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**SOUTHWEST GAS CORPORATION**



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AZ CORP COMMISSION  
DOCKET CONTROL

March 31, 2015

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

Re: **Docket No. G-00000G-15-0090**

Pursuant to the Gas Utility Energy Efficiency Standards of the Arizona Administrative Code, Section R14-2-2509(A), which requires affected utilities to file a progress report with the Arizona Corporation Commission by April 1 of each year, Southwest Gas Corporation hereby submits an original and thirteen copies of its Arizona Energy Efficiency and Renewable Energy Resource Technology Portfolio Implementation Plan.

If you have any questions or require additional information, please contact me at 602-395-4058.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Matthew Derr".

Matthew Derr  
Regulatory Manager/Arizona

Cc: Julie McNeely-Kirwan, ACC Utilities Division  
Brian Bozzo, ACC Compliance Manager

Arizona Corporation Commission  
**DOCKETED**

MAR 31 2015

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**SOUTHWEST GAS CORPORATION**

**ARIZONA ENERGY  
EFFICIENCY AND  
RENEWABLE ENERGY  
RESOURCE TECHNOLOGY  
PORTFOLIO  
IMPLEMENTATION PLAN**

***Annual Progress Report:  
January 1, 2014 – December 31, 2014***

**April 1, 2015**

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

## Overview

Pursuant to Section R14-2-2509(A) of the Gas Utility Energy Efficiency Standards (Gas EE Standards), Southwest Gas Corporation (Southwest Gas or Company) submits its annual progress report (Report) for the Company's Energy Efficiency (EE) and Renewable Energy Resource Technology (RET) portfolio (EE & RET Plan). Because Southwest Gas' EE & RET Plan programs are implemented from June through May, rather than from January through December, this Report contains data for the first seven months of Program Year Three (PY3), which covers June 1, 2014 through December 31, 2014. In addition, Southwest Gas has included in this Report a full year of data for Program Year Two (PY2), covering the period from June 1, 2013 through May 31, 2014.

The *Smarter Greener Better*<sup>®</sup> (SGB) Low-Income Energy Conservation (LIEC) program year operates on a fiscal year from July through June; therefore, the Report includes expenditures and participation rates for the period covering July 1, 2013 through June 30, 2014 for PY2 and July 1, 2014 through December 31, 2014 for PY3 of the program.

Pursuant to Decision No. 73229 (Docket No. G-01551A-11-0344), the Company has included an evaluation of cost-effectiveness for each program and measure in this Report, listing any measures which have ceased to be cost-effective and indicating why they have ceased to be cost-effective.

In addition, and pursuant to Decision No. 74300 (Docket No. G-01551A-13-0170), Southwest Gas has included tables that list the following information:

- All Arizona Corporation Commission (Commission) approved programs and measures, and budgeted expenditures by program
- Actual annual expenditures by program
- Plan cost-effectiveness ratio per measure (last calculated by the Commission's Utilities Division Staff (Staff))
- Actual cost-effectiveness ratio per measure (using the Staff-approved method with all criteria updated to reflect the most recent data available)
- Program annual therm savings and lifetime therm savings (plan and actual data)
- Program cost-effectiveness test benefits, costs, and net benefits (plan and actual data)

## Program Summary – PY2

In a letter dated May 30, 2013, Southwest Gas notified the Commission that the Company would continue its approved EE & RET Plan for PY1 in PY2, with the same budget and programs.

The following programs, which target the residential, non-residential and low-income market sectors, were implemented for PY2 on June 1, 2013. With the exception of programs 1 and 3 below, all continued through May 31, 2014<sup>a</sup>:

### **Residential Energy Management Programs**

1. *Smarter Greener Better* Residential Rebates
2. *Smarter Greener Better* Homes

### **Non-Residential Energy Management Programs**

3. *Smarter Greener Better* Commercial (Business) Rebates
4. *Smarter Greener Better* Custom Commercial (Business) Rebates
5. *Smarter Greener Better* Distributed Generation

### **Low-Income Program**

6. *Smarter Greener Better* Low-Income Energy Conservation

### **Renewable Energy Resource Technology Program**

7. *Smarter Greener Better* Solar Thermal Rebates

Below is a brief overview of each program that was implemented during PY2 of the reporting period.

**SGB Residential Rebates:** Rebates were offered to residential customers on qualified program measures upon proof-of-purchase and installation. The measures included: ENERGY STAR<sup>®</sup> tankless water heaters, high-efficiency natural gas clothes dryers, smart low-flow showerheads, windows, attic insulation, and floor insulation.

**SGB Homes:** Rebates were offered to homebuilders for ENERGY STAR certified homes, ENERGY STAR qualified tankless water heaters, and attic insulation. The program was available to all builders of new single-family subdivision and custom homes and low-rise multi-family homes featuring natural gas water and/or space heating.

**SGB Commercial (Business) Rebates:** Rebates were offered to non-residential customers on qualified program measures upon proof-of-purchase and installation. The measures included: high-efficiency tankless and storage water heaters; condensing and non-condensing boilers; boiler retrofit products including steam traps, modulating burner controls and oxygen trim controls; air curtains; and a full suite of commercial kitchen high-efficiency products including dishwashers, natural gas fryers, griddles, conveyor and combination ovens.

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<sup>a</sup> Pursuant to Decision No. 74305 (Docket No. G-01551A-13-0407), the Company's Residential and Commercial Rebate programs were discontinued in January 2014.

SGB Custom Commercial (Business) Rebates: Rebates were offered to non-residential customers based on achieved annual energy savings. The program does not specify eligible measures in order to provide participants maximum flexibility in identifying potential projects. Participants may propose any measure that produces a verifiable natural gas usage reduction, is installed in either existing or new construction applications and exceeds code, has a minimum useful life of seven years, and exceeds minimum cost-effectiveness requirements. Qualifying measures include those that target cost-effective natural gas savings, such as retrofits of existing systems, improvements to existing systems, and first time installations where the system's efficiency exceeds applicable codes or standard industry practice.

SGB Distributed Generation: The program provided rebates to non-residential customers to achieve significant fuel savings by promoting high-efficiency electric generation with waste heat recovery, providing financial benefits during peak electrical demand periods, and demonstrating the use of new technologies that are being brought to market. The rebates were based upon the size and efficiency of the system being installed.

SGB LIEC: The LIEC program was comprised of two components: one providing energy-efficient home improvements such as increased insulation, duct repairs, weatherstripping, caulking, etc., (otherwise referred to as weatherization); and the other providing emergency assistance to help pay household natural gas bills (otherwise referred to as bill assistance). The program was available to households with annual incomes less than 150 percent of the federal poverty income guidelines and was administered by Southwest Gas in conjunction with the Arizona Governor's Office on Energy Policy (OEP) and Arizona Community Action Agency (ACAA).

SGB Solar Thermal Rebates: Rebates were offered to residential and non-residential customers on qualified solar thermal systems used for water heating or pool heating with a natural gas back-up, upon proof-of-purchase and installation. The program objective was to increase public awareness of the benefits of solar thermal systems and to reduce customer natural gas usage by providing economically beneficial rebates to install the systems. Long-term customer energy savings are realized throughout the life of the solar thermal systems.

## Program Summary – PY3

Southwest Gas submitted its EE & RET Plan for PY3 and PY4 on May 31, 2013, requesting approval of its existing seven programs with a total budget of \$7.5 million. On January 29, 2014, the Commission issued Decision No. 74300 approving the five programs listed below with a total budget of \$4.7 million.

### **Residential Energy Management Programs**

1. *Smarter Greener Better* Homes

### **Non-Residential Energy Management Programs**

2. *Smarter Greener Better* Custom Commercial Rebates
3. *Smarter Greener Better* Distributed Generation

### **Low-Income Program**

4. *Smarter Greener Better* Low-Income Energy Conservation

### **Renewable Energy Resource Technology Program**

5. *Smarter Greener Better* Solar Thermal Rebates

The above five programs and associated program budgets constitute Southwest Gas' PY3 EE & RET program portfolio which began June 1, 2014 and extended through December 31, 2014, the end of this reporting period.

Below is a brief overview of each program that was implemented during PY3 of the reporting period.

SGB Homes: Tiered rebates were offered to homebuilders for ENERGY STAR certified homes. Homes that received ENERGY STAR certification were eligible for a Tier 1 rebate and homes that received ENERGY STAR certification and achieved a Home Energy Rating System (HERS) score of 65 or below were eligible for a Tier 2 rebate. The program was available to all builders of new single-family subdivision and custom homes and multi-family homes featuring natural gas water and/or space heating.

SGB Custom Commercial Rebates: Rebates were offered to non-residential customers based on achieved annual energy savings. The program does not specify eligible measures in order to provide participants maximum flexibility in identifying potential projects. Participants may propose any measure that produces a verifiable natural gas usage reduction, is installed in either existing or new construction applications and exceeds code, has a minimum useful life of seven years, and exceeds minimum cost-effectiveness requirements. Qualifying measures include those that target cost-effective natural gas savings, such as retrofits of existing systems, improvements to existing systems, and first time installations where the system's efficiency exceeds applicable codes or standard industry practice.

SGB Distributed Generation: The program provided rebates to non-residential customers to achieve significant fuel savings by promoting high-efficiency electric generation with waste heat recovery, providing financial benefits during peak

electrical demand periods, and demonstrating the use of new technologies that are being brought to market. The rebates are based upon the size and efficiency of the system being installed.

SGB LIEC: The LIEC program was comprised of two components: one providing energy-efficient home improvements such as increased insulation, duct repairs, weatherstripping, caulking, etc., (otherwise referred to as weatherization); and the other providing emergency assistance to help pay household natural gas bills (otherwise referred to as bill assistance). The program was available to households with annual incomes less than 150 percent of the federal poverty income guidelines and was administered by Southwest Gas in conjunction with the Arizona Governor's OEP and ACAA.

SGB Solar Thermal Rebates: Rebates were offered to residential and non-residential customers on qualified solar thermal systems used for water heating or pool heating with a natural gas back-up, upon proof-of-purchase and installation. The program objective was to increase public awareness of the benefits of solar thermal systems and to reduce customer natural gas usage by providing economically beneficial rebates to install the systems. Long-term customer energy savings are realized throughout the life of the solar thermal systems.

#### Other

Southwest Gas continually monitors and evaluates each program and measure included in its EE & RET Plan, and implements program and process improvements as needed. The Company often utilizes in-house staff for its measurement and evaluation activities which may result in no direct costs charged to the measurement, verification and evaluation (MV&E) budget category under each program. For programs that are administered by a third party, MV&E costs are accumulated under the Delivery budget category.

Southwest Gas has not encountered any issues which would result in a request to modify or terminate any programs or measures that are currently approved by the Commission. Any proposed modifications will be included in the Company's EE & RET Plan for Program Year Five, which will be filed by June 1, 2015.

## **Energy Efficiency Standards**

Pursuant to Section R14-2-2504 of the Gas EE Standards, Southwest Gas is required to achieve cumulative annual energy savings, expressed as therms or therm equivalents, equal to at least six percent of the Company's retail gas energy sales for calendar year 2019.

For PY2, the Company was required to achieve cumulative annual energy savings of at least 1.2 percent. Using Southwest Gas' 2011 retail sales of 634,605,252, the Company's cumulative year two energy savings goal of 1.2 percent was 7,615,263 therms. In PY2, Southwest Gas expended approximately

\$4.66 million of its \$4.7 million budget and achieved 5,230,962 annual therm savings as indicated in **Tables 1** and **3**. With savings of 3,146,127 therms and 5,230,962 therms achieved in PY1 and PY2, respectively, Southwest Gas' cumulative annual energy savings of 8,377,089 therms exceeds its year two goal set forth in the Gas EE Standards.

For PY3, the Company is required to achieve cumulative annual energy savings of at least 1.8 percent. Using Southwest Gas' 2012 retail sales of 603,223,751, the Company's total PY3 energy savings goal of 1.8 percent is 10,858,028 therms. With a cumulative total of 8,377,089 therms achieved in PY1 and PY2, Southwest Gas' PY3 energy savings goal is 2,480,939 therms. Final PY3 expenditures and energy savings will be included in a subsequent report.

## **Progress Report**

Southwest Gas' PY2 results exceeded its PY1 expenditures, participation and energy savings. As a result, the actual cost-effectiveness ratio has increased for all of the programs and measures included in the Company's EE & RET Plan, except for the SGB Custom Commercial Rebates, which decreased from PY1 to PY2, but remains cost-effective.

