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# State of Utah Department of Commerce Division of Public Utilities

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# ACTION REQUEST RESPONSE

To: Public Service Commission

From: Division of Public Utilities

Chris Parker, Director

**Energy Section** 

Marlin H. Barrow, Technical Consultant

Artie Powell, Manager

Date: November 15, 2012

Subject: Docket No. 12-057-14, Questar Gas DSM Budget for 2013.

# **ISSUE**

On October 17, 2012, Questar Gas Company (QGC) filed an application with the Utah Public Service Commission (Commission) for approval of its Energy Efficiency (EE) programs and Market Transformation Initiative Budget for 2013. On October 23, 2012 the PSC issued an Action Request to the Division to investigate the application. This is the Division's response to that Action Request.

#### RECOMMEND APPROVAL

The Division of Public Utilities (Division) has reviewed the Application and recommends to the PSC approval of QGC's 2013 EE Budget.

# **DISCUSSION**

# **DSM Pilot Program Budget History**

The original Demand Side Management programs and Market Transformation Initiative were the products of a collaborative effort of interested parties working with QGC to provide input and to



design programs to benefit QGC's GS rate class by reducing their usage of natural gas through programs designed to improve the efficiency of natural gas consumption by those GS rate customers. The process began with QGC's CET application to the PSC on December 16, 2005 in Docket No. 05-057-T01. In a January 16, 2007 Order issued in Docket No. 05-057-T01, the Commission approved the original application. The EE Budget submitted in this docket is the seventh budget submitted by the Company. Table 1 shows a history of actual expenditures through 2011 with the 2012 and 2013 EE Budgets.

Table 1	QGC E	NERGY EFFICIE					
A	В	C	D	E	F	G	н
	2006-07	2008	2009	2010	2011	2012	2013
	Actual	Actual	Actual	Actual	Actual	Budget	Budget
	(000)	(000)	(000)	(000)	(000)	(000)	(000)
ThermWise Appliance	\$ 2,765.4	\$ 4,932.2	\$10,141.7	\$ 9,137.7	\$ 5,862.4	\$ 5,948.1	\$ 5,363.4
ThermWise Builder	\$ 1,186.6	\$ 2,789.1	\$ 2,642.7	\$ 3,699.8	\$ 3,441.6	\$ 2,843.6	\$ 2,753.0
ThermWise Business	\$ 450.9	\$ 709.3	\$ 702.3	\$ 1,173.4	\$ 1,296.5	\$ 2,327.3	\$ 1,595.8
ThermWise Custom Business	NA	\$ 102.9	\$ 97.4	\$ 284.1	\$ 416.4	\$ 845.8	\$ 823.6
ThermWise Audit	\$ 1,893.7	\$ 587.4	\$ 694.8	\$ 727.7	\$ 519.2	\$ 845.8	\$ 852.9
ThermWise Weatherization	NA	\$ 7,706.3	\$31,485.9	\$19,000.3	\$ 8,843.4	\$12,180.0	\$ 8,192.1
Market Transformation	\$ 866.6	\$ 999.2	\$ 1,184.2	\$ 1,163.3	\$ 1,409.1	\$ 2,115.0	\$ 1,991.8
Low Income Weatherization	\$ 250.0	\$ 250.0	\$ 500.0	\$ 500.0	\$ 500.0	\$ 1,229.4	\$ 1,218.6
Total	\$ 7,413.2	\$ 18,076.4	\$47,449.0	\$35,686.3	\$22,288.6	\$28,335.0	\$22,791.1

Table 1 shows a ramp up of the programs during the first two years and then a decrease in actual spending from a 2009 high of \$47.4 million to \$22.3 million in 2011. \$9.6 million has been spent through June 2012. Questar management feels 2012 will end close to the amount requested in the 2013 EE Budget of \$22 million. The decrease in expenditures over the last couple of years corresponds to the decrease in the price of natural gas. It is not clear if this is a primary driver in the reduction of rebates paid or if a saturation of some market segments has also contributed to the decrease in costs.

