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State of Utah
Department of Commerce
Division of Public Utilities

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MEMORANDUM

To: Public Service Commission

From: Division of Public Utilities
Chris Parker, Director
Energy Section
Marlin H. Barrow, Technical Consultant
Artie Powell, Manager

Date: September 13, 2011

Subject: 2nd Quarter of 2011 QGC Energy Efficiency Programs, Docket No. 10-057-15

ISSUE:

On January 12, 2011, the Utah Public Service Commission (PSC or Commission) issued an order in Docket No. 10-057-15 authorizing Questar Gas Company (QGC or the Company) to continue to offer Energy Efficiency Programs (EE), with a 2011 budget of \$32.228 million, to customers in the GS Rate Class.

The purpose of this report is to provide an update of the actual results through June 2011, as they compare to the 2011 EE budget, as approved by the Commission in Docket No. 10-057-15.¹

REPORT:

There are now seven (7) separate ThermWise EE programs designed to help customers improve the efficiency of their natural gas consumption in the 2011 QGC EE budget plan. In the 2011 budget plan, the ThermWise Multi-Family Appliance, Builder and Weatherization programs

¹ Commission Order, Docket No. 10-057-15, January 12, 2011.

were folded into the existing ThermWise Appliance, Weatherization and Builder Programs. The separate prescriptive measures for each Multi-Family program are still tracked separately within each program.

In addition to these seven programs, funds were budgeted for a continuation of the **Market Transformation Initiative**. This Initiative is designed to help educate natural gas customers on the benefits of reducing their consumption of natural gas on an ongoing basis. The 2011 annual budget for the EE Programs and the Market Transformation Initiative is \$32.2 million. The programs contain multiple prescriptive measures designed to help customers reduce their natural gas consumption. These programs are (1) the **ThermWise Appliance Rebates Program**, (2) the **ThermWise Builder Rebates Program**, (3) the **ThermWise Business Rebates Program**, (4) the **ThermWise Custom Business Rebates Program**, (5) the **ThermWise Home Energy Audit Program** and (6) the **ThermWise Weatherization Program**. QGC's EE budget also includes, in addition to the **Market Transformation Initiative**, a **Low Income Weatherization Assistance Program** that adds annual funding of an additional \$500,000 to the \$250,00 Low Income Weatherization Assistance Program, bringing the total annual amount provided by QGC to \$750,000. The Department of Community and Economic Development administers the funds and provides the expertise to improve energy efficiency for low income residents by using the additional \$500,000 to upgrade customers to high efficiency furnaces.

2011 ThermWise EE PROGRAM SUMMARY

Table 1 on the following page compares by program, the June 30, 2011 year to date rebate expenditures with the 2011 annual budget. Table 1 shows a June YTD 2011 expenditure of \$12.1 million (col. E ln. 13), or 37.6% of the \$32.2 million annual budget.

Table 1									
QUESTAR GAS COMPANY									
ENERGY EFFICIENCY SUMMARY REPORT									
30-Jun-11									
DOCKET NO. 10-057-15									
A	B	C	D	E	F	G	H	I	
	2011	YTD	2011	YTD	YTD \$	YTD	2011	TRC	
	Estimated	Actual	Budget	Actual Costs	% of	Dth	Dth	B/C	
	Participants	Participants	(000)	(000)	Budget	Savings*	Savings*		
5	ThermWise Appliance	31,446	15,541	\$ 7,533.8	\$ 3,313.0	44.0%	86,867	230,145	1.3
6	ThermWise Builder	3,657	4,610	\$ 2,639.7	\$ 2,069.6	78.4%	27,435	31,006	0.6
7	ThermWise Business	1,039	550	\$ 1,299.2	\$ 373.3	28.7%	21,324	48,534	2.3
8	ThermWise Custom Business	20	13	\$ 452.6	\$ 186.0	41.1%	9,136	10,018	2.5
9	ThermWise Audit	3,773	870	\$ 760.6	\$ 305.8	40.2%	2,157	9,334	0.3
10	ThermWise Weatherization	78,826	28,528	\$ 17,296.8	\$ 4,642.6	26.8%	93,055	308,162	1.3
11	Market Transformation	NA	NA	\$ 1,752.1	\$ 964.9	55.1%	NA	NA	NA
12	Low Income Weatherization	NA	NA	\$ 500.0	\$ 250.0	50.0%	NA	NA	NA
13	Total	118,761	50,112	\$ 32,234.8	\$ 12,105.2	37.6%	239,974	637,199	1.1
14	DSM Interest				\$ 916.2				
15	DSM Amortization				\$ (21,759.6)				
16	DSM General Administration				\$ -				
17	R&D Funds Transfer				\$ -				
18	YTD Change Acct 82400				\$ (8,738.2)				
19	December 2010 Acct 82400 Bal				\$ 39,437.4				
20	Ending Balance Acct 82400				\$ 30,699.2				
21	*Savings reflects the net Dth deemed savings based on actual participants with an 80% net-to-gross ratio applied.								

