law, the provisions set forth in this Article 7 may not be amended, altered, changed or repealed in any respect unless approved by the affirmative vote of the holders of not fewer than sixty-five percent (65%) of the outstanding shares of Voting Stock at a meeting of the shareholders duly called and unless the consideration of any such amendment, alteration, change or repeal shall have been included as an agenda item in the notice of such meeting; provided, however, that if there is a Dominant Stockholder on the record date for determining the holders of Voting Stock entitled to vote at such meeting, any such amendment, alteration, change or repeal must be approved by the affirmative vote of the holders of not fewer than eighty-five percent (85%) of the outstanding shares of Voting Stock.

ARTICLE 8

The Corporation shall not be subject to the provisions of Section 203 of Delaware General Corporation Law.

ARTICLE 9

The directors of the Corporation need not be stockholders.

ARTICLE 10

To the fullest extent permitted by Delaware statutory or decisional law, as amended or interpreted, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. No amendment to, or modification or repeal of, this Article 10 shall adversely affect any right or protection of a director of the Corporation existing hereunder with respect to any act or omission occurring prior to such amendment, modification or repeal. This Article 10 does not affect the availability of equitable remedies for breach of fiduciary duties.

ARTICLE 11

No stockholder shall be entitled to cumulative voting rights as to any election of directors.

ARTICLE 12

Except as otherwise required by law and subject to the rights of the holders of any series of stock with respect to such series of stock, unless the Board of Directors otherwise determines, newly created directorships resulting from any increase in the authorized number of directors or any vacancies on the Board of Directors resulting from the death, resignation, retirement, disqualification, removal from office or other cause shall be filled only by a majority vote of the directors then in office, though less than a quorum, or by a sole remaining director, and not by the stockholders.

ARTICLE 13

Whenever a compromise or arrangement is proposed between the Corporation and its creditors or any class of them and/or between the Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of the Corporation or of any creditor or stockholder thereof, or on the application of any receiver or receivers appointed for the Corporation under the provisions of Section 291 of Delaware General Corporation Law or on the application of trustees in dissolution or of any receiver or receivers appointed for the Corporation under the provisions of Section 291 of the creditors or class of creditors, and/or of the stockholders or class of stockholders of the Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders or class of stockholders or the corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of the Corporation as a consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of the Corporation, as the case may be, and also on the Corporation.

ARTICLE 14

Subject to the requirements of Article 7.C., the Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

ARTICLE 15

Except for (i) actions in which the Court of Chancery in the State of Delaware concludes that an indispensable party is not subject to the jurisdiction of the Delaware courts, and (ii) actions in which a federal court has assumed exclusive jurisdiction of a proceeding, any derivative action brought by or on behalf of the Corporation, and any direct action brought by a stockholder against the Corporation or any of its directors or officers, alleging a violation of the Delaware General Corporation Law, the Corporation's Certificate of Incorporation or Bylaws or breach of fiduciary duties or other violation of Delaware decisional law relating to the internal affairs of the Corporation, shall be brought in the Court of Chancery in the State of Delaware, which shall be the sole and exclusive forum for such proceedings; provided, however, that the Corporation may consent to an alternative forum for any such proceedings upon the approval of the Board of Directors.

ARTICLE 16

The name and mailing address of the sole incorporator is as follows:

NameMailing AddressKaren S. Haller5241 Spring Mountain Road Post Office
Box 98510 Las Vegas, Nevada

I, the undersigned, being the sole incorporator hereinbefore named, for the purpose of forming a corporation pursuant to the General Corporation Law of the State of Delaware, do make this certificate, hereby declaring and certifying that this is my act and deed and the facts herein stated are true, and, accordingly, have hereunto set my hands this ______ day of ______, 2019.

Karen S. Haller Sole Incorporator

APPENDIX C

BYLAWS OF

SOUTHWEST GAS HOLDINGS, INC.

ARTICLE I OFFICES

Section 1.1 Registered Office.

The registered office of Southwest Gas Holdings, Inc., a Delaware corporation (the "Corporation") in the State of Delaware shall be set forth in the Certificate of Incorporation of the Corporation.

Section 1.2 Other Offices.

The Corporation may also have offices at such other places, either within or without the State of Delaware, as the Board of Directors may from time to time determine or the business of the Corporation may require.

Section 1.3 Terminology.

All personal pronouns used herein are employed in a generic sense and are intended and deemed to be neutral in gender.

ARTICLE II MEETING OF STOCKHOLDERS

Section 2.1 Place of Meetings.

(a) Meetings of stockholders may be held at such place, either within or without the State of Delaware, as may be designated by or in the manner provided in these Bylaws or, if not so designated, as the officers of the Corporation may deem convenient and appropriate; *provided*, *however*, that the Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 2.1(b).

(b) If authorized by the Board of Directors in its sole discretion, and subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxyholders not physically present at a meeting of stockholders may, by means of remote communication:

(1) Participate in a meeting of stockholders; and

(2) Be deemed present in person and vote at a meeting of stockholders whether such meeting is to be held at a designated place or solely by means of remote communication, provided that (A) the Corporation shall implement reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxyholder of the Corporation, (B) the Corporation shall implement reasonable measures to provide such stockholders and proxyholders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (C) if any stockholder or proxyholder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action shall be maintained by the Corporation.

(c) For purposes of these Bylaws, "remote communication" shall include (1) telephone, internet, webcast or any other voice or video communications and (2) electronic mail or other form of written or visual electronic communications satisfying the requirements of Section 2.11(b).

Section 2.2 Regular Meetings.

The regular annual meetings of the stockholders of the Corporation, for the purpose of electing a Board of Directors and transacting such other business as properly and lawfully may come before the meeting, shall be held on such date and at such time as may be designated from time to time by the Board of Directors.

Section 2.3 Special Meetings.

Except in those instances where a particular manner of calling a meeting of the stockholders is prescribed by law or elsewhere in these Bylaws, a special meeting of the stockholders of the Corporation may be called at any time, for any purpose or purposes, by the Chief Executive Officer of the Corporation or other officers acting for the Chief Executive Officer, or by the Board of Directors, or by the holders of not less than one-third (1/3) of the voting shares then issued and outstanding. Each call for a special meeting of the stockholders shall state the time, place, and the purpose of such meeting; if made by the Board of Directors, it shall be by resolution duly adopted by a majority vote and entered in the minutes; if made by an authorized officer or by the stockholders, it shall be in writing and signed by the person or persons making the same, and unless the office of Secretary be vacant, delivered to the Secretary. No business shall be transacted at a special meeting other than as is stated in the call and the notice based thereon.

Section 2.4 Notice of Regular and Special Meetings of the Stockholders.

(a) Except as otherwise provided by law or the Certificate of Incorporation, written notice of each regular and special meeting of the stockholders of the Corporation, specifying the date and hour, place (if any), and purpose or purposes of such meeting, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, and the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote thereat, addressed to such stockholder at such stockholder's address as it appears upon the books of the Corporation.

(b) When a meeting is adjourned to another time or place, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which the adjournment is taken unless the adjournment is for more than thirty (30) days, or unless after the adjournment a new record date is fixed for the adjourned meeting, in which event a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting; provided, however, that the Board of Directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or a different date as that fixed for determination of stockholders entitled to vote at the adjourned meeting.

(c) Without limiting the manner by which notice otherwise may be given effectively to stockholders (including, without limitation, electronic notices permitted by Sections 204(g) and 242(b)(1) of the Delaware General Corporation Law) any notice to stockholders given by the Corporation under any provision of Delaware General Corporation Law, the Certificate of Incorporation, or these Bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if (i) the Corporation is unable to deliver by electronic transmission two consecutive notices given by the Corporation in accordance with such consent, and (ii) such inability becomes known to the Secretary or an Assistant Secretary of the Corporation or to the transfer agent or other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action. An affidavit of the Secretary or an Assistant Secretary or of the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein. Notice given pursuant to this subparagraph (c) shall be deemed given: (1) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice; (2) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice; (3) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and (4) if by any other form of electronic transmission, when directed to the stockholder. For purposes of these Bylaws, "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

Section 2.5 Quorum and Voting.

(a) At any meeting of the stockholders, except where otherwise provided by law, the Certificate of Incorporation or these Bylaws, the presence, in person or by proxy, of the holders of a majority of the outstanding shares of stock entitled to vote at any meeting shall constitute a quorum for the transaction of business. Shares of stock, the voting of which at said meeting have been enjoined, or which for any reason cannot be lawfully voted at such meeting, shall not be counted to determine a quorum at said meeting. Any regular or special meeting of the stockholders, whether

or not a quorum is present, may be adjourned from day to day or from time to time by the chairman of the meeting or by the vote of the holders of a majority of the shares entitled to vote at said meeting, but no other business shall be transacted at such adjourned meeting. Such adjournment and the reasons therefor shall be recorded in the minutes of the proceedings. The stockholders present at a duly called or convened meeting at which a quorum is present may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

(b) Except as otherwise provided by law, the Certificate of Incorporation or these Bylaws, all action taken by the holders of a majority of the votes cast on a matter affirmatively or negatively shall be valid and binding upon the Corporation. For purposes of these Bylaws, a share present at a meeting, but for which there is an abstention or as to which a stockholder gives no authority or direction as to a particular proposal or director nominee, shall be counted as present for the purpose of establishing a quorum but shall not be counted as a vote cast, except to the extent permitted by applicable law or the principal securities exchange on which the Corporation's securities are listed.

Section 2.6 Waiver of Notice.

When all the stockholders of the Corporation are present, in person or by proxy, at any meeting, or when the stockholders not present, in person or by proxy, thereat give their written consent, either before or after such meeting, to the holding thereof at the time and place the meeting is held, and such written consent is made a part of the records of such meeting, the proceedings had at such meeting are valid, irrespective of the manner in which the meeting is called or the place where it is held.

Section 2.7 Voting Rights.

(a) Except as otherwise provided by law, only persons in whose names shares entitled to vote stand on the stock records of the Corporation on the record date for determining the stockholders entitled to vote at said meeting shall be entitled to vote at such meeting. Shares standing in the names of two or more persons shall be voted or represented in accordance with the determination of the majority of such persons, or, if only one of such persons is present in person or represented by proxy, such person shall have the right to vote such shares and such shares shall be deemed to be represented for the purpose of determining a quorum.

(b) Every person entitled to vote or to execute consents shall have the right to do so either in person or by an agent or agents authorized by a written proxy executed by such person or such person's duly authorized agent, which proxy shall be filed with the Secretary of the Corporation at or before the meeting at which it is to be used. Said proxy so appointed need not be a stockholder. No proxy shall be voted on after the expiration of eleven (11) months from the date of its execution, unless the person executing it specifies therein the length of time for which such proxy is to continue in force, which in no case shall exceed seven (7) years from the date of its execution. Unless and until voted, every proxy shall be revocable at the pleasure of the person who executed it or of such person's legal representatives or assigns, except in those cases where an irrevocable proxy permitted by statute has been given.

(c) Without limiting the manner in which a stockholder may authorize another person or persons to act for such stockholder as proxy pursuant to Section 2.7(b), the following shall constitute a valid means by which a stockholder may grant such authority:

(1) A stockholder may execute a writing authorizing another person or persons to act for such stockholder as proxy. Execution may be accomplished by the stockholder or such stockholder's authorized officer, director, employee or agent signing such writing or causing his or her signature to be affixed to such writing by any reasonable means including, but not limited to, by facsimile signature or by other means of electronic transmission.

(2) A stockholder may authorize another person or persons to act for such stockholder as proxy by transmitting or authorizing the transmission of an electronic transmission to the person who will be the holder of the proxy or to a proxy solicitation firm, proxy support service organization or like agent duly authorized by the person who will be the holder of the proxy to receive such transmission, provided that any such transmission must either set forth or be submitted with information from which it can be determined that the transmission was authorized by the stockholder. Such authorization can be established by the signature of the stockholder on the proxy, either in writing or by a signature stamp, facsimile signature, other means of electronic transmission, or by a number or symbol from which the identity of the stockholder can be determined, or by any other procedure deemed appropriate by the inspectors or other persons making the determination as to due authorization.

If it is determined that such transmissions are valid, the inspectors or, if there are no inspectors, such other persons making that determination shall specify the information upon which they relied.

(d) Any copy, facsimile telecommunication or other reliable reproduction of the writing or transmission created pursuant to Section 2.7(c) may be substituted or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire original writing or transmission.

Section 2.8 Voting Procedures and Inspectors of Elections.

(a) The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability.

(b) The inspectors shall (i) ascertain the number of shares outstanding and the voting power of each, (ii) determine the shares represented at a meeting and the validity of proxies and ballots, (iii) count all votes and ballots, (iv) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors, and (v) certify their determination of the number of shares represented at the meeting and their count of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors.

(c) The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting. No ballot, proxies or votes, nor any revocations thereof or changes thereto, shall be accepted by the inspectors after the closing of the polls unless the Court of Chancery shall determine otherwise upon application by a stockholder.

(d) In determining the validity and counting of proxies and ballots, the inspectors shall be limited to an examination of the proxies, any envelopes submitted with those proxies, any information provided in accordance with Sections 211(e) or 212(c) of the Delaware General Corporation Law, or any information provided pursuant to Sections 211(a)(2)(B)(i) or (iii) thereof, ballots and the regular books and records of the Corporation, except that the inspectors may consider other reliable information for the limited purpose of reconciling proxies and ballots submitted by or on behalf of banks, brokers, their nominees or similar persons which represent more votes than the holder of a proxy is authorized by the record owner to cast or more votes than the stockholder holds of record. If the inspectors consider other reliable information for the limited purpose permitted herein, the inspectors at the time they make their certification pursuant to Section 2.8(b)(v) shall specify the precise information considered by them including the person or persons from whom they obtained the information, when the information was obtained, the means by which the information was obtained and the basis for the inspectors' belief that such information is accurate and reliable.

Section 2.9 List of Stockholders.

The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, (or, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the meeting date, the list shall reflect the stockholders entitled to vote on the tenth (10th) day before the meeting date), arranged in alphabetical order, showing the address of and the number of shares registered in the name of each stockholder. The Corporation need not include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours at the principal place of business of the Corporation. In the event that the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

Section 2.10 Proper Business for Stockholder Meetings

(a) At a meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before a meeting, business must be (1) specified in the notice of meeting

(or any supplement thereto) given by or at the direction of the Board of Directors, (2) otherwise properly brought before the meeting by or at the direction of the Board of Directors or the Chairman of the Board of Directors, or (3) otherwise properly brought before the meeting by a stockholder of the Corporation who is a stockholder of record at the time of giving the notice provided for herein, who shall be entitled to vote at such meeting and who complies with the notice procedures set forth herein.

