



# SOUTHWEST GAS CORPORATION

June 1, 2023

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, AZ 85007-2996

**Re: NEW APPLICATION  
DOCKET NO.: G-01551A-23-XXXX**

Southwest Gas Corporation respectfully submits its Application of Southwest Gas Corporation for Approval of an Energy Efficiency Portfolio and Renewable Energy Resource Technology Portfolio Implementation Plan.

If you have any questions, please do not hesitate to contact me at 602-395-4047.

Respectfully submitted,

Kasey D. Bohannon  
Director/Regulation

C: Douglas R. Clark, Interim Utilities Division Director  
Cynthia Zwick, RUCO Director

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 **COMMISSIONERS**

3 JIM O'CONNOR – CHAIRMAN  
4 LEA MÁRQUEZ PETERSON  
5 ANNA TOVAR  
6 KEVIN THOMPSON  
7 NICK MYERS

8 In the Matter of the Application of Southwest  
9 Gas Corporation for Approval of an Energy  
10 Efficiency Portfolio and Renewable Energy  
11 Resource Technology Portfolio  
12 Implementation Plan.

Docket No.: G-01551A-23-\_\_\_\_\_

13 **APPLICATION FOR APPROVAL OF AN ENERGY EFFICIENCY AND RENEWABLE  
14 ENERGY RESOURCE TECHNOLOGY PORTFOLIO IMPLEMENTATION PLAN**

15 **INTRODUCTION**

16 1. Southwest Gas Corporation hereby submits its application to the Arizona Corporation  
17 Commission (“Commission”) requesting approval of its Arizona Energy Efficiency (“EE”) and  
18 Renewable Energy Resource Technology (“RET”) Portfolio Implementation Plan for Program  
19 Years 2024 and 2025 (“Proposed EE & RET Plan”). The Company’s Proposed EE & RET Plan  
20 was designed in accordance with the Gas Utility Energy Efficiency Standards (“Standards”) set  
21 forth in Sections R14-2-2501 through R14-2-2520 of the Arizona Administrative Code (“A.A.C.”)  
22 and is expected to produce long-term energy savings, financial savings for customers and  
23 positive environmental benefits.

24 2. Southwest Gas is a corporation in good standing under the laws of the state of Arizona,  
25 is a corporation duly organized, validly existing, and is qualified to transact intrastate business.

26 3. Southwest Gas’ corporate offices are located at 8360 S. Durango Drive, P.O. Box 98510  
27 Las Vegas, Nevada 89193-8510. Communications regarding this filing should be addressed  
28 to:

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7 With a copy to:  
8 [RegServe@swgas.com](mailto:RegServe@swgas.com)

9 4. Southwest Gas is a public utility subject to the jurisdiction of the Commission pursuant  
10 to Article XV of the Arizona Constitution and the applicable chapters of Title 40 of the Arizona  
11 Revised Statutes ("A.R.S."). Southwest Gas currently serves over 1.1 million customers in the  
12 state of Arizona, including portions of Cochise, Gila, Graham, Greenlee, La Paz, Maricopa,  
13 Mohave, Pima, Pinal, and Yuma counties. For operational purposes, Southwest Gas' Central  
14 Arizona division is headquartered in Phoenix and its Southern Arizona division is headquartered  
15 in Tucson.

#### 16 **PROPOSED EE & RET PLAN**

17 5. Pursuant to A.A.C. R14-2-2505(A), Southwest Gas is required to file a new EE & RET  
18 implementation plan by June 1 of every odd year. The Company filed an EE & RET  
19 implementation plan on June 1, 2021, this plan is pending review.

20 6. Pursuant to A.A.C. R14-2-2501 *et seq.*, Southwest Gas hereby requests approval of its  
21 Proposed EE & RET Plan, a copy of which is attached hereto as Exhibit A. The Company's  
22 Proposed EE & RET Plan consists of eight programs with an annual budget totaling \$7,340,000  
23 for Year 2024 and Year 2025 and is consistent with the plan filed in June 2021. The programs  
24 are designed to provide cost-effective natural gas savings, reduce greenhouse gas (GHG)  
25 emissions, and increase customer usage of energy efficiency practices and new technologies.

26 7. Southwest Gas' Proposed EE & RET Plan incorporates a cost-effectiveness analysis  
27 utilizing the Societal Cost Test, including quantified energy and water consumption savings, air  
28

1 emission reductions and monetized benefits for therm, electric, water, carbon dioxide and diesel  
2 fuel savings. The Company's Proposed EE & RET Plan is expected to achieve total annual  
3 energy savings of approximately 3,644,007 therms or therm equivalents in both 2024 and 2025,  
4 with a minimum of seventy-five percent (75%) attributable to DSM energy efficiency programs.  
5 In addition, for Years 2024 and 2025 combined, it is anticipated that Arizona customers will  
6 experience lifetime energy savings of approximately 177 million therms (including 36.5 million  
7 therm equivalents), as well as approximately 700 million gallons in water savings and 662,000  
8 metric tons in reduced carbon dioxide (CO<sub>2</sub>) emissions. The CO<sub>2</sub> reduction alone is the  
9 equivalent of approximately 147,500 passenger vehicles being removed from Arizona roads per  
10 year.

11 8. As further detailed in the Proposed EE & RET Plan, the Company seeks to add two new  
12 programs: *Smarter Greener Better* (SGB) Energy Education Program (pilot); and SGB  
13 Compressed Natural Gas (CNG) Vehicles Program (pilot).<sup>1</sup> Southwest Gas additionally  
14 proposes to modify and expand its existing SGB Commercial Rebates Program to include  
15 custom commercial and combined heat and power measures, among others, and to add a point-  
16 of-sale incentives option for qualified measures. Southwest Gas proposes to continue the  
17 following existing programs with modifications: SGB Residential Rebates Program, SGB Homes  
18 Program, and SGB Solar Thermal Rebates Program. Further, Southwest Gas proposes to  
19 continue offering weatherization and other energy conservation measures to income-qualified  
20 residential customers through the modified and re-named Low Income Weatherization Program,  
21 and to continue offering bill payment assistance to qualifying residential customers through the  
22 Low Income Bill Assistance Program.

23 9. In developing its Proposed EE & RET Plan, Southwest Gas reviewed EE & RET  
24 programs currently offered or under consideration by other utilities, as well as its existing  
25 portfolio of energy efficiency programs. Southwest Gas submits that the proposed budget

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26 <sup>1</sup> Southwest Gas requested approval for the SGB Energy Education Program (pilot) and the SGB CNG  
27 Vehicles Program (pilot) for Years 2022 and 2023 in Docket No. G-01551A-21-0186. That docket  
28 remains open and unadjudicated. Due to the pending nature of the Company's last application,  
Southwest Gas has not implemented either pilot program. As such, Southwest Gas is requesting  
approval again through this Application.

1 affords the Company a level of funding adequate to sustain the programs and allow the  
2 Company to achieve cost effective energy savings for its Arizona customers.

3 10. Southwest Gas' Proposed EE & RET Plan is designed to offer benefits to all classes of  
4 customers in the Company's Arizona rate jurisdiction that are subject to the Company's DSM  
5 rate adjuster. The Proposed EE & RET Plan is comprised of programs that afford Southwest  
6 Gas' customers, including its low-income customers, cost-effective opportunities, resources and  
7 education, all of which are designed to promote energy efficiency and conservation, and lower  
8 energy bills for customers. A list of the proposed programs and measures, including budget  
9 levels, is included in the Proposed EE & RET Plan. The Company seeks to implement the  
10 Proposed EE & RET Plan on January 1, 2024, or within 60 days of approval by the Commission  
11 if approval is received after the proposed implementation date.

12 11. The Company's Proposed EE & RET Plan also provides sufficient information to  
13 estimate the total cost and cost per therm reduction for each program and its respective  
14 measures which is required or for which a waiver is otherwise requested herein.

15 **PROPOSED PILOT PROGRAMS**

16 12. The Company is proposing two pilot programs, the SGB Energy Education Program  
17 (pilot) and the SGB CNG Vehicles Program (pilot). Specifically, A.A.C. R14-2-2505(B) and R14-  
18 2-2507(C) require as part of an implementation plan and a request for new program approval  
19 an estimate of each program's annual therm or therm equivalent savings, societal benefits and  
20 benefit-cost ratio.

21 13. As discussed in the Proposed EE & RET Plan, Southwest Gas is proposing a new SGB  
22 Energy Education Program pilot to provide low-cost measures to assist customers with energy  
23 conservation and changing their use behavior. Southwest Gas estimates the proposed services  
24 under the SGB Energy Education Program will save approximately 183,000 therms and 968  
25 metric tons of CO<sup>2</sup> annually. Southwest Gas proposes that during the pilot period, it will  
26 determine the appropriate methodology for quantifying energy savings and provide the savings,  
27 benefits and cost-effectiveness data in its periodic report filed with the Commission.

1 14. The proposed SGB CNG Vehicles Program pilot is designed to achieve cost-effective  
2 energy savings in the transportation sector by offering incentives to commercial customers for  
3 the purchase of CNG vehicles thereby reducing diesel fuel usage and lowering GHG emissions.  
4 As demonstrated in the Proposed EE & RET Plan, this program will result in reduced  
5 consumption of diesel fuel and have a significant positive benefit on Arizona's air quality through  
6 reduced CO2 emissions. When these savings are monetized and included in the SCT as  
7 proposed by Southwest Gas, the SGB CNG Vehicles Program has a cost-effectiveness ratio of  
8 6.86 which is one of the highest cost-effectiveness ratio of any of the Company's proposed  
9 programs. All energy savings, benefits and cost-effectiveness data on the SGB CNG Vehicle  
10 Program pilot will be provided to the Commission in the Company's periodic reports required by  
11 A.A.C. R14-2-2509.

#### 12 **DEMAND-SIDE MANAGEMENT RATE**

13 15. The Commission issued Decision No. 60352 approving a settlement in Southwest Gas'  
14 1996 general rate case, which included the establishment of a DSM adjustor mechanism.  
15 Pursuant to Decision No. 60352, Southwest Gas was directed to file a request each year to set  
16 the DSM rate to recover the projected costs of its Commission-approved DSM and conservation  
17 and energy-efficiency programs. Upon consultation and agreement with Staff, Southwest Gas  
18 filed its request to adjust the DSM surcharge each year by the end of January to enable Staff  
19 sufficient time to perform its analysis. The revised rate is to become effective April 1 of each  
20 year. In compliance with Decision No. 76069, the Company prepared a Plan of Administration  
21 ("POA") for the DSM adjustor, which POA was approved by the Commission on November 21,  
22 2018. The POA describes how the Company administers the DSM rate adjustment mechanism  
23 and the corresponding annual adjustment to the mechanism.

24 16. Decision No. 77892 retained the previously approved budget of \$5,495,000 and the  
25 DSM adjustor rate of \$0.00541 per therm and directed the Company not to file a request to  
26 adjust the DSM rate in January 2021 but instead to file its request as part of the EE & RET  
27 implementation plan application in 2021. Southwest Gas included that as part of the Company's  
28 filing in Docket No. G-01551A-21-0186. However, that docket remains open and unadjudicated.

1 Southwest Gas has continued to implement the Commission-approved Years Seven, Eight and  
2 Nine EE & RET Plan and the programs authorized thereunder with an overall budget of  
3 \$5,495,000.

4 17. As discussed in the Company's Proposed EE & RET Plan, Southwest Gas contemplates  
5 that the existing DSM rate of \$0.00541 per therm is adequate to fund the Company's currently  
6 approved EE & RET programs for the remainder of calendar year 2023. Accordingly, Southwest  
7 Gas requests authority to maintain the current DSM rate of \$0.00541 until modified by the  
8 Commission. Consistent with the POA, the Company plans to file an application to update the  
9 DSM rate in January 2024. Any under- or over-collections in the DSM rate adjustor balancing  
10 account would be reflected in the January 2024 filing, along with the Commission-approved  
11 budget for the Company's Years 2024 and 2025 EE & RET Plan, provided that a Commission  
12 decision on the instant application has been rendered prior to January 2024.

13 **WAIVER AND MODIFICATION OF STANDARDS**

14 18. Pursuant to A.A.C. R14-2-2520, Southwest Gas hereby requests, if needed to the extent  
15 that Southwest Gas' energy savings require, a waiver and modification of the Standards set  
16 forth in A.A.C. R14-2-2504 with respect to the Energy Efficiency Standard goals and the  
17 Company's Proposed EE & RET Plan. As noted in the Proposed EE & RET Plan, the Company  
18 was unable to meet the Energy Efficiency Standard goals in Program Year 10. In addition, the  
19 Company anticipates that projected energy savings for Years 2023, 2024 and 2025 will meet  
20 the cumulative Energy Efficiency Standard goal prescribed in A.A.C. R14-2-2504(B).  
21 Southwest Gas submits that the energy savings deficiency for prior Program Years, as well as  
22 any potential deficiency for Program Years 2024 and 2025 may be attributable to the elimination  
23 of a site-source multiplier in the conversion of energy savings to therm equivalents pursuant to  
24 Staff's recommendation, and the inability to expand program offerings for previous Program  
25 Years. Southwest Gas' proposed EE & RET Plan is designed to provide significant energy  
26 savings, water savings and environmental benefits, including reduced GHG emissions.