#### **2013 ENERGY EFFICIENCY PLAN SUMMARY**

Table 2 summarizes QGC's proposed 2013 EE Budget by program as compared to the 2012 EE Budget. As shown in Table 2, the EE Budget for 2013 is \$22.791 million (Col D Ln 8). This is

19.6% below the 2012 DSM Budget (Col F Ln 8). Columns I and J compare the 2013 EE Budget Total Resource Cost Test ratios (TRC) to the 2012 EE Budget TRC for the EE programs.

		QUI	EST.	AR GAS COM	IPANY							
DSM ENERGY EFFICIENCY REPORT												
2013 Budget and 2012 Budget												
DOCKET NO. 12-057-14												
A	В	С		D	E	F	G	н	I	J		
	2013	2012		2013	2012	2013 Budget	2013	2012	2013	201		
	Budgeted	Budgeted		Budget	Budget	over (under)	Dth	Dth	TRC	TRO		
	Participants	Participants		(000)	(000)	2012 Budget	Savings*	Savings*	Ratio	Rat:		
ThermWise Appliance	16,908	19,000	\$	5,363.4	\$ 5,948.1	-9.8%	182,963	181,616	1.2	1.3		
ThermWise Builder	6,491	5,082	\$	2,753.0	\$ 2,843.6	-3.2%	65,734	64,079	0.8	1.3		
ThermWise Business	953	1,904	\$	1,595.8	\$ 2,327.3	-31.4%	73,097	54,707	1.3	1.		
ThermWise Custom Business	50	40	\$	823.6	\$ 845.8	-2.6%	35,000	30,000	1.5	1.8		
ThermWise Audit	2,588	3,857	\$	852.9	\$ 845.8	0.8%	31,221	9,513	1.0	0.4		
ThermWise Weatherization	35,592	58,522	\$	8,192.1	\$ 12,180.0	-32.7%	165,958	202,505	1.2	1.3		
Market Transformation	NA	NA	\$	1,991.8	\$ 2,115.0	-5.8%	NA	NA	0.0	0.0		
Low Income Weatherization	3,382	3,382	\$	1,218.6	\$ 1,229.4	-0.9%	35,573	35,573	1.4	1.3		
Total	65,964	91,787	\$	22,791.1	\$ 28,335.0	-19.6%	589,545	577,993	1.1	1.1		

For 2013, the number of expected participants is below the 2012 budgeted level but the Dth savings exceed the level set in the 2012 budget.

Table 3, on the next page, shows the June 30, 2012 actual results and compares the 2013 budget to the 2012 budget by total customer rebates and program administrative & overhead costs. The table shows the 19.6% decrease from the 2012 budget which is attributed mainly to a reduction in expected customer rebates. Administrative program costs are also lower than the 2012 budget amount. The table shows an increase of 2% in Dth saved while a 28% decrease in participants is projected. The increase in projected Dth savings reduces the cost per Dth saved by 21% to \$38.66 per Dth saved.

Table 3		Therm	√ise	2013 EE P1	ogr	am		
					Tho	usands		
							\$ 2013 Budget	% 2013 Budget
	2012	2Q		2012		2013	over (under)	over (under)
	Actual	L YTD		Budget		Budget	2012 Budget	2012 Budget
Customer Rebates	6,9	24.1		19,806.2		15,199.9	(4,606.3)	-23.3%
Program Costs	2,6	32.4		8,528.8		7,591.2	(937.6)	-11.0%
Total Costs	\$ 9,5	56.5	\$	28,335.0	\$	22,791.1	\$ (5,543.9)	-19.6%
Projected Dth Savings*	2	02.4		578.0		589.5	11.6	2.0%
Participants		32.2		91.8		66.0	(25.8)	-28.1%
Total \$ / Dth Savings (\$0.00)	\$ 4	7.22	\$	49.02	\$	38.66	NA	-21.1%
California Test Results		•						
Total Resource Cost Test B/C		0.9		1.1		1.1	NA	NA
Utility Cost Test B/C		1.3		1.6		1.3	NA	NA

#### **PROGRAM REVIEW**

For 2013, the Energy Efficiency programs are: 1) the ThermWise Appliance Program; 2) the ThermWise Builder Program; 3) the ThermWise Business Program; 4) the ThermWise Custom Business Program; 5) the ThermWise Home Energy Audit Program; 6) the ThermWise Weatherization Program and 7) the Low-Income Weatherization Assistance Program. In addition to these programs, the Market Transformation campaign, designed to inform and educate customers about the importance of energy conservation, continues as part of the 2013 budget.

