



SOUTHWEST GAS CORPORATION

June 1, 2021

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

**Re: Docket No.G-01551A-21-XXXX
In the Matter of the Application of Southwest Gas Corporation for Approval
of an Energy Efficiency Portfolio and Renewable Energy Resource
Technology Portfolio Implementation Plan.**

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

If you have any questions, please contact me at 602-395-4058.

Respectfully submitted,

Matthew D. Derr
Director/Regulation & Energy Efficiency

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 **COMMISSIONERS**

3 LEA MÁRQUEZ PETERSON -Chairwoman
4 SANDRA KENNEDY
5 JUSTIN OLSON
6 JIM O'CONNOR
7 ANNA TOVAR

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-21-_____

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

16 **INTRODUCTION**

17 1. Southwest Gas Corporation hereby submits its application to the Arizona Corporation
18 Commission ("Commission") requesting approval of its Arizona Energy Efficiency ("EE") and
19 Renewable Energy Resource Technology ("RET") Portfolio Implementation Plan for Program
20 Years 2022 and 2023 ("Proposed EE & RET Plan"). The Company's Proposed EE & RET Plan
21 was designed in accordance with the Gas Utility Energy Efficiency Standards ("Standards") set
22 forth in Sections R14-2-2501 through R14-2-2520 of the Arizona Administrative Code ("A.A.C.")
23 and is expected to produce long-term energy savings, financial savings for customers and
24 positive environmental benefits.

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

27 3. Southwest Gas' corporate offices are located at 8360 S. Durango Drive, P.O. Box 98510
28 Las Vegas, Nevada 89193-8510. Communications regarding this filing should be addressed
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7 With a copy to:
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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 approximately 1.13 million
12 customers in the state of Arizona, including portions of Cochise, Gila, Graham, Greenlee, La
13 Paz, Maricopa, Mohave, Pima, Pinal, and Yuma counties. For operational purposes, Southwest
14 Gas’ Central Arizona division is headquartered in Phoenix and its Southern Arizona division is
15 headquartered in Tucson.

16 **BACKGROUND**

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.

19 6. On June 1, 2017, Southwest Gas filed an application (Docket No. G-01551A-17-0167)
20 seeking approval of its Program Years Seven and Eight (2018 and 2019) Energy Efficiency and
21 Renewable Energy Resource Technology (“EE & RET”) implementation plan in which the
22 Company proposed to continue all of its existing EE & RET programs with several modifications,
23 proposed adding two new programs, and requested a waiver and modification of the Energy
24 Efficiency Standard goals set forth in A.A.C R14-2-2504 applicable for Program Years Seven
25 and Eight.

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1 7. Southwest Gas filed a request on January 31, 2019 in Docket No. G-01551A-19-0021
2 seeking to revise the Demand-Side Management (DSM) rate from \$0.00745 to \$0.00541 per
3 therm. In Decision No. 77286, the Commission approved Southwest Gas' request to reset its
4 DSM rate to \$0.00541 per therm.

5 8. On May 22, 2019, at which time the Company's EE & RET Plan for Program Years
6 Seven and Eight remained pending with the Commission, Southwest Gas filed an application
7 (Docket No. G-01551A-19-0105) seeking a waiver of the June 1, 2019 implementation plan
8 filing date requirement set forth in A.A.C. R14-2-2505(A) and requesting that the EE & RET Plan
9 for Program Years Seven and Eight also be considered as the Company's EE & RET Plan for
10 Program Year Nine (2020). Southwest Gas additionally requested in its application a waiver of
11 the Standards set forth in A.A.C. R14-2-2504 with respect to Program Year Nine.

12 9. On August 19, 2019, the Commission issued Decision No. 77377 granting Southwest
13 Gas' request for a waiver of the June 1, 2019 filing date requirement and ordering that the
14 Company's EE & RET Plan for Program Years Seven and Eight be considered as its Program
15 Year Nine Plan, at such time as the Program Years Seven and Eight Plan is approved. Decision
16 No. 77377 further ordered that waivers of the Standards set forth in A.A.C. R14-2-2504 be
17 considered when addressing the EE & RET Plan for Program Years Seven and Eight.

18 10. On January 31, 2020, after consultation with Staff, Southwest Gas provided written
19 notice to the Commission that the Company would not submit an application to adjust the DSM
20 adjustor mechanism rate in 2020 and would maintain the existing surcharge, as the proposed
21 change would be minimal and likely result in a slight increase in rates.

22 11. On January 22, 2021, the Commission issued Decision No. 77892 approving Southwest
23 Gas' EE & RET Plan for Program Years Seven and Eight with modifications, and authorizing
24 the Company's Year Seven and Eight Plan to be used as its Year Nine Plan. Specifically, the
25 Commission ordered Southwest Gas to continue to offer its previously approved and active EE
26 & RET programs and measures, approved certain of the Company's proposed program
27 modifications, and declined approval of the proposed new programs. In its order, the
28 Commission additionally granted the requested waiver of the Standards for Program Years

1 Seven and Eight (2018 and 2019) but did not rule on the requested waiver of the Standards
2 with respect to Program Year Nine (2020).