1 19. Southwest Gas therefore requests, if and to the extent required, a waiver and  
2 modification of the Standards set forth in A.A.C. R14-2-2504 applicable to the Energy Efficiency  
3 Standard goals and also for the Proposed EE & RET Plan. In accordance with A.A.C. R14-2-  
4 2509, the Company will continue to file progress reports with the Commission setting forth total  
5 realized energy savings for the current and future Program Years and analyzing progress  
6 toward meeting the effective Energy Efficiency Standard.

7 **CONCLUSION**

8 20. Based upon the foregoing, Southwest Gas respectfully requests that the Commission  
9 approve the Company's Proposed EE & RET Plan and retain the current DSM rate of \$0.0541  
10 per therm as set forth herein, as well as any other relief the Commission deems just and  
11 reasonable.

12 Respectfully submitted this 1st day of June 2023.

14 SOUTHWEST GAS CORPORATION

15 

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1 E-filed this 31<sup>st</sup> day of May, 2023 with:

2 Docket Control  
3 Arizona Corporation Commission  
4 1200 West Washington Street  
5 Phoenix, AZ 85007

6 Caused the foregoing to be served electronically on this 31<sup>st</sup> day of May 2023 to:

<p>7 Douglas R. Clark 8 Interim Director 9 Utilities Division 10 Arizona Corporation Commission 11 1200 West Washington Street 12 Phoenix, Arizona 85007</p> <p>13 DClark@azcc.gov</p> <p>14 <b>Consented to Service by Email</b></p>	<p>Robin Mitchell, Chief Counsel Legal Division Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007</p> <p>legaldiv@azcc.gov utildivservicebyemail@azcc.gov rmitchell@azcc.gov KUst@azcc.gov SEgan@azcc.gov</p> <p><b>Consented to Service by Email</b></p>
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23  
24  
25  
26  
27  
28

By:  \_\_\_\_\_

# **EXHIBIT A**

# Southwest Gas Corporation

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## Energy Efficiency and Renewable Energy Resource Technology Portfolio Implementation Plan

Program Years 2024 and 2025

June 1, 2023

Docket No. G-01551A-23-\_\_\_\_\_



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# ARIZONA ENERGY EFFICIENCY AND RENEWABLE ENERGY RESOURCE TECHNOLOGY PORTFOLIO IMPLEMENTATION PLAN OVERVIEW

## Introduction

Southwest Gas Corporation's (Southwest Gas or Company) Energy Efficiency (EE) and Renewable Energy Resource Technology (RET) Portfolio Implementation Plan (EE & RET Plan) for the 2024 and 2025 program years consists of eight programs designed to achieve cost-effective natural gas savings, reduce greenhouse gas (GHG) emissions, promote water conservation, and to increase customer education and use of energy efficient practices and new technologies. Consistent with the Gas Utility Energy Efficiency Standards set forth in R14-2-2501 et seq., the EE & RET Plan will serve to benefit Southwest Gas' residential, non-residential, and low-income customers in Arizona.

Southwest Gas' EE & RET Plan will achieve sustainable savings for customers by increasing overall energy and water resource efficiency, providing economic and environmental benefits to customers and the State. The EE & RET Plan is comprised of the following programs and targets the residential, non-residential, and low-income market sectors:

### Residential Energy Management Programs

1. *Smarter Greener Better*<sup>®</sup> (SGB) Residential Rebates Program
2. SGB Homes Program
3. SGB Energy Education Program (Pilot)

### Non-Residential Energy Management Programs

4. SGB Commercial Rebates Program
5. SGB Compressed Natural Gas (CNG) Vehicles Program (Pilot)

### Low Income Programs

6. Low Income Weatherization Program
7. Low Income Bill Assistance Program

### Renewable Energy Resource Technology Program

8. SGB Solar Thermal Rebates

The EE & RET Plan includes detailed program descriptions of the individual programs including program rationale and objectives, targeted market sector, level of customer participation, customer eligibility, measure specifications, proposed rebate levels, program budgets, energy savings, societal benefits, societal costs, net societal benefits, cost-effectiveness ratios, and environmental benefits.

The Company's EE & RET programs are designed to influence efficient energy decisions by residential, non-residential, and low-income customers, as well as Arizona homebuilders and vehicle fleet operators, through a combination of education and financial incentives. The EE & RET Plan is expected to produce long-term energy savings, monetary savings for customers, and positive environmental impacts. Energy savings attributable to the reduction of natural gas, electricity, diesel, and water usage also provides economic benefits to the State of Arizona as customers have additional discretionary income to spend on other goods and services.

The Company plans to implement its new EE & RET Plan for program year 2024 on January 1, 2024, or within 60 days of approval by the Arizona Corporation Commission (Commission). Congruent with R14-2-2505(E), Southwest Gas will continue to offer its currently effective EE & RET programs until the Commission approves this EE & RET Plan for program years 2024 and 2025.

For Program Years 2024 and 2025 combined, it is anticipated that Arizona customers will experience lifetime savings of approximately 177 million therms (including 36.5 million therm equivalents), or \$79.4 million on their gas bills (not including therm equivalent savings), approximately 704 million gallons of water and 662,772 metric tons of CO<sub>2</sub> emissions. The CO<sub>2</sub> reduction alone is the equivalent of approximately 147,500 passenger vehicles being removed from Arizona roads for one year.

## EE & RET Plan Savings and Cost-Effectiveness

In an effort to ensure customers receive the highest benefit possible from both energy and monetary savings, Southwest Gas worked with a third-party contractor to develop the EE & RET Plan, and thoroughly evaluate energy savings, incremental costs, and perform a cost-effectiveness analysis utilizing the Societal Cost Test (SCT). The SCT is a comparison of society's costs of energy efficiency to resource savings and non-cash costs and benefits. The Company utilized the following methodologies for its SCT:

- Benefits – Consistent with R14-2-2512(D), the Company quantified energy savings, water consumption savings, and air emission reductions, and included monetized benefits in its SCT for therm, electric, water, CO<sub>2</sub>, and diesel fuel savings.
- Benefits – Consistent with prior Commission directives, the Company excluded a site-source multiplier.
- Cost-Effectiveness – Applied a societal discount rate based on ten-year Treasury Notes, calculated based on the average of twelve months of historical yields for ten-year Treasury Notes, using the previous calendar year.
- Cost-Effectiveness – Allocated program costs at the program level in cases where measure-level allocation is not practicable.
- Cost-Effectiveness – Consistent with R14-2-2512(C), the Company evaluated the cost-effectiveness of each DSM program. The Company ensured that cost-effectiveness passed at the program level.
- Cost-Effectiveness – Continued current net-to-gross practice.

To capture all benefits of its proposed programs more accurately, Southwest Gas is including monetized benefits for natural gas, electric, water, CO<sub>2</sub>, and diesel fuel savings. This is an enhancement from its previous methodology of including a 0.10 adder to the SCT ratios at the program level and will better reflect the cost effectiveness of each program.

Table 1 details the lifetime benefits, lifetime costs, net benefits, and cost-effectiveness ratios. Southwest Gas identified therms, kilowatt hour (kWh), gallons of water, metric tons of CO<sub>2</sub>, and gallons of diesel, as applicable, saved per measure. The Company included the monetary value of these savings in determining cost-effectiveness.

**Table 1 – EE & RET Plan Annual and Lifetime Therm Savings; Societal Benefits; Societal Costs; Societal Net Benefits; and Cost-Effectiveness Ratios<sup>5</sup>**

Program	Annual Therm Savings [1]	Lifetime Therm Savings [1]	Societal Benefits [2]	Societal Costs	Societal Net Benefits [2]	Cost - Effectiveness Ratio
<b>Residential</b>						
SGB Residential Rebates	137,004	1,765,226	\$3,446,628	\$435,056	\$3,011,572	<b>7.92</b>
SGB Homes	2,419,454	72,583,623	\$37,683,510	\$26,789,380	\$10,894,130	<b>1.41</b>
SGB Energy Education	162,000	162,000	N/A	N/A	N/A	N/A [4]
<i>Total Residential</i>	<b>2,718,458</b>	<b>74,510,849</b>	<b>\$41,130,137</b>	<b>\$27,224,436</b>	<b>\$13,905,701</b>	<b>1.51</b>
<b>Non-Residential</b>						
SGB Commercial Rebates	385,337	5,953,483	\$4,951,786	\$1,875,608	\$3,076,177	<b>2.64</b>
SGB CNG Vehicles	519,607	7,794,101	N/A	N/A	N/A	N/A [4]
<i>Total Non-Residential</i>	<b>904,943</b>	<b>13,747,584</b>	<b>\$4,951,786</b>	<b>\$1,875,608</b>	<b>\$3,076,177</b>	<b>2.64</b>
<b>Low Income</b>						
Low Income Weatherization	16,489	329,787	\$408,121	\$422,000	-\$13,879	<b>0.97</b>
Low Income Bill Assistance	N/A	N/A	N/A	\$55,000	N/A	N/A
<i>Total Low Income</i>	<b>16,489</b>	<b>329,787</b>	<b>\$408,121</b>	<b>\$477,000</b>	<b>-\$13,879</b>	<b>0.86</b>
<b>Total Energy Efficiency Plan</b>	<b>3,639,891</b>	<b>88,588,220</b>	<b>\$46,490,044</b>	<b>\$29,577,044</b>	<b>\$16,968,000</b>	<b>1.57</b>
<b>Renewable Energy Resource Technology</b>						
SGB Solar Thermal Rebates	4,116	82,320	N/A	N/A	N/A	N/A [4]
<b>Total EE &amp; RET Plan</b>	<b>3,644,007</b>	<b>88,670,540</b>	<b>\$46,490,044</b>	<b>\$29,577,044</b>	<b>\$16,968,000</b>	<b>1.57</b>

<sup>1</sup> These values represent a combination of therms and therm equivalents from electric and diesel savings.

<sup>2</sup> Societal benefits are reflective of reduced natural gas, electricity, water, CO<sub>2</sub>, and diesel usage tied to the measure.

<sup>3</sup> There are no therm savings attributable to the Low Income Bill Assistance Program.

<sup>4</sup> Pursuant to the Gas Utility Energy Efficiency Standards, demonstration of cost-effectiveness is not required for pilot or RET programs.

<sup>5</sup> Totals, which are rounded to the nearest dollar, may not add due to rounding.

The EE & RET Plan is targeted to result in a total annual energy savings of 3,644,007 therms, including therm equivalents, for program years 2024 and 2025. Table 2 provides the Gas Utility Energy Efficiency Standard goals and actual savings for program years one through eleven. Southwest Gas anticipates meeting the program year ten goal of achieving cumulative annual energy savings of at least 6 percent of retail gas energy sales for the prior calendar year by the end of the EE & RET Plan's two-year cycle. Any potential deficiency in savings can be attributed to several factors, including the exclusion of a site-source multiplier in the conversion to therm equivalents and the fact that Southwest Gas has not expanded its program offerings or increased its budgets in several years. Both factors have contributed to reduced energy savings.

To increase participation and energy savings, the Company's EE & RET Plan proposes to: add a point-of-sale (POS) incentives option within the SGB Commercial Rebates Program, add a SGB Energy Education Program, and add new relevant measure offerings across multiple programs.

Significantly, Southwest Gas' 2024 and 2025 EE & RET Plan further provides significant decreases in air emissions including a total reduction of 35,358 metric tons of CO<sub>2</sub> emissions, the equivalent of removing 7,868 passenger vehicles off the road for one year as well as 69.5 million gallons in water savings during the current extreme drought conditions over the two-year Plan period.

Table 3 provides the Gas Utility Energy Efficiency Standard goals with a minimum of 75 percent attributable to DSM energy efficiency programs.

**Table 2 – Gas Utility Energy Efficiency Standards – Total Goal and Savings**

Program Year	Prior Year Sales (Therms)	Total Goal (%)	Total Goal (Therms) <sup>[1]</sup>	Total Annual Savings (Therms)	Cumulative Savings (Therms)
PY1	617,174,760	0.500%	3,085,874	3,146,127	3,146,127
PY2	634,605,252	1.200%	7,615,263	5,230,962	8,377,089
PY3	603,223,751	1.800%	10,858,028	4,036,023	12,413,112
PY4	643,952,120	2.400%	15,454,851	3,247,692	15,660,804
PY5	595,037,248	3.000%	17,851,117	1,688,857	17,349,661
PY6	621,916,496	3.600%	22,388,994		
PY7	630,802,470	4.200%	26,493,704	4,765,236	22,114,897
PY8	612,170,747	4.800%	29,384,196	2,584,335	24,699,232
PY9	631,814,933	5.400%	34,118,006	2,477,845	27,177,077
PY10	710,170,987	6.000%	42,610,259	2,305,316	29,482,393
2022				3,461,586	32,943,979
2023 <sup>[2]</sup>				3,643,542	36,587,521
2024 <sup>[2]</sup>				3,644,007	40,231,528
2025 <sup>[2]</sup>				3,644,007	43,875,535

<sup>1</sup> Although the goal in the Gas EE Standards is calculated through ten program years, Southwest Gas plans to continue reporting on Annual and Cumulative Savings unless otherwise directed by the Arizona Corporation Commission.

<sup>2</sup> Estimated savings per Southwest Gas EE & RET Plan applications. Actual Annual and Cumulative Savings will be reported in Southwest Gas' future annual progress reports.