Pursuant to Decision No. 73229, Southwest Gas performed its biannual review of the performance of available measures and has included the actual cost-effectiveness ratios for each program and measure in this Report. In addition, pursuant to Decision No. 74300, the actual cost-effectiveness ratios for PY2 and for the first seven months of PY3 were calculated using the Staff-approved method with all criteria updated to reflect the most recent data available.

**Program Year 2 (PY2)**  
***June 1, 2013 – May 31, 2014***

**Table 1** below shows the total PY2 approved annual budget of \$4.7 million and the actual PY2 expenditures between June 1, 2013 and May 31, 2014 identified by program and budget category. Totals, which are rounded to the nearest dollar, may not add due to rounding.

**Table 1 – PY2: Budget and Expenditures**

Program	Annual Budget <sup>1</sup>	Expenditures (June 1, 2013 – May 31, 2014) <sup>2</sup>						Program Total Cost
		Rebates	Administration	Outreach	Delivery	MV&E		
<b>Residential</b>								
SGB Residential Rebates	\$ -	\$ 259,097	\$ 2,964	\$ 11,091	\$ 67,684	\$ -	\$ 340,836	
SGB Homes	\$ -	\$2,624,750	\$ (1,842)	\$ 15,069	\$ 30,000	\$ -	\$2,667,977	
<b>Total Residential</b>	\$ -	<b>\$2,883,846</b>	<b>\$ 1,122</b>	<b>\$ 26,160</b>	<b>\$ 97,684</b>	<b>\$ -</b>	<b>\$3,008,812</b>	
<b>Non-Residential</b>								
SGB Commercial Rebates	\$ -	\$ 241,627	\$ 2,140	\$ 18,125	\$ 12,435	\$ -	\$ 274,325	
SGB Custom Commercial Rebates	\$ -	\$ 284,713	\$ 32	\$ 3,758	\$ 43,618	\$ -	\$ 332,121	
SGB Distributed Generation	\$ -	\$ 50,000	\$ 3,518	\$ 3,382	\$ 6,523	\$ -	\$ 63,423	
<b>Total Non-Residential</b>	\$ -	<b>\$ 576,340</b>	<b>\$ 5,690</b>	<b>\$ 25,264</b>	<b>\$ 62,576</b>	<b>\$ -</b>	<b>\$ 669,869</b>	
<b>Low-Income<sup>3</sup></b>								
SGB LIEC: Weatherization <sup>4</sup>	\$ -	\$ 294,352	\$ 52,290	\$ 6,636	N/A	N/A	\$ 353,278	
SGB LIEC: Bill Assistance <sup>5</sup>	\$ -	N/A	N/A	N/A	N/A	N/A	\$ 196,345	
<b>Total Low-Income</b>	\$ -	<b>\$ 294,352</b>	<b>\$ 52,290</b>	<b>\$ 6,636</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 549,623</b>	
<b>Total Energy Efficiency</b>	\$ -	<b>\$3,754,538</b>	<b>\$ 59,102</b>	<b>\$ 58,060</b>	<b>\$160,260</b>	<b>\$ -</b>	<b>\$4,228,305</b>	
<b>Renewable Energy Resource Technology</b>								
SGB Solar Thermal Rebates	\$ -	\$ 328,253	\$ 1,501	\$ -	\$105,307	\$ -	\$ 435,060	
<b>Total EE &amp; RET Plan</b>	<b>\$4,700,000</b>	<b>\$4,082,790</b>	<b>\$ 60,602</b>	<b>\$ 58,060</b>	<b>\$265,566</b>	<b>\$ -</b>	<b>\$4,663,364</b>	

<sup>1</sup> Decision Nos. 73231 and 73229 approving Southwest Gas' initial EE & RET Plan did not provide approved budgets for each program. A total budget of \$4.7 million was approved for the Company's entire EE & RET Plan.

<sup>2</sup> Totals, which are rounded to the nearest dollar, may not add due to rounding.

<sup>3</sup> Low-income expenditures are included for the full program year, which is July 1, 2013 to June 30, 2014 and typically do not match the costs reported in Southwest Gas' general ledger system in the same period, due to timing differences and overlap between program years. The costs reported in the Company's general ledger system are \$493,954 for the SGB LIEC: Weatherization program and \$193,073 for the SGB LIEC: Bill Assistance program.

<sup>4</sup> Pursuant to Decision No. 72723, total expenditures for the SGB LIEC: Weatherization program including the additional \$200,000 shareholder funds added to the program budget are \$553,278 - with \$442,149 allocated to rebates, \$93,030 to administration, and \$18,099 to outreach. The rebates budget category includes non-energy benefits related to health and safety improvements. Program delivery and evaluation are performed by the Arizona Governor's OEP and community agencies and therefore, the associated costs are incorporated into the administration budget category.

<sup>5</sup> SGB LIEC: Bill Assistance is not a rebate program and does not adhere to the above budget categories; expenditures are identified in the Program Total Cost column only.

**Table 2** below shows the PY2 estimated and actual participation numbers and annual therm savings for the period June 1, 2013 through May 31, 2014 for each program. The table demonstrates that Southwest Gas enjoyed robust customer participation in its EE & RET programs, including the residential and commercial rebate programs that were terminated by Decision No. 74305 during PY2.

**Table 2 – PY2: Participation**

<b>Program</b>	<b>Estimated Participation</b>	<b>Actual Participation (June 1, 2013 – May 31, 2014)</b>
<b>Residential</b>		
SGB Residential Rebates	1,459	1,100
SGB Homes	3,082	5,893
<i>Total Residential</i>	<i>4,541</i>	<i>6,993</i>
<b>Non-Residential</b>		
SGB Commercial Rebates	119	196
SGB Custom Commercial Rebates	32	15
SGB Distributed Generation	1	1
<i>Total Non-Residential</i>	<i>152</i>	<i>212</i>
<b>Low-Income<sup>1</sup></b>		
SGB LIEC: Weatherization	300	203
SGB LIEC: Bill Assistance	700	1,131
<i>Total Low-Income</i>	<i>1,000</i>	<i>1,334</i>
<b>Total Energy Efficiency</b>	<b>5,693</b>	<b>8,539</b>
<b>Renewable Energy Resource Technology</b>		
SGB Solar Thermal Rebates	116	186
<b>Total EE &amp; RET Plan</b>	<b>5,809</b>	<b>8,725</b>

<sup>1</sup> Participation for the SGB LIEC: Weatherization and Bill Assistance programs are included for the period covering July 1, 2013 through June 30, 2014.

As noted in Table 1 Decision Nos. 73231 and 73229 approved a total budget of \$4.7 million and did not provide approved budgets for each program. As a result, cost-effectiveness ratios per measure are not available for PY2.

Pursuant to Decision No. 74300, Table 3 below is included to capture actual data.

**Table 3 – PY2: Annual and Lifetime Therm Savings; Lifetime Societal Benefits, Costs and Net Benefits; and Cost-Effectiveness (Actual Data)**

Program	Annual Therm Savings <sup>1</sup>	Lifetime Therm Savings <sup>1</sup>	Societal Benefits <sup>2</sup>	Societal Costs <sup>2</sup>	Net Benefits <sup>2</sup>	Cost-Effectiveness Ratio
<b>Residential</b>						
SGB Residential Rebates	41,205	1,077,624	\$1,232,841	\$635,325	\$597,516	1.94
SGB Homes	3,648,889	109,466,663	\$86,487,556	\$8,995,356	\$77,492,200	9.61
<i>Total Residential</i>	<i>3,690,094</i>	<i>110,544,286</i>	<i>\$87,720,397</i>	<i>\$9,630,681</i>	<i>\$78,089,717</i>	<i>9.11</i>
<b>Non-Residential</b>						
SGB Commercial Rebates	80,958	1,246,883	\$999,419	\$542,054	\$457,366	1.84
SGB Custom Commercial Rebates	1,256,228	8,951,907	\$5,605,877	\$633,801	\$4,972,075	8.84
SGB Distributed Generation	118,328	2,366,569	\$1,963,080	\$218,992	\$1,744,088	8.96
<i>Total Non-Residential</i>	<i>1,455,514</i>	<i>12,565,359</i>	<i>\$8,568,376</i>	<i>\$1,394,847</i>	<i>\$7,173,529</i>	<i>6.14</i>
<b>Low-Income</b>						
SGB LIEC: Weatherization <sup>3</sup>	62,919	1,415,685	\$1,113,678	\$542,304	\$571,374	2.05
SGB LIEC: Bill Assistance <sup>4</sup>	N/A	N/A	N/A	N/A	N/A	N/A
<i>Total Low-Income</i>	<i>62,919</i>	<i>1,415,685</i>	<i>\$1,113,678</i>	<i>\$542,304</i>	<i>\$571,374</i>	<i>2.05</i>
<b>Total Energy Efficiency</b>	<b>5,208,528</b>	<b>124,525,330</b>	<b>\$97,402,451</b>	<b>\$11,567,832</b>	<b>\$85,834,619</b>	<b>8.42</b>
<b>Renewable Energy Resource Technology</b>						
SGB Solar Thermal Rebates	22,434	448,680	\$394,033	\$878,604	(\$484,571)	N/A <sup>5</sup>
<b>Total EE &amp; RET Plan</b>	<b>5,230,962</b>	<b>124,974,010</b>	<b>\$97,796,484</b>	<b>\$12,446,436</b>	<b>\$85,350,048</b>	<b>7.86</b>

<sup>1</sup> These values, which are rounded to the nearest whole number, represent a combination of therms and therm equivalents from electric savings. In addition, the kWh savings are combined with the natural gas therm savings as therm equivalents for the annual and total lifetime energy savings reported. The therm equivalent value is calculated as the source fuel feeding the electric power plant. Through the efficiency of the power plant and transmission and distribution line losses, the kWh saved at the point of consumption is an estimated 30 percent of the total energy that is required to provide the electric power. Therefore, to calculate the total value of energy that is saved per kWh of electricity, Southwest Gas has multiplied the kWh savings by a factor of 3.340<sup>b</sup> for the cost-effectiveness tests.

<sup>2</sup> Totals, which are rounded to the nearest dollar, may not add due to rounding.

<sup>3</sup> Savings for the SGB LIEC: Weatherization program includes savings for the additional \$200,000 shareholder funds.

<sup>4</sup> There are no therm savings attributable to the SGB LIEC: Bill Assistance program.<sup>5</sup> Pursuant to the Gas EE Standards, cost-effectiveness is not required for RET programs.

<sup>b</sup> ENERGY STAR Performance Ratings Methodology for Incorporating Source Energy Use, March 2011

Please note data reported in the column titled Societal Benefits is limited (per the current Staff-approved method) to only natural gas savings associated with each EE & RET program.

PY2 estimated and actual participation and therm and kWh savings needed to calculate therm equivalent savings for the period June 1, 2013 through May 31, 2014 for each Commission-approved program and measure are shown in **Tables 4 through 10** below. The actual cost-effectiveness ratio per measure is also included in the tables. As mentioned previously, planned data is not available for PY2; therefore, the cost-effectiveness ratio per measure calculated by Southwest Gas is not available.

The planned cost-effectiveness ratio per measure as last calculated by Staff<sup>c</sup> is included in Staff's report dated December 31, 2013 in Docket No. G-01551A-13-0170, which is included in **Appendix A**.

**Table 4 – PY2: SGB Residential Rebates**

Measure	Estimated Participation	Paid	Savings		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Tankless Water Heater	384	312	18,720	N/A	N/A	1.44
Smart Low-Flow Showerhead	184	121	2,541	N/A	N/A	1.62
Clothes Dryer	384	81	810	N/A	N/A	1.18
Windows	62	240	3,552	178,641	N/A	1.49
Attic Insulation	384	343	9,441	N/A	N/A	2.38
Floor Insulation	61	3	46	N/A	N/A	3.48
<b>Total</b>	<b>1,459</b>	<b>1,100</b>	<b>35,110</b>	<b>178,641</b>	<b>N/A</b>	<b>1.94</b>

**Table 5 – PY2: SGB Homes**

Measure	Estimated Participation	Paid	Savings <sup>1</sup>		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
ENERGY STAR Home Certification	3,082	5,893	893,571	80,753,738	N/A	9.61
Tankless Water Heater	693	496			N/A	
Attic Insulation	385	1			N/A	
<b>Total Homes<sup>2</sup></b>	<b>3,082</b>	<b>5,893</b>			<b>N/A</b>	

<sup>1</sup> Savings are reported on a whole-home approach, not by measure. <sup>2</sup> In order to qualify for the tankless water heater or attic insulation rebate, the home must also receive an ENERGY STAR Certification rebate. Total number of homes indicates the number of home certification rebates paid. Tankless water heater and attic insulation rebates are not added to this total, as they are already included with the home certification rebate paid total.

<sup>c</sup> Pursuant to Decision No. 74300.