(b) In addition to any other applicable requirements for business to be properly brought before a meeting by a stockholder, whether or not the stockholder is seeking to have a proposal included in the Corporation's proxy statement or information statement under Rule 14a-8 under the Exchange Act, the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation. To be timely as to an annual meeting of stockholders (or in the case of a stockholder seeking to have a proposal included in the Corporation's proxy statement or information statement), a stockholder's notice must be delivered to the Secretary at the principal executive office of the Corporation not less than one hundred and twenty (120) calendar days prior to the first anniversary of the date on which the Corporation first mailed, or made available, as applicable, its proxy materials (or, in the absence of proxy materials, its notice of meetings) for the previous year's annual meeting. However, if the Corporation did not hold an annual meeting the previous year, or if the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, then to be timely, notice by the stockholder must be delivered to the Secretary at the Corporation's principal executive offices not later than the close of business on the tenth (10th) day following the earlier of the day on which notice of the date of the meeting was mailed to stockholders or public disclosure of such date was made. To be timely as to a special meeting of stockholders, a stockholder notice must be received not later than the call of the meeting as provided for in this Article II. In no event shall any adjournment or postponement of a meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above. Other than with respect to stockholder proposals relating to director nomination(s), which requirements are set forth in Section 2.10 below and Section 3.3, a stockholder's notice to the Secretary (whether for an annual meeting or a special meeting) shall set forth as to each matter the stockholder proposes to bring before the meeting: (1) a brief description of the business desired to be brought before the meeting and the reasons for conducting such business at the meeting; (2) the name and address, as they appear on the Corporation's books, and the name and address of the beneficial owner, if any, on whose behalf the proposal is made; (3) the class and number of shares of the Corporation which are owned beneficially and of record by such stockholder of record and by the beneficial owner, if any, on whose behalf the proposal is made: (4) any material interest of such stockholder of record and the beneficial owner, if any, on whose behalf the proposal is made, in such proposal, (5) as to the stockholder giving the notice and any Stockholder Associated Person (as defined below) or any member of such stockholder's immediate family sharing the same household, whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of, or any other agreement, arrangement, or understanding (including, but not limited to, any short position or any borrowing or lending of shares of stock) has been made, the effect or intent of which is to mitigate loss or increase profit to or manage the risk or benefit of stock price changes for, or to increase or decrease the voting power of, such stockholder, such Stockholder Associated Person, or family member with respect to any share of stock of the Corporation (each, a "Relevant Hedge Transaction"), and (6) as to the stockholder giving the notice and any Stockholder Associated Person or any member of such stockholder's immediate family sharing the same household, to the extent not set forth pursuant to the immediately preceding clause, (i) whether and the extent to which such stockholder, Stockholder Associated Person, or family member has direct or indirect beneficial ownership of any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation, whether or not such instrument or right shall be subject to settlement in the underlying class or series of capital stock of the Corporation or otherwise, or any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation (a "Derivative Instrument"), (ii) any rights to dividends on the shares of the Corporation owned beneficially by such stockholder, Stockholder Associated Person, or family member that are separated or separable from the underlying shares of the Corporation, (iii) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder, Stockholder Associated Person, or family member is a general partner or, directly or indirectly, beneficially owns an interest in a general partner, and (iv) any performance-related fees (other than an asset-based fee) that such stockholder, Stockholder Associated Person, or family member is entitled to, based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice (which information shall be supplemented by such stockholder and beneficial owner, if any, not later than ten (10) days after the record date for the meeting to disclose such ownership as of the record date). With respect to stockholder proposals relating to director nominations pursuant to Section 3.3, in addition to the information above, the stockholder's notice shall set forth as to each person whom the stockholder proposes to nominate for election or re-election as a director. (i) the name, age, business address, and residence address of the person, (ii) the principal occupation or employment of the person,

(iii) the class and number of shares of the Corporation which are beneficially owned by the person, (iv) a statement whether such person, if elected, intends to tender a resignation effective upon such person's failure to receive the required vote for re-election at the next meeting at which such person would face re-election and upon acceptance of such resignation by the Board of Directors, in accordance with the Corporation's Corporate Governance Guidelines, and (v) any other information relating to the person that is required to be disclosed in solicitations for proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected).

For purposes of this Section 2.10, "Stockholder Associated Person" of any stockholder shall mean (i) any person controlling or controlled by, directly or indirectly, or acting in concert with, such stockholder, (ii) any beneficial owner of shares of stock of the Corporation owned of record or beneficially by such stockholder and (iii) any person controlling, controlled by or under common control with such Stockholder Associated Person.

Notwithstanding anything in the Bylaws to the contrary, no business shall be conducted at a meeting except in accordance with the procedures set forth in Section 2.1 and this Section 2.10, provided, however, that nothing in this Section 2.10 shall be deemed to preclude discussion by any stockholder of any business properly brought before a meeting in accordance with said procedure. Further, a shareholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth herein.

The Chairman of the Board of Directors or the individual designated as chairman of the meeting shall, if the facts warrant, determine and declare to the meeting that business was not properly brought before the meeting in accordance with the provisions of Section 2.1 and this Section 2.10, and if he or she should so determine, he or she shall so declare to the meeting, and any such business not properly brought before the meeting shall not be transacted.

Nothing in this Section 2.10 shall affect the right of a stockholder to request inclusion of a proposal in the Corporation's proxy statement or information statement pursuant to, and in accordance with, Rule 14a-8 under the Exchange Act.

Section 2.11 Action Without Meeting.

(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any annual or special meeting of stockholders of the Corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing setting forth the action so taken are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. To be effective, a written consent must be delivered to the Corporation by delivery to its registered office in Delaware, its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a Corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. Every written consent shall bear the date of signature of each stockholder who signs the consent, and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered in the manner required by this Section 2.11 to the Corporation, written consents signed by a sufficient number of holders to take action are delivered to the Corporation in accordance with this Section 2.11. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

(b) An electronic transmission consent to an action to be taken and transmitted by a stockholder or proxyholder, or by a person or persons authorized to act for a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this Section 2.11, provided that any such electronic transmission sets forth or is delivered with information from which the Corporation can determine (1) that the electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder or proxyholder, and (2) the date on which such stockholder or proxyholder or authorized person or persons transmitted such electronic transmission. The date on which such electronic transmission is transmitted shall be deemed to be the date on which such consent given by electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the Corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the Corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by electronic transmission may be otherwise delivered to the principal place of business of the Corporation for magnet of the Corporation or to an officer or agent of the Corporation may be otherwise delivered to the principal place of business of the Corporation for magnet form and be a business of the corporation for magnet by electronic transmission may be otherwise delivered to the principal place of business of the Corporation for magnet of the Corporation having to the principal place of business of the Corporation for magnet form and by and or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by electronic transmission may be otherwis

having custody of the book in which proceedings of meetings of stockholders are recorded if to the extent and in the manner provided by resolution of the Board of Directors of the Corporation.

(c) Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

ARTICLE III BOARD OF DIRECTORS

Section 3.1 Number-Quorum.

(a) The business of the Corporation shall be managed by a Board of Directors, whose number shall be not fewer than nine (9) nor greater than thirteen (13), as the Board of Directors by resolution or the stockholders by amendment of these Bylaws may establish; *provided*, *however*, that a reduction in the authorized number of directors shall not remove any director prior to the expiration of such director's term of office.

(b) A quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time in accordance with Section 3.2, but not less than one; provided, however, at any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting. At a meeting at which a quorum is present, unless a different vote be required by law, the Certificate of Incorporation, or these Bylaws, every decision or act of a majority of the directors present made or done when duly assembled shall be valid as the act of the Board of Directors, provided that a minority of the directors, in the absence of a quorum, may adjourn from day to day but may transact no business.

(c) With the exception of the first Board of Directors, which shall be elected by the incorporators, and except as provided in Section 3.6, the directors shall be elected by a plurality vote of the votes cast and entitled to vote on the election of directors at any meeting for the election of directors at which a quorum is present.

Section 3.2 Exact Number of Directors.

The exact number of Directors of the Corporation shall be fixed from time to time, within the limits specified in this Article III, by resolution of the Board of Directors or otherwise pursuant to the provisions of Section 3.1.

Section 3.3 Director Nominating Procedure.

(a) In addition to any other applicable requirements, only persons who are nominated in accordance with the following procedures shall be eligible for election as directors. Nominations of persons for election to the Board of Directors of the Corporation may be made at a meeting of stockholders (i) pursuant to the Corporation's notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (ii) by or at the direction of the Board of Directors, or by any nominating committee or person appointed by the Board of Directors or (iii) by any stockholder of the Corporation who is a stockholder of record at the time of giving of notice provided for in this Section 3.3, who is entitled to vote for the election of directors at the meeting and who complies with the notice procedures set forth in this Section 3.3. The foregoing clause (iii) shall be the exclusive means for a stockholder to make nominations at a meeting of stockholders. A stockholder who complies with the notice procedures set forth in the Corporation's proxy statement in the absence of an applicable rule of the U.S. Securities and Exchange Commission requiring the Corporation to include a director nomination made by a stockholder in the Corporation's proxy statement.

Nominations by stockholders shall be made pursuant to timely notice in writing to the Secretary of the Corporation. To be timely as to an annual meeting, notice by the stockholder must be delivered to the Secretary at the Corporation's principal executive offices not later than one hundred and twenty (120) calendar days prior to the first anniversary of the date on which the Corporation first mailed, or made available, as applicable, its proxy materials (or, in the absence of proxy materials, its notice of meetings) for the previous year's annual meeting. However, if the Corporation did not hold an annual meeting the previous year, or if the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, then to be timely, notice by the stockholder must be delivered to the Secretary at the Corporation's principal executive offices not later than the close of business on the tenth (10th) day following the earlier of the day on which notice of the date of the meeting was mailed to stockholders or public disclosure of such date was made. To be timely as to a special meeting of stockholders at which directors are to be elected, a stockholder notice must

be received not later than the close of business on the tenth (10th) day following the earlier of the day on which notice of the date of the meeting was mailed to stockholders or public disclosure of such date was made. In no event shall any adjournment or postponement of a meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above. The stockholder's notice relating to director nomination(s) shall set forth (a) as to each person whom the stockholder proposes to nominate for election or re-election as a director, the information required by Section 2.10(b); (b) as to the stockholder giving the notice, (i) the name and address, as they appear on the Corporation's books, of such stockholder and (ii) the class and number of shares of the Corporation which are beneficially owned by such stockholder and also which are owned of record by such stockholder; and (c) as to the beneficial owner, if any, on whose behalf the nomination is made, (i) the name and address of such person and (ii) the class and number of shares of the Corporation which are beneficially owned by such person. At the request of the Board, any person nominated by the Board for election as a director shall furnish to the Secretary that information required to be set forth in the stockholder's notice of nomination which pertains to the nominee. The Corporation may require any proposed nominee to furnish such other information as may reasonably be required by the Corporation to determine the eligibility and/or qualifications of such proposed nominee to serve as a director of the Corporation. The stockholder giving such notice shall indemnify the Corporation in respect of any loss arising as a result of any false or misleading information or statement submitted by the nominating stockholder in connection with the nomination, as provided by Section 112(5) of the Delaware General Corporation Law. No person shall be eligible for election as a director of the Corporation unless nominated in accordance with the procedures set forth herein. These provisions shall not apply to nomination of any persons entitled to be separately elected by holders of preferred stock.

(b) Except for the filling of vacancies, as provided for in the Certificate of Incorporation and Section 3.6, no person shall be qualified to serve as a director of the Corporation unless nominated in accordance with the procedures set forth in this Bylaw. The Chairman of the Board of Directors or the individual designated as chairman of the meeting shall, if the facts warrant, determine, and declare to the meeting that a nomination was not made in accordance with the procedures prescribed by these Bylaws, and if the chairman should so determine, that the defective nomination shall be disregarded. Notwithstanding the foregoing provisions of this Bylaw, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this Bylaw.

Section 3.4 Qualification of Directors

The majority of directors of the Board of Directors shall not be officers or employees of the Corporation or any of its subsidiaries and shall not have held such positions at any time during the three years prior to election or selection to the Board of Directors. Whether an individual, who is an officer or employee of the Corporation or any of its subsidiaries, satisfies this qualification requirement will be determined at the time of his or her election or selection.

Section 3.5 Election and Term of Office.

The directors shall be elected at each annual meeting of stockholders, but if, for any cause, any such annual meeting is not held, or the directors are not elected thereat, the directors may be elected as soon as convenient at any special meeting of stockholders held for that purpose in the manner provided in these Bylaws. All directors shall hold office until the next annual meeting of stockholders and until their respective successors are elected and qualified. In no case will a decrease in the number of directors shorten the term of any incumbent director.

Section 3.6 Vacancies; Resignations and Removals.

(a) As provided in the Certificate of Incorporation, except as otherwise required by law and subject to the rights of the holders of any series of stock with respect to such series of stock, unless the Board of Directors otherwise determines, vacancies on the Board of Directors from newly created directorships resulting from any increase in the authorized number of directors or any vacancies on the Board of Directors resulting from the death, resignation, retirement, disqualification, removal from office or other cause shall be filled only by a majority vote of the directors then in office, though less than a quorum, or by a sole remaining director, and not by the stockholders. Each director so elected shall hold office until the unexpired portion of the term of the director whose place shall be vacant and until such director's successor shall have been duly elected and qualified following the election at the next annual meeting of the stockholders or at any special meeting of stockholders duly called for that purpose prior to such annual meeting.

(b) Any director may resign at any time by delivering a written resignation to the Secretary or by electronic transmission, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made it shall be deemed effective at the pleasure of the Board of Directors. When one or more of the directors shall resign from the Board of Directors,

effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective. Each director so appointed shall hold office during the unexpired portion of the term of office of the resigning director or directors whose place shall be vacated and until their successors shall have been duly elected and qualified.

Section 3.7 Annual and Regular Meetings.

(a) The annual meeting of the Board of Directors shall be held immediately after the annual stockholders' meeting and at the place where such meeting is held or at the place announced by the chairman at such meeting. No notice of an annual meeting of the Board of Directors shall be necessary, and such meeting shall be held for the purpose of electing officers and transacting such other business as may lawfully come before it.

(b) Regular meetings of the Board of Directors may be held at such time and at such place as the Board of Directors may from time to time fix by resolution.

Section 3.8 Special Meetings.

A special meeting of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chief Executive Officer or other officer acting for the Chief Executive Officer, or by the Chairman of the Board of Directors or, if there is no Chairman of the Board of Directors, by three directors. Any and all business may be transacted at a special meeting. Each call for a special meeting shall be in writing, signed by the person or persons making the same, addressed and delivered to the Secretary, and shall state the time and place of such meeting.

Section 3.9 Notice of Regular and Special Meetings of the Directors.

No notice shall be required to be given of any regular meeting of the Board of Directors, but each director shall take notice thereof. Notice of each special meeting of the Board of Directors shall be given to each of the directors by: (i) mailing to each of them a copy of such notice at least five days; or (ii) delivering personally or by telephone, including voice messaging system or other system or technology designed to record and communicate messages, telegraph, facsimile, electronic mail, or other electronic means such notice at least 48 hours, prior to the time affixed for such meeting to the address of such director as shown on the books of the Corporation. If such director's address does not appear on the books of the Corporation, then such notice shall be addressed to such director at the principal office of the Corporation.

Section 3.10 Waiver of Notice.

When all the directors of the Corporation are present at any meeting of the Board of Directors, however called or noticed, and sign a written consent thereto on the record of such meeting, or if the majority of the directors are present, and if those not present sign in writing a waiver of notice of such meeting, whether prior to or after the holding of such meeting, which waiver shall be filed with the Secretary of the Corporation, the transactions of such meeting are as valid as if had at a meeting regularly called and noticed.

Section 3.11 Action by Unanimous Consent of Directors.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or of such committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or electronic transmission or transmissions shall be filed with the corporate records or made a part of the minutes of the meeting of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 3.12 Telephonic Participation in Meetings.

Any member of the Board of Directors, or of any committee thereof, may participate in a meeting through use of conference telephone or similar communications equipment, so long as all members participating in such meeting can hear one another. Participation in a meeting pursuant to this Section 3.12 shall constitute presence in person at such meeting.

Section 3.13 Committees.

The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of

any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent permitted by law and to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it.

ARTICLE IV POWERS OF DIRECTORS

Section 4.1 The powers of the Corporation shall be exercised, its business conducted and its property controlled by or under the direction of the Board of Directors. The directors shall have power to, among other things:

(a) Call special meetings of the stockholders when they deem it necessary, and they shall call a meeting at any time upon the written request of stockholders holding one-third of all the voting shares;

(b) Appoint and remove at pleasure all officers and agents of the Corporation, prescribe their duties, fix their compensation, and require from them as necessary security for faithful service;

(c) Create and appoint committees, offices, officers, and agents of the Corporation, and to prescribe and from time to time change their duties and compensation, but no committee shall be created and no member appointed thereto except upon approval of a majority of the whole Board of Directors; and

(d) Conduct, manage, and control the affairs and business of the Corporation and to make rules and regulations not inconsistent with the laws of the State of Delaware, or the Bylaws of the Corporation, for the guidance of the officers and management of the affairs of the Corporation.

ARTICLE V DUTIES OF DIRECTORS

Section 5.1 It shall be the duty of the directors to:

(a) Cause to be kept a complete record of all their minutes and acts, and of the proceedings of the stockholders, and present a full statement at the regular annual meeting of the stockholders, showing in detail the assets and liabilities of the Corporation, and generally the condition of its affairs. A similar statement shall be presented at any other meeting of the stockholders when theretofore required by persons holding at least one-half of the voting shares of the Corporation;

(b) Declare dividends as appropriate and at their discretion;

(c) Oversee the actions of all officers and agents of the Corporation, see that their duties are properly performed; and

(d) Cause to be issued to the stockholders, in proportion to their several interests, certificates of stock.

ARTICLE VI OFFICERS

Section 6.1 The officers of the Corporation shall include a Chairman of the Board of Directors, a Chief Executive Officer, who may be designated Chairman of the Board of Directors, a President, a Secretary, a Treasurer, a Controller, and may include one or more Executive Vice Presidents, Senior Vice Presidents, Vice Presidents, Assistant Vice Presidents, Assistant Secretaries, Assistant Treasurers, and such other officers and agents with such powers and duties as the Board of Directors or the Chief Executive Officer shall deem necessary.