3 12. Decision No. 77892 further ordered that the previously approved EE & RET Plan budget
4 of \$5,495,000 and the DSM adjustor rate of \$0.00541 per therm were to remain in effect until
5 further order of the Commission. Southwest Gas was additionally directed not to file its
6 application to reset the DSM adjustor in January 2021, but to instead to include its request in
7 the instant EE & RET implementation plan filing due by June 1, 2021.

8 13. On August 17, 2018, Staff, at the Commission's direction, initiated a rulemaking docket
9 (Docket No. RU-00000A-18-0284) to evaluate proposed Arizona energy modernization and to
10 explore possible modifications to the Commissions' energy-related rules, including the Gas
11 Utility Energy Efficiency Standards set forth in A.A.C. R14-2-2501 et seq.

12 14. At the Special Open Meeting on May 26, 2021, the Commission voted to approve an
13 amended energy rules package with proposed modifications to the Commission's energy rules
14 which will proceed and be subject to further evaluation under the formal rulemaking process.

15 15. As of the date of the instant filing, the current Gas Utility Energy Efficiency Standards
16 under A.A.C. R14-2-2501 through R14-2-2520 remain in effect. Accordingly, Southwest Gas
17 continues during the current Program Year Ten (2021) to implement the Commission-approved
18 EE & RET Plan and the programs authorized thereunder pursuant to A.A.C. R14-2-2505(E) and
19 Decision No. 77892.

20 **PROPOSED EE & RET PLAN**

21 16. Pursuant to A.A.C. R14-2-2501 *et seq.*, Southwest Gas hereby requests approval of its
22 Proposed EE & RET Plan, a copy of which is attached hereto as Exhibit A. The Company's
23 Proposed EE & RET Plan consists of eight programs with annual budgets each totaling
24 \$7,300,000 for Year 2022 and Year 2023. The programs are designed to provide cost-effective
25 natural gas savings, reduce greenhouse gas (GHG) emissions, and increase customer usage
26 of energy efficiency practices and new technologies. The Proposed EE & RET Plan will further
27 serve as a bridge between the existing Gas Energy Efficiency Standards and the recently
28

1 approved energy rules, which upon implementation contemplates a three-year Gas Demand
2 Side Management plan to be filed in April 2023.

3 17. Southwest Gas' Proposed EE & RET Plan incorporates a cost-effectiveness analysis
4 utilizing the Societal Cost Test, including quantified energy and water consumption savings, air
5 emission reductions and monetized benefits for therm, electric, water, carbon dioxide and diesel
6 fuel savings. The Company's Proposed EE & RET Plan is expected to achieve total annual
7 energy savings of approximately 3,643,542 therms or therm equivalents in both 2022 and 2023,
8 with a minimum of seventy-five percent (75%) attributable to DSM energy efficiency programs.
9 In addition, for Years 2022 and 2023 combined, it is anticipated that Arizona customers will
10 experience lifetime energy savings of approximately 177 million therms (including 52 million
11 therm equivalents), as well as approximately 700 million gallons in water savings and 700,000
12 metric tons in reduced carbon dioxide (CO₂) emissions. The CO₂ reduction alone is the
13 equivalent of approximately 151,000 passenger vehicles being removed from Arizona roads per
14 year.

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

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1 19. In developing its Proposed EE & RET Plan, Southwest Gas reviewed EE & RET
2 programs currently offered or under consideration by other utilities, as well as its existing
3 portfolio of energy efficiency programs. Southwest Gas submits that the proposed budget
4 affords the Company a level of funding adequate to sustain the programs and allow the
5 Company to achieve its targeted goals.

6 20. Southwest Gas' Proposed EE & RET Plan is designed to offer benefits to all classes of
7 customers in the Company's Arizona rate jurisdiction that are subject to the Company's DSM
8 rate adjuster. The Proposed EE & RET Plan is comprised of programs that afford Southwest
9 Gas' customers, including its low-income customers, cost-effective opportunities, resources and
10 education, all of which are designed to promote energy efficiency and conservation, and lower
11 energy bills for customers. A list of the proposed programs and measures, including budget
12 levels, is included in the Proposed EE & RET Plan. The Company seeks to implement the
13 Proposed EE & RET Plan on January 1, 2022, or within 60 days of approval by the Commission
14 if approval is received after the proposed implementation date.

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

18 **PROPOSED PILOT PROGRAMS**

19 22. The Company is proposing two pilot programs, the SGB Energy Education Program
20 (pilot) and the SGB CNG Vehicles Program (pilot). Specifically, A.A.C. R14-2-2505(B) and R14-
21 2-2507(C) require as part of an implementation plan and a request for new program approval
22 an estimate of each program's annual therm or therm equivalent savings, societal benefits and
23 benefit-cost ratio.

24 23. As discussed in the Proposed EE & RET Plan, Southwest Gas is proposing a new SGB
25 Energy Education Program pilot to provide no- and low-cost measures to assist customers with
26 energy conservation and changing their use behavior. Until the Energy Education Program is
27 implemented and operational, the Company is not able to effectively evaluate or quantify energy
28 savings or societal benefits. Southwest Gas proposes that during the pilot period, it will

1 determine the appropriate methodology for quantifying energy savings and provide the savings,
2 benefits and cost-effectiveness data in its periodic report filed with the Commission.