**Table 6 – PY2: SGB Commercial Rebates**

Measure	Estimated Participation	Paid	Savings		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Smart Low-Flow Showerhead	8	0	0	N/A	N/A	0.00
Clothes Dryer	8	0	0	N/A	N/A	0.00
Storage Water Heater	7	12	4,080	N/A	N/A	1.35
Tankless Water Heater	53	54	3,240	N/A	N/A	1.71
Non-Condensing Boiler	2	2	2,260	N/A	N/A	0.27
Condensing Boiler	5	10	14,180	N/A	N/A	2.63
Modulating Boiler Control	5	2	4,200	N/A	N/A	2.98
O <sub>2</sub> Trim Control Pad	5	2	10,000	N/A	N/A	14.44
Steam Trap	5	0	0	N/A	N/A	0.00
Air Curtain	8	1	1,449	N/A	N/A	5.02
Griddle	2	4	596	N/A	N/A	1.50
Fryer	2	100	36,000	N/A	N/A	1.60
Combination Oven	1	6	2,418	N/A	N/A	2.08
Conveyor Oven	1	3	2,535	N/A	N/A	4.61
Dishwasher – Low Temp: Door Type	1	0	0	N/A	N/A	0.00
Dishwasher – Low Temp: Single Tank	1	0	0	N/A	N/A	0.00
Dishwasher – Low Temp: Multi Tank	1	0	0	N/A	N/A	0.00
Dishwasher – High Temp: Under Counter	1	0	0	N/A	N/A	0.00
Dishwasher – High Temp: Door Type	1	0	0	N/A	N/A	0.00
Dishwasher – High Temp: Single Tank	1	0	0	N/A	N/A	0.00
Dishwasher – High Temp: Multi Tank	1	0	0	N/A	N/A	0.00
<b>Total</b>	<b>119</b>	<b>196</b>	<b>80,958</b>	<b>N/A</b>	<b>N/A</b>	<b>1.84</b>

**Table 7 – PY2: SGB Custom Commercial Rebates**

Measure	Estimated Participation	Paid	Savings		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Custom Rebates	32	15	1,256,228	N/A	N/A	8.84

**Table 8 – PY2: SGB Distributed Generation**

Measure	Estimated Participation	Paid	Savings		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Fuel efficiency $\geq$ 60%	0	0	0	0	N/A	0.00
Fuel efficiency $\geq$ 65%	0	0	0	0	N/A	0.00
Fuel efficiency $\geq$ 70%	1	1	51,891	1,947,170	N/A	8.96
<b>Total</b>	<b>1</b>	<b>1</b>	<b>51,891</b>	<b>1,947,170</b>	<b>N/A</b>	<b>8.96</b>

**Table 9 – PY2: SGB Low-Income Energy Conservation**

Measure	Estimated Participation	Actual Participaton <sup>1</sup>	Savings <sup>1</sup>		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Weatherization – Homes Assisted	300	203	8,323	1,600,127	N/A	2.05
Bill Assistance – Households Served	700	1,131	N/A	N/A	N/A	N/A
<b>Total</b>	<b>1,000</b>	<b>1,334</b>	<b>8,323</b>	<b>1,600,127</b>	<b>N/A</b>	<b>N/A</b>

<sup>1</sup> Participation and savings are included for the period covering July 1, 2013 through June 30, 2014.

**Table 10 – PY2: SGB Solar Thermal Rebates**

Measure	Estimated Participation	Paid	Savings	
			therms	kWh
Residential Solar Water Heating System	86	182	19,957	N/A
Non-Residential Solar Water Heating System	22	3	2,089	N/A
Non-Residential Solar Pool Heating System	8	1	388	N/A
<b>Total</b>	<b>116</b>	<b>186</b>	<b>22,434</b>	<b>N/A</b>

**Program Year 3 (PY3)**  
***June 1, 2014 – December 31, 2014***

**Table 11** below shows the total PY3 approved annual budget of \$4.7 million and the PY3 expenditures between June 1, 2014 and December 31, 2014 identified by program and budget category. Totals, which are rounded to the nearest dollar, may not add due to rounding.

**Table 11 – PY3: Budget and Expenditures**

Program	Annual Budget	Expenditures (June 1, 2014 – December 31, 2014) <sup>1</sup>					Program Total Cost
		Rebates	Administration	Outreach	Delivery	MV&E	
<b>Residential</b>							
SGB Residential Rebates <sup>2</sup>	\$ 0	\$ (93)	\$ -	\$ -	\$ -	\$ -	\$ (93)
SGB Homes	\$2,880,000	\$1,298,900	\$ 813	\$ 769	\$ 13,000	\$ -	\$1,313,482
<b>Total Residential</b>	<b>\$2,880,000</b>	<b>\$1,298,807</b>	<b>\$ 813</b>	<b>\$ 769</b>	<b>\$ 13,000</b>	<b>\$ -</b>	<b>\$1,313,389</b>
<b>Non-Residential</b>							
SGB Custom Commercial Rebates	\$ 330,000	\$ -	\$ -	\$ 3,269	\$ 26,795	\$ -	\$ 30,064
SGB Distributed Generation	\$ 300,000	\$ -	\$ 920	\$ 3,269	\$ 15,118	\$ -	\$ 19,307
<b>Total Non-Residential</b>	<b>\$ 630,000</b>	<b>\$ -</b>	<b>\$ 920</b>	<b>\$ 6,539</b>	<b>\$ 41,913</b>	<b>\$ -</b>	<b>\$ 49,372</b>
<b>Low-Income<sup>3</sup></b>							
SGB LIEC: Weatherization <sup>4</sup>	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SGB LIEC: Bill Assistance <sup>5</sup>	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 123,400
<b>Total Low-Income</b>	<b>\$ 650,000</b>	<b>\$ 108,400</b>	<b>\$ 15,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 123,400</b>
<b>Total Energy Efficiency</b>	<b>\$4,160,000</b>	<b>\$1,407,207</b>	<b>\$ 16,733</b>	<b>\$ 7,308</b>	<b>\$ 54,913</b>	<b>\$ -</b>	<b>\$1,486,161</b>
<b>Renewable Energy Resource Technology</b>							
SGB Solar Thermal Rebates	\$ 540,000	\$ 44,712	\$ 815	\$ 2,437	\$ 43,022	\$ -	\$ 90,985
<b>Total EE &amp; RET Plan</b>	<b>\$4,700,000</b>	<b>\$1,451,919</b>	<b>\$ 17,547</b>	<b>\$ 9,746</b>	<b>\$ 97,934</b>	<b>\$ -</b>	<b>\$1,577,146</b>

<sup>1</sup> Totals, which are rounded to the nearest dollar, may not add due to rounding.

<sup>2</sup> Southwest Gas received a residual credit from its rebate processing company following the closure of the Residential Rebates program in January 2014.

<sup>3</sup> Low-income expenditures are included for the first half of the program year, which is July 1, 2014 to December 31, 2014 and typically do not match the costs reported in Southwest Gas' general ledger system in the same period, due to timing differences and overlap between program years. The costs reported in the Company's general ledger system are \$156,591 for the SGB LIEC: Weatherization program and \$196,325 for the SGB LIEC: Bill Assistance program.

<sup>4</sup> Pursuant to Decision No. 72723, total expenditures for the SGB LIEC: Weatherization program including the additional \$200,000 shareholder funds added to the program budget are \$196,437 - with \$148,392 allocated to rebates, \$39,808 to administration, and \$8,237 to outreach. The rebates budget category includes non-energy benefits related to health and safety improvements. Program delivery and evaluation are performed by the Arizona Governor's OEP and community agencies and therefore, the associated costs are incorporated into the administration budget category.

<sup>5</sup> SGB LIEC: Bill Assistance is not a rebate program and does not adhere to the above budget categories; expenditures are identified in the Program Total Cost column only.

**Table 12** below shows the PY3 estimated participation and the number of rebates paid, pending and total rebates for the period June 1, 2014 through December 31, 2014 for each program.

**Table 12 – PY3: Participation**

Program	Estimated Participation	Participation (June 1, 2014 – December 31, 2014)		
		Paid	Pending	Total
<b>Residential</b>				
SGB Homes	7,805	3,763	0	3,763
<i>Total Residential</i>	7,805	3,763	0	3,763
SGB Custom Commercial Rebates	3	0	1	1
SGB Distributed Generation	2	0	1	1
<i>Total Non-Residential</i>	5	0	2	2
<b>Low-Income<sup>1</sup></b>				
SGB LIEC: Weatherization	300	75	0	75
SGB LIEC: Bill Assistance	700	770	0	770
<i>Total Low-Income</i>	1,000	845	0	845
<b>Total Energy Efficiency</b>	<b>8,810</b>	<b>4,608</b>	<b>2</b>	<b>4,610</b>
<b>Renewable Energy Resource Technology</b>				
SGB Solar Thermal Rebates	215	35	5	40
<b>Total EE &amp; RET Plan</b>	<b>9,025</b>	<b>4,643</b>	<b>7</b>	<b>4,650</b>

<sup>1</sup> Participation for the SGB LIEC: Weatherization and Bill Assistance programs is included for the period covering July 1, 2013 through June 30, 2014

Pursuant to Decision No. 74300, **Table 13** below is included to capture plan data for PY3.

**Table 13 – PY3: Annual and Lifetime Therm Savings; Lifetime Societal Benefits, Costs and Net Benefits; and Cost-Effectiveness (Plan Data)**

<b>Program</b>	<b>Annual Therm Savings<sup>1</sup></b>	<b>Lifetime Therm Savings<sup>1</sup></b>	<b>Societal Benefits<sup>2</sup></b>	<b>Societal Costs<sup>2</sup></b>	<b>Net Benefits<sup>2</sup></b>	<b>Cost-Effectiveness Ratio</b>
<b>Residential</b>						
SGB Homes	5,220,697	156,620,902	\$117,386,975	\$19,325,299	\$98,061,676	6.07
<i>Total Residential</i>	<i>5,220,697</i>	<i>156,620,902</i>	<i>\$117,386,975</i>	<i>\$19,325,299</i>	<i>\$98,061,676</i>	<i>6.07</i>
<b>Non-Residential</b>						
SGB Custom Commercial Rebates	1,027,503	15,070,037	\$9,744,616	\$548,575	\$9,196,041	17.76
SGB Distributed Generation	79,390	1,587,800	\$1,116,160	\$508,982	\$607,178	2.19
<i>Total Non-Residential</i>	<i>1,106,893</i>	<i>16,657,837</i>	<i>\$10,860,775</i>	<i>\$1,057,557</i>	<i>\$9,803,219</i>	<i>10.27</i>
<b>Low-Income</b>						
SGB LIEC: Weatherization <sup>3</sup>	92,984	2,092,146	\$1,744,159	\$666,578	\$1,077,581	2.62
SGB LIEC: Bill Assistance	N/A	N/A	N/A	N/A	N/A	N/A
<i>Total Low-Income</i>	<i>92,984</i>	<i>2,092,146</i>	<i>\$1,744,159</i>	<i>\$666,578</i>	<i>\$1,077,581</i>	<i>2.62</i>
<b>Total Energy Efficiency</b>	<b>6,420,573</b>	<b>175,370,884</b>	<b>\$129,991,910</b>	<b>\$21,049,434</b>	<b>\$108,942,476</b>	<b>6.18</b>
<b>Renewable Energy Resource Technology</b>						
SGB Solar Thermal Rebates	32,332	646,640	\$454,562	\$1,062,500	(\$607,938)	N/A <sup>4</sup>
<b>Total EE &amp; RET Plan</b>	<b>6,452,905</b>	<b>176,017,524</b>	<b>\$130,446,472</b>	<b>\$22,111,934</b>	<b>\$108,334,538</b>	<b>5.90</b>

<sup>1</sup> These values, which are rounded to the nearest whole number, represent a combination of therms and therm equivalents from electric savings. In addition, the kWh savings are combined with the natural gas therm savings as therm equivalents for the annual and total lifetime energy savings reported. The therm equivalent value is calculated as the source fuel feeding the electric power plant. Through the efficiency of the power plant and transmission and distribution line losses, the kWh saved at the point of consumption is an estimated 30 percent of the total energy that is required to provide the electric power. Therefore, to calculate the total value of energy that is saved per kWh of electricity, Southwest Gas has multiplied the kWh savings by a factor of 3.340<sup>d</sup> for the cost-effectiveness tests.

<sup>2</sup> Totals, which are rounded to the nearest dollar, may not add due to rounding.

<sup>3</sup> Savings for the SGB LIEC: Weatherization program includes estimated savings for the additional \$200,000 shareholder funds.