THERMWISE EE APPLIANCE PROGRAM

Table 2 summarizes the ThermWise EE Appliance Program. Year-to-date, this program has rebated 44% of the expected budget (col. F, ln. 19) however, \$1.8 million of the total \$3.3 million rebated year-to-date is due to 2010 applications carrying over, mainly from 2010 furnace upgrades (\$1.4 million). When the 2010 carryover rebates are removed, only 20% of the budget has been rebated through June 2011.

Table 2									
QUESTAR GAS COMPANY									
THERMWISE APPLIANCE PROGRAM									
30-Jun-11									
DOCKET NO. 10-057-15									
A	B	C	D	E	F	G	H		
	2011	YTD	2011	YTD	YTD \$	Budget	YTD		
	Budgeted	Actual	Budget	Actual Cost	% of	Dth	Dth		
	Participants	Participants	(000)	(000)	Budget	Savings*	Savings*		
1	Single and Multi-Family Appliance Rebates								
4	High-Efficiency Gas Furnance - Tier 1	550	37	\$ 110.0	\$ 7.4	6.7%	5,584	400	
5	High-Efficiency Gas Furnance - Tier 2	3,500	159	\$ 1,050.0	\$ 47.7	4.5%	42,080	2,102	
6	High-Efficiency Gas Furnance - Tier 3	8,500	1,436	\$ 2,975.0	\$ 502.6	16.9%	138,280	22,778	
7	High Efficiency Gas Water Heater - Tier 1	4,030	1,490	\$ 201.5	\$ 74.5	37.0%	5,513	2,039	
8	High Efficiency Gas Water Heater - Tier 2	505	65	\$ 50.5	\$ 6.5	12.9%	1,600	206	
9	Tank Less Gas Water Heater -tier 1	620	493	\$ 186.0	\$ 147.9	79.5%	5,456	3,471	
10	Tank Less Gas Water Heater -tier 2	905	155	\$ 316.8	\$ 54.3	17.1%	8,688	1,190	
11	High Efficiency Condensing Gas Storage								
11	Water Heater	25	15	\$ 8.8	\$ 5.3	60.6%	184	110	
12	High-Efficiency Hybrid Gas Water Heater	25	32	\$ 8.8	\$ 11.2	128.0%	204	261	
13	Residential Boiler	230	122	\$ 138.0	\$ 52.0	37.7%	4,600	1,572	
14	Solar Assisted Water Heating	25	55	\$ 18.8	\$ 41.3	220.3%	350	770	
15	ENERGY STAR Clothes Washer	12,500	899	\$ 625.0	\$ 45.0	7.2%	17,400	1,252	
16	Direct-Vent Gas Fireplace	30	16	\$ 6.0	\$ 3.2	53.3%	206	138	
17	2010 Carryover	-	10,576	\$ -	\$ 1,789.2	NA	0	50,578	
18	Administrative & Overheads	NA	NA	\$ 1,838.8	\$ 524.9	28.5%	NA	NA	
19	TOTAL	31,445	15,550	\$ 7,533.8	\$ 3,313.0	44.0%	230,145	86,867	
21	*Savings reflects the net Dth deemed savings based on actual participants with an 80% net-to-gross ratio applied.								