**Table 3 – Gas Utility Energy Efficiency Standards – DSM Energy Efficiency Goal and Savings**

<b>Program Year</b>	<b>Prior Year Sales (Therms)</b>	<b>DSM EE Goal (%)<sup>[1]</sup></b>	<b>DSM EE Goal (Therms)<sup>[2]</sup></b>	<b>DSM EE Annual Savings (Therms)</b>	<b>DSM EE Cumulative Savings (Therms)</b>
PY1	617,174,760	0.375%	2,314,405	3,099,590	3,099,590
PY2	634,605,252	0.900%	5,711,447	5,208,528	8,308,118
PY3	603,223,751	1.350%	8,143,521	4,029,871	12,337,989
PY4	643,952,120	1.800%	11,591,138	3,246,014	15,584,003
PY5	595,037,248	2.250%	13,388,338	1,683,345	17,267,348
PY6	621,916,496	2.700%	16,791,745		
PY7	630,802,470	3.150%	19,870,278	4,764,774	22,032,122
PY8	612,170,747	3.600%	22,038,147	2,584,184	24,616,306
PY9	631,814,933	4.050%	25,588,505	2,477,585	27,093,891
PY10	710,170,987	4.500%	31,957,694	2,305,316	29,399,207
2022				3,461,586	32,860,793
2023 <sup>[3]</sup>				3,639,426	36,500,219
2024 <sup>[3]</sup>				3,639,891	40,140,110
2025 <sup>[3]</sup>				3,639,891	43,780,001

<sup>1</sup> A minimum of 75 percent of the Total Goal must come from DSM EE programs.

<sup>2</sup> Although the goal in the Gas EE Standards is calculated through ten program years, Southwest Gas plans to continue reporting on Annual and Cumulative Savings unless otherwise directed by the Arizona Corporation Commission.

<sup>3</sup> Estimated savings per Southwest Gas EE & RET Plan applications. Actual Annual and Cumulative Savings will be reported in Southwest Gas' future annual progress reports.

### **Program Baseline**

Southwest Gas' EE & RET Plan encourages energy efficiency improvements and GHG emissions reductions. The baseline system is the currently applicable code or federal minimum efficiency standards, if such standards apply. In cases where standards do not exist, the baseline is based upon standard industry practice.

Southwest Gas may adjust baseline energy consumption and costs to reflect any of the following: energy codes, standard practice, changes in capacity, equipment operation, changes in production or facility use, and equipment at the end of its useful life.

## **EE & RET Plan Annual Budget**

Consistent with the plan filed in 2021, Southwest Gas proposes a total annual budget of \$7,340,000 for program years 2024 and 2025. The proposed program budgets maximize the amount of funds going directly to customers through education and financial incentives. The budgets also take into account the realities of program start-up costs and the administrative oversight needed to plan, develop, deliver, and evaluate the programs.

The Company seeks to maintain flexibility to shift funding between programs and measures consistent with Commission approval granted in Decision No. 75592 to increase program participation and energy savings to customers. This flexibility enables Southwest Gas to maximize energy efficiency benefits for customers by permitting the Company to reallocate funding to those measures to which customers are most responsive. Actual measure costs and cost-effectiveness results will be tracked and provided with each program report.

The budgets for the EE & RET Plan apply to eight programs. Within each program description, Southwest Gas provides a budget apportioning the dollars between rebates and administration. Southwest Gas intends to utilize program funding where demand is highest and provides the apportioned program budgets only as an approximation.

**Table 4 – EE & RET Plan Annual Budget**

Program	Rebates	Administration	Program Total Cost
<b>Residential</b>			
<b>SGB Residential Rebates</b>	\$290,000	\$50,000	\$340,000
<b>SGB Homes</b>	\$2,315,000	\$230,000	\$2,545,000
<b>SGB Energy Education</b>	\$0	\$368,000	\$368,000
<b>Total Residential</b>	<b>\$2,605,000</b>	<b>\$648,000</b>	<b>\$3,253,000</b>
<b>Non-Residential</b>			
<b>SGB Commercial Rebates</b>	\$730,000	\$270,000	\$1,000,000
<b>SGB CNG Vehicles</b>	\$2,110,000	\$50,000	\$2,160,000
<b>Total Non-Residential</b>	<b>\$2,840,000</b>	<b>\$320,000</b>	<b>\$3,160,000</b>
<b>Low Income</b>			
<b>Low Income Weatherization</b>	\$328,000	\$122,000	\$450,000
<b>Low Income Bill Assistance</b>	\$185,000	\$55,000	\$240,000
<b>Total Low Income</b>	<b>\$513,000</b>	<b>\$177,000</b>	<b>\$690,000</b>
<b>Total Energy Efficiency Plan</b>	<b>\$5,958,000</b>	<b>\$1,145,000</b>	<b>\$7,103,000</b>
<b>Renewable Energy Resource Technology</b>			
<b>SGB Solar Thermal Rebates</b>	\$132,000	\$5,000	\$137,000
<b>General</b>	N/A	\$100,000.00	\$100,000
<b>Total EE &amp; RET Plan</b>	<b>\$6,090,000</b>	<b>\$1,250,000</b>	<b>\$7,340,000</b>

The budget categories are explained in detail below:

**Rebates:** Includes all incentives provided to customers in the form of rebates, measures, or assistance.

**Administration:** Includes internal administrative costs, including but not limited to: cost-effectiveness screening, program-related training, database software, program-related registration fees, membership dues, and shipping and postage; outreach and advertising costs related to: event sponsorships, program collateral (design, printing, and translations), trade ally membership dues, retail store signage, and trade ally recruitment; third-party rebate processing, forms design and creation, due-diligence program limitation reviews, pre-rebate payment field or phone inspections, and database software; post-installation evaluations, including but not limited to: cost-effectiveness reviews, on-site inspections, and installation documentation reviews. Such evaluations are not associated with normal due-diligence and program delivery, and instead serve as impact evaluations.

## Cost Recovery of EE & RET Plan

Pursuant to Sections R14-2-2505(B)(5) and R14-2-2506(C) of the Gas Utility Energy Efficiency Standards, Southwest Gas requests that the Commission allow the Company to continue to utilize its Demand-Side Management (DSM) rate adjuster to recover the costs associated with its EE & RET programs detailed in this EE & RET Plan. Under the DSM surcharge Plan of Administration, Southwest Gas files an application in January of each year with its program costs and other data supporting the calculation of its adjustment rate per therm, to become effective with the first billing cycle the following April. Southwest Gas intends to continue the current filing and adjustment process.

The Company believes that the currently approved DSM rate is sufficient to fund the Commission approved EE & RET programs for the remainder of 2023. Any under or over collections would be reflected in the next DSM rate adjustment filing. To that end, the Company plans to file an application to adjust its DSM rate to reflect the Commission-approved budget for this EE & RET Plan in January 2024.

Although the Company is not seeking to adjust its DSM surcharge rate as part of this Application, it provides for reference the following table illustrating the monthly residential customer bill impacts from the Company's proposed annual budget under this EE & RET Plan.

**Table 5 – Illustrative Cost Recovery of EE & RET Plan Costs**

<b>Program Costs</b>	\$7,340,000
<b>Applicable Volumes</b>	704,859,348
<b>Adjustment Rate</b>	\$0.01041 /therm <sup>1</sup>
<b>Avg. Monthly Bill Impact</b>	\$0.25

<sup>1</sup> For illustrative purposes only. Excludes the effect of over- or under-recoveries in Southwest Gas' existing DSM rate adjuster balancing account and does not reflect applicable volumes that will be used at the time the adjustment rate is calculated. Per Commission Decision No. 72723, the DSM surcharge rate applicable to Southwest Gas' low income customer rate schedules will not be increased above \$0.00200 per therm.

To be eligible for participation in any of Southwest Gas' EE & RET programs, customers must contribute towards the funding of these programs through the DSM rate adjuster, as well as have active Southwest Gas accounts and residences or facilities located within Southwest Gas' Arizona service territory.

## Marketing Strategies (Outreach)

To maximize program participation, Southwest Gas' outreach campaign will focus on increasing awareness and informing all customers about the benefits of energy-efficient equipment and products including reduced costs and preservation of critical energy sources needed for the continued safe delivery and use in homes and businesses. Key messages will continue to be designed to motivate customers to participate in the Company's energy efficiency programs, highlighting these benefits. Southwest Gas will take a targeted approach to informing

customers about its programs and optimizing various communication channels that provide the optimal value. The Company will target customers most likely to utilize and benefit from the proposed programs to make best use of resources. The Company will also leverage opportunities where messaging about these programs can be incorporated into existing initiatives and communications in Arizona. Southwest Gas will promote the benefits of energy-efficient equipment and the advantages of using incentives to offset the initial investment. The Company's multi-channel outreach strategy may include but is not limited to:

- Email communications to key customer segments.
- Online program information placed on Southwest Gas website(s).
- Digital outreach, such as search, display and retargeting ads.
- Targeted social media postings and outreach (organic and paid).
  - Organic posts on Company's social media platform's (Facebook, Twitter, Instagram).
  - Paid boosted posts on the same platforms.
- Notification of program information and availability in collateral and bill messages/inserts.
- Cross-marketing with other Southwest Gas energy efficiency programs and activities (e.g., special promotions, direct sales and virtual/in-person consumer trade shows).
- Targeted direct mail outreach based on select criteria for the specific market segments and measures.
- Placement of point-of-purchase information with applicable appliance and equipment dealers and contractors.
- Referrals and customer awareness assistance from various Southwest Gas departments such as Energy Solutions, Public Affairs, Diversity Equity and Inclusion, Customer Engagement and Customer Solutions staff.
- Targeted outreach to educate and build awareness to groups including trade allies and associations, engineers, contractors, energy service companies, government agencies and/or other pertinent agencies and organizations.

Outreach will include key messages effective for the appropriate target audience, dependent on the specific program. Such messages may include:

- Financial Savings: High-efficiency products are a great investment, lowering monthly utility bills and potentially adding value to a customer's residence or business.
- Conservation & Environmentally Friendly: Purchasing products that use less energy decreases the overall demand for energy and water resources, which reduces GHG emissions. Utilizing natural gas is clean, affordable, and reliable.
- Enhanced Performance: Products designed to be more energy-efficient frequently have more features, are of higher quality, and perform to overall higher standards by incorporating innovative technologies and designs.

- Enhanced Comfort: Enjoy a home with even temperatures throughout the year, warmer in winter and cooler in summer.
- Increased Awareness of Need for High-Efficiency Equipment/Appliances: Today's consumers have a greater knowledge and understanding of energy efficiency and are more likely to replace an older model with a new, more energy-efficient product realizing an immediate benefit through long-term savings. Additionally, most consumers place a higher value on energy efficiency as a feature in new appliances.
- Trade-Ally Partnership Benefits: By partnering with distributors/associations and/or contractors, we can benefit from outreach efforts, training opportunities, and technical assistance.
- Environmentally Friendly Business: By selling products and services that emphasize energy efficiency, trade-allies can become associated with the image of an environmentally friendly business within their industry.

Each program budget includes a category for outreach that will cover specific program collateral used to promote the program. Market transformation education and awareness outreach will incorporate all programs into the overall energy efficiency outreach strategies.

## **Delivery Strategies**

All pertinent program rebate information will be tracked in a program specific database. The database will provide a near real-time listing of current customer applications, customer information, equipment information, customer costs, savings, and rebates by measure. Program related information will be tracked and available for reporting, including the number of program participants and measure participation.

Due-diligence application review activities will include verification of the following items as applicable, depending on the program:

- Customer Data: name, site address, account number.
- Sales Data: price, quantity, purchase location, and date.
- Equipment Data: product name, installation date, capacity, efficiency rating, manufacturer, model number, serial number, and installation paperwork.
- Rebate Data: rebate amount, denial rates.
- Deemed energy savings per installed measure.
- Existing equipment inventory.
- HERS score for the SGB Homes Program.
- Trade ally information.
- Savings and cost estimates.

The verification process takes into consideration the need for random selection, the need to maintain a robust sample size, and the need to verify the compliance

of multiple equipment installers. Southwest Gas will evaluate the success of each measure annually and propose changes to the program as necessary.

## **Conclusion**

Southwest Gas believes its proposed EE & RET Plan is consistent with the Commission's rules and is in the public interest.

The estimated program results indicate cost-effectiveness and positive benefits for Southwest Gas' customers. The Company's SCT analysis also captures the benefit of societal savings, including impact on peak demand, reduced energy consumption, reduced water consumption, and reduced GHG emissions. The EE & RET Plan is designed to make a positive contribution in terms of promoting existing and new markets, saving energy resources, lowering customer utility bills, and improving air quality and water conservation.

Southwest Gas' EE & RET Plan can play a vital role as Arizona looks toward its energy and water future. In addition to customers potential energy and water savings through these programs, greater "source" energy savings opportunities exist if natural gas is being used to generate electricity. When direct use energy efficiency is considered, natural gas retains up to three times the amount of source energy when compared to the amount required to generate the electricity to operate electric end-use appliances.

Southwest Gas' experience shows it is critical in the long term that the Company be allowed to offer a robust portfolio of cost-effective EE & RET programs for its Arizona customers to realize the maximum benefit of achieving cost-effective energy and water savings, as well as reduced GHG emissions.