<sup>4</sup> Pursuant to the Gas EE Standards, cost-effectiveness is not required for RET programs.

<sup>d</sup> ENERGY STAR Performance Ratings Methodology for Incorporating Source Energy Use, March 2011

Pursuant to Decision No. 74300, Table 14 below is included to capture actual data for PY3.

**Table 14 – PY3: Annual and Lifetime Therm Savings; Lifetime Societal Benefits, Costs and Net Benefits; and Cost-Effectiveness (Actual Data)**

Program	Annual Therm Savings <sup>1</sup>	Lifetime Therm Savings <sup>1</sup>	Societal Benefits <sup>2</sup>	Societal Costs <sup>2</sup>	Net Benefits <sup>2</sup>	Cost-Effectiveness Ratio
<b>Residential</b>						
SGB Homes	2,477,466	74,323,983	\$61,893,533	\$9,227,575	\$52,665,958	6.71
<b>Total Residential</b>	<b>2,477,466</b>	<b>74,323,983</b>	<b>\$61,893,533</b>	<b>\$9,227,575</b>	<b>\$52,665,958</b>	<b>6.71</b>
<b>Non-Residential</b>						
SGB Custom Commercial Rebates	0	0	\$0	\$0	\$0	0.00
SGB Distributed Generation	0	0	\$0	\$0	\$0	0.00
<b>Total Non-Residential</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>0.00</b>
<b>Low-Income</b>						
SGB LIEC: Weatherization	23,246	523,036	\$452,904	\$164,933	\$287,971	2.75
SGB LIEC: Bill Assistance	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Low-Income</b>	<b>23,246</b>	<b>523,036</b>	<b>\$452,663</b>	<b>\$164,933</b>	<b>\$287,729</b>	<b>2.74</b>
<b>Total Energy Efficiency</b>	<b>2,500,712</b>	<b>74,847,019</b>	<b>\$62,346,437</b>	<b>\$9,392,508</b>	<b>\$52,953,929</b>	<b>6.64</b>
<b>Renewable Energy Resource Technology</b>						
SGB Solar Thermal Rebates	3,888	77,760	\$70,565	\$179,675	(\$109,111)	N/A <sup>3</sup>
<b>Total EE &amp; RET Plan</b>	<b>2,504,600</b>	<b>74,924,779</b>	<b>\$62,417,002</b>	<b>\$9,572,183</b>	<b>\$52,844,818</b>	<b>6.52</b>

<sup>1</sup> These values, which are rounded to the nearest whole number, represent a combination of therms and therm equivalents from electric savings. In addition, the kWh savings are combined with the natural gas therm savings as therm equivalents for the annual and total lifetime energy savings reported. The therm equivalent value is calculated as the source fuel feeding the electric power plant. Through the efficiency of the power plant and transmission and distribution line losses, the kWh saved at the point of consumption is an estimated 30 percent of the total energy that is required to provide the electric power. Therefore, to calculate the total value of energy that is saved per kWh of electricity, Southwest Gas has multiplied the kWh savings by a factor of 3.340e for the cost-effectiveness tests.

<sup>2</sup> Totals, which are rounded to the nearest dollar, may not add due to rounding.

<sup>3</sup> Pursuant to the Gas EE Standards, cost-effectiveness is not required for RET programs.

<sup>e</sup> ENERGY STAR Performance Ratings Methodology for Incorporating Source Energy Use, March 2011

The estimated and actual participation and therm and kWh savings needed to calculate therm equivalent savings for the PY3 period June 1, 2014 through December 31, 2014 for each Commission-approved program and measure are shown in **Tables 15 through 19** below. The plan cost-effectiveness ratio per measure calculated by Southwest Gas, and the actual cost-effectiveness ratio are also included in the tables based on program participation through December 31, 2014.

The plan cost-effectiveness ratio per measure as last calculated by Staff<sup>f</sup> is included in Staff's report dated May 30, 2014 in Docket No. G-01551A-13-0170, which is included in **Appendix B**.

**Table 15 – PY3: SGB Homes**

Measure	Estimated Participation	Paid	Savings		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
ENERGY STAR Home Certification – Tier 1	2,849	1,384	188,406	16,593,133	7.14	8.86
ENERGY STAR Home Certification – Tier 2	4,956	2,379	415,694	38,312,114	5.76	6.06
<b>Total Homes</b>	<b>7,805</b>	<b>3,763</b>	<b>604,099</b>	<b>54,905,247</b>	<b>6.07</b>	<b>6.71</b>

**Table 16 – PY3: SGB Custom Commercial Rebates**

Measure	Estimated Participation	Paid	Savings		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Custom Rebates	3	0	0	N/A	17.76	0.00

**Table 17 – PY3: SGB Distributed Generation**

Measure	Estimated Participation	Paid	Savings		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Fuel efficiency ≥ 60%	0	0	0	N/A	2.19	0.00
Fuel efficiency ≥ 65%	0	0	0	N/A		0.00
Fuel efficiency ≥ 70%	2	0	0	N/A		0.00
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>N/A</b>		<b>0.00</b>

<sup>f</sup> Pursuant Decision No. 74300.

**Table 18 – PY3: SGB Low-Income Energy Conservation**

Measure	Estimated Participation	Actual Participaton <sup>1</sup>	Savings <sup>1</sup>		Cost-Effectiveness Ratio	
			therms	kWh	Plan	Actual
Weatherization – Homes Assisted	300	75	3,075	591,180	2.62	2.74
Bill Assistance – Households Served	700	770	N/A	N/A	N/A	N/A
<b>Total</b>	<b>1,000</b>	<b>845</b>	<b>3,075</b>	<b>591,180</b>	<b>2.62</b>	<b>2.74</b>

<sup>1</sup> Participation and savings are included for the period covering July 1, 2013 through June 30, 2014

**Table 19 – PY3: SGB Solar Thermal Rebates**

Measure	Estimated Participation	Paid	Savings	
			therms	kWh
Residential Solar Water Heating System	211	35	3,888	N/A
Non-Residential Solar Water Heating System	3	0	0	N/A
Non-Residential Solar Pool Heating System	1	0	0	N/A
<b>Total</b>	<b>215</b>	<b>35</b>	<b>0</b>	<b>N/A</b>

## Conclusion

Southwest Gas' approved EE & RET Plan has continued to result in increased program participation and cost-effective energy savings for customers. For PY2, Southwest Gas expended approximately 99% of its \$4.7 million approved budget and the Company expects to maintain this level of participation in PY3.

Although these milestones represent significantly improved customer responsiveness to the Company's EE & RET Plan over a relatively short period of time, Southwest Gas believes it is important to take a broad view of the Company's EE & RET programs, and how natural gas service to end-use customers benefits all of Arizona's energy and water stakeholders.

Southwest Gas can play a critical role as Arizona looks toward its energy and water future. Considering "site versus source" energy efficiency, more than three times the amount of natural gas is required to generate electricity to operate electric end-use appliances than is required when natural gas is used as an end-use fuel. In the short-run, maximizing the use of natural gas end-use appliances, and correspondingly reducing the amount of electricity generated, effectively reduces the total amount of natural gas consumed. Furthermore, because less gas is burned, there are associated reductions in carbon emissions as well as potential water and power savings associated with cooling power plants.

Moreover, increasing natural gas end-use and reducing the demand for electricity also delays the need for, and potentially the amount of, incremental electric generation and transmission assets, thus producing long-term savings.

It is therefore important in the long term that Southwest Gas have a robust portfolio of cost-effective EE & RET programs in order for Arizona customers to realize the maximum benefit of natural gas service. Additionally, as noted by Chairman Bitter Smith in her dissent letter to Decision No. 74305, Southwest Gas' EE & RET program portfolio may be critical in some cases to its competitive position in the market.

Southwest Gas looks forward to its role in Arizona's energy and water future, and will continue to monitor the effectiveness of the programs and measures included as part of its EE & RET Plan. Southwest Gas will propose program and budget modifications in future filings, as necessary, in order to address and align customer interests and, more specifically, to help meet the broader energy goals of the State.

# **Appendix A**

OPEN MEETING  
ORIGINAL MEMORANDUM

TO: THE COMMISSION

FROM: Utilities Division

DATE: December 31, 2013

RE: SOUTHWEST GAS CORPORATION – APPLICATION FOR APPROVAL OF AN ENERGY EFFICIENCY AND RENEWABLE ENERGY RESOURCE TECHNOLOGY PORTFOLIO IMPLEMENTATION PLAN (DOCKET NO. G-01551A-13-0170)

Arizona Corporation Commission

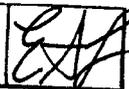
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**Background**

On May 31, 2013, Southwest Gas Corporation (“Southwest”) filed an Energy Efficiency and Renewable Energy Resource Technology Portfolio Implementation Plan (“EE and RET Plan”) for years Three and Four of its current Plan. This filing was in compliance with R14-2-2505A of the Gas Utility Energy Efficiency Standards, which provides that companies must file their Implementation Plans on June 1 of each odd year, or annually at the election of each company.

The Southwest EE and RET Plan, covering Plan Year One was approved in Decision No. 73231, on June 5, 2012. At that time, eight programs were approved, with a budget of \$4.7 million, and the DSM Surcharge was set at \$0.00200 per therm.

On June 1, 2012, Southwest filed a new EE and RET Plan for Plan Year Two in Docket No. G-01551A-12-0218. Since the Commission has not issued a Decision in that case, Staff recommends that Docket No. G-01551A-12-0218 be administratively closed once a Decision is issued in this Docket.

**DSM Adjustor Reset and Bank Balance**

Southwest did not propose a change to the DSM Surcharge in its current filing. Instead, the Company has requested to continue using its current DSM adjustor process, originally approved by the Commission in Decision No. 60352. The current DSM adjustor process provides that Southwest file to reset its DSM adjustor rate in January of each year, with the new rate taking effect in the first billing cycle for the following April.

The most recent reset of the adjustor rate took place as of April 1, 2013. Decision No. 73772 (March 21, 2013) set the DSM Surcharge at \$0.007791 per therm. The DSM account balance was under-collected by \$1,973,957, as of May 31, 2013. As of September 2013, the under-collection was approaching \$3 million. In communications with Staff the Company indicated that it anticipates that the balance will be under-collected by approximately \$2 million at the time of reset in April 2014.

Recommendation: Staff recommends that the Company notify the Commission if the under-collection increases to more than \$3.5 million.

**Summary of Existing Portfolio**

The following are descriptions of the seven programs currently in place. Six offer energy efficiency measures, while one, Solar Thermal Rebates, offers renewable measures:

- (i) SGB<sup>1</sup> Residential Rebates: Rebates are available to residential customers on qualified program measures upon proof-of-purchase and installation. Existing measures include: ENERGY STAR tankless water heaters, high efficiency natural gas clothes dryers, and windows. Southwest now offers the attic and floor insulation measures from the SGB Residential Rebates program only to customers who undergo a Home Performance assessment, and who utilize an authorized contractor. Southwest made this change to ensure that attic and floor insulation measures are installed only in cases where they are likely to produce cost-effective savings, and because attic and floor insulation may not achieve deemed energy savings if not installed correctly.
- (ii) SGB Homes: Rebates are offered to home builders who build ENERGY STAR certified homes. The program is available to all builders of new single-family subdivision and custom homes and multi-family homes featuring natural gas water and/or space heating.
- (iii) SGB Commercial Rebates: Rebates are offered to non-residential customers on qualified program measures upon proof-of-purchase and installation. The measures include high efficiency space and water heating products, and food service measures such as dishwashers, natural gas fryers, griddles, conveyor and convection and combination ovens.
- (iv) SGB Custom Commercial Rebates: Rebates are available to non-residential customers based on achieved annual energy savings. The program does not specify eligible measures in order to provide participants maximum flexibility in identifying potential projects. Participants may propose any measure that produces a verifiable natural gas usage reduction, is installed in either existing or new construction applications, has a minimum useful life of seven years and exceeds minimum cost-effectiveness requirements. Qualifying measures include those that target cost-effective natural gas savings, such as retrofits of existing systems, improvements to existing systems and first-time installations where the system's efficiency exceeds applicable codes or standard industry practice.

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<sup>1</sup>"SGB" stands for Smarter Greener Better.

- (v) **SGB Distributed Generation**: The program provides rebates to non-residential customers to achieve significant fuel savings by promoting high efficiency electric generation, providing financial benefits during peak electrical demand periods, and demonstrating the use of new natural gas technologies that are being brought to market. The rebates are based upon the size and efficiency of the system being installed.