3 24. The proposed SGB CNG Vehicles Program pilot is designed to achieve cost-effective
4 energy savings in the transportation sector by offering incentives to commercial customers for
5 the purchase of CNG vehicles thereby reducing diesel fuel usage and lowering GHG emissions.
6 As demonstrated in the Proposed EE & RET Plan, this program will result in reduced
7 consumption of diesel fuel and have a significant positive benefit on Arizona's air quality through
8 reduced CO2 emissions. When these savings are monetized and included in the SCT as
9 proposed by Southwest Gas, the SGB CNG Vehicles Program has a cost-effectiveness ratio of
10 4.38 which is the highest cost-effectiveness ratio of any of the Company's proposed programs.
11 All energy savings, benefits and cost-effectiveness data on the SGB CNG Vehicle Program pilot
12 will be provided to the Commission in the Company's periodic reports required by A.A.C. R14-
13 2-2509.

14 **DEMAND-SIDE MANAGEMENT RATE**

15 25. The Commission issued Decision No. 60352 approving a settlement in Southwest Gas'
16 1996 general rate case, which included the establishment of a DSM adjustor mechanism.
17 Pursuant to Decision No. 60352, Southwest Gas was directed to file a request each year to set
18 the DSM rate to recover the projected costs of its Commission-approved DSM and conservation
19 and energy-efficiency programs. Upon consultation and agreement with Staff, Southwest Gas
20 filed its request to adjust the DSM surcharge each year by the end of January to enable Staff
21 sufficient time to perform its analysis. The revised rate is to become effective April 1 of each
22 year. In compliance with Decision No. 76069, the Company prepared a Plan of Administration
23 ("POA") for the DSM adjustor, which POA was approved by the Commission on November 21,
24 2018. The POA describes how the Company administers the DSM rate adjustment mechanism
25 and the corresponding annual adjustment to the mechanism.

26 26. As referenced above, Decision No. 77892 retained the previously approved budget of
27 \$5,495,000 and the DSM adjustor rate of \$0.00541 per therm and directed the Company not to
28 file a request to adjust the DSM rate in January 2021 but instead to file its request as part of the

1 instant EE & RET implementation plan application filing. Pursuant to A.A.C. Section R14-2-
2 2505(E) and in accordance with Decision No. 77892, Southwest Gas continues to implement
3 the Commission-approved Years Seven, Eight and Nine EE & RET Plan and the programs
4 authorized thereunder with an overall budget of \$5,495,000.

5 27. As discussed in the Company's Proposed EE & RET Plan, Southwest Gas contemplates
6 that the existing DSM rate of \$0.00541 per therm is adequate to fund the Company's currently
7 approved EE & RET programs for the remainder of calendar year 2021. Accordingly, Southwest
8 Gas requests authority to maintain the current DSM rate of \$0.00541 through the rate effective
9 period ending March 31, 2022. The Company will file an application to update the DSM rate in
10 January 2022. Any under- or over-collections in the DSM rate adjustor balancing account would
11 be reflected in the January 2022 filing, along with the Commission-approved budget for the
12 Company's Years 2022 and 2023 EE & RET Plan, provided that a Commission decision on the
13 instant application has been rendered prior to January 2022.

14 **WAIVER AND MODIFICATION OF STANDARDS**

15 28. Pursuant to A.A.C. R14-2-2520, Southwest Gas hereby requests, if and to the extent
16 required, a waiver and modification of the Standards set forth in A.A.C. R14-2-2504 with respect
17 to the Energy Efficiency Standard goals pertaining to Program Years Nine and Ten (2020 and
18 2021) and the Company's Proposed EE & RET Plan. As discussed in the Proposed EE &
19 RET Plan, energy savings for Program Year Nine was slightly below the cumulative Energy
20 Efficiency Standard goal of 5.40 percent (5.40%), and energy savings for the current Program
21 Year Ten (2021) cannot yet be ascertained. Though the Company anticipates that projected
22 energy savings for Years 2022 and 2023 will meet the cumulative Energy Efficiency Standard
23 goal of six percent (6.00%) prescribed in A.A.C. R14-2-2504(B), it will be dependent on the total
24 annual energy savings achieved for the current Program Year Ten. Southwest Gas submits
25 that the energy savings deficiency for Program Year Nine and any potential deficiency for
26 Program Year Ten, as well as any potential deficiency for Program Years 2022 and 2023 may
27 be attributable to the elimination of a site-source multiplier in the conversion of energy savings
28 to therm equivalents pursuant to Staff's recommendation, and the inability to expand program

1 offerings for Program Years Seven, Eight and Nine. Though resulting energy savings for Years
2 2022 and 2023 might be slightly lower than the six percent Standard goal, Southwest Gas'
3 proposed EE & RET Plan is designed to provide significant energy savings, water savings and
4 environmental benefits, including reduced GHG emissions.

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

11 **CONCLUSION**

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

16 Respectfully submitted this 1st day of June 2021.

17 SOUTHWEST GAS CORPORATION

18 

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Exhibit A

Southwest Gas Corporation

Energy Efficiency and Renewable Energy Resource Technology Portfolio Implementation Plan

Program Years 2022 and 2023

June 1, 2021

Docket No. G-01551A-21-_____



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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 2022 and 2023 program years consists of eight programs designed to achieve cost-effective natural gas savings, reduce greenhouse gas (GHG) emissions, and to increase customer 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.