The Appliance Program has a TRC test ratio of 1.3 as shown in Table 1 (col. I, ln. 5).

THERMWISE EE BUILDER PROGRAM

The ThermWise EE Builder Program is designed to offer builders (both contractors and self-build) who use energy efficient construction techniques specific rebates. There are three different construction tiers which are (1) that meet or exceed Energy Star v 2.0 with a 90% or greater AFUE furnace and a water heater with an EF of .62 or greater, (2) Energy Star v 2.5 with a 92% or greater AFUE furnace and a water heater with an EF of .62 or greater, or (3) Energy Star v 3.0 with a 95% or greater AFUE furnace and a water heater with an EF of .62 or greater that also exceeds the 2006 IECC standards by at least 30%. There are also separate prescriptive rebates available to builders for energy efficient appliance installations if one of the above construction conscripts is not followed.

As shown in Table 3, year-to-date, the Builder Program is 78.4% of its budget (col. F, ln. 17). However, \$1.2 million of the total \$2.1 million rebated year-to-date is the result of 2010 carryover from homes that began under the 2010 standards (\$0.8 million) and 2010 furnace installations (\$0.4 million) which if excluded from the total, indicates that only 31.4% of the 2011 budget has been rebated to date.

QUESTAR GAS COMPANY THERMWISE BUILDER PROGRAM 30-Jun-11 DOCKET NO. 10-057-15								
A	B	C	D	E	F	G		
	2011	YTD	2011	YTD	YTD \$	Budget	YTD	
	Estimated	Actual	Budget	Actual Costs	% of	Dth	Dth	
	Participant	Participant	(000)	(000)	Budget	Savings*	Savings*	
THERMWISE BUILDER PROGRAM								
Ln #								
1	1,950	923	\$ 1,030.0	\$ 230.8	22.4%	18,494	4,334	
2	250	-	\$ 155.0	\$ -	0.0%	3,170	-	
3	10	-	\$ 8.5	\$ -	0.0%	224	-	
4	50	339	\$ 2.5	\$ 17.0	680.0%	69	464	
5	10	3	\$ 1.0	\$ 0.3	30.0%	32	10	
6	20	-	\$ 7.0	\$ -	0.0%	147	-	
7	20	4	\$ 7.0	\$ 1.4	20.0%	163	33	
8	100	50	\$ 30.0	\$ 15.0	50.0%	880	440	
9	10	1	\$ 3.5	\$ 0.4	11.4%	96	10	
10	650	63	\$ 130.0	\$ 12.6	9.7%	3,828	413	
11	520	114	\$ 156.0	\$ 34.2	21.9%	3,261	756	
12	55	103	\$ 19.3	\$ 36.1	187.5%	485	905	
13	10	1	\$ 6.0	\$ 0.6	10.0%	129	13	
14	2	26	\$ 1.5	\$ 19.5	1300.0%	28	364	
15	-	2,983	\$ -	\$ 1,240.2	NA	NA	19,693	
16	NA	NA	\$ 1,082.4	\$ 461.5	42.6%	NA	NA	
17	3,657	4,610	\$ 2,639.7	\$ 2,069.6	78.4%	31,006	27,435	
18								
19	*Savings reflects the net Dth deemed savings based on actual participants with an 80% net-to-gross ratio applied.							

The year-to-date TRC ratio for the Builder Program is 0.6. This less than optimal result is due to the weighting of the 2010 carry over home completions (TRC ratio of 0.4) which may have been

rebated without the requirement to install energy efficient gas furnaces. Under the current guidelines, the Energy Star v 2.0 rebates that have been completed so far show a TRC ratio of 1.2.