**Current Project**: The Clarion Hotel installed a natural gas-powered engine to generate electricity when peak electric demand is at its highest. In addition to the natural gas-powered engine, the Combined Heat and Power ("CHP") system includes a heat exchanger that captures waste heat from electricity generation and uses it to heat water that is stored in a large hot water tank, which fulfills most of the hotel's hot water needs while the system is running. The exchange of heat in CHP, which is also called cogeneration, captures 80 percent of waste heat for use by the facility.

- (vi) **SGB Low-Income Energy Conservation**: The Low-Income Energy Conservation ("LIEC") program is comprised of two components: one provides energy-efficient home improvements such as increased insulation, duct repairs, weather-stripping, and caulking, otherwise referred to as weatherization; and the other provides emergency assistance to help pay household natural gas bills. The program is available to households with annual incomes less than 150 percent of the federal poverty income guidelines, and is administered by Southwest in conjunction with the Arizona Governor's Office on Energy Policy ("OEP") and Arizona Community Action Agency ("ACAA").
- (vii) **SGB Solar Thermal Rebates**: Rebates are offered to residential and non-residential customers on qualified solar thermal systems, used for water heating or pool heating, upon proof-of-purchase and installation. The program objective is to increase public awareness of the benefits of 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.

### **Benefit-Cost Ratio Table**

A benefit-cost ratio table is attached to the proposed Order as Exhibit C. The Decision number and date are listed along with the benefit-cost ratio for each measure. Due to the Commission's desire to preserve the status quo, Staff has not done a benefit-cost analysis for the new measures proposed by the Company.

### Summary of Proposed Changes

Southwest has proposed modifications to its portfolio of EE programs. These modifications are discussed below:

- SGB Residential. The Company has proposed that direct install measures and weatherization measures be added to the SGB Residential Rebates program. Southwest believes these would provide a cost-effective opportunity for additional savings. Direct install and weatherization measures were originally proposed as part of the SGB Residential Energy Assessments pilot in Docket No. G-01551A-11-0344. The SGB Residential Business Energy Assessments pilot, as well as the proposed Energy Education program, were not found cost-effective and were not approved. (Decision No. 73229; June 5, 2012.)

Recommendation: Staff recommends that direct install measures and weatherization measures not be approved for the SGB Residential Rebates program at this time.

- SGB Homes
  - (i) Southwest has proposed that the SGB Homes program be restructured to offer tiered rebates based on each home's Home Energy Rating System ("HERS") rating score<sup>2</sup>, instead of being based on the measures installed. In the revised program, the Tankless Water Heater and Attic Insulation measures would be discontinued as individual measures. Instead, all participating homes will need to comply with Version 3 of ENERGY STAR's program and be certified. In addition, Tier 1 of the program would offer rebates for meeting a HERS score equal to or greater than 66, while Tier 2 would be offered for homes achieving a HERS score less than or equal to 65. Restructuring the program to focus on the HERS scores would make the program more performance-based.

Recommendations: Staff recommends that the Commission approve the restructuring of the SGB Homes program to offer tiered rebates based on each home's HERS rating score on a trial basis, so long as doing so is cost-effective.

- (ii) The Company has proposed that the SGB Homes program be expanded to include low-rise multi-family homes. The Company states that more low-rise multi-family homes are being constructed in Arizona and anticipates that the savings will be equivalent to single-family homes. Widening eligibility to this type of housing would allow more ratepayers to

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<sup>2</sup> On the HERS index scale, a score of 100 is considered the average efficiency of baseline new construction, while a HERS index score of 0 represents a home that produces all of its energy through on-site generation from renewable energy. In other words, the lower the HERS score, the less energy the home uses from offsite sources.

participate in the SGB Homes program. However, cost-effectiveness was not calculated separately for low-rise multi-family homes since this property type is included as a category in ENERGY STAR's Certified Homes, Version 3 National Program Requirements.

Recommendations: Staff believes that there is insufficient data to ensure that the multi-family homes would be cost-effective. Accordingly, Staff recommends that the Commission approve expanding eligibility for participation to low-rise multifamily homes on a pilot basis only. Data should be gathered concerning the cost-effectiveness of extending eligibility to low rise multi-family homes. Once twelve months of data has been gathered, these data should be included in the next progress report filed with the Commission.

- SGB Commercial Rebates

- (i) Southwest has proposed that several measures in the SGB Commercial Rebates Program be eliminated, namely: griddles, O2 trim control pads, and two<sup>3</sup> categories of dishwashers. Higher-than-anticipated incremental costs coupled with low natural gas prices have kept these measures from being cost-effective.
- (ii) Recommendation: Staff recommends that the Commission approve the Company's proposal to eliminate griddles, O2 trim control pads, and any non-cost-effective categories of dishwashers.
- (iii) The Company has proposed that the following measures be added to the SGB Commercial Rebates Program: boiler reset controls, infrared broilers, and pre-rinse spray valves.

Recommendation: Staff recommends that the Commission not approve the addition of boiler reset controls, infrared broilers, or pre-rinse spray valves to the SGB Commercial Rebates Program at this time.

- (iv) Southwest has proposed that the existing commercial storage water heater measure be modified into a two-tier measure. (Tier 2 features a higher incremental cost and higher incentives, but also significantly higher savings).

Recommendation: Staff recommends that commercial storage water heaters remain eligible for incentives and that the Company be allowed to establish a first and second tier for this measure provided the modified measure is more cost-effective than the existing measure.

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<sup>3</sup> Represents update. Originally filing indicated three.

- (v) Instead of the existing oven measures, Southwest has proposed that any commercial oven meeting the new Energy Star Product specification effective January 2014 be eligible for a rebate, along with ovens tested and listed on the Food Service Technology Center qualifying product lists.

Recommendation: Staff recommends that Southwest be allowed to utilize the new eligibility standard it has proposed for commercial ovens, but that the Company not be allowed to recover the costs associated with the commercial oven measure unless and until it can demonstrate the cost-effectiveness of all the new models made eligible under the new standard.

- (vi) The Company has proposed that standards for modulating burner controls be increased. Under the new standard, controls would have to be installed on existing boilers with a capacity of greater than or equal to 2 MMBTUH. This change is intended to enhance savings.

Recommendation: Staff recommends that the Commission approve the Company's proposal to increase eligibility standards for modulating burner controls, so that burner controls would have to be installed on existing boilers with a capacity of greater than or equal to 2 MMBTUH.

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The Company states that each prime mover would still be individually evaluated to ensure cost-effectiveness prior to any rebate payments, and that the proposed expansion to other types of prime movers would increase opportunities for new technologies, if they prove to be efficient.

Recommendation: Staff recommends that the Commission not approve expansion of the type of eligible prime movers (types of electricity production) available under the Distributed Generation Program at this time.

- SGB Low-income Energy Conservation. The Company requests that the administrative dollars for the Bill Assistance component under the SGB Low-Income Energy Conservation program be increased. Under this proposal, the administrative budget would be increased to 15%.

**Recommendation:** Staff recommends that there be no increase in administrative dollars for the Bill Assistance component under the SGB Low-Income Energy Conservation program.

**Current Budget**

The current \$4.7 million budget was set in Decision Nos. 73229 and 73231 (from G-01551A-11-0344 and G-01551A-10-0458). Program budgets are allocated based on the market and are likely to shift over time.

Program	Rebates	Administration	Outreach	Delivery	MV&E	Total Cost
<b>Residential</b>						
SGB Residential Rebates	\$313,900	\$8,600	\$21,500	\$77,400	\$8,600	\$430,000
SGB Homes	\$2,100,000	\$30,000	\$45,000	\$30,000	\$45,000	\$2,250,000
SGB Commercial Rebates	\$111,600	\$5,400	\$14,400	\$45,000	\$3,600	\$180,000
SGB Custom Commercial Rebates	\$340,000	\$6,000	\$18,000	\$130,000	\$6,000	\$500,000
SGB Distributed Generation	\$100,000	\$5,000	\$12,000	\$30,000	\$3,000	\$150,000
SGB Low-Income Weatherization	\$363,750	\$77,500	\$9,000	0	0	\$450,000
SGB Low-Income Bill Assistance	0	0	0	0	0	\$200,000
SGB Solar Thermal Rebates	\$434,900	\$2,500	0	\$97,200	\$5,400	\$540,000
<b>Total EE and RET Plan</b>	<b>\$3,764,150</b>	<b>\$134,750</b>	<b>\$119,900</b>	<b>\$409,600</b>	<b>\$71,600</b>	<b>\$4,700,000</b>

**Proposed Budgets, Years 3 and 4**

**Proposed Budgets.** The Company has proposed new, higher budgets for Years 3 and 4. The budget proposed for Year 3 is \$7.5 million, as shown in Exhibit A. The budget proposed for Year 4 is \$6.0 million, as shown in Exhibit B.

**Recommendation:** Staff recommends that the budget for both Years 3 and 4 be increased by \$1.3 million, from \$4.7 million to \$6 million.

**Incentive Levels**

Incentives for Southwest measures are limited to no more than 75% of the incremental cost of an individual measure. Incentives currently represent approximately 80% of the portfolio budget. In Docket No. G-01551A-13-0407, Southwest has requested increasing its existing \$4.7 million budget by \$1.6 million due to increasing customer participation.

**Recommendation:** To accommodate expanding participation and maintain reasonable program budgets, Staff recommends the Commission lower the cap on incentives to no more than 60% of the incremental cost of each measure. Staff believes that decreasing the cap on incentives will allow more customers to participate in Southwest's programs and increase the number of therms saved per program dollar spent. Staff also recommends that Southwest gather twelve months of data regarding the impact of lowering the cap on incentives and include this information in the next progress report filed with the Commission.

**Gas Efficiency Standards**

Southwest states that it achieved 3,146,127 in therm savings during its first plan year, exceeding its goal of 3,085,874 therms. The Company also states that it achieved 81,394 in therm savings during the first month of its second plan year and that its cumulative goal for its second plan year is 7,615,263. Southwest believes that it is "on target" to meet this goal. However, in communications with Staff, the Company has indicated that it may have to shut down its existing programs in the near future if the interim funding requested in Docket No. G-01551A-13-0407 is not approved.

**Summary of Recommendations**

**Bank Balance**

- Staff recommends that the Company notify Staff if the under-collection increases to more than \$3.5 million.

**Budget Recommendation**

- Staff recommends that the budget for Year 3 and the budget for Year 4 both be set at \$6 million.

**Incentive Levels**

- Staff recommends that the Commission lower the cap on incentives to no more than 60% of the incremental cost of each measure.
- Staff recommends that Southwest gather twelve months of data regarding the impact of lowering the cap on incentives and include this information in the next progress report filed with the Commission.

SGB Residential Rebates

- Staff recommends that direct install measures and weatherization measures not be approved for the SGB Residential Rebates program at this time.

SGB Homes

- Staff recommends that the Commission approve the restructuring of the SGB Homes program to offer tiered rebates based on each home's HERS rating score on a trial basis, so long as doing so is cost-effective.
- Staff recommends that the Commission approve expanding eligibility for participation to low-rise multi-family homes on a pilot basis only. Data should be gathered concerning the cost-effectiveness of extending eligibility to low rise multi-family homes. Once twelve months of data have been gathered, these data should be included in the next progress report filed with the Commission.

SGB Commercial Rebates

- Staff recommends that the Commission approve the Company's proposal to eliminate griddles, O2 trim control pads, and any non-cost-effective categories of dishwashers.
- Staff recommends that the Commission not approve the addition of boiler reset controls, infrared broilers, or pre-rinse spray valves to the SGB Commercial Rebates Program at this time.
- Staff recommends that commercial storage water heaters remain eligible for incentives and that the Company be allowed to establish a first and second tier for this measure.
- Staff recommends that Southwest be allowed to utilize the new eligibility standard it has proposed for commercial ovens, but that the Company not be allowed to recover the costs associated with the commercial oven measure unless and until it can demonstrate the cost-effectiveness of all the new models made eligible under the new standard.
- Staff recommends that the Commission approve the Company's proposal to increase eligibility standards for modulating burner controls, such that burner controls would have to be installed on existing boilers with a capacity of greater than or equal to 2 MMBTUH.

SGB Distributed Generation

- Staff recommends that the Commission not approve expansion of the type of eligible prime movers (types of electricity production) available under the Distributed Generation Program.

SGB Low-income Energy Conservation

- Staff recommends that the Commission not approve an increase in administrative dollars for the Bill Assistance component under the SGB Low-Income Energy Conservation program.