The Plan will serve as a bridge between the existing Gas Utility Energy Efficiency Standards and the recently passed Energy Rules, which will require a three-year Gas Demand Side Management plan to be filed in April 2023.

Southwest Gas' EE & RET Plan will advance market transformation and achieve sustainable savings by increasing overall energy and water resource efficiency. 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*[®] (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 energy decisions by residential, non-residential, and low income customers, as well as Arizona homebuilders, 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 2022 on January 1, 2022, or within 60 days of approval by the Arizona Corporation Commission (Commission) if approval is received after the proposed implementation date. 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 2022 and 2023.

For Program Years 2022 and 2023 combined, it is anticipated that Arizona customers will experience lifetime savings of approximately 177 million therms (including 52 million therm equivalents), or \$46 million on their gas bills (not including therm equivalent savings), approximately 700 million gallons of water and 700,000 metric tons of CO₂ emissions. The CO₂ reduction alone is the equivalent of approximately 151,000 passenger vehicles being removed from Arizona roads for one year.

EE & RET Plan Savings and Cost-Effectiveness

In developing the EE & RET Plan, Southwest Gas worked with a third-party contractor to 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, CO₂, 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 more accurately capture all benefits of its proposed programs, Southwest Gas is including monetized benefits for natural gas, electric, water, CO₂, 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.

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 CO₂, 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 Ratios⁵

Program	Annual Therm Savings ¹	Lifetime Therm Savings ¹	Societal Benefits ²	Societal Costs	Societal Net Benefits ²	Cost-Effectiveness Ratio
Residential						
SGB Residential Rebates	137,004	1,765,226	\$710,740	\$435,056	\$275,684	1.63
SGB Homes	2,419,454	72,583,623	\$37,196,249	\$26,789,380	\$10,406,869	1.39
SGB Energy Education	162,000	162,000	N/A	N/A	N/A	N/A ⁴
<i>Total Residential</i>	<i>2,718,458</i>	<i>74,510,849</i>	<i>\$37,906,989</i>	<i>\$27,224,436</i>	<i>\$10,682,553</i>	<i>1.39</i>
Non-Residential						
SGB Commercial Rebates	384,872	5,947,903	\$5,053,528	\$1,869,296	\$3,184,231	2.70
SGB CNG Vehicles	519,607	7,794,101	N/A	N/A	N/A	N/A ⁴
<i>Total Non-Residential</i>	<i>904,478</i>	<i>13,742,004</i>	<i>\$5,053,528</i>	<i>\$1,869,296</i>	<i>\$3,184,231</i>	<i>2.70</i>
Low Income						
Low Income Weatherization	16,489	329,787	\$575,042	\$422,000	\$153,042	1.36
Low Income Bill Assistance ³	N/A	N/A	N/A	\$15,000	N/A	N/A
<i>Total Low Income</i>	<i>16,489</i>	<i>329,787</i>	<i>\$575,042</i>	<i>\$437,000</i>	<i>\$153,042</i>	<i>1.32</i>
Total EE Plan	3,639,426	88,582,640	\$43,535,559	\$29,530,732	\$14,019,826	1.47
Renewable Energy Resource Technology						
SGB Solar Thermal Rebates	4,116	82,320	N/A	N/A	N/A	N/A ⁴
Total EE & RET Plan	3,643,542	88,664,960	\$43,535,559	\$29,530,732	\$14,019,826	1.47

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

² Societal benefits are reflective of reduced natural gas, electricity, water, CO₂, and diesel usage tied to the measure.

³ There are no therm savings attributable to the Low Income Bill Assistance Program.

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

⁵ 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 3,643,542 therms (including therm equivalents), for program years 2022 and 2023. Southwest Gas anticipates meeting the goal of achieving cumulative annual energy savings of at least 6 percent of retail gas energy sales for the prior calendar year for program years 2022 and 2023, but it will be dependent upon actual savings realized during the current Program Year Ten. 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 a potential shortfall in savings. Table 2 provides the Gas Utility Energy Efficiency Standard goals with actual and projected savings for program years one through ten. To the extent that Southwest Gas' projections for energy savings in Program Year Ten fall short, the Company requests a waiver and modification of the Standards for 2022 and 2023, as well as for prior Program Years Nine and Ten as may be required.

To increase participation and energy savings and to offset the exclusion of a site-source multiplier, the Company's EE & RET Plan proposes to: 1) reserve funding for rebates to projects with long lead times; and 2) 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' 2022 and 2023 EE & RET Plan further provides significant decreases in air emissions including a total reduction of 695,426 metric tons of CO₂ emissions, the equivalent of removing 151,241 passenger vehicles off the road for one year as well as significant water savings during the current extreme drought conditions.

Table 3 provides the Gas Utility Energy Efficiency Standard goals with a minimum of 75 percent attributable to DSM energy efficiency programs. The Company anticipates meeting this tenth-year goal for 2022 and 2023 after reporting actual Annual and Cumulative Savings for Program Year Ten in future annual progress reports. To the extent that Southwest Gas' projections for energy savings in Program Year Ten fall short, the Company requests a waiver and modification of the Standards for 2022 and 2023, as well as for prior Program Years Nine and Ten as may be required.