All such officers shall be elected by, and hold office at the pleasure of, the Board of Directors, provided that the Chief Executive Officer shall have authority to dismiss any other officer. Any director shall be eligible to be the Chairman of the Board of Directors and any two or more of such offices may be held by the same person, except that the Chief Executive Officer or President may not also hold the office of Secretary. Any officer may exercise any of the powers of any other officer in the manner specified in these Bylaws, as specified from time to time by the Board of Directors, and/or as specified from time to time by the Chief Executive Officer or senior officer acting in his or her absence or incapacity, and any such acting officer shall perform such duties as may be assigned to him or her.

ARTICLE VII FEES AND COMPENSATION

Section 7.1 Directors and members of committees, if any, shall be reimbursed for their expenses, and shall be compensated for their services as directors or committee members, as applicable, in such amounts as the Board of Directors may fix or determine by resolution. Nothing herein contained shall be construed to preclude any director or committee member from serving the Corporation in any other capacity as an officer, agent, employee, or otherwise, and receiving compensation therefor.

ARTICLE VIII INDEMNIFICATION

Section 8.1 Right to Indemnification.

Each person who was or is a party or is threatened to be made a party to or is involved (as a party, witness, or otherwise), in any threatened, pending, or completed action, suit, or proceeding, formal or informal, whether brought in the name of the Corporation or otherwise and whether of a civil, criminal, administrative, or investigative (hereinafter a "Proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director, officer, employee, or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee, or agent of another Corporation or of a partnership, joint venture, trust, or other enterprise, including service with respect to employee benefit plans, whether the basis of the Proceeding is alleged action or inaction in an official capacity as a director, officer, employee, or agent or in any other capacity while serving as a director, officer, employee, or agent (all such individuals being collectively referred to as an "Agent"), shall, subject to the terms of any agreement between the Corporation and such person, be indemnified and held harmless by the Corporation to the fullest extent authorized by the Delaware General Corporation Law, as the same exists or may hereafter be amended or interpreted (but, in the case of any such amendment or interpretation, only to the extent that such amendment or interpretation permits the Corporation to provide broader indemnification rights than were permitted prior thereto), against all charges, costs, expenses, liabilities, and losses (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties, and amounts paid or to be paid in settlement, and any interest, assessments, or other charges imposed thereon, and any federal, state, local, or foreign taxes imposed on any Agent as a result of the actual or deemed receipt of any payments under this Article VIII) reasonably incurred or suffered by such person in connection with investigating, defending, being a witness in, or participating in (including on appeal), or preparing for any of the foregoing in, any Proceeding (hereinafter "Expenses") and the such indemnification shall continue as to a person who has ceased to be an Agent and shall inure to the benefit of the heirs, executors, and administrators of such a person; provided, however, that the Corporation shall indemnify any Agent seeking indemnification in connection with a Proceeding (or part thereof) initiated by such person only if the Proceeding (or part thereof) was authorized by the Board of Directors.

Section 8.2 Authority to Advance Expenses.

Expenses incurred by an officer or director (acting in his or her capacity as such) in defending a Proceeding shall be paid by the Corporation in advance of the final disposition of such Proceeding, provided, however, that if required by the Delaware General Corporation Law, as amended, such Expenses shall be advanced only upon delivery to the Corporation of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by the Corporation as authorized in this Article VIII or otherwise. Expenses incurred by other Agents of the Corporation (or by the directors or officers not acting in their capacity as such, including service with respect to employee benefit plans) may be advanced upon such terms and conditions as the Board of Directors deems appropriate. Any obligation to reimburse the Corporation for Expense advances shall be unsecured and no interest shall be charged thereon.

Section 8.3 Right of Claimant to Bring Suit.

If a claim under Section 8.1 or 8.2 is not paid in full by the Corporation within thirty (30) days after a written claim has been received by the Corporation, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense (including attorneys' fees) of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending a Proceeding in advance of its final disposition where the required undertaking has been tendered to the Corporation) that the claimant has not met the standards of conduct that make it permissible under the Delaware General Corporation Law for the Corporation to indemnify the claimant for the amount claimed. The burden of proving such a defense shall be on the Corporation. Neither the failure of the Corporation (including its Board of Directors, independent legal counsel, or its stockholders)

to have made a determination prior to the commencement of such action that indemnification of the claimant is proper under the circumstances because he or she has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) that the claimant had not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct.

Section 8.4 Successful Defense.

Notwithstanding any other provision of this Article, to the extent that a director or officer has been successful on the merits or otherwise (including the dismissal of an action without prejudice or the settlement of a proceeding or action without admission of liability) in defense of any proceeding referred to in Section 8.1 or in defense of any claim, issue or matter therein, he or she shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred in connection therewith.

Section 8.5 Non-Exclusivity of Rights.

The rights conferred on any person by this Article VIII shall not be exclusive of any other rights that such person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, agreement, vote of stockholders or disinterested directors, or otherwise, both as to action in an official capacity and as to action in another capacity while holding such office. To the extent that any provision of the Certificate of Incorporation, agreement, or vote of the stockholders or disinterested directors is inconsistent with these Bylaws, the provision, agreement, or vote shall take precedence.

Section 8.6 Insurance.

The Corporation may purchase and maintain insurance, at its expense, to protect itself and any Agent or another Corporation, partnership, joint venture, trust or other enterprise against any Expense, whether or not the Corporation would have the power to indemnify such person or entity against such Expense under applicable law or the provisions of this Article VIII.

Section 8.7 Expenses as a Witness.

To the extent that any Agent of the Corporation is by reason of such position, or a position with another entity at the request of the Corporation, a witness in any action, suit, or proceeding, he or she shall be indemnified against all costs and expenses actually and reasonably incurred by him or her on his or her behalf in connection therewith.

Section 8.8 Indemnity Agreements.

The Corporation may enter into agreements with any Agent of the Corporation providing for indemnification to the fullest extent permissible under the Delaware General Corporation Law and the Corporation's Certificate of Incorporation.

Section 8.9 Enforcement of Rights.

Without the necessity of entering into an express contract, all rights provided under this Article VIII shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the Corporation and such Agent. Any rights granted by this Article VIII to an Agent shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction.

Section 8.10 Effect of Amendment.

Any amendment, repeal, or modification of this Article VIII that adversely affects any rights provided in this Article VIII to an Agent shall only be effective upon the prior written consent of such Agent.

Section 8.11 Subrogation.

In the event of payment under this Article VIII, the Corporation shall be subrogated to the extent of such payment to all of the rights of recovery of the Agent, who shall execute all papers required and shall do everything that may be necessary to secure such rights, including the execution of such documents necessary to enable the Corporation effectively to bring suit to enforce such rights.

Section 8.12 No Duplication of Payments.

The Corporation shall not be liable under this Article to make any payment in connection with any claim made against the Agent to the extent the Agent has otherwise actually received payment (under any insurance policy, agreement, vote, or otherwise) of the amounts otherwise indemnifiable hereunder.

Section 8.13 Saving Clause.

If this Article VIII or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each Agent to the fullest extent not prohibited by any applicable portion of this Article VIII that shall not have been invalidated, or by any other applicable law.

ARTICLE IX CHAIRMAN OF THE BOARD

<u>Section 9.1</u> If there shall be a Chairman of the Board of Directors, such Chairman shall, when present, preside at all meetings of the stockholders and the Board of Directors, and perform such other duties as the Bylaws or the Board of Directors shall designate from time to time.

ARTICLE X CHIEF EXECUTIVE OFFICER; OTHER EXECUTIVE OFFICERS

Section 10.1 The Board of Directors shall, at their first regular meeting, elect such officers as are required by Article VI and such additional officers authorized by Article VI as the Board of Directors, in its discretion, may choose to elect. If at any time the Chief Executive Officer shall be unable to act, the President (if there shall be one who is not also the Chief Executive Officer) shall act in the Chief Executive Officer's place and perform the Chief Executive Officer's duties; if the President or next most senior officer is unable to perform such duties, then the Vice Presidents, in such sequence as the Board of Directors may specify, shall act. If all the foregoing shall be unable to act, the senior officer among them shall appoint some other person in whom shall be vested, for the time being, all the duties and functions of Chief Executive Officer (or person acting as such) shall:

(a) Preside (if there shall be no Chairman of the Board of Directors or in such Chairman's absence) over all meetings of the stockholders and directors;

(b) Sign on behalf of the Corporation contracts and other instruments in writing within the scope of his or her authority or if, when, and as directed to do so by the Board of Directors, but nothing herein shall limit the power of the Board of Directors to authorize such contracts and other instruments in writing to be signed by any other officer or person or limit the power of the Chief Executive Officer to delegate his or her authority in any such matter to another officer or other officers of the Corporation. The Chief Executive Officer or any other officer specified by the Board of Directors may sign certificates of stock as provided in Article XIII;

(c) Delegate duties and responsibilities to any other officers and/or employees of the Corporation in any manner not prohibited by these Bylaws or by the Board of Directors, and change such duties and responsibilities so delegated from time to time at will;

(d) Call the directors together when he or she deems it necessary, and have, subject to the advice of the directors, direction of the affairs of the Corporation; and

(e) Generally discharge such other duties as may be required of the Chief Executive Officer by the Bylaws of the Corporation.

ARTICLE XI SECRETARY

Section 11.1 The Board of Directors shall elect a Secretary.

(a) It shall be the duty of the Secretary to attend all meetings of the stockholders and of the Board of Directors and any committee thereof, and to keep a record of proceedings of the Board of Directors and of the stockholders, and to keep the corporate seal of the Corporation. The Secretary shall be responsible for maintaining proper records showing the number of shares of stock of all classes and series issued and transferred by any stockholder, and the dates of such issuance and transfer;

(b) Whenever it is provided in these Bylaws that notice shall be given either of regular or special meetings of the stockholders, regular or special meetings of the directors, or otherwise, such notice shall be given by the Secretary or by the Chief Executive Officer or by any person designated by either of them, or by any authorized person who shall have signed the call for such meeting. Any notice which the Secretary may give or serve, or act required to be done by the Secretary, may with like effect be given or served or done by or under the direction of an Assistant Secretary;

(c) The Secretary shall discharge such other duties as pertain to his or her office or which may be prescribed by the Board of Directors from time to time.

(d) The President may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

ARTICLE XII TREASURER

Section 12.1

(a) The Treasurer shall keep or cause to be kept the books of account of the Corporation in a thorough and proper manner, and shall render statements of the financial affairs of the Corporation in such form and as often as required by the Board of Directors or the President.

(b) The Treasurer shall, subject to the order of the Board of Directors, receive and keep all funds and securities of the Corporation and pay any funds of the Corporation out only on checks or otherwise, as directed by the Board of Directors; provided, however, that the Board of Directors may provide for a depository of the funds of the Corporation, and may by resolution prescribe the manner in which said funds shall be drawn from said depository.

(c) The Treasurer shall perform all other duties commonly incident to his or her office and shall perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(d) The President may direct any Assistant Treasurer to assume and perform the duties of the Treasurer in the absence or disability of the Treasurer, and each Assistant Treasurer shall perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

ARTICLE XIII SHARES OF STOCK

Section 13.1 Form and Execution of Certificates.

The shares of the Corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Certificates for the shares of stock of the Corporation shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the Corporation shall be entitled to have a certificate signed by, or in the name of the Corporation by any two duly empowered officers designated from time to time by the Board of Directors, or, in the absence of such designation, by the Chairman of the Board of Directors (if there be such an officer appointed), or by the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by such holder in the Corporation. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he or she were such officer, transfer agent, or registrar at the date of issue. If the Corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock, provided that, except as otherwise provided in Section 202 of the Delaware General Corporation Law, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock, a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Section 13.2 Lost Certificates.

The Board of Directors may direct a new certificate or certificates (or uncertificated shares in lieu of a new certificate) to be issued in place of any certificate or certificates theretofore issued by the Corporation alleged to have been lost or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost or destroyed. When authorizing such issue of a new certificate or certificates (or uncertificated shares in lieu of a new

certificate), the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost or destroyed certificate or certificates, or such owner's legal representative, to indemnify the Corporation in such manner as it shall require and/or to give the Corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost or destroyed.

Section 13.3 Transfers.

Transfers of record of shares of stock of the Corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, who shall furnish proper evidence of authority to transfer, and in the case of stock represented by a certificate, upon the surrender of a certificate or certificates for a like number of shares, properly endorsed.

Section 13.4 Fixing Record Dates.

(a) In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than 60 nor less than 10 days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the date on which the meeting is held. A determination of stockholders of record entitled notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the Corporation may determine the stockholders entitled to consent to corporate action in writing or by electronic transmission without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than 10 days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. If no record date has been fixed by the Board of Directors, the record date for determining stockholders entitled to consent to corporate action in writing or by electronic transmission without a meeting, when no prior action by the Board of Directors is required by the Delaware General Corporation Law, shall be the first date on which a signed written consent or electronic transmission setting forth the action taken or proposed to be taken is delivered to the Corporation by delivery to its registered office in Delaware, its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded; provided that any such electronic transmission shall satisfy the requirements of Section 2.11(b) and, unless the Board of Directors otherwise provides by resolution, no such consent by electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the Corporation by delivery to its registered office in Delaware, its principal place of business or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a Corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing or by electronic transmission without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 13.5 Registered Stockholders.

The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE XIV OTHER SECURITIES OF THE CORPORATION

Section 14.1 The Board of Directors shall have power to incur indebtedness, and the terms and amount thereof shall be entered in the minutes. The Board of Directors shall have the power to secure said indebtedness, or any obligation or obligations of the Corporation, by pledge, mortgage, deed of trust, or other security given upon any property owned by it or in which it has any interest.

ARTICLE XV NOTICES

Section 15.1 Whenever, under any provisions of these Bylaws, notice is required to be given to any stockholder, the same shall be given either (1) in writing, timely and duly deposited in the United States Mail, postage prepaid, and addressed to the stockholder's last known post office address as shown by the stock record of the Corporation or its transfer agent, or (2) by a means of electronic transmission that satisfies the requirements of Section 2.4(d), and has been consented to by the stockholder to whom the notice is given. Any notice required to be given to any director may be given by either of the methods hereinabove stated, except that such notice other than one which is delivered personally, shall be sent to such address or (in the case of electronic communication) such e-mail address, facsimile telephone number or other form of electronic address as such director shall have filed in writing or by electronic communication with the Secretary of the Corporation, or, in the absence of such filing, to the last known post office address of such director. If no address of a stockholder or director be known, such notice may be sent to the principal executive office of the Corporation. An affidavit of mailing, executed by a duly authorized and competent employee of the Corporation or its transfer agent appointed with respect to the class of stock affected, specifying the name and address or the names and addresses of the stockholder or stockholders, director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall be conclusive evidence of the statements therein contained. All notices given by mail, as above provided, shall be deemed to have been given as at the time of mailing and all notices given by means of electronic transmission shall be deemed to have been given as at the sending time recorded by the electronic transmission equipment operator transmitting the same. It shall not be necessary that the same method of giving notice be employed in respect of all directors or stockholders, as applicable, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others. The period or limitation of time within which any stockholder may exercise any option or right, or enjoy any privilege or benefit, or be required to act, or within which any director may exercise any power or right, or enjoy any privilege, pursuant to any notice sent to such stockholder in the manner above provided, shall not be affected or extended in any manner by the failure of such a stockholder or such director to receive such notice. Whenever any notice is required to be given under the provisions of the statutes or of the Certificate of Incorporation, or of these Bylaws, a waiver thereof in writing signed by the person or persons entitled to said notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent thereto. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the Corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the Corporation is such as to require the filing of a certificate under any provision of the Delaware General Corporation Law, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

ARTICLE XVI REGISTRAR AND/OR TRANSFER AGENT

Section 16.1 The Board of Directors may designate and appoint one or more registrars and/or transfer agents for the registration of the stock of the Corporation, and make such rules and regulations for the registrations of stock at the office of such registrars and/or transfer agents as may to the Board of Directors seem desirable. The Corporation may act as its own transfer agent, at the direction of the Board of Directors. The Board of Directors may, in its discretion, fix a transfer fee for transfer of stock certificates.

ARTICLE XVII MISCELLANEOUS

Section 17.1 Meetings. Notice. When Conclusive.

An entry made in the minutes of the directors or stockholders, pursuant to resolution or recital, to the effect that the notice of such meeting required by these Bylaws to be given has been given, shall be conclusive upon the Corporation, its directors, stockholders, and all other persons that such notice has been duly given in proper form and substance to the proper persons and for the requisite length of time.

ARTICLE XVIII SEAL

Section 18.1 The corporate seal shall consist of a die bearing the name of the Corporation and the state and date of its Incorporation. The Board of Directors shall provide a suitable seal containing the name of the Corporation, the year of its creation, and other appropriate words, and may alter the same at pleasure. Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE XIX AMENDMENTS TO BYLAWS

Section 19.1 Power of Stockholders.