# **RESIDENTIAL ENERGY MANAGEMENT PROGRAMS: SGB RESIDENTIAL REBATES PROGRAM**

## **Program Description**

Southwest Gas proposes to continue the SGB Residential Rebates Program for residential customers in the Company's Arizona service territory. Rebates will be available to participating customers on qualified, energy-efficient program measures upon proof-of-purchase and installation. These measures include natural gas tankless water heaters, natural gas storage water heaters, smart thermostats, natural gas furnaces, clothes washers, natural gas clothes dryers, windows, and an energy savings kit inclusive of a showerhead, two bathroom aerators, and a kitchen aerator.

## **Program Objective**

The overall objective of this energy efficiency program is to provide cost-effective savings for customer natural gas usage by offering rebates to qualifying Southwest Gas residential customers and to help customers improve the comfort, energy efficiency, safety, and durability of their homes, while helping to preserve the environment.

## **Qualifying Customers**

All residential and multifamily customers located in the Company's Arizona service territory with an active Southwest Gas account are eligible to participate in the program.

In addition, new homebuilders constructing single family and multifamily homes and multifamily retrofit projects in Southwest Gas' Arizona service territory are eligible to participate in the SGB Residential Rebates Program. Homebuilders who qualify for a rebate under the SGB Homes Program are not eligible for rebates under the SGB Residential Rebates Program.

## **Qualifying Measures**

Qualifying measure specifications will be reviewed annually and adjusted, as necessary, to reflect changing national efficiency standards. All qualifying measures must be natural gas equipment or be supplied by a natural gas water or space heating unit.

Water heating is the third-largest home-energy cost, after space heating and cooling, and typically accounts for 14 to 20 percent of a residential customer's energy bill. Upgrading to high-efficient water heating and water saving measures creates the potential for significant energy savings. Rebates provided as part of the SGB Residential Rebates Program will help offset the incremental costs

incurred by upgrading to energy efficient measures. Qualifying measures and specifications are shown in Table 6 below.

**Table 6 – Qualifying Measure Specifications**

<b>Measure</b>	<b>Specification</b>
Mailer Kit	(1) 1.5 GPM Showerhead, (2) 1.0 GPM Bathroom Aerators, (1) 1.5 GPM Kitchen Aerator
Clothes Washer (Tier 1)	ENERGY STAR listed and requires natural gas-fueled water heating
Clothes Washer (Tier 2)	ENERGY STAR listed with most efficient criteria and requires natural gas-fueled water heating
Natural Gas Clothes Dryer	ENERGY STAR listed
Smart Thermostat	ENERGY STAR listed and requires natural gas-fueled space heating
Natural Gas Furnace (Tier 1)	AFUE 92% - 94.99% and installed with an Electronically Commutated Motor (ECM)
Natural Gas Furnace (Tier 2)	AFUE $\geq$ 95% and installed with an ECM
Natural Gas Storage Water Heater	ENERGY STAR listed
Natural Gas Tankless Water Heater	ENERGY STAR listed
Windows	ENERGY STAR rated for appropriate climate zone and requires natural gas-fueled space heating

**Rebate Amounts, Incremental Costs, and Annual Savings**

To receive an incentive, customers must complete and submit an application for rebate payment after they purchase and install a qualifying program measure. Applications will be available online at the Southwest Gas website ([www.swgas.com](http://www.swgas.com)), as well as through the Southwest Gas Energy Services customer hotline (1-800-654-2765). Applications may be requested by phone, e-mail, or an after-hours voicemail message. Customers will also have the option to receive an incentive by submitting an application through the Company’s online portal.

To receive a complimentary Mailer Kit, customers must complete an online energy assessment in Southwest Gas’ online Energy Savings Portal. The Energy Savings Portal is detailed in the Company’s proposed SGB Energy Education Program within this plan.

**Table 7 – Rebate Amounts, Incremental Customer Costs, and Annual Savings**

Measure	Rebate	Incremental Cost	On-Site Per Unit Annual Savings <sup>1</sup>				
			Therms	kWh	Water	CO <sub>2</sub>	Diesel
Mailer Kit	\$23 <sup>[2]</sup>	\$23	94,450	N/A	31,350,000	501	N/A
Clothes Washer (Tier 1)	\$25	\$50	1,293	8,538	506,330	8	N/A
Clothes Washer (Tier 2)	\$50	\$73	2,165	7,283	689,525	13	N/A
Natural Gas Clothes Dryer	\$50	\$75	444	2,478	N/A	3	N/A
Smart Thermostat	\$70	\$214	1,705	68,985	N/A	22	N/A
Natural Gas Furnace (Tier 1)	\$250	\$600	1,802	N/A	N/A	10	N/A
Natural Gas Furnace (Tier 2)	\$350	\$715	1,161	N/A	N/A	6	N/A
Natural Gas Storage Water Heater	\$75	\$183	1,173	N/A	N/A	6	N/A
Natural Gas Tankless Water Heater	\$225	\$267	18,445	N/A	N/A	98	N/A
Windows	\$1	\$1	9,600	52,400	N/A	61	N/A

<sup>1</sup> Any applicable water savings are shown in gallons and CO<sub>2</sub> reductions are shown in metric tons.

<sup>2</sup> Cost of mailer kit provided to qualifying customers.

**Table 8 – Estimated Participation and Cost-Effectiveness Ratios**

Measure	Estimated Annual Participation	Cost-Effectiveness Ratio <sup>1</sup>
Mailer Kit	5,000	25.25
Clothes Washer (Tier 1)	250	5.03
Clothes Washer (Tier 2)	250	4.46
Natural Gas Clothes Dryer	100	1.01
Smart Thermostat	140	1.33
Natural Gas Furnace (Tier 1)	50	0.70
Natural Gas Furnace (Tier 2)	30	0.63
Natural Gas Storage Water Heater	40	1.04
Natural Gas Tankless Water Heater	350	2.29
Windows	40,000	3.03
<b>Total Program</b>	<b>46,210</b>	<b>7.92</b>

<sup>1</sup> Consistent with R14-2-2512(C), the Company evaluated the cost-effectiveness of each DSM program. The Company ensured that cost-effectiveness passed at the program level.

## **Program Limitations**

The following requirements apply:

- Measures must be purchased new and may not be used.
- Builders participating in the SGB Homes Program are not eligible for the measures offered under the SGB Residential Rebates Program.

## **Target Audiences**

Southwest Gas' primary target audience is residential customers, single-family and multi-family builders and property owners, along with small commercial customers located within its Arizona service territory.

Southwest Gas' secondary target audience is trade-allies, including retailers, contractors and manufacturers.

## **Program Outreach**

To maximize participation in the program, Southwest Gas will utilize a multi-channel outreach strategy to reach residential customers and distributors for residential customers. The Company will continue to optimize its outreach strategy as needed to increase customer, retailer and contractor awareness of the program and the benefits of purchasing, selling, and installing cost-effective, high-efficiency appliances. Coupled with the Company's proposed energy education program, awareness will be enhanced with opportunities to provide useful energy information while encouraging customers to utilize energy-efficient products.

The objectives of Southwest Gas' outreach efforts will be to increase the utilization of qualifying energy-efficient equipment and appliances by Southwest Gas customers and to increase customer awareness of the incentive offers and the benefits of purchasing high-efficiency natural gas equipment and appliances.

## **Tools and Resources**

Southwest Gas plans to employ various tools and resources outlined in the Program Outreach section above to maximize program participation. This may include digital and social media outreach, bill messages and onserts, website content, point-of-purchase materials, brochures, direct mail to key audiences, select outreach events (virtual/in-person) and trade-ally member communications.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

## **Budget**

Southwest Gas proposes a total annual estimated budget for this program of \$340,000. Table 9 below provides the budget details by category.

**Table 9 – Total Estimated Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates	\$290,000
Administration	\$50,000
<b>Total</b>	<b>\$340,000</b>

**Cost-Effectiveness Test Results**

The cost-effectiveness test ratio for the SGB Residential Rebates Program, along with the cost-benefit overview and projected lifetime savings, is shown below in Tables 10 and 11.

**Table 10 – Cost-Benefit Overview**

<b>Cost-Benefit Overview</b>	
Societal Benefits	\$3,446,628
Societal Costs	\$435,056
Net Benefits	<b>\$3,011,572</b>
<b>Cost-Effectiveness Ratio</b>	<b>7.92</b>

**Table 11 – Projected Lifetime Savings**

<b>Energy and Environmental Benefit Overview: Lifetime Savings</b>	
Natural Gas (therms)	1,687,663
Electricity (kWh)	2,272,591
Water (gallons)	326,654,405
CO <sub>2</sub> (metric tons)	9,377
Diesel (gallons)	N/A

## **RESIDENTIAL ENERGY MANAGEMENT PROGRAMS: SGB HOMES PROGRAM**

### **Program Description**

Southwest Gas proposes to continue to offer the SGB Homes Program to provide incentives to new homebuilders to construct homes that meet rigorous energy efficiency standards and maximize total energy and water resource efficiency by using natural gas as an end-use fuel in new homes.

Southwest Gas has seen significant interest and participation in its SGB Homes Program over the last several years, so much so, that we have introduced similar programs in other areas within our service territory. The table below demonstrates the year over year performance of the New Homes Program.

<b>Program Year</b>	<b># of Homes Rebates Provided</b>
PY7 (Jan 2018 – Dec 2018)	11,606
PY8 (Jan 2019 – Dec 2019)	9,684
PY9 (Jan 2020 – Dec 2020)	9,156
PY10 (Jan 2021 – Dec 2021)	8,710
PY2022	11,873

Strong performance in Arizona’s new homes market further benefits the state’s economy by providing additional jobs as well as offering residents the comfort and convenience of high quality housing. Southwest Gas is proud of the success achieved by its SGB Homes Program in encouraging the design and construction of high quality, energy efficient new homes and its ability to maintain high program participation.

With the strong participation Southwest Gas has experienced in its SGB Homes Program, the Company proposes offering incentives to builders of new homes with lower, more efficient Home Energy Rating System (HERS) scores. Southwest Gas proposes to lower the current qualifying HERS scores of 65-61 for Tier 1 rebates and 60 or below for Tier 2 rebates to between 59 and 55 for Tier 1 incentives and to a HERS score of 54 or less for Tier 2 incentives. Southwest Gas proposes the Tier 1 rebate amount continue to be \$100, and \$500 for Tier 2 new homes.

Southwest Gas anticipates that strong performance in Arizona’s new home market will continue during 2024 and 2025. Based on estimates of new customer additions, the Company anticipates participation for the SGB Homes Program to reach 8,900 new homes annually for 2024 and 2025. In order to meet expected participation rates for the SGB Homes Program, Southwest Gas proposes an annual budget \$2,545,000.

To participate in the program, builders submit their building design plans to Residential Energy Services Network (RESNET) certified HERS raters for

consultation on effective construction techniques to meet the program’s HERS score requirements. Once the HERS raters analyze and approve the design, builders must then complete construction of the homes. The HERS raters are involved during the entire construction process, inspecting and testing for compliance with the design and construction guidelines. Upon successful verification, the HERS raters submit the HERS Scores to Southwest Gas. The lower the HERS score, the higher the energy efficiency of the home.

Southwest Gas recruits builders, contractors, and HERS raters into the program by offering incentives to build more energy efficient homes that achieve lower HERS scores. Homes with lower HERS scores are generally associated with higher quality construction, greater comfort, and improved durability.

### **Program Objective**

The overall objective of this program is to increase the available energy-efficient housing inventory in Arizona to optimize energy and water resources with direct use of natural gas by incentivizing homebuilders to construct homes which qualify to meet the lower HERS scores in new construction.

The SGB Homes Program will seek to increase homebuilder and customer awareness of energy and water resource efficiency and promote the use of energy-efficient practices and technologies in new residential homes to achieve cost-effective natural gas, electric, and associated water savings.

### **Qualifying Customers**

All new homebuilders building single-family homes and low-rise multifamily homes located within the Company’s Arizona service territory that meet HERS score specifications and feature natural gas space heating and/or water heating are eligible to participate in the program.

### **Qualifying Measures**

Only homes achieving the HERS Scores shown in Table 12 will be eligible for an incentive.

**Table 12 – Qualifying Measure Specifications**

<b>Measure</b>	<b>Specification</b>
Tier 1	HERS score 59-55
Tier 2	HERS score ≤ 54

The HERS score calculates heating, cooling, hot water, lighting and appliance energy loads, consumption and costs for new and existing single and multifamily homes. Specific factors include:

- Window area, U-factor, solar heat gain coefficient (SHGC), orientation, and shading.
- Door R-value and size.
- Wall cavity insulation R-value, cavity insulation quality, continuous insulation R-value and framing factors.
- Ceiling insulation R-value and quality, and radiant barrier.
- Floor insulation, cantilevers, over-garage area, etc.
- Water heater efficiency.
- Lighting and appliance efficiency.
- HVAC equipment efficiency, programmable thermostat
- Duct location and leakage.
- Whole-house infiltration.
- Site factors for heating and cooling degree days, wind.
- Wall and roof color.