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

Program Year	Prior Year Sales (Therms)	Total Goal (%)	Total Goal (Therms)	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	N/A ^[2]	N/A ^[2]
2022 ^[1]				N/A ^[2]	N/A ^[2]
2023 ^[1]				N/A ^[2]	N/A ^[2]

¹ Although the goal in the Gas Utility EE Standards is calculated through ten program years, Southwest Gas will continue reporting on Annual and Cumulative Savings unless otherwise directed by the Commission.

² 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

Program Year	Prior Year Sales (Therms)	DSM EE Goal (%) ³	DSM EE Goal (Therms)	DSM EE Annual Savings (Therms)	DSM EE Cumulative Savings (Therms)
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	N/A ^[2]	N/A ^[2]
2022 ^[1]				N/A ^[2]	N/A ^[2]
2023 ^[1]				N/A ^[2]	N/A ^[2]

¹ Although the goal in the Gas Utility EE Standards is calculated through ten program years, Southwest Gas will continue reporting on Annual and Cumulative Savings unless otherwise directed by the Commission.

² Actual Annual and Cumulative Savings will be reported in Southwest Gas' future annual progress reports.

³ A minimum of 75 percent of the Total Goal must be achieved through DSM EE programs.

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

Southwest Gas proposes a total annual budget of \$7,300,000 for program years 2022 and 2023. 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
Residential			
SGB Residential Rebates	\$290,000	\$50,000	\$340,000
SGB Homes	\$2,315,000	\$230,000	\$2,545,000
SGB Energy Education	\$0	\$368,000	\$368,000
<i>Total Residential</i>	<i>\$2,605,000</i>	<i>\$648,000</i>	<i>\$3,253,000</i>
Non-Residential			
SGB Commercial Rebates	\$730,000	\$270,000	\$1,000,000
SGB CNG Vehicles	\$2,110,000	\$50,000	\$2,160,000
<i>Total Non-Residential</i>	<i>\$2,840,000</i>	<i>\$320,000</i>	<i>\$3,160,000</i>
Low Income			
Low Income Weatherization	\$328,000	\$122,000	\$450,000
Low Income Bill Assistance	\$185,000	\$15,000	\$200,000
<i>Total Low Income</i>	<i>\$513,000</i>	<i>\$137,000</i>	<i>\$650,000</i>
Total Energy Efficiency Plan	\$5,958,000	\$1,105,000	\$7,063,000
Renewable Energy Resource Technology			
SGB Solar Thermal Rebates	\$132,000	\$5,000	\$137,000
General	N/A	\$100,000	\$100,000
Total EE & RET Plan	\$6,090,000	\$1,210,000	\$7,300,000

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.

Project Lead Time Flexibility

As EE & RET programs and rebates are approved for only one or two years, there may be missed opportunities to effectively incentivize energy efficiency for projects with long lead times because customers cannot rely upon Southwest Gas' program(s) being effective upon completion of their project. For example, a multifamily or large commercial customer may be incentivized to include qualifying energy efficient equipment when planning a long-term project, which can take up to 24 months to complete and be outside of the Company's current approved EE & RET Plan. Southwest Gas believes that providing greater certainty to such customers would lead to increased program participation and the Company would achieve greater energy savings.

Southwest Gas proposes to implement a pre-approval process as part of its EE & RET Plan whereby rebate funds would be deducted from the current program year budget, reserved on behalf of the customer and paid upon project completion, equipment installation, and/or account activation. Funds would be reserved up to a maximum of 24 months after receiving pre-approval. For the SGB Residential Rebates Program and the SGB Commercial Equipment Rebates Program, the Company would limit the amount of funding that could be reserved to 30 percent of the approved program's rebate budget. If approved, detailed information on the success of such reserved funding customer option will be included in Southwest Gas' future EE reports filed with the Commission.

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 rate adjuster, 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.

Per Decision No. 77892, the Company is required to include a request to adjust the DSM rate as part of this EE & RET Plan and application. The Company believes that the currently approved DSM rate is sufficient to fund the approved EE and RET programs for the remainder of 2021. 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 the DSM rate to reflect the Commission-approved budget for this EE & RET Plan in January 2022 (pending Commission approval on this item before January 2022).

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

Program Costs	\$7,300,000
Applicable Volumes	675,471,278
Adjustment Rate	\$0.0108/therm ¹
Avg. Monthly Bill Impact	\$0.26

¹ 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)

In order 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. Key messages have been designed to motivate customers to participate in the Company's energy efficiency programs. Southwest Gas will take a targeted approach to informing customers about its programs and optimizing various communication channels that provide the optimal value. This will be accomplished by targeting and communicating with customers most likely to utilize and benefit from the proposed programs. The Company will 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 the customer's energy and water savings, there can be even greater "source" energy savings. When "site versus source" energy efficiency is considered, up to three times the amount of source energy is required to generate electricity to operate electric end-use appliances than is required when natural gas is used as the end-use fuel.