Except as otherwise provided in Section 8.9, these Bylaws may be repealed, altered or amended or new Bylaws adopted by written consent of stockholders in the manner authorized by Section 2.11, or at any meeting of the stockholders, either annual or special, by the affirmative vote of a majority of the stock entitled to vote at such meeting, unless a larger vote is required by these Bylaws or the Certificate of Incorporation.

Section 19.2 Power of Directors

Except as otherwise provided in Section 8.9, the Board of Directors shall also have the authority to repeal, alter or amend these Bylaws or adopt new Bylaws by unanimous written consent or at any annual, regular, or special meeting by the affirmative vote of a majority of the whole number of directors, subject to the power of the stockholders to change or repeal such Bylaws.

CERTIFICATE OF SECRETARY

The undersigned, Secretary of Southwest Gas Holdings, Inc., a Delaware corporation, hereby certifies that the foregoing is a full, true and correct copy of the Bylaws of said corporation, with all amendments to date of this Certificate.

WITNESS the signature of the undersigned this day of , 2019

Karen S. Haller Executive Vice President / Chief Legal and Administrative Officer and Corporate Secretary [THIS PAGE INTENTIONALLY LEFT BLANK]

CHAPTER 24 Cost of Capital

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA COST OF CAPITAL CHAPTER 24

Summary

Chapter 24 contains the financial supporting schedules for the computation of Southwest Gas Corporation's ("Southwest Gas" or the "Company") weighted average cost of capital at December 31, 2018, for the estimated year 2019, for the estimated average year 2020, and for the estimated average test year 2021. The weighted average cost of capital for each of those periods for Southwest Gas Corporation's Northern California jurisdiction is as follows:

Actual December 31, 2018	7.45%
Estimated December 31, 2019	7.46%
Estimated Average Year 2020	7.51%
Estimated Average Test Year 2021	7.76%

Methodology

Capital Structure – For the 2018 period, the capital structure displayed is the current actual capital structure of 50.50 percent long-term debt and 49.50 percent common equity. For the 2019 and 2020 periods, the forecasted capital structures displayed are 49.33 percent long-term debt, 50.67 percent common equity and 48.17 percent long-term debt, 51.83 percent common equity, respectively. For the test year 2021, Southwest Gas is proposing a capital structure of 47.0 percent long-term debt and 53.0 percent common equity.

Embedded Cost of Long-Term Debt – The embedded cost of long-term debt is calculated by computing the weighted cost of the individual debt instruments. The effective cost rates of debentures, notes, and medium-term notes are calculated through the use of the yield-to-maturity (YTM) or effective interest rate method. The Company's remaining notes, tax exempt and variable rate debt is computed by dividing total annual interest, fees and amortization expense by net average proceeds outstanding.

For the Northern California jurisdiction, test year 2021, the effective cost of the Big Bear, California, and the Clark County, Nevada IDRBs are excluded, as they are designated to finance gas distribution facilities in Big Bear, California and Clark County, Nevada, respectively.

For the estimated December 31, 2019, estimated average year of 2020, and the estimated average test year of 2021, the projected cost of new debt and variable rate debt was based on the IHS Markit July 2019 interest rate forecast.

The effective cost of long-term debt for the Company's Northern California jurisdiction is as follows:

Actual December 31, 2018	4.85%
Estimated December 31, 2019	4.75%
Average Estimated Year 2020	4.73%
Average Estimated Test Year 2021	4.67%

Estimated Cost of Common Equity – The Company is requesting a 10.50 percent return on common equity (ROE). Company witness, Robert B. Hevert, considered the results of several analytical approaches using a proxy group of six natural gas distribution companies in determining the Company's requested ROE. The approaches used to develop the ROE recommendation included, the Constant Growth form of the Discounted Cash Flow ("DCF") model, the traditional and "Empirical" forms of the Capital Asset Pricing Model ("CAPM"), and the Bond Yield Plus Risk Premium approach. In addition to the methodologies used, consideration was given to a range of factors, both quantitative and qualitative, in arriving at an ROE recommendation for Southwest Gas Corporation.

The Company's witness, Theodore K. Wood, presents the development of the overall weighted cost of capital, including the appropriate capital structure, and the embedded cost of long-term debt. The estimated cost of common equity is provided in the direct testimony of Company witness Robert B. Hevert.

CHAPTER 24A Cost of Debt/ Proposed Capital Structure

Company Witness: Theodore K. Wood

SOUTHWEST GAS CORPORATION **NORTHERN CALIFORNIA** CURRENT AND PROJECTED COST OF CAPITAL

Line No.	Description (a)	Capital <u>Structure[1]</u> (b)	Capital Cost (c)	Weighted Cost of Capital (d)	Line No.
1 2 3 4	<u>December 31, 2018</u> Long-Term Debt Common Equity Total	50.50% 49.50% 100.00%	4.85% [2] 10.10% [3]_ =	2.45% 5.00% 7.45%	1 2 4 5
5 6 7 8	<u>December 31, 2019</u> Long-Term Debt Common Equity Total	49.33% 50.67% 100.00%	4.75% [4] 10.10% [3]_ =	2.34% 5.12% 7.46%	6 7 9 10
9 10 11 12	<u>2020 Average Year</u> Long-Term Debt Common Equity Total	48.17% 51.83% 100.00%	4.73% [5] 10.10% [3]_ =	2.28% 5.23% 7.51%	11 12 14 15
13 14 15 16	<u>2021 Average Test Year</u> Long-Term Debt Common Equity Total	47.00% 53.00% 100.00%	4.67% [6] 10.50% [7]_ =	2.19% 5.57% 7.76%	16 17 19 20

[1] Actual capital structure 2018, projected for 2019 and 2020, and proposed 2021 ratemaking capital structure. [2] Tab A, Schedule 2, Sheet 1 of 3, Line No. 17, Column (c).

[3] Return on common equity established in Decision No. 12-12-024

[4] Tab A, Schedule 3, Sheet 1 of 3, Line No. 18, Column (c).

[5] Tab A, Schedule 4, Sheet 1 of 3, Line No. 20, Column (c).

[6] Tab A, Schedule 5, Sheet 1 of 3, Line No. 20, Column (c).

[7] Tab B, return on common equity recommended by Company witness Robert B. Hevert.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA EMBEDDED COST OF LONG-TERM DEBT AT DECEMBER 31, 2018

Line No.	Description	1	let Capital[1]	Rate		Cost	Line No.
	(a)		(b)	(c)		(d)	
	Fixed Rate						
	Debentures						
1	4.45% Notes, Due 2020	\$	122,380,385	5.65%	\$	6,920,413	1
2	3.875% Notes, Due 2022		242,130,558	4.99%		12,089,373	2
3	8.0% Debenture, Due 2026		73,493,905	8.59%		6,310,407	3
4	3.70% Notes, Due 2028		296,867,439	3.83%		11,377,896	4
5	6.1% Notes, Due 2041		124,852,741	6.11%		7,628,240	5
6	4.875% Notes, Due 2043		247,449,809	4.95%		12,241,150	6
7	3.80% Notes, Due 2046		295,873,290	3.88%		11,484,044	7
8	Total Debentures	\$	1,403,048,127	4.85%	\$	68,051,522	8
	Medium Term Notes						
9	7.78% Series A, Due 2022		24,945,153	7.86%		1,961,011	9
10	7.92% Series A, Due 2027		24,875,377	8.00%		1,990,653	10
11	6.76% Series A, Due 2027		7,500,000	6.76%		507,000	11
12	Total Medium-Term Notes	\$	57,320,530	7.78%	\$	4,458,664	12
13	Unamortized Loss on Reacquired Debt	\$	(4,253,579)	-4.04%	\$	171,862	13
			· · · ·				
14	Total Fixed Rate Debt	\$	1,456,115,078	4.99%	\$	72,682,048	14
	Variable Rate						
15	Term Facility	\$	149,444,614	3.51%	\$	5,241,167	15
10	Territ i donity	Ψ	140,444,014	0.0170	Ψ	0,241,107	10
16	Total Variable Rate Debt	\$	149,444,614	3.51%	\$	5,241,167	16
17	Total Fixed and Variable Rate Debt	\$	1,605,559,692	4.85%	\$	77,923,215	17
	Southern California Tax Exempt						
18	1993 Big Bear IDRB, Series A	\$	49,573,692	2.76%	\$	1,366,374	18
	Clark County Tax Exempt						
10	Variable Rate	¢	40.004.040	2.000/	¢	1 450 240	10
19	2003 Clark County IDRB, Series A	\$	48,321,642	3.00%	\$	1,450,240	19
20	2008 Clark County IDRB, Series A		46,726,209	2.95%		1,380,726	20
21	2009 Clark County IDRB, Series A	_	49,451,552	2.63%	_	1,298,339	21
22	Total Clark County Variable Rate Debt	\$	144,499,403	2.86%	\$	4,129,304	22
	Clark County Tax Exempt						
23	1999 Clark County IDRB, Series A	\$	(372,810)	-5.02%	\$	18,718	23
23		ψ	· ,		Ψ		23
	1999 Clark County IDRB, Series C		(508,181)	-5.02%		25,515	
25	1999 Clark County IDRB, Series D		(294,143)	-5.02%		14,769	25
26	2003 Clark County IDRB, Series C		(943,576)	-5.22%		49,230	26
27	2003 Clark County IDRB, Series D		(1,126,363)	-5.22%		58,767	27
28	2003 Clark County IDRB, Series E		(148,779)	-5.22%		7,762	28
29	2004 Clark County IDRB, Series A		(929,264)	-6.45%		59,952	29
30	2004 Clark County IDRB, Series B		3,352,304	-6.70%		(224,736)	30
31	2005 Clark County IDRB, Series A		(999,085)	-5.97%		59,647	31
32	2006 Clark County IDRB, Series A		4,322,221	-5.66%		(244,654)	32
33	Total Clark County Tax Exempt	\$	2,352,324	-7.44%	\$	(175,029)	33
<i></i>							
34	Total Fixed and Variable Rate Debt	\$	196,425,420	2.71%	\$	5,320,649	34

[1] Tab A, Schedule 2, sheet 2 of 3, column (f).

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA LONG-TERM DEBT AT DECEMBER 31, 2018

		Gross Principal				ortized Balance acquired Debt)		N	et Proceeds	
ine No.	Description	at Dec. 31, 2018	D	ebt Expense	Rea	Expense		Discount		Dec. 31, 2018	Line N
	(a)	(b)		(c)		(d)		(e)		(f)	Line I
	Elizad Data										
	Fixed Rate Debentures										
1	4.45% Notes, Due 2020	\$ 125,000,000	\$	2,371,253	\$		\$	248,363	\$	122,380,385	1
			Ф		Ф	-	Þ		Þ		
2	3.875% Notes, Due 2022	250,000,000		7,217,108		-		652,333		242,130,558	2 3
3	8.0% Debenture, Due 2026	75,000,000		38,333		1,239,104		228,658		73,493,905	
4	3.70% Notes, Due 2028	300,000,000		784,477		-		2,348,084		296,867,439	4
5	6.1% Notes, Due 2041	125,000,000		147,259		-		-		124,852,741	5
6	4.875% Notes, Due 2043	250,000,000		376,887		-		2,173,304		247,449,809	6
7	3.80% Notes, Due 2046	300,000,000		742,902		-		3,383,808		295,873,290	7
8	Total Debentures	\$ 1,425,000,000	\$	11,678,219	\$	1,239,104	\$	9,034,550	\$	1,403,048,127	8
	Medium Term Notes										
9	7.78% Series A, Due 2022	\$ 25,000,000	\$	8,293	\$	-	\$	46,554	\$	24,945,153	9
10	7.92% Series A, Due 2027	25,000,000		24,449		-		100,174		24,875,377	10
11	6.76% Series A, Due 2027	7,500,000		-		-		-		7,500,000	11
12	Total Medium-Term Notes	\$ 57,500,000	\$	32,742	\$	-	\$	146,729	\$	57,320,530	12
13	Unamortized Loss on Reacquired Debt[1]	\$ -	\$	4,253,579	\$	-	\$	-	\$	(4,253,579)	13
14	Total Fixed Rate Debt	\$ 1,482,500,000	\$	15,964,540	\$	1,239,104	\$	9,181,279	\$	1,456,115,078	14
	Variable Rate	*		100 707					•		
15	Term Facility [2]	\$ 150,000,000	\$	132,727	\$	301,326	\$	121,333	\$	149,444,614	15
16	Total Variable Rate Debt	\$ 150,000,000	\$	132,727	\$	301,326	\$	121,333	\$	149,444,614	16
17	Total Fixed and Variable Rate Debt	\$ 1,632,500,000	\$	16,097,267	\$	1,540,430	\$	9,302,612	\$	1,605,559,692	17
40	Southern California Tax Exempt	* 50.000.000	<u>^</u>	070.000	<u>^</u>		<u> </u>	10.000	•	10 570 000	10
18	1993 Big Bear IDRB, Series A	\$ 50,000,000	\$	376,309	\$	-	\$	49,999	\$	49,573,692	18
	Clark County Tax Exempt										
	Variable Rate										
19	2003 Clark County IDRB, Series A	\$ 50,000,000	\$	344,963	\$	1,263,091	[:\$	70,304	\$	48,321,642	19
20	2008 Clark County IDRB, Series A	50,000,000		455,022		2,702,303	Ē	116,465		46,726,209	20
21	2009 Clark County IDRB, Series A	50,000,000		426,434		-		122,014		49,451,552	21
22	Total Variable Rate Debt	\$ 150,000,000	\$	1,226,420	\$	3,965,394	\$	308,784	\$	144,499,403	22
	Amortization of Loss (Gain) on Retireme	at of Debt									
23	1999 Clark County IDRB, Series A	\$ -	\$	_	\$	372,810	\$		\$	(372,810)	23
23	1999 Clark County IDRB, Series C	¥ -	Ψ	-	Ψ	508,181	Ψ	-	Ψ	(508,181)	23
25	1999 Clark County IDRB, Series D	-		-		294,143		-		(294,143)	24
26	2003 Clark County IDRB, Series C	-		-		943,576		-		(943,576)	20
20	2003 Clark County IDRB, Series D	-		-		1,126,363		-		,	20
27		-		-				-		(1,126,363)	
	2003 Clark County IDRB, Series E	-		-		148,779		-		(148,779)	28
29	2004 Clark County IDRB, Series A	-		-		929,264		-		(929,264)	29
30	2004 Clark County IDRB, Series B	-		-		(3,352,304)		-		3,352,304	30
31	2005 Clark County IDRB, Series A	-		-		999,085		-		(999,085)	31
32	2006 Clark County IDRB, Series A	-		-		(4,322,221)		-		4,322,221	32
33	Total Tax Exempt Clark County	\$-	\$	-	\$	(2,352,324)	\$	-	\$	2,352,324	33
34	Total Fixed and Variable Rate Debt	\$ 200,000,000	\$	1,602,728	\$	1,613,070	\$	358,783	\$	196,425,420	34

In March 2010, the Company redeemed the \$100 million, 7.70% Subordinated Debentures (Preferred Securities), due 9/15/2043, at par. The unamortized debt expenses were recorded as a reacquisition loss and are being amortized over the remaining life of the retired securities.
 Term Facility discount is from the commercial paper.