General

- Staff recommends that Docket No. G-01551A-12-0218 be administratively closed.

for   
Steven M. Olea  
Director  
Utilities Division

SMO:JMK:sms\RRM

ORIGINATOR: Julie McNeely-Kirwan

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

IN THE MATTER OF THE APPLICATION  
OF SOUTHWEST GAS CORPORATION  
FOR APPROVAL OF AN ENERGY  
EFFICIENCY AND RENEWABLE ENERGY  
RESOURCE TECHNOLOGY PORTFOLIO  
IMPLEMENTATION PLAN

DOCKET NO. G-01551A-13-0170  
DECISION NO. \_\_\_\_\_  
ORDER

Open Meeting  
January 14 and 15, 2014  
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

Background

1. Southwest Gas Corporation ("Southwest" or "the Company") is engaged in providing natural gas service within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission.

2. Southwest serves approximately one million customers in the counties of Gila, La Paz, Cochise, Graham, Maricopa, Pima, Greenlee, Mohave, Pinal and Yuma. Of these customers, approximately 970,000 are Residential, while 40,000 are Commercial. Southwest also serves a smaller number of Industrial, Irrigation and Transportation customers.

3. On May 31, 2013, Southwest filed an Energy Efficiency and Renewable Energy Resource Technology Portfolio Implementation Plan ("EE and RET Plan") for years Three and

1 Four of its current Plan. This filing was in compliance with R14-2-2505A of the Gas Utility  
2 Energy Efficiency Standards, which provides that companies must file their Implementation Plans  
3 on June 1 of each odd year, or annually at the election of each company.

4 4. The Southwest EE and RET Plan, covering Plan Year One was approved in  
5 Decision No. 73231, on June 5, 2012. At that time, eight programs were approved, with a budget  
6 of \$4.7 million, and the DSM Surcharge was set at \$0.00200 per therm.

7 5. On June 1, 2012, Southwest filed a new EE and RET Plan for Plan Year Two in  
8 Docket No. G-01551A-12-0218. Since the Commission has not issued a Decision in that case,  
9 Staff recommends that Docket No. G-01551A-12-0218 be administratively closed once a Decision  
10 is issued in this Docket.

11 **DSM Adjustor Reset and Bank Balance**

12 6. Southwest did not propose a change to the DSM Surcharge in its current filing.  
13 Instead, the Company has requested to continue using its current DSM adjustor process, originally  
14 approved by the Commission in Decision No. 60352. The current DSM adjustor process provides  
15 that Southwest file to reset its DSM adjustor rate in January of each year, with the new rate taking  
16 effect in the first billing cycle for the following April.

17 7. The most recent reset of the adjustor rate took place as of April 1, 2013. Decision  
18 No. 73772 (March 21, 2013) set the DSM Surcharge at \$0.007791 per therm. The DSM account  
19 balance was under-collected by \$1,973,957, as of May 31, 2013. As of September 2013, the  
20 under-collection was approaching \$3 million. In communications with Staff the Company  
21 indicated that it anticipates that the balance will be under-collected by approximately \$2 million at  
22 the time of reset in April 2014.

23 8. Recommendation. Staff has recommended that the Company notify the  
24 Commission if the under-collection increases to more than \$3.5 million.

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1 **Summary of Existing Portfolio**

2 9. The following are descriptions of the seven programs currently in place. Six offer  
3 energy efficiency measures, while one, Solar Thermal Rebates, offers renewable measures:

4 (i) SGB<sup>1</sup> Residential Rebates: Rebates are available to residential customers on  
5 qualified program measures upon proof-of-purchase and installation. Existing  
6 measures include: ENERGY STAR tankless water heaters, high efficiency natural  
7 gas clothes dryers, and windows. Southwest now offers the attic and floor  
8 insulation measures from the SGB Residential Rebates program only to customers  
9 who undergo a Home Performance assessment, and who utilize an authorized  
10 contractor. Southwest made this change to ensure that attic and floor insulation  
11 measures are installed only in cases where they are likely to produce cost-effective  
12 savings, and because attic and floor insulation may not achieve deemed energy  
13 savings if not installed correctly.

14 (ii) SGB Homes: Rebates are offered to home builders who build ENERGY STAR  
15 certified homes. The program is available to all builders of new single-family  
16 subdivision and custom homes and multi-family homes featuring natural gas water  
17 and/or space heating.

18 (iii) SGB Commercial Rebates: Rebates are offered to non-residential customers on  
19 qualified program measures upon proof-of-purchase and installation. The measures  
20 include high efficiency space and water heating products, and food service  
21 measures such as dishwashers, natural gas fryers, griddles, conveyor and  
22 convection and combination ovens.

23 (iv) SGB Custom Commercial Rebates: Rebates are available to non-residential  
24 customers based on achieved annual energy savings. The program does not specify  
25 eligible measures in order to provide participants maximum flexibility in  
26 identifying potential projects. Participants may propose any measure that produces  
27

28 <sup>1</sup> "SGB" stands for Smarter Greener Better.

1 a verifiable natural gas usage reduction, is installed in either existing or new  
2 construction applications, has a minimum useful life of seven years and exceeds  
3 minimum cost-effectiveness requirements. Qualifying measures include those that  
4 target cost-effective natural gas savings, such as retrofits of existing systems,  
5 improvements to existing systems and first-time installations where the system's  
6 efficiency exceeds applicable codes or standard industry practice.

- 7 (v) SGB Distributed Generation: The program provides rebates to non-residential  
8 customers to achieve significant fuel savings by promoting high efficiency electric  
9 generation, providing financial benefits during peak electrical demand periods, and  
10 demonstrating the use of new natural gas technologies that are being brought to  
11 market . The rebates are based upon the size and efficiency of the system being  
12 installed.

13 Current Project:. The Clarion Hotel installed a natural gas-powered engine to  
14 generate electricity when peak electric demand is at its highest. In addition to the  
15 natural gas-powered engine, the Combined Heat and Power ("CHP") system  
16 includes a heat exchanger that captures waste heat from electricity generation and  
17 uses it to heat water that is stored in a large hot water tank, which fulfills most of  
18 the hotel's hot water needs while the system is running. The exchange of heat in  
19 CHP, which is also called cogeneration, captures 80 percent of waste heat for use  
20 by the facility.

- 21 (vi) SGB Low-Income Energy Conservation: The Low-Income Energy Conservation  
22 ("LIEC") program is comprised of two components: one provides energy-efficient  
23 home improvements such as increased insulation, duct repairs, weather-stripping,  
24 and caulking, otherwise referred to as weatherization; and the other provides  
25 emergency assistance to help pay household natural gas bills. The program is  
26 available to households with annual incomes less than 150 percent of the federal  
27 poverty income guidelines, and is administered by Southwest in conjunction with  
28 ...

1 the Arizona Governor's Office on Energy Policy ("OEP") and Arizona Community  
2 Action Agency ("ACAA").

- 3 (vii) SGB Solar Thermal Rebates: Rebates are offered to residential and non-residential  
4 customers on qualified solar thermal systems, used for water heating or pool  
5 heating, upon proof-of-purchase and installation. The program objective is to  
6 increase public awareness of the benefits of solar thermal systems and to reduce  
7 customer natural gas usage by providing economically beneficial rebates to install  
8 the systems. Long-term customer energy savings will be realized throughout the  
9 life of the solar thermal systems.

#### 10 Benefit-Cost Ratio Table

11 A benefit-cost ratio table is attached as Exhibit C. The Decision number and date are listed  
12 along with the benefit-cost ratio for each measure. Due to the Commission's desire to preserve the  
13 status quo, Staff has not done a benefit-cost analysis for the new measures proposed by the  
14 Company.

#### 15 Summary of Proposed Changes

16 10. Southwest has proposed modifications to its portfolio of EE programs. These  
17 modifications are discussed below:

- 18 • SGB Residential. The Company has proposed that direct install measures and  
19 weatherization measures be added to the SGB Residential Rebates program. Southwest  
20 believes these would provide a cost-effective opportunity for additional savings. Direct  
21 install and weatherization measures were originally proposed as part of the SGB  
22 Residential Energy Assessments pilot in Docket No. G-01551A-11-0344. The SGB  
23 Residential Business Energy Assessments pilot, as well as the proposed Energy  
24 Education program, were not found cost-effective and were not approved. (Decision  
25 No. 73229; June 5, 2012.)

26 Recommendation: Staff has recommended that direct install measures and  
27 weatherization measures not be approved for the SGB Residential Rebates program at  
28 this time.

1           • SGB Homes.

- 2           (i)       Southwest has proposed that the SGB Homes program be restructured to  
3                   offer tiered rebates based on each home's Home Energy Rating System  
4                   ("HERS") rating score<sup>2</sup>, instead of being based on the measures installed. In  
5                   the revised program, the Tankless Water Heater and Attic Insulation  
6                   measures would be discontinued as individual measures. Instead, all  
7                   participating homes will need to comply with Version 3 of ENERGY  
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9                   offer rebates for meeting a HERS score equal to or greater than 66, while  
10                  Tier 2 would be offered for homes achieving a HERS score less than or  
11                  equal to 65. Restructuring the program to focus on the HERS scores would  
12                  make the program more performance-based.

13               Recommendations: Staff has recommended that the Commission  
14               approve the restructuring of the SGB Homes program to offer tiered rebates  
15               based on each home's HERS rating score on a trial basis, so long as doing  
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23                   calculated separately for low-rise multi-family homes since this property  
24                   type is included as a category in ENERGY STAR's Certified Homes,  
25                   Version 3 National Program Requirements.

26               Recommendation: Staff believes that there is insufficient data to ensure that  
27               the multi-family homes would be cost-effective. Accordingly, Staff has

28               <sup>2</sup> On the HERS index scale, a score of 100 is considered the average efficiency of baseline new construction, while a HERS index score of 0 represents a home that produces all of its energy through on-site generation from renewable energy. In other words, the lower the HERS score, the less energy the home uses from offsite sources.

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11. The current \$4.7 million budget was set in Decision Nos. 73229 and 73231 (from G-01551A-11-0344 and G-01551A-10-0458). Program budgets are allocated based on the market and are likely to shift over time.

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SGB Low-Income Weatherization	\$363,750	\$77,500	\$9,000	0	0	\$450,000
SGB Low-Income Bill Assistance	0	0	0	0	0	\$200,000

Decision No. \_\_\_\_\_

1						
2	SGB Solar Thermal Rebates	\$434,900	\$2,500	0	\$97,200	\$5,400
3	Total EE and RET Plan	\$3,764,150	\$134,750	\$119,900	\$409,600	\$71,600
						\$4,700,000

#### 4 **Proposed Budgets, Years 3 and 4**

5           12.   Proposed Budgets. The Company has proposed new, higher budgets for Years 3  
6 and 4. The budget proposed for Year 3 is \$7.5 million, as shown in Exhibit A. The budget  
7 proposed for Year 4 is \$6.0 million, as shown in Exhibit B.

8           13.   Recommendation: Staff has recommended that the budget for both Years 3 and 4  
9 be increased by \$1.3 million, from \$4.7 million to \$6 million.

#### 10 **Incentive Levels**

11           14.   Incentives for Southwest measures are limited to no more than 75% of the  
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23           16.   Southwest states that it achieved 3,146,127 in therm savings during its first plan  
24 year, exceeding its goal of 3,085,874 therms. The Company also states that it achieved 81,394 in  
25 therm savings during the first month of its second plan year and that its cumulative goal for its  
26 second plan year is 7,615,263. Southwest believes that it is "on target" to meet this goal.  
27 However, in communications with Staff, the Company has indicated that it may have to shut down

28 ...

1 its existing programs in the near future if the interim funding requested in Docket No. G-01551A-  
2 13-0407 is not approved.

3 **Summary of Recommendations**

4 **Bank Balance**

- 5           • Staff has recommended that the Company notify Staff if the under-collection  
6           increases to more than \$3.5 million.

7 **Budget Recommendation**

- 8           • Staff has recommended that the budget for Year 3 and the budget for Year 4 both be  
9           set at \$6 million.

10 **Incentive Levels**

- 11           • Staff has recommended that the Commission lower the cap on incentives to no  
12           more than 60% of the incremental cost of each measure.  
13           • Staff has recommended that Southwest gather twelve months of data regarding the  
14           impact of lowering the cap on incentives and include this information in the next  
15           progress report filed with the Commission.

16 **SGB Residential Rebates**

- 17           • Staff has recommended that direct install measures and weatherization measures not  
18           be approved for the SGB Residential Rebates program at this time.

19 **SGB Homes**

- 20           • Staff has recommended that the Commission approve the restructuring of the SGB  
21           Homes program to offer tiered rebates based on each home's HERS rating score on  
22           a trial basis, so long as doing so is cost-effective.  
23           • Staff has recommended that the Commission approve expanding eligibility for  
24           participation to low-rise multi-family homes on a pilot basis only. Data should be  
25           gathered concerning the cost-effectiveness of extending eligibility to low rise multi-  
26           family homes. Once twelve months of data have been gathered, these data should  
27           be included in the next progress report filed with the Commission.