It is critical in the long term that Southwest Gas is able to offer a robust portfolio of cost-effective EE & RET programs for Arizona customers to realize the maximum benefit of natural gas service while 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

Measure	Specification
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), 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 ¹				
			Therms	kWh	Water	CO ₂	Diesel
Mailer Kit	\$23 ^[2]	\$23	94,450	N/A	31,350,000	501	N/A
Clothes Washer (Tier 1)	\$25	\$50	1,293	8,538	506,330	7	N/A
Clothes Washer (Tier 2)	\$50	\$73	2,165	7,283	689,525	11	N/A
Natural Gas Clothes Dryer	\$50	\$75	444	2,478	N/A	2	N/A
Smart Thermostat	\$70	\$214	1,705	68,985	N/A	9	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	51	N/A

¹ Any applicable water or diesel savings are shown in gallons and CO₂ reductions are shown in metric tons.

² Cost of mailer kit provided to qualifying customers.

Table 8 – Estimated Participation and Cost-Effectiveness Ratios

Measure	Estimated Annual Participation	Cost-Effectiveness Ratio ¹
Mailer Kit	5,000	2.82
Clothes Washer (Tier 1)	250	2.10
Clothes Washer (Tier 2)	250	1.44
Natural Gas Clothes Dryer	100	1.16
Smart Thermostat	140	1.46
Natural Gas Furnace (Tier 1)	50	0.42
Natural Gas Furnace (Tier 2)	30	0.38
Natural Gas Storage Water Heater	40	0.53
Natural Gas Tankless Water Heater	350	1.37
Windows	267	2.61
Total Program	6,477	1.63

¹ 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

Budget Category	Annual Budget
Rebates	\$290,000
Administration	\$50,000
Total	\$340,000

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

Cost-Benefit Overview	
Societal Benefits	\$710,740
Societal Costs	\$435,056
Net Benefits	\$275,684
Cost-Effectiveness Ratio	1.63

Table 11 – Projected Lifetime Savings

Energy and Environmental Benefit Overview: Lifetime Savings	
Natural Gas (therms)	1,687,663
Electricity (kWh)	2,272,591
Water (gallons)	326,654,405
CO ₂ (metric tons)	8,956
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 and continued growth in participation in its SGB Homes Program over the last several years. Southwest Gas provided incentives to 11,606 new homes in PY7 (January 2018 – December 2018) and 9,684 new homes in PY8 (January 2019 – December 2019). In PY9 (January 2020 – December 2020), Southwest Gas provided incentives to 9,156 new homes.

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 as well as its ability to maintain high program participation in 2020 during the COVID-19 pandemic.

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 2022 and 2023. Based on estimates of new customer additions, the Company expects participation in the SGB Homes Program will be 8,900 new homes annually for 2022 and 2023. 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 either exceed current building code requirements or achieve the maximum HERS score expected to satisfy ENERGY STAR V.3.1 guidelines. According to the U.S. Environmental Protection Agency (EPA), ENERGY STAR V.3.1 certified new homes are designed and built to standards well above most other homes on the market today, delivering energy efficiency savings of up to 30 percent when compared to typical new homes. A new home that has earned the ENERGY STAR label has undergone a process of inspections, testing, and verification to meet strict requirements set by the EPA, delivering better quality, better comfort, and better durability.

Program Objective

The overall objective of this program is to increase the available energy-efficient housing inventory in Arizona by influencing homebuilders to reduce the HERS scores in new construction, and to ensure that energy and water resource efficiency is maximized by utilizing natural gas as an end-use fuel in new homes.

The SGB Homes Program will seek to increase 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

Measure	Specification
Tier 1	HERS score 59-55
Tier 2	HERS score \leq 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.

For its SGB Homes Program proposal, Southwest Gas utilized a base case home which is aligned with the 2012 International Energy Conservation Code (IECC) performance-based path. A typical home built to the 2012 IECC in Arizona will have a HERS score of 72. As homes become more energy efficient, the HERS score decreases. The Company's minimum requirement for a SGB Homes Program rebate, which is a HERS score of at least 59, demonstrates a significant effort to encourage the builder community to construct energy efficient homes that exceed code requirements.

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 ¹				
			Therms	kWh	Water	CO ₂	Diesel
Tier 1	\$100	\$2,707	1,132,080	8,888,911	N/A	6,008	N/A
Tier 2	\$500	\$3,400	776,080	6,091,872	N/A	4,119	N/A

¹ Any applicable water or diesel savings are shown in gallons and CO₂ reductions are shown in metric tons.

Table 14 – Estimated Participation and Cost-Effectiveness Ratios

Measure	Estimated Annual Participation	Cost-Effectiveness Ratio ¹
Tier 1	5,340	1.53
Tier 2	3,560	1.24
Total Program	8,900	1.39

¹ 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.

The objectives of Southwest Gas’ outreach efforts will be to increase the available energy-efficient housing inventory in Arizona by influencing homebuilders to

reduce the HERS scores in new construction and to ensure that energy and water resource efficiency is maximized by utilizing natural gas as an end-use fuel in new 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

Budget Category	Annual Budget
Rebates	\$2,315,000
Administration	\$230,000
Total	\$2,545,000

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

Cost-Benefit Overview	
Societal Benefits	\$37,196,249
Societal Costs	\$26,789,380
Net Benefits	\$10,406,869
Cost-Effectiveness Ratio	1.39

Table 17 – Projected Lifetime Savings

Energy and Environmental Benefit Overview: Lifetime Savings	
Natural Gas (therms)	57,244,800
Electricity (kWh)	449,423,478
Water (gallons)	N/A
CO ₂ (metric tons)	303,800
Diesel (gallons)	N/A

RESIDENTIAL ENERGY MANAGEMENT PROGRAMS: SGB ENERGY EDUCATION PROGRAM (PILOT)

Program Description

Southwest Gas proposes to offer a SGB Energy Education Program to educate and assist customers with the efficient use of energy in their homes, apartments, multi-family dwellings, and mobile homes. Energy education provides no and low-cost measures to assist customers with energy conservation and changing their energy use behavior.