SOUTHWEST GAS CORPORATION COST OF DEBT ORIGINAL NET PROCEEDS OF ISSUES OUTSTANDING[1] AT DECEMBER 31, 2018

							Underwriter's Commission and Discounts	commission conts	Debt and Issuance Expense	ce Expense	Net Proceeds	st		
Line	Constitution	Origination	Maturity	Coupon	Officing	Gross	Amonto	Percent of Gross	Amount	Percent of Gross	Amount	Per \$100	Cost of	Line
NO.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	()	(m)	NO
.	Debentures 4.45% Notes. Due 2020	12/10/10	12/01/20	4.450%	\$ 125.000.000	\$ 125.000.000	\$ 1.040.000	0.83%	\$ 12.237.413	679%	\$ 111.722.587	89.38	5.87%	.
5	3.875% Notes, Due 2022	03/23/12	04/01/22	3.875%		. 0		0.68%	22,139,458	8.86%	226,150,542	90.46	5.10%	- 2
ю	8.0% Debenture, Due 2026	08/01/96	08/01/26	8.000%	75,000,000	75,000,000	894,750	1.19%	4,998,668	6.66%	69,106,582	92.14	9.13%	ю
4 4	3.70% Notes, Due 2028 6.1% Notes, Due 2028	03/15/18	04/01/28	3.700%	300,000,000	300,000,000	2,505,000	0.84%	836,902	0.28%	296,658,098	98.89 00.07	3.83%	4 4
n o	4.875% Notes, Due 2041	10/04/13	10/01/43	0.100%	250,000,000	250,000,000	2,382,500	0.95%	413,165	0.17%	247,204,335	99.88	4.95%	n o
7 8	3.80% Notes, Due 2046 Total Debentures	09/29/16	10/01/46	3.800%	300,000,000 1.425.000.000	300,000,000 1.425.000.000	3,531,000 12.063.250	1.18% 0.85%	775,217 41.568.181	0.26% 2.92%	295,693,783 1.371.368.569	98.56 96.24	3.88%	7 8
0	Medium Term Notes 7.78% MTN, Due 2022	02/03/97	02/03/22	7.780%	25,000,000	25,000,000	187,500	0.75%	33,400	0.13%	24,779,100	99.12	7.86%	6
1 1	7.92% MTN, Due 2027 6.76% MTN, Due 2027	06/04/97 09/23/97	06/04/27 09/24/27	7.920% 6.760%	25,000,000 7 500 000	25,000,000	187,500 46,875	0.75%	45,761 17 228	0.18%	24,766,739 7 435 807	99.07 99.15	8.00% 6.88%	10
12	Total Medium Term Notes	00100	111100		\$ 57,500,000	\$ 57,500,000	\$ 421,875	0.73%	\$ 96,389	0.17%	\$ 56,981,736	99.10	200	12
	Tav Evoluted Clark Contracts													
13	2003 Series A, Due 2038	03/25/03	03/01/38	Var	\$ 50,000,000	\$ 50,000,000	\$ 128,076	0.26%	\$ 2,820,818	5.64%	\$ 47,051,106	94.10	Var	13
12	2009 Series A, Due 2039	12/09/09	12/01/39	Var				0.35%		1.53%	ľ	90.10 98.12	Var Var	15 1
16	Total Tax Exempt Clark County			•	\$ 150,000,000	\$ 150,000,000	\$ 481,825	0.32%	\$ 8,359,402	5.57%	\$ 141,158,773	94.11		16
!	Tax Exempt Big Bear			:									:	!
17	1993 Series A, Due 2028	12/01/93	12/01/28	Var	\$ 50,000,000	\$ 50,000,000	\$ 175,000	0.35%	\$ 656,763	1.31%	\$ 49,168,237	98.34	Var	17
18	Term Facility [2]	03/15/12	03/28/22	Var	\$ 150,000,000	\$ 150,000,000	۰ ۍ	0.00%	\$ 552,300	0.37%	\$ 149,447,700	99.63	Var	18
19	Total Debt Capital			11	\$ 1,832,500,000	\$ 1,832,500,000	\$ 13,141,950	0.72%	\$ 51,233,036	2.80%	\$ 1,768,125,014	96.49		19
	 Based on Company records. A commercial paper program was initiated in October 2002 and is backed by \$50 million of the term fadility. 	ittiated in October	2002 and is bac	ked bv \$50 mi	lion of the term facili	2								

[2] A commercial paper program was initiated in October 2002 and is backed by \$50 million of the term facility.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA EMBEDDED COST OF LONG-TERM DEBT ESTIMATED DECEMBER 31, 2019

Line No.	Description		Net Capital[1]	Rate		Cost	Line No.
	(a)		(b)	(c)		(d)	
	Fired Date						
	Fixed Rate Debentures						
1	4.45% Notes, Due 2020	\$	100 740 005	5.60%	\$	6,931,656	1
		φ	123,742,005		φ		
2	3.875% Notes, Due 2022		244,538,250	4.95%		12,101,084	2
3	8.0% Debenture, Due 2026		73,690,352	8.56%		6,310,403	3
4	3.70% Notes, Due 2028		297,155,552	3.83%		11,388,938	4
5	6.1% Notes, Due 2041		124,856,030	6.11%		7,628,441	5
6	4.875% Notes, Due 2043		247,504,123	4.95%		12,243,837	6
7	3.80% Notes, Due 2046		295,958,149	3.88%		11,487,337	7
8	4.15% Notes, Due 2049		296,336,531	4.23%		12,522,975	8
9	Total Debentures	þ	1,703,780,992	4.73%	\$	80,614,671	9
	Medium Term Notes						
10	7.78% Series A, Due 2022		24,961,478	7.86%		1,962,294	10
11	7.92% Series A, Due 2027		24,886,243	8.00%		1,991,523	11
12	6.76% Series A, Due 2027		7,500,000	6.76%		507,000	12
13	Total Medium-Term Notes	\$	57,347,721	7.78%	\$	4,460,817	13
			· · ·				
14	Unamortized Loss on Reacquired Debt	\$	(4,081,717)	-4.21%	\$	171,862	14
15	Total Fixed Rate Debt	¢	1 757 046 006	4.85%	\$	95 247 240	15
15	Total Fixed Rate Debt	\$	1,757,046,996	4.03%	φ	85,247,349	15
	Variable Rate						
16	Term Facility	\$	149,698,780	3.58%	\$	5,354,762	16
			0,000,.00	0.0070		0,000.1,002	10
17	Total Variable Rate Debt	\$	149,698,780	3.58%	\$	5,354,762	17
18	Total Fixed and Variable Rate Debt	\$	1,906,745,776	4.75%	\$	90,602,111	18
	Southern California Tax Exempt						
19	1993 Big Bear IDRB, Series A	\$	49,654,658	2.51%	\$	1,248,233	19
	3 3 7	<u> </u>	- ,		<u> </u>	, _,	
	Clark County Tax Exempt						
00	Variable Rate	۴	40,450,700	0.00%	¢	4 000 000	00
20	2003 Clark County IDRB, Series A	\$	48,453,720	2.68%	\$	1,299,860	20
21	2008 Clark County IDRB, Series A		46,917,141	2.83%		1,326,942	21
22	2009 Clark County IDRB, Series A	¢	49,499,337	2.34%	¢	1,156,631	22
23	Total Clark County Variable Rate Debt	\$	144,870,197	2.61%	\$	3,783,433	23
	Clark County Tax Exempt						
24	1999 Clark County IDRB, Series A	\$	(354,091)	-5.02%	\$	17,779	24
25	1999 Clark County IDRB, Series C	Ψ	(482,666)	-5.02%	Ψ	24,234	25
26	1999 Clark County IDRB, Series D		(279,375)	-5.02%		14,027	26
27	2003 Clark County IDRB, Series C		(894,346)	-5.22%		46,662	27
28	2003 Clark County IDRB, Series D		(1,067,596)	-5.22%		55,701	28
20	2003 Clark County IDRB, Series D		(141,016)	-5.22%		7,357	20
30	2004 Clark County IDRB, Series A		(869,311)	-6.45%		56,085	30
31	2004 Clark County IDRB, Series B		3,127,569	-6.70%		(209,669)	31
32	2005 Clark County IDRB, Series A		(939,439)	-5.97%		56,086	32
33	2006 Clark County IDRB, Series A		4,077,567	-5.66%		(230,806)	33
33	Total Clark County Tax Exempt	\$	2,177,296	-7.47%	\$	(162,545)	33
	· · · · · · · · · · · · · · · · · · ·	<u> </u>	, ,== 3			(-,)	
35	Total Fixed and Variable Rate Debt	\$	196,702,151	2.48%	\$	4,869,121	35
					-		

[1] Tab A, Schedule 3, sheet 2 of 3, column (f).

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA LONG-TERM DEBT ESTIMATED DECEMBER 31, 2019

					Unam	nortized Balance	е				
		Gross Principal			Rea	acquired Debt				Net Proceeds	
Line No.	Description	at Dec. 31, 2019	D	ebt Expense		Expense		Discount	at	Dec. 31, 2019	Line No.
	(a)	(b)		(c)		(d)		(e)		(f)	
	Fixed Rate										
	Debentures										
1	4.45% Notes, Due 2020	\$ 125,000,000	\$	1,135,846	\$	-	\$	122,149	\$	123,742,005	1
2	3.875% Notes, Due 2022	250,000,000		4,998,976		-		462,774		244,538,250	2
3	8.0% Debenture, Due 2026	75,000,000		33,333		1,077,482		198,833		73,690,352	3
4	3.70% Notes, Due 2028	300,000,000		712,326				2,132,122		297,155,552	4
5	6.1% Notes, Due 2020	125,000,000		143,970		-		-		124,856,030	5
6	4.875% Notes, Due 2043			368,860		-		- 2,127,016			6
7		250,000,000				-				247,504,123	
	3.80% Notes, Due 2046	300,000,000		727,625		-		3,314,226		295,958,149	7
8	4.15% Notes, Due 2049	300,000,000		912,889		-		2,750,580	_	296,336,531	8
9	Total Debentures	\$ 1,725,000,000	\$	9,033,826	\$	1,077,482	\$	11,107,700	\$	1,703,780,992	9
	Medium Term Notes										
10	7.78% Series A, Due 2022	\$ 25,000,000	\$	5,825	\$	-	\$	32,697	\$	24,961,478	10
11	7.92% Series A, Due 2027	25,000,000		22,317		-		91,440		24,886,243	11
12	6.76% Series A, Due 2027	7,500,000		-		-		_		7,500,000	12
13	Total Medium-Term Notes	\$ 57,500,000	\$	28,141	\$		\$	124,137	\$	57,347,721	13
		<u> </u>	<u> </u>	20,111	<u> </u>		<u> </u>	121,101	<u> </u>	01,011,121	10
14	Unamortized Loss on Reacquired Debt[1]	\$-	\$	4,081,717	\$	-	\$	-	\$	(4,081,717)	14
15	Total Fixed Rate Debt	\$ 1,782,500,000	\$	13,143,685	\$	1,077,482	\$	11,231,838	\$	1,757,046,996	15
	Variable Rate										
16	Term Facility	\$ 150,000,000	\$	92,609	\$	208,611	\$	-	\$	149,698,780	16
	2										
17	Total Variable Rate Debt	\$ 150,000,000	\$	92,609	\$	208,611	\$	-	\$	149,698,780	17
18	Total Fixed and Variable Rate Debt	\$ 1,932,500,000	\$	13,236,294	\$	1,286,092	\$	11,231,838	\$	1,906,745,776	18
	Southern California Tax Exempt										
19	1993 Big Bear IDRB, Series A	\$ 50,000,000	\$	300,343	\$	-	\$	44,999	\$	49,654,658	19
	Clark County Tax Exempt										
	Variable Rate										
20	2003 Clark County IDRB, Series A	\$ 50,000,000	\$	282.453	\$	1,197,190	[: \$	66,636	\$	48,453,720	20
21	2008 Clark County IDRB, Series A	50,000,000	+	411,157	+	2,561,314	Ē	110,389	*	46,917,141	21
22	2009 Clark County IDRB, Series A	50,000,000		384,483			L.	116,181		49,499,337	22
23	Total Variable Rate Debt	\$ 150,000,000	\$	1,078,093	\$	3,758,504	\$	293,206	\$	144,870,197	23
20		÷ 100,000,000	<u> </u>	1,010,000	<u> </u>	0,100,001	<u> </u>	200,200	Ť	111,010,101	20
	Amortization of Loss (Gain) on Retiremen										
24	1999 Clark County IDRB, Series A	\$ -	\$	-	\$	354,091	\$	-	\$	(354,091)	24
25	1999 Clark County IDRB, Series C	-		-		482,666		-		(482,666)	25
26	1999 Clark County IDRB, Series D	-		-		279,375		-		(279,375)	26
27	2003 Clark County IDRB, Series C	-		-		894,346		-		(894,346)	27
28	2003 Clark County IDRB, Series D	-		-		1,067,596		-		(1,067,596)	28
29	2003 Clark County IDRB, Series E	-		-		141,016		-		(141,016)	29
30	2004 Clark County IDRB, Series A	-		-		869.311		-		(869,311)	30
31	2004 Clark County IDRB, Series B	-		-		(3,127,569)		-		3,127,569	31
32	2005 Clark County IDRB, Series A	-				939,439				(939,439)	32
33	2006 Clark County IDRB, Series A	-		-		(4,077,567)		-		4,077,567	33
33	Total Tax Exempt Clark County	\$ -	\$	-	\$	(2,177,296)	\$	-	\$	2,177,296	33
		<u>.</u>									
35	Total Fixed and Variable Rate Debt	\$ 200,000,000	\$	1,378,436	\$	1,581,208	\$	338,205	\$	196,702,151	35

[1] In March 2010, the Company redeemed the \$100 million, 7.70% Subordinated Debentures (Preferred Securities), due 9/15/2043, at par. The unamortized debt expenses were recorded as a reacquistion loss (gain) and are being amortized over the remaining life of the retired securities. SOUTHWEST GAS CORPORATION COST OF DEBT ORIGINAL NET PROCEEDS OF ISSUES OUTSTANDING[1] AT DECEMBER 31, 2019