# THERMWISE APPLIANCE REBATES PROGRAM

The ThermWise Appliance Rebates Program for 2013 is available to all GS single-family and multi-family residential customers. The program has made some minor changes to the measures or choices from those offered in 2012. In 2013, the measure for High-Efficiency Gas Furnaces is only available for furnaces rated equal to or greater than 95% AFUE. It also has added a measure for solar assisted gas water heating for pools. All rebate applications must be completed within 6 months of the qualifying appliance purchase.

This program is administered by PECI and has a 2013 QGC proposed budget cost of \$5.363 million compared to a 2012 budget of \$5.948 million, a decrease of 9.8% reduction from the

2012 budget. Again, as with the previous year's budgets, the actual customer rebates will vary depending on customer participation.

Table 4 compares the ThermWise Appliance Program by Customer Rebates and Program Administrative Costs with actual results through June 30, 2012, the 2012 budget and the 2013 budget. The table shows an increase in the TRC from the 2012 budget and a decrease in the Utility Cost Test (UCT) benefit ratio from the 2012 budget projection.

Table 4	ThermWi	ise Appliance	Program		
			Thousands		
				\$ 2013 Budget	% 2013 Budget
	2012 2Q	2012	2013	over (under)	over (under)
	Actual YTD	Budget	Budget	2012 Budget	2012 Budget
Customer Rebates	1,906.4	4,109.3	3,869.6	(239.7)	-5.8%
Program Costs	605.7	1,838.8	1,493.8	(345.0)	-18.8%
Total Costs	\$ 2,512.1	\$ 5,948.1	\$ 5,363.4	\$ (584.7)	-9.8%
Projected Dth Savings *	71.4	181.6	183.0	1.3	0.7%
Participants	8.4	19.0	16.9	(2.1)	-11.0%
Total \$ / Dth Savings (\$0.00)	\$ 35.18	\$ 32.75	\$ 29.31	NA	-10.5%
California Test Results					
Total Resource Cost Test B/C	0.9	1.1	1.2	NA	NA
Utility Cost Test B/C	1.5	1.9	1.5	NA	NA

#### THERMWISE BUILDER REBATES PROGRAM

The ThermWise Builder Program has dropped the Energy Star Version 2.5 guidelines since they are no longer a valid Energy Star tier. Builders can still qualify for individual measures available in the Appliance program.

Table 5 shows the 2013 budget for the ThermWise Builder Program is \$2.753 million, a \$0.090 million dollar decrease from the 2012 budget of \$2.843 million. The net decrease is due to reduced administrative costs. Expected participation and Dth saved is higher than the 2012 budget resulting in lower dollars per Dth saved than expected in the 2012 budget. Both the TRC and UTC ratios are lower than those projected in the 2012 budge. The Builder Program is the only program with a TRC ratio below 1.0. The UTC ratio remains above 1.0.

Table 5	ThermW	ise Builder F	rogram		
			Thousands		
				\$ 2013 Budget	% 2013 Budget
	2012 2Q	2012	2013	over (under)	over (under)
	Actual YTD	Budget	Budget	2012 Budget	2012 Budget
Customer Rebates	1,083.2	1,914.1	2,025.2	111.1	5.8%
Program Costs	320.4	929.5	727.9	(201.7)	-21.7%
Total Costs	\$ 1,403.6	\$ 2,843.6	\$ 2,753.0	\$ (90.6)	-3.2%
Projected Dth Savings *	31.5	64.1	65.7	1.7	2.6%
Participants	3.6	5.1	6.5	1.4	27.7%
Total \$ / Dth Savings (\$0.00)	\$ 44.56	\$ 44.38	\$ 41.88	NA	-5.6%
California Test Results					
Total Resource Cost Test B/C	0.7	1.1	0.8	NA	NA
Utility Cost Test B/C	1.6	2.0	1.3	NA	NA

#### THERMWISE BUSINESS REBATES PROGRAM

This program is available to the GS Rate Class commercial customers and offers thirty five prescriptive measures, all which are designed to leverage the marketing access and existing delivery channels of local businesses, wholesalers and retailers to provide cost-effective natural gas savings opportunities.