Fully integrated design and construction combined with best building practices result in homes that have reduced leaks and drafts, more consistent temperatures and better durability. Comprehensive air sealing, quality-installed insulation and high performance windows and doors minimize warm and cold spots. A high-efficiency heating and cooling system, designed and installed for optimal performance, ensures better comfort in every room, year-round, likely leading to fewer temperature manual overrides. A comprehensive water management system, including flashing, moisture barriers and heavy-duty membranes protects roofs, walls, and foundations from moisture damage. A fresh air system provides a controlled amount of outdoor air. Combined with a high-performance filter, this improves indoor air quality and reduces dust, pollen and other allergens. Trained and certified professionals perform independent inspections and testing, to verify all activities were completed correctly.

As the International Energy Conservation Code (IECC) standards evolve, new homes become more energy efficient and the corresponding HERS score decreases. For its SGB Homes Program proposal, Southwest Gas proposes to lower the qualifying HERS scores to better reflect that most counties in its service territory are currently utilizing the 2018 International Energy Conservation Code (IECC) standards.

### **Rebate Amounts, Incremental Costs, and Annual Savings**

To receive the incentive, builders must meet the program qualification criteria and complete an application with their HERS Rater, who must submit the application to Southwest Gas to obtain reimbursement for SGB Homes Program participation.

**Table 13 – Rebate Amounts, Incremental Costs and Annual Savings**

Measure	Rebate	Incremental Cost	On-Site Per Unit Annual Savings <sup>1</sup>				
			Therms	kWh	Water	CO <sub>2</sub>	Diesel
Tier 1	\$100	\$2,707	1,132,080	8,888,911	N/A	7,652	N/A
Tier 2	\$500	\$3,400	776,080	6,091,872	N/A	5,246	N/A

<sup>1</sup> Any applicable water savings are shown in gallons and CO<sub>2</sub> reductions are shown in metric tons.

**Table 14 – Estimated Participation and Cost-Effectiveness Ratios**

Measure	Estimated Annual Participation	Cost-Effectiveness Ratio <sup>1</sup>
Tier 1	3,560	1.26
Tier 2	5,340	1.55
<b>Total Program</b>	<b>8,900</b>	<b>1.41</b>

<sup>1</sup> Consistent with R14-2-2512(C), the Company evaluated the cost-effectiveness of each DSM program. The Company ensured that cost-effectiveness passed at the program level.

**Program Limitations**

The following requirements apply:

- All homes must meet the SGB Homes Program requirements and be within Southwest Gas’ Arizona service territory.
- The HERS scoring must be performed by an independent third-party HERS Rater.

**Target Audiences**

Southwest Gas’ primary target audience is homebuilders of both single-family and low-rise multifamily properties featuring natural gas space heating and water heating within Southwest Gas’ Arizona service territory.

The secondary target audience for the SGB Homes Program is the consumer.

**Program Outreach**

To maximize participation in the program, Southwest Gas will utilize a relationship management approach working with homebuilders, architects and the design community to educate them on the importance of building energy-efficient homes and the benefits of utilizing the program. The Company will continue to optimize its outreach strategy, as needed, to increase homebuilder, contractor and customer awareness of the program and the benefits of building, purchasing and selling energy-efficient homes.

## Tools and Resources

Southwest Gas may employ various tools and resources to outreach to key decision-makers within the homebuilder community. Alongside regular customer contact and relationship management, the Company may employ targeted email communications, brochures and other collateral materials, direct mail to key audiences, and website content. Southwest Gas Energy Advisors will work closely with homebuilders and HERS raters to offer any needed guidance to obtain the lower HERS ratings.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

## Budget

Southwest Gas proposes a total annual budget of \$2,545,000. Table 15 below provides the budget details by category.

**Table 15 – Total Estimated Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates	\$2,315,000
Administration	\$230,000
<b>Total</b>	<b>\$2,545,000</b>

## Cost-Effectiveness Test Results

The cost-effectiveness test ratio for the SGB Homes Program, along with the cost-benefit overview and projected lifetime savings, are shown below in Tables 16 and 17.

**Table 16 – Cost-Benefit Overview**

<b>Cost-Benefit Overview</b>	
Societal Benefits	\$37,683,510
Societal Costs	\$26,789,380
Net Benefits	<b>\$10,894,130</b>
<b>Cost-Effectiveness Ratio</b>	<b>1.41</b>

**Table 17 – Projected Lifetime Savings**

<b>Energy and Environmental Benefit Overview: Lifetime Savings</b>	
Natural Gas (therms)	57,244,800
Electricity (kWh)	449,423,478
Water (gallons)	N/A
CO <sub>2</sub> (metric tons)	386,944
Diesel (gallons)	N/A

## **RESIDENTIAL ENERGY MANAGEMENT PROGRAMS: SGB ENERGY EDUCATION PILOT PROGRAM**

### **Program Description**

Southwest Gas proposes to offer a SGB Energy Education Program to educate and assist residential customers with the efficient use of energy in their homes, apartments, multi-family dwellings, and mobile homes. Energy education provides low-cost measures to assist customers with energy conservation and changing their energy use behavior.

Southwest Gas' Energy Education Pilot Program will be comprised of the following services:

- Energy Savings Portal
- Digital Home Energy Reports

Southwest Gas will offer an Energy Savings Portal to its customers in its Arizona Service Territory. The interactive portal will analyze a customer's natural gas usage and weather conditions to educate customers about the ways that they use energy and point out opportunities for savings. The result will be a more informed consumer who understands how to better manage their energy use and demand, improve efficiency, and save energy. In addition, Southwest Gas will deliver complimentary energy and water saving kits through the Energy Savings Portal to further encourage energy-efficient behaviors. These kits are a component of the Company's proposed SGB Residential Rebates Program and will be mailed to customers upon completion of an online survey which will be built into the online portal. The kit will include (1)-1.5 GPM Showerhead, (2)-1.0 GPM Bathroom Aerators, (1)-1.5 GPM Kitchen Aerator, and (1)-Flow Meter Bag which will assist customers to further understand how to reduce their energy usage.

Southwest Gas will offer digital Home Energy Reports as part of its SGB Energy Education Program. The Home Energy Reports will be delivered to customers via email. The Home Energy Report is personalized for each customer and will be directed at low-income households and households in the Company's Arizona service territory with high natural gas usage. The Home Energy Report will provide information, data analysis, and neighboring household energy usage comparisons. Customers will also receive targeted energy savings tips and messaging based on their usage patterns, household characteristics and demographics. The Home Energy Reports will motivate customer behavior change and direct customers to relevant Southwest Gas energy efficiency programs.

Southwest Gas is proposing the SGB Energy Education Program as a pilot to evaluate its success and better quantify resulting energy savings in its Arizona service territory. The Company currently offers an Energy Savings Portal to residential customers in all 3 of its service territories, and digital Home Energy Reports in its Nevada and California service territories. Southwest Gas

experienced success with both offerings achieving estimated savings of 649,293 therms associated with Home Energy Reports and approximately 14,000 customers (including approximately 4,600 Arizona customers) completing a Home Energy Analysis through the Energy Savings Portal. Southwest Gas partners with Oracle for these services in its other states, and the Company proposes to continue working with Oracle for the implementation of its Arizona SGB Energy Education Program.

### **Program Objective**

The primary barriers that prevent the implementation of energy-efficient behaviors are:

- Uncertainty as to how to save energy.
- Not knowing where to obtain energy-efficient products and services.
- Misconceptions that nothing more can be done to achieve higher energy efficiency.
- Doubt regarding the ability to make a significant difference in energy use and cost through behavioral changes

The overall objective of this program is to overcome these barriers encouraging broader implementation of energy efficiency practices and to provide customers in Southwest Gas’ Arizona service territory with information to promote the efficient use of natural gas and other energy or resources.

### **Qualifying Customers**

All residential and multifamily customers located in the Company’s Arizona service territory with an active Southwest Gas account are eligible to participate in the program.

### **Qualifying Services**

The SGB Energy Education Program will be comprised of the components described in Table 18 below.

**Table 18 – Qualifying Service Specifications**

<b>Service</b>	<b>Specification</b>
Energy Savings Portal	An online interactive portal that analyzes customers’ natural gas usage and weather conditions to educate customers
Digital Home Energy Reports	Digital reports that are personalized with information on customers’ energy usage and provide information, data analysis, and neighboring household energy usage comparisons

## **Rebate Amounts, Incremental Costs, and Annual Savings**

Southwest Gas estimates the proposed services under the SGB Energy Education Program will save approximately 183,000 therms and 968 metric tons of CO<sub>2</sub> annually. The Company anticipates, that on an annual basis, approximately 20,000 customers will access the Energy Savings Portal and digital Home Energy Reports will be delivered to approximately 120,000 households.

Due to the nature of the education program and all services offered at no-cost to the customer, there are no rebate amounts or incremental costs associated with this program.

## **Program Limitations**

The following requirements apply:

- Participants must be a customer with an active Southwest Gas account.

## **Target Audiences**

Southwest Gas' primary target audience for this program includes residential customers who reside in homes, multi-family dwellings, mobile homes or residences within the Company's Arizona service territory. High-use residential natural gas customers within Southwest Gas' Arizona service territory would be part of an expanded target audience of the program.

## **Program Outreach**

To maximize participation in the Energy Savings Portal and Energy Savings Reports categories of the Energy Education Program, Southwest Gas will inform residential customers about these tools through a multi-channel outreach strategy, increasing customer knowledge of energy-efficiency and conservation. Energy-saving tips will be incorporated to promote energy and financial savings, and insights will be provided to help customers understand their energy behaviors. The Company will monitor the effectiveness of its outreach strategy with modifications to be made as necessary or as new opportunities to promote and support education initiatives arise.

## **Tools and Resources**

Southwest Gas plans to employ various tools and resources outlined in the Program Outreach section above to maximize program participation. This includes digital and social media outreach, bill messages and onserts, along with website content where the Energy Savings Portal will be hosted.

Participating customers will have digital access to their Home Energy Report via email. Additionally, customers will be able to access direct install kits offered

through the Residential Rebates Program by signing into the web-based education initiative.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

### **Budget**

Southwest Gas proposes a total annual budget for this program of \$368,000. Table 19 below provides the budget details by category.

**Table 19 – Total Estimated Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates	N/A
Administration	\$368,000
<b>Total</b>	<b>\$368,000</b>

### **Cost-Effectiveness Test Results**

A demonstration of cost-effectiveness for the SGB Energy Education Program is not required as it is being proposed as a pilot program. Upon implementation of the program, Southwest Gas will review program data and report on cost-effectiveness in future EE & RET Plan reports.

## **NON-RESIDENTIAL ENERGY MANAGEMENT PROGRAMS: SGB COMMERCIAL REBATES PROGRAM**

### **Program Description**

Southwest Gas proposes to continue the SGB Commercial Rebates Program with modifications. Incentives will be offered to participating customers for qualified program measures upon proof-of-purchase and installation and through Point of Sale (POS) incentives for select food service equipment where energy savings can be maximized. The measures proposed to be included in the Commercial Rebates Program are: natural gas ovens (conveyor, combination, convection, and rack), natural gas steam cookers, natural gas fryers, griddles, furnaces, boilers, pre-rinse spray valves, laminar flow restrictors, steam traps, storage and tankless water heaters, broilers, as well as custom measures, and combined heat & power (CHP) measures.

The increased initial cost of high efficiency products is a barrier that can often be overcome with appropriate financial incentives, coupled with education on the benefits of greater energy efficiency. Southwest Gas' SGB Commercial Rebates Program combined with the overall Non-Residential Energy Management programs will help achieve increased adoption of high efficiency products and encourage greater energy savings.

For the SGB Commercial Rebates Program's food service measures, customers will have the option to receive incentives at POS. This POS offering will run complementary to the established prescriptive (downstream) application process. The POS foodservice offerings provide benefits to customers that make incentives more accessible. These benefits include:

- The incentive is deducted directly from the sales invoice at POS. The full cost of equipment is not paid for out-of-pocket.
- There are no wait times for customers to receive the incentive such as waiting for a check to arrive in the mail.

Southwest Gas proposes that schools continue to be eligible to participate in the Company's Non-Residential Rebate Programs, including the SGB Commercial Rebates Program. Southwest Gas further proposes a set amount of funding to be reserved within its SGB Commercial Rebates Program to alleviate concerns from participating schools with funding constraints. Schools participating within Southwest Gas' SGB Commercial Rebates Program would benefit from eliminated or reduced out-of-pocket expense to implement measures increasing their energy efficiency. This funding would offer energy saving upgrade incentives to K-12 public and charter schools within the Company's Arizona service territory. With the potential of 100 percent of project costs being covered, eligible schools will save

money on utility bills and increase the comfort of their students and staff while minimizing out-of-pocket costs and preserving education budgets that may be redirected for use in the classroom or other educational expenses.

In Decision No. 77892, Southwest Gas was authorized to obtain Commission approval for rebate funding for any viable CHP project. Southwest Gas proposes that the SGB Commercial Rebates Program budget accommodate CHP project applications with a rebate up to \$100,000. For CHP project applications with a rebate greater than \$100,000, the Company proposes that Commission approval be required to allow incremental budget funding exceeding the scope of the proposed SGB Commercial Rebates Program budget. Large CHP projects have the potential for significant energy savings and substantial rebates, which can lead to the majority of the Company’s plan budget being depleted. The Commission review process for CHP projects greater than \$100,000 in rebates will allow energy savings on these projects to be realized without depleting the entire program’s funding.