Amount freend (1) mount freend (1) mount freend (1) retrent 6 5 12.237,413 979% 5 111,722,587 90.38 6 2.2139,668 666% 66150,582 90.38 98.89 6 4,986,668 666% 66150,582 90.38 98.89 6 4,986,668 666% 66170,582 92.44 99.89 6 4,3165 0.17% 2245,693783 98.88 98.88 775,217 0.28% 296,568,098 98.88 77 99.90 96.68 775,217 0.23% 2477,91,00 99.12 7435,599 99.10 7435,599 99.10 7435,599 99.10 7435,599 99.10 7435,599 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10 7435,593 99.10								Underwriter's Commission and Discounts	commission ounts	Debt and Issuance Expense	ce Expense	Net Proceeds			
(a) (b) (c) (c) <th></th> <th>Description</th> <th>Origination Date</th> <th>Maturity Date</th> <th>Coupon Rate</th> <th>Offered</th> <th>Gross Proceeds</th> <th>Amount</th> <th>Percent of Gross Proceeds</th> <th>Amount</th> <th>Percent of Gross Proceeds</th> <th>Amount</th> <th>\$100 Unit</th> <th>Cost of Money</th> <th>Line. No.</th>		Description	Origination Date	Maturity Date	Coupon Rate	Offered	Gross Proceeds	Amount	Percent of Gross Proceeds	Amount	Percent of Gross Proceeds	Amount	\$100 Unit	Cost of Money	Line. No.
Due 2020 Low 2020 12/10/10 12/10 12/10/10		(a)	(q)	(c)	(p)	(e)	(t)	(B)	(µ)	(i)	(I)	(k)	()	(m)	
Mar 2012 0137/12 0401/22 375% 2500000 7500000 7500000 7500000 250105 2513466 666% 2616552 0146 Due 2026 0011/61 0401/25 3700% 3500000 2560000 256500 048% 688% 016552 29665696 686 666	ebenti .45%	<u>ires</u> Notes. Due 2020	12/10/10	12/01/20	4.450%	125.000.000			0.83%	\$ 12.237.413	9.79%	\$ 111.722.587	89.38	5.87%	.
Inc. Due 2026 09016 050010 05000000 0500000000000000000000000000000000000	875%	6 Notes, Due 2022	03/23/12	04/01/22	3.875%	250,000,000		-	0.68%	22,139,458	8.86%	226,150,542	90.46	5.10%	5
Dise 2028 03/15/11 0.40/15/3 3.7000 300000000 2.55000000 2.55000000 2.55000000 2.56000000 2.56000000 2.56000000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.56600000 2.57600000 2.5770000 2.5770000 2.5770000 2.5770000 2.5760000 2.5760000 2.5760000 2.5760000 2.5760000 2.5760000 2.5760000 2.5760000 2.5760000 2.5760000 2.57600000 2.57600000 2.	0% L	Debenture, Due 2026	08/01/96	08/01/26	8.000%	75,000,000	75,000,000	894,750	1.19%	4,998,668	6.66%	69,106,582	92.14	9.13%	ო
International 100/15/11 0.10/15/11 0.10/15/11 0.10/15/11 0.11/	%02	Notes, Due 2028	03/15/18	04/01/28	3.700%	300,000,000	300,000,000	2,505,000	0.84%	836,902	0.28%	296,658,098	98.89	3.83%	4
Uber 2043 1001413 1375% 550 000000 253 0000000 253 2500 005% 175 17 0.1% 247 24.335 986 86 Due 2049 0531119 601149 1,150% 200000000 2578 0000000 2578 000 039% 2277 00 2460 2475 11 0.1% 2473 01 031% 2473 01 0365 0365 0365 0367 031% 2475 10 031% 2475 10 0367 031% 2475 10 0367 0367 031% 2475 10 0317 0365 0301 0317 031% 2475 10 0317 2475 10 0317 0466 2456 173 0466 2456 173 0466 2475 10 0466 0417 1755 000000 25000000 25000000 2516 00 0536 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2476 170 2	1%	lotes, Due 2041	02/15/11	02/15/41	6.100%	125,000,000	125,000,000	0	0.00%	167,358	0.13%	124,832,642	99.87	6.11%	ß
Die 2046 09/29/15 100/146 3.800% 300000000 3.61100 1.18% 77.217 0.26% 2.65.683733 9.86 9.77 9.96 1.667.666.56 9.666 9.66 9.66 9.66 9.66 9.66 9.66 9.66 9.66 9.66 9.66 9.77 0.03% 2.65.660.000 3.66.06	.875%	6 Notes, Due 2043	10/04/13	10/01/43	4.875%	250,000,000	250,000,000	2,382,500	0.95%	413,165	0.17%	247,204,335	98.88	4.95%	9
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $.80%	Notes, Due 2046	09/29/16	10/01/46	3.800%	300,000,000	300,000,000	3,531,000	1.18%	775,217	0.26%	295,693,783	98.56	3.88%	7
as 1725,000,000	.15%	Notes, Due 2049	05/31/19	06/01/49	4.150%	300,000,000	300,000,000	2,778,000	0.93%	922,000	0.31%	296,300,000	98.77	4.23%	8
Indese but 2222 02/03/97 02/03/57 7/30% 25,000,000 25,000,000 187,500 0.75% 33,400 0.13% 24,779,100 99,12 Une 2022 06/04/97 06/04/27 7,300% 25,000,000 25,000,000 75,500 0.75% 45,761 0.13% 24,779,100 99,12 Une 2022 06/04/97 06/04/27 7,500,000 25,000,000 25,000,000 25,000,000 24,750 0.13% 24,761,100 99,17 Une 2023 09/23/97 09/23/138 Var 5,000,000 25,000,000 176,700 27,78 0,13% 24,761,100 99,17 Une 2038 09/24/07 09/24/07 09/24/07 06/37 0.307 5 17,228 0.11% 7,435,697 99,17 Une 2038 09/24/07 Var 5 50,000,000 5 17,520 0.13% 4,705,1106 94,10 10 Une 2038 09/24/07 Var 5 50,000,000 176,000 0.3% 4,716,022 94,10	otal D ₆	sbentures				1,725,000,000	1,725,000,000	14,841,250	0.86%	42,490,181	2.46%	1,667,668,569	96.68		6
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ledium	Term Notes													
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$.78%	MTN, Due 2022	02/03/97	02/03/22	7.780%	25,000,000	25,000,000	187,500	0.75%	33,400	0.13%	24,779,100	99.12	7.86%	10
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $.92%	MTN, Due 2027	06/04/97	06/04/27	7.920%	25,000,000	25,000,000	187,500	0.75%	45,761	0.18%	24,766,739	99.07	8.00%	11
im Notes 5 57,500,000 5 57,500,000 5 47,057 0.73% 5 96,389 0.17% 5 56,961,736 99,10 ark County 03/25/03 03/01/38 Var 50,000,000 5 128,076 0.28% 5,64% 5 47,051,106 94,10 . Due 2038 03/25/03 03/01/38 Var 50,000,000 5 176,000 0.35% 4770,822 95,4% 5 49,056,351 98,10 . Due 2038 03/01/38 Var 50,000,000 5 176,000 0.35% 766,649 1.53% 49,056,351 98,10 . Due 2039 12/01/39 Var 5 50,000,000 5 176,000 0.35% 766,649 5 49,056,351 98,12 . Due 2028 12/01/39 Var 5 50,000,000 5 176,000 0.35% 766,649 5 49,168,237 98,12 . Due 2028 12/01/39 Var 5 50,000,000 5 175,0	.76%	MTN, Due 2027	09/23/97	09/24/27	1				0.63%	17,228	0.23%		99.15	6.88%	12
International (number 2038) 03/25/03 03/21/08 03/01/38 03/01/38 Var Var 50,000,000 5 6,000,000 50,000,000 7 128,076 50,000,000 5 6,307 51,010 5 6,4% 51,5,000 7 47,051,106 51,5% 9 4,10 Libue 2038 03/21/08 03/01/38 Var 50,000,000 50,000,000 175,000 0.36% 4,770,822 9,54% 4,5050,429 90,10 Libue 2038 12/01/93 12/01/93 Var 50,000,000 5 150,000,000 5 175,000 0.35% 4,770,822 9,141,159,886 90,10 Libue 2038 12/01/93 12/01/93 12/01/93 12/01/93 5 50,000,000 5 175,000 0.35% 5 656,763 90,10 Due 2028 12/01/93 12/01/93 12/01/93 5 136,000,000 5 175,000 0.35% 5 656,763 90,10 Due 2028 12/01/93 12/01/93 12/01/93 12/01/93 5 141,159,886 91,11 Due 2028 12/01/93 12/01/93 12/01/93 5 10,000,000 5 175,000 0.35% 5 656,763 91,11 98,12 Due 2028	tal M.	edium Term Notes							0.73%		0.17%		99.10		13
ark County Due 2038 03/26/03 03/01/38 Var 5 0000000 5 0000000 1 28,076 0.26% 5 4,05 6 4,05 7 4,051,106 94,10 Due 2038 03/24/08 03/01/38 Var 50.000,000 50.000,000 178,749 0.36% 4,770,822 9 4,051,105 90,10 90,10 Due 2038 12/01/38 Var 50.000,000 5 150,000 0.36% 4,770,822 9 4,051,353 90,10 Due 2038 12/01/39 12/01/38 12/01/36 5 481,825 0.35% 7 66,643 1.53% 4 7,051,106 90,10 Due 2038 12/01/39 12/01/39 12/01/39 12/01/36 5 4,060,000 5 50,000,000 5 481,825 0.35% 4 7,051,106 94,11 Due 2028 12/01/39 12/01/39 12/01/39 12/01/36 5 6,66,729 0.35% 4 1,155,866 94,116 Due 2028 12/01/39 12/01/39 12/01/39 12/01/39 12/01/39 5 7/36 4 1,155,866 96,117 Due 2028 12/															
Uber 2038 03/25/03 03/01/38 Var \$ 50,000,000 50,000,000 78,076 0.28% 5,2820,818 54,4% \$ 47,051,106 94,10 Uber 2038 09/24/08 03/01/38 Var 50,000,000 50,000,000 178,076 0.36% 47,703.22 9.54% 47,055,116 94,10 Ube 2038 12/01/39 Var 50,000,000 50,000,000 175,000 0.36% 47,703.22 9.54% 47,055,116 94,10 Libe 2038 12/01/39 12/01/39 12/01/30 12/01/30 12/01/36 9.41,159,886 94,10 Libear 03/15/12 03/25/22 Var \$ 50,000,000 \$ 50,000,000 \$ 175,000 0.35% \$ 656,763 13,11,59,886 94,168,237 98,12 Libear 12/01/33 12/01/28 Var \$ 50,000,000 \$ 775,000 0.35% \$ 656,763 13,11,59,886 94,168,237 98,12 Job< 2028	x Exe	mpt Clark County													
. Due 2038 09/24/08 03/01/39 Var 50,000,000 50,000 0175,000 0.35% 76/649 153% 49,056,357 98,12 94.17 05 00 94.1 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	003 5	series A, Due 2038	03/25/03	03/01/38					0.26%		5.64%		94.10	Var	4 ;
, Due 2039 12/01/39 Var <u>50,000,000 \$ 50,000,000 \$ 175,000 0.33% 766,649 1557% 49,058,351 98,12</u> pt Clark County 12/01/93 12/01/28 Var \$ 50,000,000 \$ 175,000 0.35% \$ 656,763 1.31% \$ 49,168,237 98.34 , Due 2028 12/01/93 12/01/28 Var \$ 50,000,000 \$ 175,000 0.35% \$ 656,763 1.31% \$ 49,168,237 98.34 , Due 2028 12/01/93 2.132,500,000 \$ 150,000,000 \$ 175,000 0.35% \$ 552,300 0.37% \$ 199,47,700 99.63 , Ital 3 2.132,500,000 \$ 2.132,500,000 \$ 15,919,950 0.75% \$ 52,153,923 2.45% \$ 2,064,426,127 96.81	308	series A, Due 2038	09/24/08	03/01/38	Var	20,000,000	20,000,000	1/8,/49	0.36%	4,110,822	9.54%	45,050,429	90.10	Var	15
pt Clark County 3 12/01/93 12/01/28 Var \$ 50,000,000 5 15,000,000 5 481,825 0.32% 5 6.56,763 5 131% 5 141,159,866 04.11 . Due 2028 12/01/93 12/01/28 Var \$ 50,000,000 \$ 50,000,000 \$ 175,000 0.35% \$ 656,763 1.31% \$ 49,166,237 98.34 . Due 2028 23/15/12 03/25/22 Var \$ 150,000,000 \$ 150,000,000 \$ 175,000 0.35% \$ 552,300 0.37% \$ 149,447,700 99.63 Ital 2,132,500,000 \$ 2,132,500,000 \$ 15,919,950 0.75% \$ 52,153,923 245% \$ 2,064,426,127 96.81	3 600	series A, Due 2039	12/09/09	12/01/39					0.35%	•	1.53%		98.12	Var	16 i
LBear LBear L2/01/93 12/01/28 Var \$ 50,000,000 \$ 175,000 0.35% \$ 656,763 1.31% \$ 49,168,237 98.34 . Due 2028 12/01/93 12/01/28 Var \$ 50,000,000 \$ 150,000,000 \$ 150,000,000 \$ 150,000,000 \$ 552,300 0.37% \$ 149,447,700 99.63 tal \$ 2,132,500,000 \$ 2,132,500,000 \$ 2,132,500,000 \$ 15,919,950 0.75% \$ 52,153,923 2.45% \$ 2,064,426,127 96.81	131 I 5	ix Exempt Clark County							0.32%		%/0.0		94.11		/1
. Due 2028 12/01/93 12/01/28 Var \$ 50,000,000 \$ 50,000,000 \$ 175,000 0.35% \$ 656,763 1.31% \$ 49,168,237 98.34 03/15/12 03/25/22 Var \$ 150,000,000 \$ 150,000,000 \$ - 0.00% \$ 552,300 0.37% \$ 149,447,700 99.63 ital	ax Exe	mpt Big Bear													
03/15/12 03/25/22 Var \$ 150,000,000 \$ 150,000,000 \$ - 0.00% \$ 552,300 0.37% \$ 149,447,700 99.63	993 5	series A, Due 2028	12/01/93	12/01/28	<u> </u>				0.35%		1.31%		98.34	Var	18
\$ 2,132,500,000 \$ 2,132,500,000 \$ 15,919,950 0.75% \$ 52,153,923 2.45% \$ 2,064,426,127	rm F	acility[2]	03/15/12	03/25/22	-				0.00%		0.37%		99.63	Var	19
	tal D€	sbt Capital			\$		\$ 2,132,500,000	\$ 15,919,950	0.75%		2.45%	\$ 2,064,426,127	96.81		20

[2] A commercial paper program was initiated in October 2002 and is backed by \$50 million of the term facility.

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA EMBEDDED COST OF LONG-TERM DEBT AVERAGE ESTIMATED YEAR 2020

Line No.	Description	Avg	2020 Balance [1]	Rate		Cost (d)	Line No.
	(a)		(b)	(0)		(u)	
	Fixed Rate						
	Debentures						
1	4.45% Notes, Due 2020	\$	114,803,438	5.54%	\$	6,356,954	1
2	3.875% Notes, Due 2022		245,748,101	4.93%		12,107,203	2
3	8.0% Debenture, Due 2026		73,788,575	8.55%		6,310,399	3
4	3.70% Notes, Due 2028		297,305,186	3.83%		11,399,268	4
5	6.1% Notes, Due 2041		124,857,777	6.11%		7,628,493	5
6	4.875% Notes, Due 2043		247,532,640	4.95%		12,244,534	6
7	3.80% Notes, Due 2046		296,002,242	3.88%		11,488,185	7
8	4.15% Notes, Due 2049		296,368,839	4.23%		12,524,340	8
9	4.45% Notes, Due 2050		149,127,458	4.52%		6,743,063	9
10	4.60% Notes, Due 2050		24,714,954	4.67%		1,154,372	10
11	Total Debentures	\$	1,870,249,210	4.70%	\$	87,956,811	11
							
	Medium Term Notes						
12	7.78% Series A, Due 2022		24,970,295	7.86%		1,962,665	12
13	7.92% Series A, Due 2027		24,892,120	8.00%		1,991,370	13
14	6.76% Series A, Due 2027		7,500,000	6.76%		507,000	14
15	Total Medium-Term Notes	\$	57,362,415	7.78%	\$	4,461,035	15
	Amortization of Loss on Reacquired						
16	Debt	\$	(3,995,786)	-4.30%	\$	171,862	16
10	Debt	Ψ	(0,000,100)	-4.0070	Ψ	171,002	10
17	Total Fixed Rate Debt	\$	1,923,615,838	4.81%	\$	92,589,707	17
	Variable Rate						
18	Term Facility	\$	142,015,197	3.61%	\$	5,132,272	18
19	Total Variable Rate Debt	\$	142,015,197	3.61%	\$	5,132,272	19
20	Total Fixed and Variable Rate Debt	¢	2 065 621 025	1 720/	¢	07 721 070	20
20	Total Fixed and Variable Rate Debt	\$	2,065,631,035	4.73%	\$	97,721,979	20
	Southern California Tax Exempt						
21	1993 Big Bear IDRB, Series A	\$	49,695,141	2.64%	\$	1,313,322	21
	3 ,		- , ,		<u> </u>	//-	
	Clark County Tax Exempt						
	Variable Rate						
22	2003 Clark County IDRB, Series A	\$	48,519,760	2.69%	\$	1,306,235	22
23	2008 Clark County IDRB, Series A		47,012,606	2.86%		1,344,678	23
24	2009 Clark County IDRB, Series A		49,523,229	2.43%		1,201,531	24
25	Total Clark County Variable Rate Debt	\$	145,055,595	2.66%	\$	3,852,444	25
	Amortization of Loss (Gain) on Reage						
26	1999 Clark County, Series A	\$	(344,732)	-5.43%	\$	18,718	26
27	1999 Clark County, Series C		(1,038,213)	-2.46%		25,515	27
28	1999 Clark County, Series D		(271,990)	-5.43%		14,769	28
29	2003 Clark County, Series C		(869,731)	-5.66%		49,230	29
30	2003 Clark County, Series D		(1,038,213)	-5.66%		58,767	30
31	2003 Clark County, Series E		(137,135)	-5.66%		7,762	31
32	2004 Clark County, Series A		(839,335)	-7.14%		59,952	32
33	2004 Clark County, Series B		3,015,201	-7.45%		(224,736)	33
34	2005 Clark County, Series A		(909,615)	-6.56%		59,647	34
35	2006 Clark County, Series A		3,955,240	-6.19%		(244,654)	35
26	Total Amortization of Loss (Gain) on Retirement of Debt	ሱ	1 504 477	44 500/	¢	(175 000)	26
36		\$	1,521,477	-11.50%	\$	(175,029)	36
37	Total Fixed and Variable Rate Debt	\$	196,272,213	2.54%	\$	4,990,737	37
57		φ	100,272,213	2.04/0	ψ	7,000,101	51