28 ...

1 SGB Commercial Rebates

- 2           • Staff has recommended that the Commission approve the Company's proposal to  
3 eliminate griddles, O2 trim control pads, and any non-cost-effective categories of  
4 dishwashers.
- 5           • Staff has recommended that the Commission not approve the addition of boiler  
6 reset controls, infrared broilers, or pre-rinse spray valves to the SGB Commercial  
7 Rebates Program at this time.
- 8           • Staff has recommended that commercial storage water heaters remain eligible for  
9 incentives and that the Company be allowed to establish a first and second tier for  
10 this measure, provided the modified measure is more cost-effective than the  
11 existing measure.
- 12           • Staff has recommended that Southwest be allowed to utilize the new eligibility  
13 standard it has proposed for commercial ovens, but that the Company not be  
14 allowed to recover the costs associated with the commercial oven measure unless  
15 and until it can demonstrate the cost-effectiveness of all the new models made  
16 eligible under the new standard.
- 17           • Staff has recommended that the Commission approve the Company's proposal to  
18 increase eligibility standards for modulating burner controls, such that burner  
19 controls would have to be installed on existing boilers with a capacity of greater  
20 than or equal to 2 MMBTUH.

21 SGB Distributed Generation

- 22           • Staff has recommended that the Commission not approve expansion of the type of  
23 eligible prime movers (types of electricity production) available under the  
24 Distributed Generation Program.

25 SGB Low-income Energy Conservation

- 26           • Staff has recommended that the Commission not approve an increase in  
27 administrative dollars for the Bill Assistance component under the SGB Low-  
28 Income Energy Conservation program.

1 General

- 2           • Staff has recommended that Docket No. G-01551A-12-0218 be administratively  
3 closed.

4 CONCLUSIONS OF LAW

5           1. Southwest is an Arizona public service corporation within the meaning of Article  
6 XV, Section 2, of the Arizona Constitution.

7           2. The Commission has jurisdiction over Southwest and over the subject matter of the  
8 application.

9           3. The Commission, having reviewed the application and Staff's Memorandum dated  
10 December 31, 2013, concludes that it is in the public interest to approve the EE and RET Plan, as  
11 discussed herein.

12 ORDER

13           IT IS THEREFORE ORDERED that the Southwest Gas Corporation notify the  
14 Commission if the under-collection increases to more than \$3.5 million.

15           IT IS FURTHER ORDERED that the budget for Year 3 and the budget for Year 4 both be  
16 set at \$6 million.

17           IT IS FURTHER ORDERED that Southwest Gas Corporation lower the cap on incentives  
18 to no more than 60% of the incremental cost of each measure.

19           IT IS FURTHER ORDERED that Southwest Gas Corporation gather twelve months of  
20 data regarding the impact of lowering the cap on incentives and include this information in the  
21 next progress report filed with the Commission.

22           IT IS FURTHER ORDERED that direct install measures and weatherization measures not  
23 be approved for the SGB Residential Rebates program at this time.

24           IT IS FURTHER ORDERED that the SGB Homes program offer tiered rebates based on  
25 each home's Home Energy Rating System rating score, so long as doing so is cost-effective.

26           IT IS FURTHER ORDERED that eligibility in the SGB Homes program be expanded to  
27 low-rise multifamily homes on a pilot basis only. Southwest Gas Corporation should gather data  
28 ...

1 concerning the cost-effectiveness of this expansion. Once twelve months of data has been  
2 gathered, the data should be included in the next progress report filed with the Commission.

3 IT IS FURTHER ORDERED that Southwest Gas Corporation eliminate griddles, O2 trim  
4 control pads, and any non-cost-effective categories of dishwashers.

5 IT IS FURTHER ORDERED that Southwest Gas Corporation not add boiler reset controls,  
6 infrared broilers, or pre-rinse spray valves to the SGB Commercial Rebates program.

7 IT IS FURTHER ORDERED that commercial storage water heaters remain eligible for  
8 incentives and that the Company be allowed to establish a first and second tier for this measure,  
9 provided the modified measure is more cost-effective than the existing measure.

10 IT IS FURTHER ORDERED that Southwest Gas Corporation be allowed to utilize the new  
11 eligibility standard it has proposed for commercial ovens, but that the Company not be allowed to  
12 recover the costs associated with the commercial oven measure unless and until it can demonstrate  
13 the cost-effectiveness of the models made eligible under the new standard.

14 IT IS FURTHER ORDERED that the Company's proposal to increase eligibility standards  
15 for modulating burner controls, so that burner controls would have to be installed on existing  
16 boilers with a capacity of greater than or equal to 2 MMBTUH is approved.

17 IT IS FURTHER ORDERED that Southwest Gas Corporation not expand the type of  
18 eligible prime movers (types of electricity production) available under the Distributed Generation  
19 Program.

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IT IS FURTHER ORDERED that there be no increase in administrative dollars for the Bill Assistance component under the SGB Low-Income Energy Conservation program.

IT IS FURTHER ORDERED that Docket No. G-01551A-12-0218 be administratively closed.

IT IS FURTHER ORDERED that this Order shall take effect immediately.

**BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

CHAIRMAN

COMMISSIONER

COMMISSIONER

COMMISSIONER

COMMISSIONER

IN WITNESS WHEREOF, I, JODI JERICH, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
JODI JERICH  
EXECUTIVE DIRECTOR

DISSENT: \_\_\_\_\_

DISSENT: \_\_\_\_\_

SMO:JMK:sms\RRM

1 SERVICE LIST FOR: SOUTHWEST GAS CORPORATION  
2 DOCKET NO. G-01551A-13-1070

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5 Southwest Gas Corporation  
6 P.O. Box 98510  
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8 Debra Gallo  
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14 Mr. Steven M. Olea  
15 Director, Utilities Division  
16 Arizona Corporation Commission  
17 1200 West Washington Street  
18 Phoenix, Arizona 85007

19 Ms. Janice M. Alward  
20 Chief Counsel, Legal Division  
21 Arizona Corporation Commission  
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# EXHIBITS

## EXHIBIT A

## Southwest Proposed Year 3 Budget

Program	Rebates	Administration	Outreach	Delivery	MV&E	Total Cost
<i>SGB Residential Rebates</i>	\$584,000	\$16,000	\$40,000	\$144,000	\$16,000	\$800,000
<i>SGB Homes</i>	\$3,285,000	\$73,000	\$146,000	\$73,000	\$73,000	\$3,650,000
<i>SGB Commercial Rebates</i>	\$341,000	\$16,500	\$44,000	\$137,500	\$11,000	\$550,000
<i>SGB Custom Commercial Rebates</i>	<del>\$256,500</del>	<del>\$9,000</del>	<del>\$27,000</del>	<del>\$148,500</del>	<del>\$9,000</del>	<del>\$450,000</del>
<i>SGB Distributed Generation</i>	\$280,000	\$12,000	\$32,000	\$68,000	\$8,000	\$400,000
<i>SGB Low-Income Weatherization</i>	\$0	\$0	\$0	\$0	\$0	\$450,000
<i>SGB Low-Income Bill Assistance</i>	\$0	\$0	\$0	\$0	\$0	\$200,000
<i>Low-income Total</i>	\$0	\$0	\$0	\$0	\$0	\$650,000
<i>SGB Solar Thermal Rebates</i>	\$738,800	\$15,000	\$50,000	\$186,200	\$10,000	\$1,000,000
<i>Total EE and RET Plan</i>	\$5,485,300	\$141,500	\$339,000	\$757,200	\$127,000	\$7,500,000

**EXHIBIT B****Proposed Year 4 Budget**

Program	Rebates	Administration	Outreach	Delivery	MV&E	Total Cost
Residential						
SGB Residential Rebates	\$452,600	\$12,400	\$31,000	\$111,600	\$12,400	\$620,000
SGB Homes	\$2,592,000	\$57,600	\$115,200	\$57,600	\$57,600	\$2,880,000
SGB Commercial Rebates	\$248,000	\$12,000	\$32,000	\$100,000	\$8,000	\$400,000
SGB Custom Commercial Rebates	\$199,500	\$7,000	\$21,000	\$115,500	\$7,000	\$350,000
SGB Distributed Generation	\$210,000	\$9,000	\$24,000	\$51,000	\$6,000	\$300,000
SGB Low-Income Weatherization	\$0	\$0	\$0	\$0	\$0	\$450,000
SGB Low-Income Bill Assistance	\$0	\$0	\$0	\$0	\$0	\$200,000
Low-income Total	\$0	\$0	\$0	\$0	\$0	\$650,000
SGB Solar Thermal Rebates	\$591,040	\$12,000	\$40,000	\$148,960	\$8,000	\$800,000
Total EE and RET Plan	\$4,293,140	\$110,000	\$263,200	\$584,660	\$99,000	\$6,000,000

Decision No. \_\_\_\_\_

## BENEFIT-COST RATIO AND DECISION TABLE

Programs and Measures	Decision No.	Date	Benefit-cost ratio
<b>Residential</b>			
<i>Smarter, Greener, Better Residential Rebates</i>			
Tankless Water Heater	73231	6/5/2012	0.94
Clothes Dryer	71718	6/3/2010	1.55
Windows	73231	6/5/2012	1.45
Attic Insulation	73231	6/5/2012	0.97
Floor Insulation	73231	6/5/2012	1.35
Smart Low-Flow Showerhead	73231	6/5/2012	1.21
<i>Smarter, Greener, Better Homes</i>			
Home Certification	73231	6/5/2012	1.36
<del>Tankless Water Heater</del>	<del>73231</del>	<del>6/5/2012</del>	<del>1.08</del>
Attic Insulation	73231	6/5/2012	1.44
<b>Non-residential</b>			
<i>Smarter, Greener, Better Business Rebates</i>			
Storage Water Heater	69880	8/28/2007	2.46 <sup>1</sup>
Tankless Water Heater	73231	6/5/2012	1.08
Non-condensing Boiler	71718	6/3/2010	1.35
Condensing Boiler	73231	6/5/2012	1.47
Boiler-Modulating Burner Control	71718	6/3/2010	0.61-1.88 <sup>2</sup>
Boiler—Steam Trap (Installed, Replaced or Repaired)	71718	6/3/2010	7.31
Air Curtain	73231	6/5/2012	2.22
Griddle	69880	8/28/2007	2.46 <sup>3</sup>
Combination Oven	73231	6/5/2012	1.20
Conveyor Oven	73231	6/5/2012	2.70/2.08 <sup>4</sup>
Fryer	71718	6/3/2010	1.38
Dishwasher (Low Temp): Door Type	73231	6/5/2012	1.48
Dishwasher (Low Temp): Single Tank Conveyor	73229	6/5/2012	1.09
Dishwasher (Low Temp) Multi Tank Conveyor	73229	6/5/2012	1.22
Dishwasher (High Temp/Gas Booster Heater): Under Counter	73231	6/5/2012	1.18
Dishwasher (High Temp/Gas Booster Heater): Door Type	73231	6/5/2012	1.53
Dishwasher (High Temp/Gas Booster Heater): Single Tank Conveyor	73231	6/5/2012	1.75
Dishwasher (High Temp/Gas Booster Heater): Multi Tank Conveyor	73231	6/5/2012	2.26

<sup>1</sup> Approved as part of the Commercial Equipment program; benefit-cost ratio for entire program was 2.46.

<sup>2</sup> Wide range of cost-effectiveness; only cost-effective projects approved.

<sup>3</sup> Measure being discontinued. Approved as part of the Commercial Equipment program; benefit-cost ratio for entire program was 2.46.

<sup>4</sup> <25"=2.70;>25"=2.08.

<i>Smarter, Greener, Better Custom Business Rebates</i>			
Typical Custom Business Project	73231	6/5/2012	3.55
<i>Smarter, Greener, Better Distributed Generation</i>			
Typical Distributed Generation Project	73231	6/5/2012	1.56
<i>Low-income</i>			
<i>Smarter, Greener, Better Low-Income Energy Conservation</i>			
Typical Low-Income Energy Conservation Project	73231	6/5/2012	0.98
<i>Renewable Energy Resource Technology</i>			
<i>Smarter, Greener, Better Solar Thermal Rebates</i>			
Residential Solar Water Heater System	73231	6/5/2012	N/A
Non-residential Solar Water Heater System	73231	6/5/2012	N/A
Non-residential Solar Pool Heating System	73231	6/5/2012	N/A

<sup>5</sup> The benefit-cost ratio is based on actual program performance over four years. The health/safety and bill assistance components of the LIEC program provide benefits to ratepayers, but are not primarily designed to produce to energy savings and were not included in the cost-benefit analysis.