Southwest Gas' Energy Education 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 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 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 through email. The Home Energy Report is personalized for each customer and will be directed to 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 in order to evaluate an appropriate methodology for evaluating and quantifying resulting energy savings in its Arizona service territory. The Company currently offers an Energy Education Program in its Nevada and California service territories and has

experienced success with offering these customers with an Energy Savings Portal and digital Home Energy Reports. 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. Through this pilot program, Southwest Gas also intends to explore leveraging with its electric utility counterparts to provide the most comprehensive energy education services in the future.

Program Objective

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

- Uncertainty as to how to begin saving energy;
- Not knowing where to obtain energy-efficient products and services;
- The misconception that nothing more can be done to be energy efficient; and
- Doubt regarding the ability to make a significant difference in energy use and cost

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 energy generally.

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

Service	Specification
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 162,000 therms and 860 metric tons of CO₂ 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:

- Customers must have an active Southwest Gas account.

Target Audiences

Southwest Gas' primary target audience is residential customers who reside in homes, multi-family dwellings, mobile homes or residences within the Company's Arizona service territory. An expanded target audience is high-use residential natural gas customers within Southwest Gas' Arizona service territory.

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 continue to modify its outreach strategy as it becomes aware of new opportunities to promote and support education initiatives.

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 can also access the 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

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

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.

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 or through POS incentives. The measures to be included 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 market transformation 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.
- Customers do not have to face wait times for the incentive 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 proposes a set amount of funding to be reserved within its SGB Commercial Rebates Program to allow schools to participate and alleviate the concern of funding constraints. Schools participating within Southwest Gas' SGB Commercial Rebates Program would experience eliminated or reduced out-of-pocket costs for increasing their energy efficiency. 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 while minimizing out-of-pocket costs.

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
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

Measure	Specification
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
Commercial Foodservice Equipment	
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
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

Measure	Specification
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.¹ 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), 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 ²	Incremental Cost	On-Site Per Unit Annual Savings ¹				
			Therms	kWh	Water	CO ₂	Diesel
CHP System	\$400-\$500 / kW	\$625,000	-138,000 ^[3]	3,760,000	N/A	-732 ^[3]	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 Heater (Residential Size/Residential End-use)	\$225	\$267	13,175	N/A	N/A	70	N/A
Natural Gas Tankless Water Heater (Residential)	\$1,000	\$1,482	166,009	N/A	N/A	881	N/A

¹ <https://caenergywise.com/>

Measure	Rebate ²	Incremental Cost	On-Site Per Unit Annual Savings ¹				
			Therms	kWh	Water	CO ₂	Diesel
Size/Commercial End-use)							
Natural Gas Tankless Water Heater (Commercial Size/Commercial End-use)	\$10 / MBTUH	\$14	331	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
Commercial Foodservice Equipment							
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	\$3,146	2,290	14,288	N/A	12	N/A
Natural Gas Conveyor Broiler (20"-26")	\$2,000	\$2,523	3,866	12,806	N/A	21	N/A
Natural Gas Conveyor Broiler (> 26")	\$3,000	\$3,658	6,322	175,200	N/A	34	N/A
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	\$882	1,242	N/A	N/A	7	N/A

Measure	Rebate ²	Incremental Cost	On-Site Per Unit Annual Savings ¹				
			Therms	kWh	Water	CO ₂	Diesel
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

¹ Any applicable water or diesel savings are shown in gallons and CO₂ reductions are shown in metric tons.

² Rebate amounts are per device unless otherwise specified.

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

Table 22 – Estimated Participation and Cost-Effectiveness Ratios

Measure	Estimated Annual Participation	Cost-Effectiveness Ratio¹
CHP System	1	4.76
Custom Measures	1	1.47
Natural Gas Storage Water Heater	17	1.14
Natural Gas Tankless Water Heater (Residential Size/Residential End-use)	250	1.37
Natural Gas Tankless Water Heater (Residential Size/Commercial End-use)	250	3.11
Natural Gas Tankless Water Heater (Commercial Size/Commercial End-use)	1	0.55
Natural Gas Commercial Furnace (Tier 1)	79	0.85
Natural Gas Commercial Furnace (Tier 2)	59	0.93
Natural Gas Domestic Hot Water Boiler	5	2.18
Steam Traps (Laundry)	1	2.88
Steam Traps (HVAC)	1	0.88
Steam Traps (Industrial Medium Pressure)	1	1.80
Steam Traps (Industrial High Pressure)	1	4.68
Commercial Foodservice Equipment		
Natural Gas Combi Oven (< 15 Pans)	1	0.77
Natural Gas Combi Oven (15-28 Pans)	1	1.01
Natural Gas Combi Oven (> 28 Pans)	1	1.04