[1] Net proceeds based off of the forecasted balances

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA LONG-TERM DEBT AT DECEMBER 31, 2019 AND 2020

ine No.	Description	Net Proceeds at Dec. 31, 2019 [1]	Retiremen and Redempt		Annual Amortization	Net New Financings	Net Proceeds at Dec. 31, 2020	Average Net Proceeds	Line No
	(a)	(b)	(c)		(d)	(e)	(f)	(g)	
	Fixed Rate								
	Debentures								
1	4.45% Notes, Due 2020[2]	\$ 123,742,005	\$ 125,000.	000 \$	1,257,995	\$.	· \$ -	\$ 114,803,438	1
2	3.875% Notes, Due 2022	244.538.250	¢ 120,000,	-	2,419,703	÷ .	246.957.952	245.748.101	2
3	8.0% Debenture, Due 2026	73,690,352		-	196,447		73,886,799	73,788,575	3
4	3.70% Notes, Due 2028	297,155,552		-	299,268		297,454,820	297,305,186	4
5	6.1% Notes, Due 2020	124,856,030		_	3,493		124,859,524	124,857,777	5
6	4.875% Notes, Due 2043	247,504,123		_	57,034		247,561,157	247,532,640	6
7	3.80% Notes, Due 2046	295,958,149		-	88,185		296,046,334	296,002,242	7
8	4.15% Notes, Due 2049	296,336,521			64,636		296,401,157	296,368,839	8
9	4.45% Notes, Due 2050	230,330,321		-	30,980		296,607,099	149,127,458	9
9 10	4.60% Notes, Due 2050	-		-	4.372		296,579,450	24.714.954	10
10	Total Debentures	\$ 1,703,780,982	\$ 125.000	.000 \$	4,422,113	\$			10
11	Total Depentures	\$ 1,703,780,982	\$ 125,000,	000 \$	4,422,113	\$	\$ 2,176,354,293	\$ 1,870,249,210	11
	Medium Term Notes								
12	7.78% Series A. Due 2022	\$ 24,961,478	\$	- \$	17.634	\$	\$ 24,979,112	\$ 24.970.295	12
13	7.92% Series A. Due 2027	24,886,243	Ŧ	- *	11,753	•	24,897,996	24,892,120	13
14	6.76% Series A, Due 2027	7.500.000		-	-		7.500.000	7,500,000	14
15	Total Medium-Term Notes	\$ 57,347,721	\$	- \$	29.387	\$,,	\$ 57,362,415	15
16	Unamortized (Loss) on Reacquired Debt	\$ (4,081,717)	\$	- \$	171,862	\$	\$ (3,909,855)	\$ (3,995,786)	16
17	Total Fixed Rate Debt	\$ 1,757,046,986	\$ 125,000,	000 \$	4,623,362	\$.	\$ 2,229,821,545	\$ 1,923,615,838	17
	Variable Rate								
18	Term Facility [3]	\$ 149,698,780	\$ 4,724	957 \$	142,209	\$.	\$ 144,831,614	\$ 142,015,197	18
19	Southern California Tax Exempt								19
20	1993 Big Bear IDRB, Series A	49,654,658			80,966		49,735,624	49,695,141	20
21	Total Variable Rate Debt	\$ 199,353,438	\$ 4,724	957 \$	223,175	\$	\$ 194,567,238	\$ 191,710,338	21
22	Total Fixed and Variable Rate Debt	\$ 1,956,400,424	\$ 129,724,	.957 \$	4,846,537	\$	\$ 2,424,388,784	\$ 2,115,326,177	22
	Clark County Tax Exempt								
	<u>Clark County Tax Exempt</u> <u>Variable Rate</u>								
23		\$ 48,453,720	\$	- \$	132,079	\$	\$ 48,585,799	\$ 48,519,760	23
23 24	Variable Rate	\$ 48,453,720 46,917,141	\$	- \$	132,079 190,932	\$	48,585,799 47,108,072	\$ 48,519,760 47,012,606	23 24
24 25	Variable Rate 2003 Clark County IDRB, Series A	+,	\$	- \$ -		\$			24 25
24	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A	46,917,141	\$	- \$ - - - \$	190,932	\$ 	47,108,072	47,012,606	24
24 25 26	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o	46,917,141 49,499,337 \$ 144,870,197 n Retirement of Debt	\$	- - - \$	190,932 47,785 370,795	\$	47,108,072 49,547,121 145,240,992	47,012,606 49,523,229 \$ 145,055,595	24 25 26
24 25 26 27	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A	46,917,141 49,499,337 144,870,197 n Retirement of Debt \$ (354,091)	-	`	190,932 47,785 370,795 18,718	\$	47,108,072 49,547,121 145,240,992 (335,373)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732)	24 25 26 27
24 25 26 27 28	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C	A6,917,141 49,499,337 <u>\$ 144,870,197</u> n Retirement of Debt \$ (354,091) (482,666)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515	\$	47,108,072 49,547,121 145,240,992 (335,373) (457,150)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732) (469,908)	24 25 26 27 28
24 25 26 27 28 29	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series C 1999 Clark County, Series C 1999 Clark County, Series C	46,917,141 49,499,337 <u>144,870,197</u> n Retirement of Debt (354,091) (482,666) (279,375)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769	\$	47,108,072 49,547,121 145,240,992 (335,373) (457,150) (264,606)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732) (469,908) (271,990)	24 25 26 27 28 29
24 25 26 27 28 29 30	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series D 2003 Clark County, Series C	46,917,141 49,499,337 144,870,197 n Retirement of Debt (354,091) (482,666) (279,375) (894,346)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,606) (845,116)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732) (469,908) (271,990) (869,731)	24 25 26 27 28 29 30
24 25 26 27 28 29 30 31	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series D 2003 Clark County, Series C 2003 Clark County, Series D	46,917,141 49,499,337 <u>144,870,197</u> n Retirement of Debt \$ (354,091) (482,666) (279,375) (894,346) (1,067,596)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,606) (845,116) (1,008,829)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732) (469,908) (271,990) (869,731) (1,038,213)	24 25 26 27 28 29 30 31
24 25 26 27 28 29 30 31 32	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series D 2003 Clark County, Series D	46,917,141 49,499,337 <u>144,870,197</u> n <u>Retirement of Debt</u> (354,091) (482,666) (279,375) (894,346) (1,067,596) (141,016)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767 7,762	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,606) (845,116) (1,008,829) (133,254)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732) (469,908) (271,990) (869,731) (1,038,213) (137,135)	24 25 26 27 28 29 30 31 32
24 25 26 27 28 29 30 31 32 33	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series D 2003 Clark County, Series E 2003 Clark County, Series E 2003 Clark County, Series E 2004 Clark County, Series E	46,917,141 49,499,337 <u>144,870,197</u> n Retirement of Debt \$ (354,091) (482,666) (279,375) (894,346) (1,067,596)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,606) (845,116) (1,008,829)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732) (469,908) (271,990) (869,731) (1,038,213)	24 25 26 27 28 29 30 31 32 33
24 25 26 27 28 29 30 31 32 33 34	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series D 2003 Clark County, Series D	46,917,141 49,499,337 <u>144,870,197</u> n <u>Retirement of Debt</u> (354,091) (482,666) (279,375) (894,346) (1,067,596) (141,016)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767 7,762	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,606) (845,116) (1,008,829) (133,254)	47,012,606 49,523,229 \$ 145,055,595 \$ (344,732) (469,908) (271,990) (869,731) (1,038,213) (137,135)	24 25 26 27 28 29 30 31 32
24 25 26 27 28 29 30 31 32 33	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series D 2003 Clark County, Series E 2003 Clark County, Series E 2003 Clark County, Series E 2004 Clark County, Series E	46,917,141 49,499,337 144,870,197 n Retirement of Debt (354,091) (482,666) (279,375) (694,346) (1,067,596) (141,016) (869,311)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767 7,762 59,952	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (467,150) (264,606) (1,008,829) (133,254) (809,355)	47,012,609 49,523,229 \$ 145,055,595 (469,908) (271,990) (869,731) (1,038,213) (137,135) (839,335)	24 25 26 27 28 29 30 31 32 33
24 25 26 27 28 29 30 31 32 33 34	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series C 2003 Clark County, Series C 2003 Clark County, Series D 2003 Clark County, Series D 2003 Clark County, Series B 2004 Clark County, Series A 2004 Clark County, Series A 2004 Clark County, Series A 2005 Clark County, Series A 2004 Clark County, Series A 2005 Clark County, Series A 2005 Clark County, Series A 2006 Clark County, Series A	46,917,141 49,499,337 144,870,197 n Retirement of Debt \$ (354,091) (482,666) (279,375) (894,346) (107,596) (141,016) (869,311) 3,127,569	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767 7,762 59,952 (224,736)	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,606) (845,116) (1,008,829) (133,254) (809,359) 2,902,833	47,012,606 49,523,229 \$ 145,055,595 (469,908) (271,990) (869,731) (1,038,213) (137,135) (839,335) 3,015,201	24 25 26 27 28 29 30 31 32 33 34
24 25 26 27 28 29 30 31 32 33 34 35	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series C 1999 Clark County, Series D 2003 Clark County, Series D 2003 Clark County, Series B 2004 Clark County, Series A 2004 Clark County, Series B 2005 Clark County, Series B 2005 Clark County, Series A	46,917,141 49,499,337 144,870,197 n Retirement of Debt (354,091) (482,666) (279,375) (894,346) (1,067,596) (141,016) (869,311) 3,127,569 (939,439)	\$	- - - \$	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767 7,762 59,952 (224,736) 59,647	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,806) (845,116) (1,008,829) (845,116) (133,254) (803,359) (2902,833) (879,792) (879,792)	47,012,609 49,523,229 (40,523,25,595 (145,055,595 (271,990) (869,731) (1,038,213) (137,135) (839,335) 3,015,201 (909,615)	24 25 26 27 28 29 30 31 32 33 34 35
24 25 26 27 28 29 30 31 32 33 34 35 36	Variable Rate 2003 Clark County IDRB, Series A 2008 Clark County IDRB, Series A 2009 Clark County IDRB, Series A Total Variable Rate Debt Gain (Loss) on Unamortized Balances o 1999 Clark County, Series A 1999 Clark County, Series D 2003 Clark County, Series B 2004 Clark County, Series B 2004 Clark County, Series A 2004 Clark County, Series A 2005 Clark County, Series A 2006 Clark County, Series A 2006 Clark County, Series A 2005 Clark County, Series A 2006 Clark County, Series A	46,917,141 49,499,337 <u>\$ 144,870,197</u> n Retirement of Debt \$ (354,091) (482,666) (279,375) (894,346) (140,7596) (141,016) (869,311) 3,127,569 (939,439) 4,077,567	\$ \$	- \$ - \$ \$ 	190,932 47,785 370,795 18,718 25,515 14,769 49,230 58,767 7,762 59,952 (224,736) 59,647 (244,654)	\$	47,108,072 49,547,121 \$ 145,240,992 \$ (335,373) (457,150) (264,606) (845,116) (1008,829) (133,254) (809,359) 2.902,833 (879,792) 3,832,913	47,012,606 49,523,229 \$ 145,055,595 (469,908) (271,990) (869,731) (1,038,213) (137,135) (839,335) 3,015,201 (909,615) 3,955,240	24 25 26 27 28 29 30 31 32 33 34 35 36

Net Proceeds are based off of the forecasted balances.
 Senior notes matured on December 1, 2020.
 Annual Amortization includes a \$9,375 annual fee. Average balance is the sum of the monthly average balances.

SOUTHWEST GAS CORPORATION COST OF DEBT ORIGINAL NET PROCEEDS OF ISSUES OUTSTANDING[1] AT DECEMBER 31, 2020

Line No.	- N n 4 n o h a a Ç	1 1 2 7 1 1 1 2 1 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2	15 17 17 15	19	21 21	
Cost of Money (m)	5,10% 9,13% 8,111% 4,15% 4,52% 4,52%	7.86% 8.00% 6.88%	Var Var Var	Var	var	
ts Per \$100 Unit (I)	90.46 92.14 92.87 98.88 98.88 98.77 98.86 98.86 98.86 98.86 97.69	99.12 99.07 99.16 99.10	94.10 90.10 98.12 94.11	98.34	97.64	
Net Proceeds Amount (k)	226, 150,542 296,568,106,582 296,568,098 124,535,098 124,335 297,378 296,575,000 296,575,000 296,575,000 296,575,000 296,575,000 296,575,000	24,779,100 24,766,739 7,435,897 \$ 56,981,736	\$ 47,051,106 45,050,429 49,058,351 \$ 141,159,886		\$ 149,447,700 \$ 2,545,853,540	
e Expense Percent of Gross Proceeds []	8.86% 6.66% 0.28% 0.13% 0.13% 0.26% 0.31% 0.27% 0.27%	0.13% 0.18% 0.23% 0.17%	5.64% 9.54% 1.53% 5.57%	1.31%	0.37%	
Debt and Issuance Expense Percent of Gross Amount (I)	22,139,458 4,998,668 4,998,668 167,358 413,165 775,217 922,000 800,000 800,000 31,852,768	33,400 45,761 17,228 \$ 96,389	\$ 2,820,818 4,770,822 766,649 \$ 8,358,289		\$ 552,300 \$ 41,516,510	
mmission Ints Percent of Gross Proceeds (h)	0.68% 1.19% 0.84% 0.95% 1.18% 0.93% 0.88% 0.88% 0.88%	0.75% 0.75% 0.63% 0.73%	0.26% 0.36% 0.35% 0.32%	0.35%	0.00%	
Underwriter's Commission and Discounts Percent of Gross (9) (h)	1,710,000 844,750 2,505,000 2,382,500 3,531,000 2,573,000 2,625,000 2,625,000 2,625,000 2,625,000 2,625,000 2,625,000	187,500 187,500 46,875 \$421,875	\$ 128,076 178,749 175,000 \$ 481,825	175,	\$ \$ 20,129,950	
Gross Proceeds (f)	250,000,000 75,000,000 300,000,000 125,000,000 3260,000,000 300,000,000 300,000,000 300,000,0	25,000,000 25,000,000 7,500,000 \$ 57,500,000	\$ 50,000,000 50,000,000 50,000,000 \$ 150,000,000		 * 150,000 \$ 2,607,500,000 	
Offered (e)	256,000,000 75,000,000 3000,000 125,000,000 125,000,000 300,000,000 300,000,000 300,000,0	25,000,000 25,000,000 7,500,000 \$ 57,500,000	\$ 50,000,000 50,000,000 50,000,000 \$ 150,000,000 \$ 150,000,000		\$ 2,607,500,000	\$50 million of the term facility
Coupon Rate (d)	3.875% 3.700% 6.100% 6.100% 4.875% 3.800% 4.150% 4.150% 4.600%	7.780% 7.920% 6.760%	Var Var Var		<a>San San San San San San San San San San	ved by \$50 mill
Maturity Date (c)	04/01/22 08/01/26 04/01/28 02/15/41 10/01/43 10/01/46 06/01/49 06/01/50	02/03/22 06/04/27 09/24/27	03/01/38 03/01/38 12/01/39	12/01/28	77107100	r 2002 and is back
Origination Date (b)	03/23/12 08/01/96 08/01/96 03/15/14 02/15/14 02/15/14 00/15/14 05/31/19 05/31/19 05/31/19	02/03/97 06/04/97 09/23/97	03/25/03 09/24/08 12/09/09	12/01/93	Z1/G1/60	iated in Octobe
Description (a)	Debentures 3.875% Notes, Due 2022 8.0% Debenture, Due 2026 3.70% Notes, Due 2028 6.1% Notes, Due 2045 4.85% Notes, Due 2045 4.45% Notes, Due 2045 4.45% Notes, Due 2045 4.45% Notes, Due 2050 4.60% Notes, Due 2050 7010 Debentures	<u>Medium Term Notes</u> 7.78% MTN, Due 2022 7.92% MTN, Due 2027 6.79% MTN, Due 2027 6.79% MTN, Due 2027 Total Medium Term Notes	Tax Exempt Clark County 2003 Series A, Due 2038 2008 Series A, Due 2038 2009 Series A, Due 2039 7041 Tax Exempt Clark County	Tax Exempt Big Bear 1993 Series A, Due 2028	। erm racility [∠] Total Debt Capital	[1] Based on Company records. (2) A commercial paper program was initiated in October 2002 and is backed by
Line No.	- N 10 4 10 10 N 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 2 6 4	15 17 18	19	57 50	[]

CA TY 2021 GRC CHAPTER 24A SHEET 10 OF 13

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA EMBEDDED COST OF LONG-TERM DEBT AVERAGE ESTIMATED TEST YEAR 2021

Line No.	Description	Avg 2	2021 Balance [1]	Rate		Cost	Line No.
	(a)		(b)	(c)		(d)	
	Fixed Rate						
	Debentures	•	0.40.474.400	1.000/	•	10 110 005	
1	3.875% Notes, Due 2022	\$	248,174,120	4.88%	\$	12,119,835	1
2	8.0% Debenture, Due 2026		73,985,022	8.38%		6,196,447	2
3	3.70% Notes, Due 2028		297,610,248	3.83%		11,410,856	3
4	6.1% Notes, Due 2041		124,861,379	6.11%		7,628,710	4
5	4.875% Notes, Due 2043		247,591,103	4.95%		12,247,390	5
6	3.80% Notes, Due 2046		296,092,154	3.88%		11,491,641	6
7	4.15% Notes, Due 2049		296,434,854	4.23%		12,527,130	7
8	4.45% Notes, Due 2050		296,635,567	4.52%		13,406,937	8
9	4.60% Notes, Due 2050		296,606,570	4.67%		13,854,239	9
10	4.90% Notes, Due 2051		37,072,412	4.97%		1,843,826	10
11	Total Debentures	\$	2,215,063,429	4.64%	\$	102,727,010	11
							