The ThermWise Business program is administered by Nexant. The 2013 budget is \$1.596 million, which is \$0.732 million or 31% below the 2012 budget, as shown in Table 6. The table summarizes the ThermWise Business Program by Customer Rebates and Program Costs with actual results through June 30, 2012, the 2012 budget and the 2013 budget.

Table 6		ThermW	ise	Business E	rog	ram				
					Tho	usands				
							\$ 2013	Budget	% 201	3 Budget
	201	2 2Q		2012		2013	over (	under)	over	(under)
	Actu	al YTD		Budget		Budget	2012	Budget	2012	Budget
Customer Rebates		564.4		1,688.6		943.2		(745.4)		-44.1%
Program Costs		243.7		638.7		652.6		13.9		2.2%
Total Costs	\$	808.1	\$	2,327.3	\$	1,595.8	\$	(731.5)		-31.4%
Projected Dth Savings *		31.2		54.7		73.1		18.4		33.6%
Participants		0.6		1.9		1.0		(1.0)		-49.9%
Total \$ / Dth Savings (\$0.00)	\$	25.90	\$	42.54	\$	21.83	N	IΑ		-48.7%
California Test Results						•				
Total Resource Cost Test B/C		1.2		1.0		1.3	N	IΑ		NA
Utility Cost Test B/C		1.9		1.6		2.1	N	ΙA	-	NA

Table 6 shows both the TRC ratio and UTC ratio for the 2013 budget above 1.0 and higher than the 2012 budget projections.

#### THERMWISE BUSINESS CUSTOM REBATES PROGRAM

This program is a customer initiated program and is administered by Nexant. The 2013 budget has decreased from the 2012 budget by \$22 thousand due primarily to decreases in rebates paid.

Table 7 compares the 2013 budget to the 2012 budget. The table shows that the benefit cost ratios remain above 1.0 for the 2013 plan year.

Table 7	The	ermWise	Cust	om Busine	ss	Program		
					Tho	usands		
							\$ 2013 Budget	% 2013 Budget
	201	L2 2Q		2012		2013	over (under)	over (under)
	Acti	al YTD	1	Budget		Budget	2012 Budget	2012 Budget
Customer Rebates		18.1		268.2		250.0	(18.2)	-6.8%
Program Costs		151.5		577.6		573.6	(4.0)	-0.7%
Total Costs	\$	169.6	\$	845.8	\$	823.6	\$ (22.2)	-2.6%
Projected Dth Savings *		2.6		30.0		35.0	5.0	16.7%
Participants		0.0		0.0		0.1	0.0	25.0%
Total \$ / Dth Savings (\$0.00)	\$	65.23	\$	28.19	\$	23.53	NA	-16.5%
California Test Results								
Total Resource Cost Test B/C		0.6		1.8		1.5	NA	NA
Utility Cost Test B/C		0.7		1.9		2.0	NA	NA

In evaluating this program, it should be noted that project development times are much longer than the prescriptive incentive payments. Most aspects of this program require pre-installation engineering studies, negotiated contracts, and implementation of the recommended energy saving measures before rebates are paid to the customers. In a effort to expedite some of the development time required in this program, a simplified analysis approach has been developed for air to air heat exchangers measures, pipe insulation measures and boiler control measures that allow customers to submit measure specific parameters for calculation of Dth savings and upon approval, the project may proceed. After completion inspections are performed the rebates can be paid in an expedited manner. Although the expected participants are few in number, each project is expected to yield large Dth savings.