Measure	Estimated Annual Participation	Cost-Effectiveness Ratio¹
Natural Gas Convection Oven (Full Sized)	3	0.99
Natural Gas Convection Oven (Half Sized)	1	0.90
Natural Gas Conveyor Broiler (< 20")	2	3.11
Natural Gas Conveyor Broiler (20"-26")	2	4.45
Natural Gas Conveyor Broiler (> 26")	2	7.39
Natural Gas Conveyor Oven	5	0.67
Natural Gas Fryer (Tier 1)	100	0.93
Natural Gas Fryer (Tier 2)	3	1.73
Natural Gas Griddle	5	1.03
Natural Gas Rack Oven	2	0.52
Natural Gas Steam Cooker	17	5.36
Natural Gas Underfired Broiler	1	0.52
Pre-Rinse Spray Valve	25	1.07
Total Program	838	2.70

¹ 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

Budget Category	Annual Budget
Rebates	\$730,000
Administration	\$270,000
Total	\$1,000,000

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

Cost-Benefit Overview	
Societal Benefits	\$5,053,528
Societal Costs	\$1,869,296
Net Benefits	\$3,184,231
Cost-Effectiveness Ratio	2.70

Table 25 – Projected Lifetime Savings

Energy and Environmental Benefit Overview: Lifetime Savings	
Natural Gas (therms)	3,350,695
Electricity (kWh)	76,097,504
Water (gallons)	25,584,675
CO ₂ (metric tons)	17,782
Diesel (gallons)	N/A

NON-RESIDENTIAL ENERGY MANAGEMENT PROGRAMS: SGB CNG VEHICLES PROGRAM (PILOT)

Program Description

Southwest Gas proposes as a new offering, the SGB CNG Vehicles 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 CO₂ emissions, or removing approximately 6,678 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.² 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 with 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.

² <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 necessary, to reflect the most efficient delivery of the program.

Table 26 – Qualifying Vehicle Specifications

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

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 ¹				
			Therms	kWh	Water	CO ₂	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

¹ Any applicable water or diesel savings are shown in gallons and CO₂ reductions are shown in metric tons.

Table 28 – Estimated Participation

Measure	Estimated Annual Participation¹
Class 4-6	75
Class 7-8	
Total Program	

¹ 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 account within the Company’s Arizona service territory.
- Incentivized vehicle 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

Budget Category	Annual Budget
Rebates	\$2,110,000
Administration	\$50,000
Total	\$2,160,000

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).³

³ <https://afdc.energy.gov/>

Table 30 – Carbon Impact by Vehicle Type

Metric	Class 4-6	Class 7-8	Source
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 ¹ 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 ₂ /Gallon-diesel	.00531	.00531	Energy Information Administration
Tons CO ₂ /CCF Natural Gas	.01016	.01016	Energy Information Administration
Carbon Reduction (Metric Tons)	7.51	19.78	= Gallons Diesel × Tons CO ₂ /gallon – CCF NG × Tons CO ₂ /CCF

¹ 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 CO₂ 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 4.38 which is 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 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 200 percent of the Federal Poverty Income Guidelines are eligible for this program.

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 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

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

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

Cost-Benefit Overview	
Societal Benefits	\$575,042
Societal Costs	\$422,000
Net Benefits	\$153,042
Cost-Effectiveness Ratio	1.36

Table 33 – Projected Lifetime Savings

Energy and Environmental Benefit Overview: Lifetime Savings	
Natural Gas (therms)	99,000
Electricity (kWh)	6,762,000
Water (gallons)	N/A
CO ₂ (metric tons)	525
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.⁴ This can cause undue hardships to an at-risk population.

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 200 percent of the Federal Poverty Income Guidelines, are eligible to participate in the Low Income Bill Assistance Program.

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 turn off of gas appliances.

Program Limitations

The following requirements apply:

- The Low Income Bill Assistance Program funding shall not exceed \$400 per household, in one calendar year.
- A customer's annual income cannot exceed 200 percent of the currently effective Federal Poverty Income Guidelines.

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

Program Administration

The Low Income Bill Assistance Program is administered by Southwest Gas in conjunction with Wildfire.⁵ Wildfire partners with the following nine 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
- Maricopa County Human Services Department
- 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.

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.

⁵ Wildfire was formally known as the Arizona Community Action Association.

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 \$200,000, with \$185,000 allocated to billing assistance funds and \$15,000 allocated to administration funds for Wildfire. Table 34 below provides the budget details by category.

Table 34 – Budget

Budget Category	Annual Budget
Rebates (Assistance)	\$185,000
Administration	\$15,000
Total	\$200,000

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 with 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 ¹
Non-Residential Solar Water Heating Systems	Collectors must be OG-100 certified ¹
Non-Residential Solar Pool Heating Systems	Collectors must be OG-100 certified ¹

¹ 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 ¹	Incremental Cost	On-Site Per Unit Annual Savings ²				
			Therms	kWh	Water	CO ₂	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

¹ 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.

² Any applicable water or diesel savings are shown in gallons and CO₂ 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
Total	3

Program Limitations

The following requirements apply:

- Measures must be new not be 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

Budget Category	Annual Budget
Rebates	\$132,000
Administration	\$5,000
Total	\$137,000

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.