# **Appendix B**

ORIGINAL

MEMORANDUM  
RECEIVED

2014 MAY 30 P 12: 29

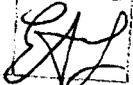
Arizona Corporation Commission  
DOCKETED

MAY 30 2014

TO: THE COMMISSION

FROM: Utilities Division

AZ CORP COMMISSION  
DOCKET CONTROL

DOCKETED BY 

DATE: May 30, 2014

RE: COST-EFFECTIVENESS REVIEW OF MEASURES PROPOSED IN  
SOUTHWEST GAS CORPORATION'S ENERGY EFFICIENCY AND  
RENEWABLE ENERGY TECHNOLOGY IMPLEMENTATION PLAN  
(DOCKET NO. G-01551A-13-0170)

Southwest Gas Corporation ("Southwest" or "Company") has an Energy Efficiency and Renewable Energy Resource Technology Portfolio Implementation Plan ("EE and RET Plan") consisting of four energy efficiency programs and one renewable program.

**Decision No. 74300; Staff Re-Calculation of Cost-effectiveness**

Pursuant to Decision No. 74300, Staff was required to re-calculate the cost-effectiveness of all the measures proposed by Southwest for its EE & RET Plan. The ordering paragraph states the following:

"IT IS FURTHER ORDERED that Staff shall re-calculate the cost-effectiveness of all of Southwest Gas' EE & RET Plan's measures, review and calculate the cost-effectiveness of the new EE & RET measures Southwest Gas proposed for its EE & RET Plan, and file a report and recommendations by May 30, 2014. Interested parties and stakeholders shall file any comments on the Staff report and recommendations within 20 days of Staff filing its report and recommendations."

Accordingly, Staff has re-calculated the cost-effectiveness for measures associated with the energy efficiency programs contained in Southwest's EE & RET Plan.

**Program Descriptions**

Below are brief descriptions of the programs that are currently part of the Southwest EE & RET Plan:

- **Smart Greener Better Homes (Residential):** Rebates are offered to homebuilders building ENERGY STAR-certified homes featuring natural gas water and space heating. Decision No. 74300 (January 29, 2014) approved tiered rebates, if cost-effective, and the expansion of the program to low-rise multifamily homes on a pilot basis.

THE COMMISSION

May 30, 2014

Page 2

- **Smarter Greener Better Custom Commercial (Business) Rebates:** Rebates are offered to non-residential customers based on achieved annual savings. The program does not specify or prescribe the measures to be installed. Instead, participating commercial customers may propose any measure that produces verifiable natural gas savings, exceeds code, and has a lifespan of seven years or greater. Measures may be retrofits, improvements to existing systems or first time installations.
- **Smarter Greener Better Distributed Generation (Non-residential):** Rebates are offered to non-residential customers to promote distributed generation, which utilizes waste heat on-site in place of gas, and which also provides benefits such as avoiding line losses and reducing generation-site use of natural gas to generate electricity.
- **Smarter Greener Better Low-Income Energy Conservation (Low-Income):** The Low-Income Energy Conservation (“LIEC”) program (i) assists in weatherizing low-income homes, and (ii) provides emergency bill assistance to low-income homes.
- **Smarter Greener Better Solar Thermal Rebates (Residential and Non-residential):** Rebates are offered to Residential and Non-residential customers for installing qualified solar thermal systems for water heaters, and to Non-residential customers for pool heating.

**Cost-effectiveness Table**

Below is a table showing Staff’s calculation of cost-effectiveness for the active measures included in Southwest’s EE & RET Plan. Actual cost-effectiveness can be lower or higher than projected, depending on factors such as participation (which impacts the per-unit allocation of program and outreach costs).

**Southwest Gas Cost-Effectiveness**

Southwest Cost-Effectiveness; Active Measures		
Commercial Sector	Staff’s Benefit-Cost Ratio	Status
<b>SGB Custom Business Program</b>		
Custom Business Projects	11.73	Currently Active
<b>SGB Distributed Generation Program</b>		
Distributed Generation Projects	1.25	Currently Active
<b>Residential Sector</b>		
<b>SGB Homes</b>		
Tier 1	1.39	Currently Active

Tier 2	1.12	Currently Active
<b>Low Income Program</b>		
SGB Low-Income Energy Conservation Program	1.22	Currently Active
<b>SGB Solar Thermal Program (Commercial and Residential)</b>		
Residential Solar Water Heating System	N/A	Currently Active
Non-residential Solar Water Heating System	N/A	Currently Active
Non-residential Solar Pool Heating System	N/A	Currently Active

SGB Business and SGB Residential Rebates Programs

Decision No. 74305 discontinued budget expenditures for the SGB Residential Rebates program and the SGB Commercial Rebates program. Since the measures associated with those programs were a part of Southwest's proposed EE & RET Plan, Staff reviewed their cost-effectiveness, as per Decision No. 74300. The results of this review are included in Exhibit A (attached). The non-active measures reviewed include those from the discontinued Business and Residential Rebates programs and measures proposed in the EE & RET Plan, but not approved in Decision No. 74300.

SGB Custom Business Program

Southwest is reporting significant therm savings from its Custom Business Program. Most of these savings are from projects that include regenerative thermal oxidizers. Thermal oxidizers treat exhaust air from a variety of industries. Regenerative thermal oxidizers perform this process more efficiently by capturing waste heat and using it in the treatment process.

As an example, regenerative thermal oxidizers installed as part of two separate Southwest Custom Business Program projects save over 500,000 therms annually.

SGB Homes Program

With respect to the New Homes program, Southwest has informed Staff that it has not tracked the number of its participating builders who are also receiving rebates from other utility home programs. Because this could result in double-counting (in that energy savings from some homes would be reported by more than one utility program), Staff has reduced the savings used for calculating the cost-effectiveness of Southwest's SGB Homes Program.

In order to prevent future double-counting, Staff recommends that Southwest begin to track the percentage of SGB Homes that are being constructed by builders who are also participating in other utility energy efficiency programs.

THE COMMISSION

May 30, 2014

Page 4

SGB Low-Income Energy Conservation ("LIEC") Program

The LIEC program consists of a weatherization component, which improves the energy efficiency of low-income homes, and a bill assistance component. The program is available to households with incomes at less than 150% of the federal poverty income guidelines and is administered by Southwest in conjunction with the Arizona Governor's Office on Energy Policy and the Arizona Community Action Agency.

SGB Solar Thermal Program

Staff did not review or re-calculate cost-effectiveness for the Solar Thermal Rebates program. Solar Thermal Rebates is a renewable program and is not required to be cost-effective.

Source-Site Ratio Multiplier

Southwest used a 3.340 Source-Site Ratio multiplier on the electric savings from its weatherization and New Homes programs, and for measures that were part of the Business Rebates program. A Site-Source Ratio is intended to compensate for losses incurred in generating and transmitting electricity. Staff does not concur with the use of the Source-Site Ratio multiplier, as it is not used in conjunction with electric utility savings calculations, which are already considered source savings because of the inclusion of line losses. Staff also believes that more data would be required in order to justify the general use of the Source-Site Ratio multiplier in calculating cost-effectiveness for energy efficiency measures and programs. Staff has, therefore, re-calculated any electric savings reported for Southwest's programs and measures to exclude this multiplier.

Staff recommends that the Source-Site Ratio multiplier not be used to calculate electric savings in cost-benefit analyses at this time.

Measure Approval

Staff recommends that any current measures with a benefit-cost ratio of 1.0 or above continue as an approved part of the Southwest EE & RET portfolio.

Current Budget

Decision No. 74300 (January 29, 2014) set an overall budget of \$4.7million for Years 3 and 4, along with individual program budgets. The table below reflects both the \$4.7 million budget and the individual program budgets.

Staff recommends that the budget for Southwest's energy efficiency portfolio remain at \$4.7 million at this time.

Program	Rebates	Administration	Outreach	Delivery	M,V&E	Program Total Cost
SGB Homes	\$2,800,000	\$30,000	\$15,000	\$30,000	\$5,000	\$2,880,000
SGB Customer Commercial Rebates	\$219,500	\$6,000	\$13,500	\$85,000	\$6,000	\$330,000
SGB Distributed Generation	\$210,000	\$9,000	\$24,000	\$51,000	\$6,000	\$300,000
SGB LIEC <sup>1</sup> Weatherization	\$363,750	\$77,250	\$9,000	N/A	N/A	\$450,000
SGB LIEC <sup>2</sup> Bill Assistance	\$185,000	\$15,000	N/A	N/A	N/A	\$200,000
SGB Solar Thermal Rebates	\$376,600	\$4,000	\$19,000	\$135,000	\$5,400	\$540,000
Total EE & RET Plan	\$4,154,850	\$141,250	\$80,500	\$301,000	\$22,400	\$4,700,000

Surcharge

Decision No. 74409 (March 19, 2014) reset the Demand-Side Management (“DSM”) adjustor from \$0.007791 per therm to \$0.01 per therm, or a penny per therm. (Southwest had requested \$0.01003 per therm.) This per-therm rate was designed to recover the \$4.7 million energy efficiency budget and, over the course of a year, to eliminate or largely resolve the under-collection. The Company informed Staff that, based on the recent reset ordered in Decision No. 74409, it does not feel that a change to the adjustor rate is necessary at this time.

Staff recommends that the per-therm rate not be reset at this time, and that it remain at \$0.01 per therm.

<sup>1</sup> Low-Income Energy Conservation spending includes \$200,000 in shareholder funds, as per Decision No. 72723, in addition to what is reported in the budget table. The LIEC program year is from July 1 through June 30. Program delivery and evaluation are done by the Governor’s Office of Energy Policy and community action agencies.

<sup>2</sup> The Bill Assistance component of the LIEC program provides bill assistance rather than rebates and its expenditures do not match the expenditure categories for other programs. Total expenditures for Bill Assistance are listed under the “Program Total Cost” category.

	Monthly Impact of Current Rate	\$0.01 per therm
Period	Average therms used	Impact
Summer	11	\$0.11
Winter	41	\$0.41
Annual	26	\$0.26

Summary of Recommendations

Staff recommends that any current measures with a benefit-cost ratio of 1.0 or above continue as an approved part of the Southwest EE & RET portfolio.

Staff recommends that the Southwest energy efficiency portfolio budget remain at \$4.7 million.

Staff recommends that the DSM adjustor rate not be reset, and remain at \$0.01 per therm.

Staff recommends that Southwest begin to track the percentage of SGB Homes being constructed by builders who are also participating in other utility energy efficiency programs.

Staff recommends that the Source-Site Ratio multiplier not be used to calculate electric savings in cost-benefit analyses at this time.



Steven M. Olea  
Director  
Utilities Division

SMO:JMK:sms\RRM

ORIGINATOR: Julie McNeely-Kirwan

EXHIBIT A

<b>SGB Business Rebates Program</b>		
Water Heaters -- Tier 1	1.66	2 <sup>nd</sup> Tier proposed in Plan. Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Water Heaters -- Tier 2	1.76	2 <sup>nd</sup> Tier proposed in Plan. Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Tankless Water Heaters	4.88	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Noncondensing Boiler	0.87	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Condensing Boiler	1.26	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Boiler Modulating Burner Control	0.56	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Boiler Steam Trap (high)	1.77	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Boiler Steam Trap (low)	3.26	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Boiler Reset Controls	3.26	Not approved. Decision No. 74300
Air Curtains	2.80	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Steamer	4.16	Proposed for Business Rebates program. Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Fryer	1.12	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Commercial Ovens (category change)	1.05	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Infrared Ovens	1.27	Not approved. Decision No. 74300
Dishwasher (low temp) Door	3.45	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Dishwasher (low temp) Single Tank	6.70	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Dishwasher (high temp/gas booster) Under Counter	1.12	Budget expenditures ceased. Decision Nos. 74300 and 74305.
Dishwasher (high temp/gas booster) Door Type	3.73	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Dishwasher (high temp/gas booster) Single Tank	6.54	Budget expenditures for program

		ceased. Decision Nos. 74300 and 74305.
Pre-Rinse Spray	2.39	Not approved. Decision No. 74300
<b>SGB Residential Rebates</b>		
Tankless Water Heater	0.63	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Clothes Dryer	0.72	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Attic Insulation (Energy Audit Required)	0.42	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Floor Insulation (Energy Audit Required)	0.99	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Windows	1.22	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Kitchen Aerators (Direct Install)	1.50	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Lavatory Aerators (Direct Install)	1.85	Budget expenditures for program ceased. Decision Nos. 74300 and 74305.
Low-Flow Showers (Direct Install)	1.35	Budget expenditures for program ceased. Decision No. 74305