#### THERMWISE HOME ENERGY AUDIT REBATES PROGRAM

The ThermWise Home Energy Audit is administered by Questar. The home energy audits can either be an on-site audit, conducted by QGC technicians, or a mail in audit in which the participant answers questions and receives advice from QGC. A \$25 fee is charged for the on-site audits. This fee is fully refundable upon participation in any ThermWise energy-efficiency rebate program. In addition, the program will provide certain low-cost energy-efficiency measures at no charge. New provisions to the audit process in 2013 are the inclusion of multi-family units for participation eligibility as well as waving the \$25 audit fee for lower-income senior homeowners.

The 2013 budget is \$852.9 thousand, which is \$7.1 thousand above the 2012 budget. Table 8 compares the 2013 EE Budget to the 2012 EE Budget along with June 30, 2012 YTD actual results. The table shows the benefit cost ratios are at 1.0 for 2013 (rounded up from 0.97 and 0.96 respectively). This program becomes a gateway to many of the appliance upgrades and weatherization measures implemented by customers (for which incentives are received through other EE programs) as a result of their identification in home audits. This program continues to have benefits beyond those seen in the data below as it introduces customers to the potential savings they may realize by implementing additional energy efficiency measures.

Table 8		Therm	Wise A	udit Pr	ogra	ım				
						Tho	usands			
							\$ 2013	Budget	% 201	3 Budget
	2012	2Q	20	)12		2013	over (u	ınder)	over	(under)
	Actual	L YTD	Buc	dget	В	Budget	2012 B	udget	2012	Budget
Customer Rebates		8.0		26.9		57.3		30.4		113.3%
Program Costs	3	01.1		819.0		795.7		(23.3)		-2.8%
Total Costs	\$ 3	09.1	\$	845.8	\$	852.9	\$	7.1		0.8%
Projected Dth Savings *		3.2		9.5		31.2		21.7		228.2%
Participants		1.1		3.9		2.6		(1.3)		-32.9%
Total \$ / Dth Savings (\$0.00)	\$ 9	6.59	\$	88.92	\$	27.32	NA	7		-69.3%
California Test Results										
Total Resource Cost Test B/C		0.3		0.4		1.0	NA	7		NA
Utility Cost Test B/C		0.3		0.4		1.0	NA	7		NA

#### THERMWISE WEATHERIZATION REBATES PROGRAM

This program offers both GS single-family and multi-family residential customer rebates for installing qualifying weatherization measures. The Company continues to utilize an approved contractor list in order to provide customers and the Company more confidence that the insulation measures are properly installed to insure the Dth savings will be realized. This list of qualified contractors is maintained on the Company's website and interested customers can review that list on the Company's web-site.

The weatherization measures are customer initiated with rebates mailed back to the participants. The 2013 budget is \$8.192 million, a decrease of 32.7% from the 2012 budget.

Table 9 compares the ThermWise Weatherization Program by Customer Rebates and Program Costs with actual results through June 30, 2012, the 2012 budget and the 2013 budget. The table shows the benefit cost ratios are above 1.0 but slightly lower than those projected in the 2012 budget plan.

Table 9	ThermW	ise Weather P	rogram		
			Thousands		
				\$ 2013 Budget	% 2013 Budget
	2012 2Q	2012	2013	over (under)	over (under)
	Actual YTD	Budget	Budget	2012 Budget	2012 Budget
Customer Rebates	3,094.0	10,637.2	6,892.8	(3,744.5)	-35.2%
Program Costs	378.8	1,542.8	1,299.3	(243.5)	-15.8%
Total Costs	\$ 3,472.8	\$ 12,180.0	\$ 8,192.1	\$ (3,988.0)	-32.7%
Projected Dth Savings *	62.5	202.5	166.0	(36.5)	-18.0%
Participants	18.5	58.5	35.6	(22.9)	-39.2%
Total \$ / Dth Savings (\$0.00)	\$ 55.56	\$ 60.15	\$ 49.36	NA	-17.9%
California Test Results					
Total Resource Cost Test B/C	1.1	1.3	1.2	NA	NA
Utility Cost Test B/C	1.4	1.5	1.3	NA	NA