**Program Objective**

The overall objective of this program is to increase the use of energy-efficient practices and technologies to achieve cost-effective savings in new and existing businesses by offering incentives to Southwest Gas’ commercial customers.

**Qualifying Customers**

This program will be available to both new and existing commercial sales customers, with an active Southwest Gas commercial account, located within the Company’s Arizona service territory.

**Qualified Measures**

Only equipment meeting the program energy efficiency guidelines shown in Table 20 will be eligible for an incentive. Qualifying equipment specifications will be reviewed annually and adjusted, as necessary, to reflect changing national efficiency standards. All qualifying measures must be natural gas equipment or be supplied by a natural gas water or space heating unit.

**Table 20 – Qualifying Measure Specifications**

Measure	Specification
Combined Heat and Power (CHP) System	Fuel efficiency ≥ 60%
Custom Measures	Southwest Gas Approval
Natural Gas Storage Water Heater	Thermal Efficiency ≥ 90%
Natural Gas Tankless Water Heater (Residential Size/Residential End-use)	ENERGY STAR listed as a Whole Home Tankless Gas Water Heater

<b>Measure</b>	<b>Specification</b>
Natural Gas Tankless Water Heater (Residential Size/Commercial End-use)	ENERGY STAR listed as a Whole Home Tankless Gas Water Heater
Natural Gas Tankless Water Heater (Commercial Size/Commercial End-use)	ENERGY STAR listed
Natural Gas Commercial Furnace (Tier 1)	Annual Fuel Utilization Efficiency (AFUE) 90%-94.99%
Natural Gas Commercial Furnace (Tier 2)	AFUE ≥ 95%
Natural Gas Domestic Hot Water Boiler	Thermal Efficiency ≥ 90%
Steam Traps (Laundry)	Existing trap broken in open position and requires a natural gas-fueled steam system
Steam Traps (HVAC)	Existing trap broken in open position and requires a natural gas-fueled steam system
Steam Traps (Industrial Medium Pressure)	Existing trap broken in open position and requires a natural gas-fueled steam system
Steam Traps (Industrial High Pressure)	Existing trap broken in open position and requires a natural gas-fueled steam system
<b>Commercial Foodservice Equipment</b>	
Natural Gas Combi Oven (< 15 Pans)	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Combi Oven (15-28 Pans)	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Combi Oven (> 28 Pans)	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Convection Oven (Full Sized)	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Convection Oven (Half Sized)	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Conveyor Broiler (< 20")	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Conveyor Broiler (20"-26")	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Conveyor Broiler (> 26")	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Conveyor Oven	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Fryer (Tier 1)	ENERGY STAR or FSTC/California Energy Wise listed

Measure	Specification
Natural Gas Fryer (Tier 2)	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Griddle	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Rack Oven	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Steam Cooker	ENERGY STAR or FSTC/California Energy Wise listed
Natural Gas Underfired Broiler	ENERGY STAR or FSTC/California Energy Wise listed
Pre-Rinse Spray Valve	GPM rating < 1.07 and requires natural gas-fueled water heating

For its commercial food service measures, Southwest Gas will approve either ENERGY STAR qualified products or those that have been evaluated by the Food Service Technology Center (FSTC) and California Energy Wise listed.<sup>1</sup> The FSTC is the industry leader in commercial kitchen energy efficiency and appliance performance testing. The FSTC has developed over 40 Standard Test Methods for evaluating commercial kitchen appliance and system performance.

### Rebate Amounts, Incremental Costs, and Annual Savings

To receive an incentive, customers must complete and submit an application for rebate payment after they purchase and install a qualifying program measure. Applications will be available online at the Southwest Gas website ([www.swgas.com](http://www.swgas.com)), as well as through the Southwest Gas Energy Services customer hotline (1-800-654-2765). Applications may be requested by phone, e-mail, or an after-hours voicemail message. Customers will also have the option to receive an incentive by submitting an application through the Company's online portal. For foodservice equipment, customers will have the additional option to receive incentives at POS.

**Table 21 – Rebate Amounts, Incremental Customer Costs, and Annual Savings**

Measure	Rebate <sup>2</sup>	Incremental Cost	On-Site Per Unit Annual Savings <sup>1</sup>				
			Therms	kWh	Water	CO <sub>2</sub>	Diesel
CHP System	\$400-\$500 / kW	\$625,000	-138,000 <sup>[3]</sup>	3,760,000	N/A	-37 <sup>[3]</sup>	N/A
Custom Measures	\$1 / therm	\$150,000	75,000	N/A	N/A	398	N/A
Natural Gas Storage Water Heater	\$4 / MBTUH	\$12	9,899	N/A	N/A	53	N/A
Natural Gas Tankless Water	\$225	\$267	13,175	N/A	N/A	70	N/A

<sup>1</sup> <https://caenergywise.com/>

Measure	Rebate <sup>2</sup>	Incremental Cost	On-Site Per Unit Annual Savings <sup>1</sup>				
			Therms	kWh	Water	CO <sub>2</sub>	Diesel
Heater (Residential Size/Residential End-use)							
Natural Gas Tankless Water Heater (Residential Size/Commercial End-use) <sup>4</sup>	\$1,000	\$1,482	13,175	N/A	N/A	881	N/A
Natural Gas Tankless Water Heater (Commercial Size/Commercial End-use)	\$10 / MBTUH	\$14	166,009	N/A	N/A	2	N/A
Natural Gas Commercial Furnace (Tier 1)	\$225	\$451	4,389	N/A	N/A	23	N/A
Natural Gas Commercial Furnace (Tier 2)	\$275	\$555	4,424	N/A	N/A	23	N/A
Natural Gas Domestic Hot Water Boiler	\$4 / MBTUH	\$11	12,064	N/A	N/A	64	N/A
Steam Traps (Laundry)	\$50	\$77	139	N/A	N/A	1	N/A
Steam Traps (HVAC)	\$50	\$77	42	N/A	N/A	0	N/A
Steam Traps (Industrial Medium Pressure)	\$100	\$202	228	N/A	N/A	1	N/A
Steam Traps (Industrial High Pressure)	\$200	\$347	1,016	N/A	N/A	5	N/A
<b>Commercial Foodservice Equipment</b>							
Natural Gas Combi Oven (< 15 Pans)	\$1,100	\$3,932	798	N/A	52,560	4	N/A
Natural Gas Combi Oven (15-28 Pans)	\$1,500	\$4,217	1,121	N/A	87,600	6	N/A
Natural Gas Combi Oven (> 28 Pans)	\$2,500	\$5,829	1,573	N/A	175,200	8	N/A
Natural Gas Convection Oven (Full Sized)	\$500 / chamber	\$1,324	1,068	N/A	N/A	6	N/A
Natural Gas Convection Oven (Half Sized)	\$500 / chamber	\$941	231	N/A	N/A	1	N/A
Natural Gas Conveyor Broiler (< 20")	\$2,000	\$2,523	2,290	14,288	N/A	15	N/A
Natural Gas Conveyor Broiler (20"-26")	\$2,000	\$3,146	3,866	12,806	N/A	23	N/A
Natural Gas Conveyor Broiler	\$3,000	\$3,658	6,322	47,698	N/A	42	N/A

Measure	Rebate <sup>2</sup>	Incremental Cost	On-Site Per Unit Annual Savings <sup>1</sup>				
			Therms	kWh	Water	CO <sub>2</sub>	Diesel
(> 26")							
Natural Gas Conveyor Oven	\$1,000 / chamber	\$2,320	2,110	N/A	N/A	11	N/A
Natural Gas Fryer (Tier 1)	\$750 / Vat	\$1,488	37,500	N/A	N/A	199	N/A
Natural Gas Fryer (Tier 2)	\$1,200 / Vat	\$2,986	1,707	N/A	N/A	9	N/A
Natural Gas Griddle	\$75 / 3 ft.	\$449	630	N/A	N/A	3	N/A
Natural Gas Rack Oven	\$2,500 / chamber	\$4,128	1,170	N/A	N/A	6	N/A
Natural Gas Steam Cooker	\$1,500	\$1,811	44,115	N/A	1,787,040	234	N/A
Natural Gas Underfired Broiler	\$650	\$1,534	218	N/A	N/A	1	N/A
Pre-Rinse Spray Valve	\$50	\$50	1,020	N/A	71,175	5	N/A

<sup>1</sup> Any applicable water savings are shown in gallons and CO<sub>2</sub> reductions are shown in metric tons.

<sup>2</sup> Rebate amounts are per device unless otherwise specified.

<sup>3</sup> CHP savings reflect as negative due to baseline comparison of no CHP system at all. Calculation based on Environmental Protection Agency (EPA) CHP Tool.

<sup>4</sup> Installed as part of a racked system.

**Table 22 – Estimated Participation and Cost-Effectiveness Ratios**

<b>Measure</b>	<b>Estimated Annual Participation</b>	<b>Cost-Effectiveness Ratio<sup>1</sup></b>
CHP System	1	1.84
Custom Measures	1	2.96
Natural Gas Storage Water Heater	17	2.07
Natural Gas Tankless Water Heater (Residential Size/Residential End-use)	250	2.29
Natural Gas Tankless Water Heater (Residential Size/Commercial End-use)	250	5.20
Natural Gas Tankless Water Heater (Commercial Size/Commercial End-use)	1	0.91
Natural Gas Commercial Furnace (Tier 1)	79	1.43
Natural Gas Commercial Furnace (Tier 2)	59	1.56
Natural Gas Domestic Hot Water Boiler	5	3.97
Steam Traps (Laundry)	1	6.48
Steam Traps (HVAC)	1	4.05
Steam Traps (Industrial Medium Pressure)	1	10.51
Steam Traps (Industrial High Pressure)	1	10.51
<b>Commercial Foodservice Equipment</b>		
Natural Gas Combi Oven (< 15 Pans)	1	2.63
Natural Gas Combi Oven (15-28 Pans)	1	3.73
Natural Gas Combi Oven (> 28 Pans)	1	4.58

<b>Measure</b>	<b>Estimated Annual Participation</b>	<b>Cost-Effectiveness Ratio<sup>1</sup></b>
Natural Gas Convection Oven (Full Sized)	3	1.90
Natural Gas Convection Oven (Half Sized)	1	1.74
Natural Gas Conveyor Broiler (< 20")	2	4.79
Natural Gas Conveyor Broiler (20"-26")	2	5.32
Natural Gas Conveyor Broiler (> 26")	2	9.24
Natural Gas Conveyor Oven	5	1.29
Natural Gas Fryer (Tier 1)	100	1.78
Natural Gas Fryer (Tier 2)	3	1.35
Natural Gas Griddle	5	1.99
Natural Gas Rack Oven	2	1.00
Natural Gas Steam Cooker	17	15.31
Natural Gas Underfired Broiler	1	1.01
Pre-Rinse Spray Valve	25	4.42
<b>Total Program</b>	<b>838</b>	<b>2.64</b>

<sup>1</sup> Consistent with R14-2-2512(C), the Company evaluated the cost-effectiveness of each DSM program. The Company ensured that cost-effectiveness passed at the program level.

### **Program Limitations**

The following requirements apply:

- Measures must be installed in commercial businesses with an active Southwest Gas account within Southwest Gas' Arizona service territory.
- Measures must be new and not used.

## **Target Audiences**

Southwest Gas' primary target audience is commercial customers, including the foodservice industry, commercial developers and contractors located within its Arizona service territory.

Southwest Gas' secondary target audience is trade-allies, including retailers, distributors, manufacturers and related professional industries (e.g., restaurant associations, engineering associations, etc.).

## **Program Outreach**

Southwest Gas will utilize a multi-channel outreach strategy to target both commercial customers and distributors to maximize participation in the program. The Company will continue to modify its outreach strategy as needed to increase awareness of the program and the benefits of purchasing, selling, and installing cost-effective, high-efficiency equipment. Southwest Gas' EE & RET programs continue to build upon previous and current outreach strategies.

The objectives of Southwest Gas' outreach efforts will be to increase the utilization of qualifying energy-efficient equipment and appliances by Southwest Gas commercial customers and to increase customer awareness of the incentive offers and the benefits of purchasing high-efficiency equipment and products.

## **Tools and Resources**

Southwest Gas plans to employ various tools and resources outlined in the Program Outreach section above to maximize participation in the program. This may include digital and social media outreach, targeted trade publications, brochures and other collateral materials, direct mail to key audiences, trade shows, seminars, workshops and website content. Southwest Gas Energy Advisors will work closely with commercial customers/distributors to encourage and assist with the purchase and installation process.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

## **Budget**

Southwest Gas proposes a total annual budget for this program of \$1,000,000. For participating schools, the Company proposes to offer qualifying schools an additional rebate of up to \$50,000 per school each year. This amount is included in the proposed budget. Table 23 below provides the budget details by category.

**Table 23 – Total Estimated Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates	\$730,000
Administration	\$270,000
<b>Total</b>	<b>\$1,000,000</b>

**Cost-Effectiveness Test Results**

The cost-effectiveness test ratio for the SGB Commercial Equipment Rebates Program, along with the cost-benefit overview and projected lifetime savings, is shown below in Tables 24 and 25.