	Medium Term Notes						
12	7.78% Series A, Due 2022		24,988,606	7.86%		1,964,104	12
13	7.92% Series A, Due 2027		24,904,353	8.00%		1,992,348	13
14	6.76% Series A, Due 2027		7,500,000	6.76%	_	507,000	14
15	Total Medium-Term Notes	\$	57,392,958	7.78%	\$	4,463,453	15
10	Amortization of Loss on Reacquired	•	(0.000.004)	4 400/	•	474 000	10
16	Debt	\$	(3,823,924)	-4.49%	\$	171,862	16
47	Tatal Final Data Data	¢	0.000.000.400	4 700/	۴	407 000 005	47
17	Total Fixed Rate Debt	\$	2,268,632,463	4.73%	\$	107,362,325	17
	Matchell Bart						
10	Variable Rate	•	444 000 475	0.040/	•	5 400 050	40
18	Term Facility	\$	141,292,475	3.61%	\$	5,102,858	18
40	Tatal Mariable Data Data	¢	444 000 475	0.040/	۴	E 400.0E0	10
19	Total Variable Rate Debt	\$	141,292,475	3.61%	\$	5,102,858	19
		•		4.070/	•		
20	Total Fixed and Variable Rate Debt	\$	2,409,924,938	4.67%	\$	112,465,183	20
	Southern California Tax Exempt	•	10 00 100	0 770/	•	4 0 7 0 4 7 0	
21	1993 Big Bear IDRB, Series A	\$	49,769,498	2.77%	\$	1,378,173	21
	Clark County Tax Exempt						
00	Variable Rate	•	10.015.011	0.00%	•	4 074 005	00
22	2003 Clark County IDRB, Series A	\$	48,645,341	2.82%	\$	1,371,205	22
23	2008 Clark County IDRB, Series A		47,200,601	2.99%		1,409,560	23
24	2009 Clark County IDRB, Series A	-	49,567,910	2.56%	•	1,266,501	24
25	Total Clark County Variable Rate Debt	\$	145,413,852	2.78%	\$	4,047,266	25
	Amortization of Loss (Gain) on Reaqu			10/	•	10 - 10	
26	1999 Clark County, Series A	\$	(326,014)	-5.74%	\$	18,718	26
27	1999 Clark County, Series C		(444,393)	-5.74%		25,515	27
28	1999 Clark County, Series D		(257,222)	-5.74%		14,769	28
29	2003 Clark County, Series C		(820,501)	-6.00%		49,230	29
30	2003 Clark County, Series D		(979,446)	-6.00%		58,767	30
31	2003 Clark County, Series E		(129,373)	-6.00%		7,762	31
32	2004 Clark County, Series A		(779,382)	-7.69%		59,952	32
33	2004 Clark County, Series B		2,790,466	-8.05%		(224,736)	33
34	2005 Clark County, Series A		(849,968)	-7.02%		59,647	34
35	2006 Clark County, Series A		3,710,586	-6.59%		(244,654)	35
~~	Total Amortization of Loss (Gain) on	•	4 04 4 770	o	¢	(475.000)	00
36	Retirement of Debt	\$	1,914,753	-9.14%	\$	(175,029)	36
		•	107 000 105	0.000	•		~=
37	Total Fixed and Variable Rate Debt	\$	197,098,103	2.66%	\$	5,250,411	37

[1] Net proceeds based off of the forecasted balances

SOUTHWEST GAS CORPORATION NORTHERN CALIFORNIA LONG-TERM DEBT AT DECEMBER 31, 2020 AND 2021

Line No.	Description	Net Proceeds at Dec. 31, 2020 [1]		tirements tedemptions	A	Annual mortization		Net New inancings		let Proceeds Dec. 31, 2021	N	Average et Proceeds	Line No.	
	(a)	(b)		(c)		(d)		(e)		(f)		(g)		
	Fixed Rate													
	Debentures													
1	3.875% Notes, Due 2022	\$ 246,957,952	\$	-	\$	2.432.335	\$		\$	249.390.287	\$	248.174.120	1	
2	8.0% Debenture, Due 2026	73.886.799	Ψ	_	Ψ	196.447	Ψ	_	Ψ	74,083,246	Ψ	73.985.022	2	
3	3.70% Notes, Due 2028	297,454,820		-		310,856		-		297,765,676		297,610,248	3	
4	6.1% Notes, Due 2020	124,859,524				3,710				124,863,233		124,861,379	4	
5	4.875% Notes, Due 2043	247,561,157		-		59,890		-		247,621,048		247,591,103	5	
6	3.80% Notes, Due 2046	296.046.334		-		91.641		-		296.137.975		296.092.154	6	
7	4.15% Notes, Due 2049	, ,		-		67,395		-		296,468,552		296,434,854	7	
8	4.15% Notes, Due 2049	296,401,157 296,607,099		-		56,937		-		296,664,036		296,635,567	8	
9				-				-					o 9	
9 10	4.60% Notes, Due 2050	296,579,450		-		54,239		-		296,633,689		296,606,570		
	4.90% Notes, Due 2051	-	-	-	_	6,326		-	-	296,579,217		37,072,412	10	
11	Total Debentures	\$ 2,176,354,293	\$		\$	3,279,775	\$	-	\$ 2	2,476,206,959	\$ 2	2,215,063,429	11	
	Medium Term Notes													
12	7.78% Series A. Due 2022	\$ 24,979,112	\$	-	\$	18.988	\$	-	\$	24.998.100	\$	24.988.606	12	
13	7.92% Series A, Due 2027	24,897,996		-		12,713		-		24,910,709		24,904,353	13	
14	6.76% Series A, Due 2027	7,500,000		-		_		-		7,500,000		7,500,000	14	
15	Total Medium-Term Notes	\$ 57,377,108	\$	-	\$	31,701	\$	-	\$	57,408,809	\$	57,392,958	15	
16	Unamortized (Loss) on Reacquired Debt	\$ (3,909,855)	\$	-	\$	171,862	\$	-	\$	(3,737,993)	\$	(3,823,924)	16	
17	Total Fixed Rate Debt	\$ 2,229,821,545	\$	-	\$	3,483,338	\$	-	\$ 2	2,529,877,775	\$ 2	2,268,632,463	17	
	Variable Rate													
18	Term Facility [2]	\$ 144,831,614	\$	-	\$	132,834	\$	5,265,668	\$	149,964,448	\$	141,292,475	18	
19	Southern California Tax Exempt												19	
20	1993 Big Bear IDRB, Series A	49,735,624		-		67,747		-		49,803,371		49,769,498	20	
21	Total Variable Rate Debt	\$ 194,567,238	\$		\$	200,580	\$	5,265,668	\$	199,767,819	\$	191,061,973	21	
22	Total Fixed and Variable Rate Debt	\$ 2,424,388,784	\$	-	\$	3,683,919	\$	5,265,668	\$ 2	2,729,645,594	\$ 2	2,459,694,436	22	
	Clark County Tax Exempt													
22	Variable Rate	¢ 40 E0E 700	¢		¢	110.005	¢		¢	40 704 004	¢	40 645 244	23	
23	2003 Clark County IDRB, Series A	\$ 48,585,799	\$	-	\$	119,085	\$	-	\$	48,704,884	\$	48,645,341		
24	2008 Clark County IDRB, Series A	47,108,072		-		185,058		-		47,293,130		47,200,601	24	
25 26	2009 Clark County IDRB, Series A Total Variable Rate Debt	49,547,121 \$ 145,240,992	-	-	•	41,578 345,720	\$	-	\$	49,588,699	-	49,567,910 145,413,852	25 26	
20	Total valiable Rate Debt	\$ 145,240,992	\$	<u> </u>	\$	345,720	¢	-	¢	145,560,712	\$	145,413,652	20	
	Gain (Loss) on Unamortized Balances of	n Retirement of Debt												
27	1999 Clark County, Series A	\$ (335,373)	\$	-	\$	18,718	\$	-	\$	(316,654)	\$	(326,014)	27	
28	1999 Clark County, Series C	(457,150)		-		25,515		-		(431,635)		(444,393)	28	
29	1999 Clark County, Series D	(264,606)		-		14,769		-		(249,837)		(257,222)	29	
30	2003 Clark County, Series C	(845,116)		-		49,230		-		(795,886)		(820,501)	30	
31	2003 Clark County, Series D	(1,008,829)		-		58,767		-		(950,063)		(979,446)	31	
32	2003 Clark County, Series E	(133,254)		-		7,762		-		(125,492)		(129,373)	32	
33	2004 Clark County, Series A	(809,359)		-		59,952		-		(749,406)		(779,382)	33	
34	2004 Clark County, Series B	2,902,833		-		(224,736)		-		2,678,098		2,790,466	34	
35	2005 Clark County, Series A	(879,792)		-		59,647		-		(820,145)		(849,968)	35	
36	2006 Clark County, Series A	3,832,913		-		(244,654)		-		3,588,259		3,710,586	36	
	Total Unamortizated Gain (Loss) on													
37	Retirement of Debt	\$ 2,002,267	\$	-	\$	(175,029)	\$	-	\$	1,827,239	\$	1,914,753	37	
38	Total Fixed and Variable Rate Debt	\$ 147,243,260	\$	-	\$	170,691	\$	-	\$	147,413,951	\$	147,328,605	38	

Net Proceeds are based off of the forecasted balances.
 Annual Amortization includes \$9,375 annual fee

SOUTHWEST GAS CORPORATION COST OF DEBT ORIGINAL NET PROCEEDS OF ISSUES OUTSTANDING[1] AT DECEMBER 31, 2021

	Line	No.		.	- ~	1 (*	04	5	9	7	ø	6	10	11		12	13	15	16	17	18	19		20	21	22	
	Cost of	Money	(m)	5 10%	9.13%	3.83%	6.11%	4.95%	3.88%	4.23%	4.52%	4.67%	4.97%			7.86%	8.00% 6.88%		Var	Var	Var			Var	Var		
s	Per \$100	Unit	()	90 46	92.14	08.80	99.87	98.88	98.56	98.77	98.86	98.86	98.86	97.83		99.12	99.07 99 15	99.10	94.10	90.10	98.12	94.11		98.34	99.63	97.76	
Net Proceeds		Amount	(k)	226 150 542	69 106 582	206,658,008	124,832,642	247,204,335	295,693,783	296,300,000	296,575,000	296,575,000	296,575,000	2,445,670,982		24,779,100	24,766,739 7 435 897	\$ 56,981,736	\$ 47 051 106	45,050,429	49,058,351	\$ 141,159,886		\$ 49,168,237	\$ 149,447,700	\$ 2,842,428,540	
e Expense	Percent of Gross	Proceeds	()	8,86%	666%	0.08%	0.13%	0.17%	0.26%	0.31%	0.27%	0.27%	0.27%	1.31%		0.13%	0.18%	0.17%	564%	9.54%	1.53%	5.57%		1.31%	0.37%	1.46%	
Debt and Issuance Expense		Amount	(i)	22 139 458	4 998 668	836 902	167.358	413,165	775,217	922,000	800,000	800,000	800,000	32,652,768		33,400	45,761 17 228	\$ 96,389	\$ 2 820 818		766,649	\$ 8,358,289		\$ 656,763	\$ 552,300	\$ 42,316,510	
mmission Ints	Percent of Gross	Proceeds	(4)	0.68%	1 19%	0.84%	%00.0 %00.0	0.95%	1.18%	0.93%	0.88%	0.88%	0.88%	0.87%		0.75%	0.75%	0.73%	0.26%	0.36%	0.35%	0.32%		0.35%	0.00%	0.78%	
Underwriter's Commission and Discounts		Amount	(6)	1 710 000	894 750	2 505,000	2,000,000	2,382,500	3,531,000	2,778,000	2,625,000	2,625,000	2,625,000	21,676,250		187,500	187,500 46 875	\$ 421,875	\$ 128 076		175,000	\$ 481,825		\$ 175,000	•	\$ 22,754,950	
	Gross	Proceeds	(t)	250 000 000	75,000,000	300,000,000	125,000,000	250,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	2,500,000,000		25,000,000	25,000,000 7 500 000	\$ 57,500,000	\$ 50 000 000		50,000,000	\$ 150,000,000		\$ 50,000,000	\$ 150,000,000	\$ 2,907,500,000	
		Offered	(e)	250 000 000	75,000,000	300,000,000	125,000,000	250,000,000	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000	2,500,000,000		25,000,000	25,000,000 7 500 000	6	\$ 50 000 000		50,000,000	\$ 150,000,000		\$ 50,000,000	\$ 150,000,000	2,907,500,000	\$50 million of the term facility
	Coupon	Rate	(p)	3 875%	8 000%	3 700%	6.100%	4.875%	3.800%	4.150%	4.450%	4.600%	4.900%			7.780%	7.920% 6.760%	¢	Var 9		Var	07		Var	Var 9	ы	
	Maturity	Date	(c)	04/01/22	08/01/26	04/01/28	02/15/41	10/01/43	10/01/46	06/01/49	06/01/50	12/01/50	12/01/51			02/03/22	06/04/27 09/24/27		03/01/38	03/01/38	12/01/39			12/01/28	03/25/22		- 2002 and is back
	Origination	Ďate	(q)	03/23/12	08/01/96	03/15/18	02/15/11	10/04/13	09/29/16	05/31/19	06/01/20	12/01/20	11/15/21			02/03/97	06/04/97 09/23/97		03/25/03	09/24/08	12/09/09			12/01/93	03/15/12		tiated in Octobe
		Description	(a)	Debentures 3 875% Notes Due 2022	8.0% Dehenture Due 2026	3 70% Notes Due 2028	6.1% Notes, Due 2041	4.875% Notes, Due 2043	3.80% Notes, Due 2046	4.15% Notes, Due 2049	4.45% Notes, Due 2050	4.60% Notes, Due 2050	4.90% Notes, Due 2051	Total Debentures	Medium Term Notes	7.78% MTN, Due 2022	7.92% MTN, Due 2027 6.76% MTN, Due 2027	Total Medium Term Notes	Tax Exempt Clark County	2008 Series A, Due 2038	2009 Series A, Due 2039	Total Tax Exempt Clark County	Tav Evemnt Rin Rear	1993 Series A, Due 2028	Term Facility [2]	Total Debt Capital	 Based on Company records. A commercial paper program was initiated in October 2002 and is backed by
	Line	No.			- 0	1 0	04	5	9	7	80	6	10	1		12	13	15	91	17	18	19		20	21	22	[1

CHAPTER 24B Cost of Equity

Company Witness: Robert B. Hevert

SOUTHWEST GAS CORPORATION SUMMARY OF COST OF COMMON EQUITY MODEL RESULTS

The Company is requesting a 10.50 percent return on common equity (ROE). Company witness, Robert B. Hevert, considered the results of four widely accepted analytical approaches using a proxy group of six natural gas distribution companies in determining the Company's requested ROE. The approaches used to develop the ROE recommendation included: (1) the Constant Growth form of the Discounted Cash Flow ("DCF") model; (2) the traditional and "Empirical" forms of the Capital Asset Pricing Model ("CAPM" & "ECAPM"): (3) the Bond Yield Plus Risk Premium approach; and (4) the Expected Earnings method. In addition to the methodologies used, consideration was given to a range of factors, both quantitative and qualitative, in arriving at an ROE recommendation for Southwest Gas Corporation.

	Median	Median High
30-Day Average	9.06%	11.32%
90-Day Average	9.10%	11.36%
180-Day Average	9.17%	11.44%

Summary of DCF Model Results

	Bloomberg Derived Market Risk Premium	Value Line Derived Market Risk Premium							
Average Bloomberg Beta Coefficient									
Current 30-Year Treasury (2.63%)	9.58%	9.53%							
Near Term Projected 30-Year Treasury (2.70%)	9.65%	9.60%							
Average Value Line Beta Coefficient									
Current 30-Year Treasury (2.63%)	10.90%	10.83%							
Near Term Projected 30-Year Treasury (2.70%)	10.97%	10.90%							

Summary of CAPM Results

SOUTHWEST GAS CORPORATION SUMMARY OF COST OF COMMON EQUITY MODEL RESULTS

Value Line Bloomberg Derived Derived Market Risk Market Risk Premium Premium Average Bloomberg Beta Coefficient Current 30-Year Treasury (2.63%) 10.91% 10.84% 10.98% Near Term Projected 30-Year Treasury (2.70%) 10.91% Average Value Line Beta Coefficient 11.89% 11.82% Current 30-Year Treasury (2.63%) Near Term Projected 30-Year Treasury (2.70%) 11.96% 11.89%

Summary of ECAPM Results

Summary of Bond Yield Plus Risk Premium Results

Treasury Yield	Return on Equity
Current 30-Year Treasury (2.63%)	9.87%
Near Term Projected 30-Year Treasury (2.70%)	9.87%
Long Term Projected 30-Year Treasury (3.70%)	10.01%

Summary of Expected Earnings Results

	Return on Equity
Mean	10.83%
Median	10.85%