### LOW INCOME WEATHERIZATION ASSISTANCE PROGRAM

Part of the agreement reached in Docket 05-057-T01 contained the provision for QGC to provide funding of \$250,000 for the state's Low Income Weatherization Program. In 2009, the funding for this program was increased by another \$250,000 for a total contribution of \$500,000 to the program's budget in order to address natural gas issues for qualified low-income assistance

recipients. §2.15 of the Company's natural gas tariff is the Low-Income Weatherization Assistance Tariff. This tariff includes a paragraph allowing approved non-profit or governmental agencies to apply for rebates under the ThemWise Programs. This allows qualified agencies to utilize rebates for work they have performed to do additional weatherization measures. The Utah Department of Community and Culture's (DCC) Weatherization Program currently qualifies under this provision. This will allow the DCC to report their activity quarterly and include the saved Dth as a result of their efforts as part of the quarterly reports filed by the Company on the EE program results. Table 10 reflects the budget for the Low Income Weatherization Program.

Table 10	Ther	nWise I	ow I	Income Weat	therization 1	Program	
					Thousands		
						\$ 2013 Budget	% 2013 Budget
	201	.2 2Q		2012	2013	over (under)	over (under)
	Actu	al YTD		Budget	Budget	2012 Budget	2012 Budget
Customer Rebates		250.0		1,162.0	1,162.0	(0.0)	0.0%
Program Costs		-		67.3	56.6	(10.8)	-16.0%
Total Costs	\$	250.0	\$	1,229.4	\$ 1,218.6	\$ (10.8)	-0.9%
Projected Dth Savings *				35.6	35.6	(0.0)	0.0%
Participants				3.4	3.4	_	0.0%
Total \$ / Dth Savings (\$0.00)	#D	IV/0!	\$	34.56	\$ 34.26	NA	-0.9%
California Test Results							
Total Resource Cost Test B/C		NA		1.3	1.4	NA	
Utility Cost Test B/C		NA		2.0	1.5	NA	

#### TOTAL 2013 EE PROGRAM ADMINISTRATIVE COST

As shown in Table 3 on page 4, the 2013 total program administrative costs are \$7.591 million, a \$937.6 thousand decrease from the 2012 budget program costs. This \$7.6 million represents about 33% of the total budget and includes \$2.0 million for the Market Transformation Program. Most of the measures, with rebates, have program administrative costs that are lower than their 2012 budget. The exception to this is the ThermWise Business Program (\$13.1 thousand higher than the 2012 budget). The Division urges QGC to always look for ways to implement administrative cost reduction steps in order to improve overall program efficiencies.

# **GAS PRICE SENSITIVITY**

Based upon gas price forecasts used in the 2012-13 QGC IRP plan (Docket No. 12-057-07), the 2013 EE Budget assumes a first year average summer/winter gas price of \$3.72/\$3.62 per Dth respectively with a 25 year projection of prices ending at \$7.34/\$8.04 per Dth. This compares to a beginning summer/winter gas price range in the 2012 EE Budget of \$3.66/\$4.06 per Dth, ending at \$7.23/\$8.01 per Dth.

An \$0.85/Dth decrease<sup>1</sup> in the price of gas causes the ThermWise Weatherization Program's TRC benefit ratio to decrease below 1.0. A decrease of \$0.99/Dth to the price causes the ThermWise Appliance Program TRC benefit ratio to drop below 1.0 while all the program's UCT ratios continue to remain above 1.0. A decrease of \$1.23/Dth will cause the ThermWise Builder Program's UCT ratio to decrease below 1.0.

#### SUMMARY AND RECOMMENDATION

While the Division recognizes that in the lower cost price environment for natural gas that currently exists, it is more difficult to justify some measures as truly cost effective, the Division still finds value in the overall program objectives. Therefore the Division supports the 2013 Energy Efficiency Budget and recommends the Commission approve the application.

The Division commends QGC and the Advisory Group for their active participation and commitment to continue to develop and promote strong Energy Efficiency programs, with the intent to promote the energy saving measures to an even broader base of GS customers and urges all GS customers to participate in these programs whenever possible.

Cc: Barrie Mckay, Questar Gas Company

Steve Bateson, Questar Gas Company

Michele Beck, Office of Consumer Services

Eric Orton, Office of Consumer Services

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<sup>&</sup>lt;sup>1</sup> Assumes an equal decrease to all prices for the 25 year period.