**Table 24 – Cost-Benefit Overview**

<b>Cost-Benefit Overview</b>	
Societal Benefits	\$4,951,786
Societal Costs	\$1,875,608
Net Benefits	<b>\$3,076,177</b>
<b>Cost-Effectiveness Ratio</b>	<b>2.64</b>

**Table 25 – Projected Lifetime Savings**

<b>Energy and Environmental Benefit Overview: Lifetime Savings</b>	
Natural Gas (therms)	3,356,275
Electricity (kWh)	76,097,504
Water (gallons)	25,584,675
CO <sub>2</sub> (metric tons)	31,890
Diesel (gallons)	N/A

## **NON-RESIDENTIAL ENERGY MANAGEMENT PROGRAMS: SGB CNG VEHICLES PILOT PROGRAM**

### **Program Description**

Southwest Gas proposes as a new offering, the SGB CNG Vehicles Pilot Program for new and existing customers in the Company's Arizona service territory. CNG vehicles represent visible and viable opportunities to reduce diesel emissions and improve air quality. Southwest Gas' proposed SGB CNG Vehicles Program is designed to offer incentives for up to 75 CNG vehicles each program year, resulting in the reduction of 30,704 metric tons of CO<sub>2</sub> emissions, or removing approximately 6,832 passenger vehicles from the road per for one year. Incentives would be offered to participating customers based on the U.S. Department of Energy's (DOE) Alternative Fuels Data Center (AFDC) and Federal Highway Administration (FHWA) classification of vehicle weight classes and categories.<sup>2</sup> The vehicle categories that Southwest has included in its SGB CNG Vehicles Program are: Class 4-6 and Class 7-8 vehicles.

Southwest Gas proposes that schools continue to be eligible to participate in the Company's Non-Residential Rebate Programs, including this new SGB CNG Vehicles Program. Southwest Gas proposes a set amount of funding be set aside within the SGB CNG Vehicles Program to allow schools to participate, alleviating the concern of funding constraints. Schools participating within Southwest Gas' SGB CNG Vehicles Program would experience eliminated or reduced out-of-pocket costs for reducing diesel usage and GHG emissions. This funding offers energy saving upgrades to K-12 public and charter schools within the Company's Arizona service territory. With potentially 100 percent of project costs covered, eligible schools will save money on energy usage and minimize out-of-pocket costs.

Southwest Gas is proposing the SGB CNG Vehicles Program as a pilot due to lack of history of implementing this type of program and its anticipation that the program may require modification upon implementation. Southwest Gas relies on third-party contractors to implement its EE programs. Upon Commission approval, Southwest Gas plans to issue a Request for Proposals to identify and select a third-party contractor for implementation of this program. Southwest will work with the third-party contractor to implement a robust program design and continuously evaluate any improvements for future program years.

### **Program Objective**

The overall objective of this program is to increase the use of CNG vehicles to achieve cost-effective energy savings in the transportation sector by offering incentives to Southwest Gas' commercial customers.

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<sup>2</sup> <https://afdc.energy.gov/data/10380#>

## Qualifying Customers

This program will be available to both new and existing commercial customers, with an active Southwest Gas commercial account, located within the Company’s Arizona service territory. Southwest Gas examined the benefits and costs of a customer transitioning from a diesel to CNG vehicle; however, the program will not limit customers to only those replacing diesel with CNG.

## Qualifying Measures

Only vehicles meeting the program vehicle guidelines shown in Table 26 will be eligible for an incentive. Qualifying vehicle specifications will be reviewed annually and adjusted, as needed, to reflect the program's most efficient delivery.

**Table 26 – Qualifying Vehicle Specifications**

Measure	Specification
Class 4-6	<ul style="list-style-type: none"> <li>• 14,001 – 26,000 lbs.</li> <li>• Example vehicle types: school buses, flatbed trucks, step-vans, stake trucks, garbage trucks, and concrete trucks</li> </ul>
Class 7-8	<ul style="list-style-type: none"> <li>• &gt; 26,001 lbs.</li> <li>• Example vehicle types: transit buses, fuel trucks, dump trucks, beverage delivery, and tractor trailers</li> </ul>

## Rebate Amounts, Incremental Costs, and Annual Savings

To receive an incentive, customers must apply for incentive payment after purchase of a CNG vehicle. Applications will be available online on the Southwest Gas website. Applications may also be requested by phone or email.

Incentive amounts are provided in Table 27. Southwest Gas determined the amounts by reviewing the best available information on incremental cost of the vehicles, the incentive level needed to positively affect customer behavior, and maintaining overall program cost-effectiveness. Incremental cost estimates were collected from the National Renewable Energy Laboratory (NREL) Vehicle Infrastructure Cash-Flow Estimation (VICE) V2.0 dataset.

**Table 27 – Rebate Amounts, Incremental Customer Costs, and Annual Savings**

Measure	Rebate	Incremental Cost	On-Site Per Unit Annual Savings <sup>1</sup>				
			Therms	kWh	Water	CO <sub>2</sub>	Diesel
Class 4-6	\$20,000	\$31,376	-156,075	N/A	N/A	282	109,238
Class 7-8	\$35,000	\$50,502	-377,175	N/A	N/A	742	270,038

<sup>1</sup> Any applicable water or diesel savings are shown in gallons and CO<sub>2</sub> reductions are shown in metric tons.

**Table 28 – Estimated Participation**

<b>Measure</b>	<b>Estimated Annual Participation<sup>1</sup></b>
Class 4-6	<b>75</b>
Class 7-8	
<b>Total Program</b>	

<sup>1</sup> Values are reflected in estimated total number of vehicles for the program and are not estimated by class.

**Program Limitations**

The following requirements apply:

- Active Southwest Gas accounts within the Company’s Arizona service territory.
- Incentivized vehicles must have an Arizona vehicle registration.

**Target Audiences**

Southwest Gas’ target audience is medium- and heavy-duty fleet operators. Medium-duty vehicles include delivery trucks, street sweepers and other service vehicles. Heavy-duty vehicles include school buses, transit buses and refuse trucks.

**Program Outreach**

To maximize participation in the SGB CNG Vehicles Program, Southwest Gas will utilize a relationship management approach providing key audiences information and education on the benefits of utilizing CNG vehicles in their businesses.

The objectives of Southwest Gas’ outreach efforts will be to increase the utilization of CNG vehicles and increase customer awareness of the available incentive.

**Tools and Resources**

Southwest Gas may employ various tools and resources for outreach to key decision-makers of fleet operators. Along with regular customer contact and relationship management, the Company may employ targeted email communications, brochures and other collateral materials, direct mail to key audiences, and website content. Southwest Gas Energy Advisors will work closely with customers/distributors to encourage and assist with utilizing CNG in their vehicle fleets.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

## Budget

Southwest Gas proposes an annual estimated budget of \$2,160,000. For participating schools, the Company proposes to offer qualifying schools an additional rebate of up to \$50,000 per school each year. This amount is included in the proposed budget. Table 29 provides the budget details by category.

**Table 29 – Total Estimated Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates	\$2,110,000
Administration	\$50,000
<b>Total</b>	<b>\$2,160,000</b>

## Cost-Effectiveness Test Results

Table 30 summarizes the fuel impacts for the replacement of a diesel vehicle with a CNG vehicle by vehicle type. Estimates for fuel economy and miles driven were derived from data from the Department of Energy (DOE) Alternative Fuels Data Center (AFDC).<sup>3</sup>

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<sup>3</sup> <https://afdc.energy.gov/>

**Table 30 – Carbon Impact by Vehicle Type**

<b>Metric</b>	<b>Class 4-6</b>	<b>Class 7-8</b>	<b>Source</b>
Vehicle Miles Traveled (VMT)	12,000	43,647	AFDC
Miles per Gallon (MPG) – Diesel	6.35	4.90	AFDC
MPG - CNG	5.56	4.39	AFDC
Diesel Gallons Consumed	2,913	7,201	= VMT / MPG-Diesel
CNG Gallons Consumed	3,330	8,046	= VMT / MPG-CNG
CCF <sup>1</sup> of natural gas (NG) per Gallon of CNG	1.25	1.25	AFDC
CNG CCF Consumed	4,162	10,058	= CNG Gallons × CCF/CNG
Tons CO <sub>2</sub> /Gallon-diesel	.00531	.00531	Energy Information Administration
Tons CO <sub>2</sub> /CCF Natural Gas	.01016	.01016	Energy Information Administration
Carbon Reduction (Metric Tons)	7.51	19.78	= Gallons Diesel × Tons CO <sub>2</sub> /gallon – CCF NG × Tons CO <sub>2</sub> /CCF

<sup>1</sup> CCF represents the measurement of volume of natural gas in hundreds of cubic feet.

Demonstration of the cost-effectiveness is not required as the SGB CNG Vehicles Program is being proposed as a pilot. However, as demonstrated above, this program will result in reduced consumption of diesel fuel and have a significant positive benefit on Arizona’s air quality through reduced CO<sub>2</sub> emissions. When these savings are monetized and included in the SCT as proposed by Southwest Gas, the SGB CNG Vehicles Program has a cost-effectiveness ratio of 6.86 which is one of the highest cost-effectiveness ratio of any of the Company’s proposed programs.

## **LOW INCOME PROGRAMS: LOW INCOME WEATHERIZATION PROGRAM**

### **Program Description**

Southwest Gas proposes to continue offering weatherization and other energy conservation measures to income-qualified residential customers in the Company's Arizona service territory. The program is currently available to customers who have a household income at or below 200 percent of the Federal Poverty Guidelines.

The Low-Income Weatherization Program includes: a home energy audit to identify energy efficiency improvements and potential health and safety concerns existing in the home; home weatherization, which may also include appliance repairs or replacements resulting from health and safety concerns; and consumer energy conservation tips, commonly referred to as energy education. The combination of these measures results in cost-effective reductions in energy usage in income-qualified residences. Weatherization provides a lasting solution by addressing the cause of high energy bills. Energy improvements, such as adding insulation to the walls and roofs, can last for a lifetime of the dwelling. This program uses advanced technologies and testing protocols in the housing industry and targets households that lack the resources to invest in energy efficiency.

Southwest Gas proposes to continue working with the Arizona Department of Housing (ADOH) and community-based agencies to implement the program. Southwest Gas estimates that approximately 150 homes will be weatherized annually through the program.

### **Program Objective**

The overall objective of this program is to reduce customer natural gas usage, and overall energy usage, by offering cost-effective weatherization measures to income-qualified residential customers. Southwest Gas will also provide customer education in order to reduce energy usage and improve the health and safety of participating households.

### **Qualifying Customers**

All active Southwest Gas residential customers located in the Company's Arizona service territory whose annual income is at or below 250 percent of the Federal Poverty Income Guidelines are eligible for this program. Southwest Gas is proposing to increase the income requirement for the low income weatherization program to 250 percent of the Federal Poverty Income Guidelines to be consistent with the qualifying annual income approved for its LIRA program in Decision No. 78845 in Docket No. G-01551A-21-0368.

Owner-occupied units, rental units with the consent of the owner, and residential units at a Southwest Gas master-metered property with master-meter tenants may be weatherized. All qualifying residences must be located within Southwest Gas' Arizona service territory.

## **Qualifying Measures**

Program measure categories are identified as: 1) ventilation; 2) infiltration; 3) insulation; 4) repair or replacement; 5) low cost/no cost; and 6) health and safety. Measures cannot be installed if they pose an operational or health hazard threat.

Typical weatherization activities include: installing insulation; sealing ventilation systems; tuning and repairing or replacing heating and water heater systems; mitigating heat gain or losses through windows, doors, and other potential infiltration points; and water measures to reduce hot water flow. Non-energy benefits include carbon monoxide (CO) and smoke detectors, door locks, and other measures that increase the comfort, health, and safety of the home.

## **Program Limitations**

The following requirements apply:

- Measures can only be installed for customers served directly by Southwest Gas.

## **Program Administration**

The program will be administered by Southwest Gas, in conjunction with its Implementation Contractor, the ADOH, and community-based agencies. The ADOH manages the distribution of program funding and coordinates work with other agencies involved in the program. When opportunities are presented, Southwest Gas also collaborates with other Arizona utilities to increase the number of weatherization measures installed.

To participate, Southwest Gas customers request assistance through their local community-based agency, who then screens applicants based upon program criteria. Once a customer is qualified, the agency conducts an energy audit of the home to gather, record, and analyze its energy efficiency. During the audit, participants are provided an energy education of no-cost/low-cost conservation tips and an explanation of all efficiency and health and safety measures that have been or will be installed in the home. Finally, combustion diagnostic tests are performed on appliances for carbon monoxide detection.

If a home energy audit identifies extensive and costly measures to be installed that exceed program guidelines and requirements, the customer may receive simple weatherization measures that still allow the customer to realize an energy savings in their utility bills, or the agency may elect to utilize other funding necessary to fully treat the home and report that information to the Company.

The ADOH provides education and guidance to community-based agencies and focuses on the proper installation techniques for weatherization measures. This reduces the number of “call backs” and failed inspections. Inspection checks would be conducted to identify any training opportunities as well as to ensure measures have been correctly installed.

The following nine community-based agencies will distribute Southwest Gas’ Low Income Weatherization Program funds throughout the Company’s Arizona service territory:

- City of Phoenix Neighborhood Services Department
- Community Action Human Resources Agency (CAHRA)
- Gila County Division of Health and Human Services
- Maricopa County Housing & Community Development Division
- MesaCAN (Community Action Network)/A New Leaf
- Pima County Community Action Agency
- Southeastern Arizona Community Action Program (SEACAP)
- Foundation for Senior Living (FSL)
- Western Arizona Council of Governments (WACOG)

These agencies provide easy access to families in need in the communities served by Southwest Gas. The community-based agencies are adept at managing a variety of income-qualified assistance programs and most offer an array of services, including food, shelter, billing assistance, housing assistance, clothing, job training, healthcare, and other vital programs in addition to efficiency measures available through the Low Income Weatherization Program.

Reports are provided to Southwest Gas monthly on completed projects, measures installed, and a calculation of the savings achieved. Additionally, monthly reports provide the number of customers served, type of weatherization and health and safety measures completed, and related costs.

### **Program Outreach**

To maximize participation in the program, Southwest Gas will utilize a multi-channel outreach strategy to reach income-qualified residential customers. The Company will continue to optimize its outreach strategy to increase customer awareness of the program and the benefits available from participating in the weatherization program.

The objectives of Southwest Gas’ outreach efforts will be to increase the utilization of the energy-efficient weatherization assistance program by Southwest Gas customers and to increase customer awareness of the program and the benefits of upgrading and replacing older, inefficient equipment and appliances with high-efficiency ones.

## Tools and Resources

Southwest Gas plans to employ various tools and resources outlined in the Program Outreach section above to maximize program participation. This may include bi-lingual digital and social media outreach, bill messages and onserts, website content, brochures, direct mail and select outreach events (virtual/in-person). The Company partners and collaborates with the ADOH and other community-based organizations, assistance agencies and other utilities for targeted outreach to qualified customers and program enhancements. The program is also co-promoted with the Low Income Ratepayer Assistance (LIRA) discount program materials.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

## Budget

Southwest Gas proposes a total estimated annual budget of \$450,000, with 73% or \$328,000 allocated to weatherization rebates and \$122,000 allocated to training, development, outreach, and administration funds for the ADOH and community-based agencies. Table 31 below provides the budget details by category.

**Table 31 – Total Estimated Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates (Weatherization)	\$328,000
Administration	\$122,000
<b>Total</b>	<b>\$450,000</b>

In addition to the energy conservation measures, community service referrals are made to appropriate community-based agencies to address other health and safety needs observed in the participants' homes, including automatically adding qualified customers to Southwest Gas' LIRA discount.

## Cost-Effectiveness Test Results

**Table 32 – Cost-Benefit Overview**

<b>Cost-Benefit Overview</b>	
Societal Benefits	\$408,121
Societal Costs	\$422,000
Net Benefits	(\$13,879)
<b>Cost-Effectiveness Ratio</b>	<b>0.97</b>

**Table 33 – Projected Lifetime Savings**

<b>Energy and Environmental Benefit Overview: Lifetime Savings</b>	
Natural Gas (therms)	99,000
Electricity (kWh)	6,762,000
Water (gallons)	N/A
CO <sub>2</sub> (metric tons)	1,776
Diesel (gallons)	N/A

## **LOW INCOME PROGRAMS: LOW INCOME BILL ASSISTANCE PROGRAM**

### **Program Description**

Southwest Gas proposes to continue offering the Low Income Bill Assistance Program which provides emergency assistance to low income households for payment on their natural gas bills. The DOE reports that on average, low income households typically spend 8.6% percent of their gross household income on energy costs, three times higher than for non-low-income households which is estimated at 3 percent. Some areas of the country even report spending 30% percent of gross household income on energy costs.<sup>4</sup> This can cause undue hardships to an at-risk population. The program is currently available to customers who have a household income at or below 200 percent of the Federal Poverty Guidelines.

### **Program Objective**

The Low Income Bill Assistance Program objective is to aid approximately 1,000 low income households annually to meet an immediate need to pay their natural gas bill resulting from the customer's sudden loss of income or other inability to pay.

### **Qualifying Customers**

All Southwest Gas residential customers and master-meter tenants located in the Company's Arizona service territory with active Southwest Gas natural gas service and an annual income at or below 250 percent of the Federal Poverty Income Guidelines are eligible to participate in the Low Income Bill Assistance Program. Southwest Gas is proposing to increase the income requirement for the low income bill assistance program to 250 percent of the Federal Poverty Income Guidelines to be consistent with the qualifying annual income approved for its LIRA program in Decision No. 78845 in Docket No. G-01551A-21-0368.

The household must not have received Southwest Gas bill assistance during the previous 12 months. In addition, the household must be facing a hardship, such as a sudden loss of income, unexpected expenses resulting in an inability to pay, or health risks associated with the disconnect of gas appliances.

### **Program Limitations**

The following requirements apply:

- The Low-Income Bill Assistance Program funding shall not exceed \$400 per

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<sup>4</sup> <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions#:~:text=Energy%20burden%20is%20defined%20as,which%20is%20estimated%20at%203%25>.

- household, in one calendar year.
- A customer's annual income cannot exceed 250 percent of the currently effective Federal Poverty Income Guidelines.

## **Program Administration**

The Low Income Bill Assistance Program is administered by Southwest Gas in conjunction with Wildfire.<sup>5</sup> Wildfire partners with the following eight community-based agencies to distribute bill assistance funds throughout the Company's Arizona service territory:

- City of Glendale Community Action Program
- City of Phoenix Human Services Department
- Community Action Human Resources Agency (CAHRA)
- Gila County Division of Health and Human Services
- MesaCAN (Community Action Network)/A New Leaf
- Pima County Community Action Agency
- Southeastern Arizona Community Action Program (SEACAP)
- Western Arizona Council of Governments (WACOG)

These community-based agencies provide access to families in need within the communities served by Southwest Gas. The community-based agencies are adept at managing a variety of income-qualified assistance programs and most offer an array of services, including food, shelter, weatherization services, housing assistance, clothing, job training, healthcare, and other vital programs.

Wildfire currently submits monthly reports to Southwest Gas for the bill assistance program expenditures. The reports detail each agency's funding disbursements by customer and account number. Each of the approved community-based agencies receives an annual funding budget.

## **Program Outreach**

To maximize participation in the program, Southwest Gas will utilize a multi-channel outreach strategy to reach income-qualified residential customers. The Company will continue to optimize its outreach strategy to increase customer awareness of the program and the financial assistance available from participating in the program.

The objectives of Southwest Gas' outreach efforts will be to increase the utilization of the available bill assistance funds by Southwest Gas customers and to increase customer awareness of the program and the benefits available to help lower the amount of their natural gas bill.

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<sup>5</sup> Wildfire was formally known as the Arizona Community Action Association.

In addition to providing bill assistance funding for program participants, community service referrals are made to appropriate community-based agencies to address other needs, including automatically adding qualified customers to Southwest Gas' LIRA discount.

### **Tools and Resources**

Southwest Gas plans to employ various tools and resources outlined in the Program Outreach section above to maximize program participation. This may include bi-lingual digital and social media outreach, bill messages and onserts, website content, brochures, direct mail and select outreach events (virtual/in-person). The Company partners with Wildfire (previously known as ACAA) and other community-based organizations, assistance agencies and other utilities for targeted outreach to qualified customers and to evaluate additional opportunities to promote the program. The program is also co-promoted with the LIRA discount program materials.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

### **Budget**

Southwest Gas proposes a total estimated annual budget of \$240,000, with \$185,000 allocated to billing assistance funds and \$55,000 allocated to administration funds for Wildfire. Table 34 below provides the budget details by category.

**Table 34 – Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates (Assistance)	\$185,000
Administration	\$55,000
<b>Total</b>	<b>\$240,000</b>

### **Cost-Effectiveness Test Results**

There are no energy savings associated with the Low-Income Bill Assistance Program.

# **RENEWABLE ENERGY RESOURCE TECHNOLOGY PROGRAM: SGB SOLAR THERMAL REBATES**

## **Program Description**

Southwest Gas proposes to continue to offer the SGB Solar Thermal Rebates Program to residential and non-residential customers in Southwest Gas' Arizona service territory. Rebates will be offered to participating customers on qualified solar thermal systems upon proof-of-purchase and installation.

Southwest Gas proposes that schools continue to be eligible to participate in the Company's SGB Solar Thermal Rebates Program. Southwest Gas proposes a set amount of funding be set aside within the SGB Solar Thermal Rebates Program to allow schools to participate and alleviate the concern of funding constraints. Schools participating in Southwest Gas' SGB Solar Thermal Rebates Program would experience eliminated or reduced out-of-pocket costs for adopting renewable energy technology. This funding offers energy saving upgrades to K-12 public and charter schools within the Company's Arizona service territory. With potentially 100 percent of project costs covered, eligible schools will save money on utility bills and increase the comfort of their students and staff minimizing out-of-pocket costs.

## **Program Objective**

The overall objective of this energy-efficient program is to increase public awareness of the benefits of using renewable energy and installing solar thermal systems and to reduce customer natural gas usage by providing economically beneficial rebates to install the systems. Long-term customer energy savings will be realized throughout the life of the solar thermal systems.

## **Qualifying Customers**

All active Southwest Gas residential and non-residential customers located in Southwest Gas' Arizona service territory are eligible to participate in the program.

## **Qualifying Measures**

Qualifying measure specifications will be reviewed annually and adjusted, as necessary, to reflect changing national efficiency standards. All measures must be installed in conjunction with a natural gas water heating unit.

According to the DOE, solar water and pool heating systems last much longer than standard gas water or pool heaters and can significantly reduce heating costs.

**Table 35 – Qualifying Measure Specifications**

Measure	Specification
Residential Solar Water Heating Systems	Collectors must be OG-100 certified <sup>1</sup>
Non-Residential Solar Water Heating Systems	Collectors must be OG-100 certified <sup>1</sup>
Non-Residential Solar Pool Heating Systems	Collectors must be OG-100 certified <sup>1</sup>

<sup>1</sup> OG-100 certifications issued by the Solar Rating and Certification Corporation, a Southwest Gas approved Nationally Recognized Testing Laboratory, or an American National Standards Institute accredited certifying organization.

**Rebate Amounts, Incremental Costs, and Annual Savings**

Southwest Gas determined the rebate amounts, incremental costs, and therm savings based on actual program data during PY1 through PY5/6. Rebate amounts were maintained at the minimum rebate levels needed to constitute a feasible marketing message to positively affect customer behavior.

**Table 36 – Rebate Amounts, Incremental Customer Costs, and Annual Savings**

Measure	Rebate <sup>1</sup>	Incremental Cost	On-Site Per Unit Annual Savings <sup>2</sup>				
			Therms	kWh	Water	CO <sub>2</sub>	Diesel
Residential Solar Water Heating Systems	\$20/therm	\$10,000	116	N/A	N/A	1	N/A
Non-Residential Solar Water Heating Systems	\$20/therm	\$60,000	2,000	N/A	N/A	11	N/A
Non-Residential Solar Pool Heating Systems	\$20/therm	\$60,000	2,000	N/A	N/A	11	N/A

<sup>1</sup> Rebate amounts are per first year annual therm savings and are up to a maximum of 60 percent of the installed cost of the system.

<sup>2</sup> Any applicable CO<sub>2</sub> reductions are shown in metric tons.

**Table 37 – Estimated Participation**

Measure	Estimated Annual Participation
Residential Solar Water Heating Systems	1
Non-Residential Solar Water Heating Systems	1
Non-Residential Solar Pool Heating Systems	1
<b>Total</b>	<b>3</b>

## **Program Limitations**

The following requirements apply:

- Measures must be new not used.

## **Target Audiences**

Southwest Gas' primary target audience is residential and non-residential customers.

Southwest Gas' secondary target audience is trade allies including contractors, distributors, and manufacturers of solar thermal systems.

## **Program Outreach**

To maximize participation in the program, Southwest Gas will utilize a multi-channel outreach strategy to reach residential and non-residential customers, along with vendors and distributors. The Company will continue to optimize its outreach strategy, as needed, to increase customer and contractor awareness of the program and the benefits of purchasing, selling, and installing energy-saving solar thermal equipment.

The objectives of Southwest Gas' outreach efforts will be to increase the utilization of qualifying energy-efficient solar thermal equipment by Southwest Gas customers; and to increase customer awareness of the incentive offers and the benefits of purchasing solar thermal systems.

## **Tools and Resources**

Southwest Gas plans to employ various tools and resources outlined in the Program Outreach section above to maximize participation in the program. This may include digital and social media outreach, targeted trade publications, brochures and other collateral materials, direct mail to key audiences, trade shows, seminars, workshops, and website content.

Cross-promotion with other Southwest Gas EE & RET programs and activities is also planned.

## **Budget**

Southwest Gas proposes a total annual estimated budget for this program of \$137,000. For participating schools, the Company proposes to offer qualifying schools an additional rebate of up to \$50,000 per school each year. This amount is included in the proposed budget. Table 38 below provides the budget details by category.

**Table 38 – Total Estimated Budget**

<b>Budget Category</b>	<b>Annual Budget</b>
Rebates	\$132,000
Administration	\$5,000
<b>Total</b>	<b>\$137,000</b>

**Cost-Effectiveness Test Results**

Southwest Gas is not required to demonstrate cost-effectiveness for the SGB Solar Thermal Rebates Program since it is an RET program.