THERMWISE EE BUSINESS PROGRAM

In the Thermwise EE Business program, there are 40 prescriptive measures available to commercial entities to improve their energy efficiency. Table 4 provides the detail on only those measures that had \$5,000 or more in actual June 30, 2011 year-to-date rebate incentive costs, which accounts for 91% of the total \$373.3 million shown in column E, line 14.

Table 4								
QUESTAR GAS COMPANY								
THERMWISE BUSINESS PROGRAM								
30-Jun-11								
DOCKET NO. 10-057-15								
A	B	C	D	E	F	G	H	
	2011	YTD	2011	YTD	YTD \$	Budget	YTD	
	Estimated	Actual	Budget	Actual Cost	% of	Dth	Dth	
	Participants	Participants	(000)	(000)	Budget	Savings*	Savings*	
1								
2								
3								
4	COMMERCIAL REBATE PROGRAM							
5	22	14	\$ 8.8	\$ 5.4	61.4%	620	380	
6	112	88	\$ 44.8	\$ 35.2	78.6%	1,622	1,274	
7	50	22	\$ 243.8	\$ 95.2	39.1%	20,358	7,953	
8	80	7	\$ 105.6	\$ 9.6	9.1%	2,389	218	
9	200	129	\$ 60.0	\$ 87.1	145.2%	4,620	6,709	
10	12	15	\$ 12.0	\$ 15.0	125.0%	310	388	
11	10	11	\$ 16.8	\$ 6.0	35.7%	998	359	
12	35	29	\$ 63.0	\$ 56.4	89.5%	1,302	1,165	
13	NA		\$ 523.6	\$ 31.6	6.0%		NA	
14	TOTAL	1,039	\$ 1,299.2	\$ 373.3	28.7%	48,534	21,324	
15								
16	*Savings reflects the net Dth deemed savings based on actual participants with an 80% net-to-gross ratio applied.							

Through June 30, 2011, the total program has spent 28.7% of the annual budget.

As shown in Table 1, the ThermWise EE Business Program has a TRC benefit ratio of 2.3, which is the second highest TRC benefit ratio of all of the available programs.

THERMWISE EE CUSTOM BUSINESS PROGRAM

The ThermWise EE Custom Business Program is designed for customer specific applications and requires longer development time before results are achieved.

Table 5 shows the results for the ThermWise EE Custom Business program. The table shows that through June 30, 2011, 87% of the total budget has been spent. These expenditures are the results of programs which began development in 2010 due to the longer development times

required for implementation. Possible revisions to this program are being developed for implementation in 2012 to reduce the time required for program implementation.

Table 5							
QUESTAR GAS COMPANY							
THERMWISE CUSTOM PROGRAM							
30-Jun-11							
DOCKET NO. 10-057-15							
A	B	C	D	E	F	G	H
	2011	YTD	2011	YTD	YTD \$	Budget	YTD
	Estimated	Actual	Budget	Actual Costs	% of	Dth	Dth
	Participants	Participants	(000)	(000)	Budget	Savings	Savings*
4 BUSINESS CUSTOM REBATES PROGRAM							
5 Business Custom Rebates Total	20	13	\$ 100.2	\$ 87.2	87.0%	10,018	9,136
6 Administrative & Overheads		NA	\$ 352.4	\$ 98.8	28.0%	NA	NA
7	20	13	\$ 452.6	\$ 186.0	41.1%	10,018	9,136
8 1) NB - Not Budgeted, no participation anticipated							
9 *Savings reflects the net Dth deemed savings based on actual participants with an 80% net-to-gross ratio applied.							

The program's TRC benefit cost ratio is 2.5, which is the highest of all of the ThermWise EE Programs.

THERMWISE EE AUDIT PROGRAM

The Thermwise EE Audit Program is designed to give customers an opportunity to have their current energy efficiency efforts evaluated and suggestions offered on ways to improve those efforts. The home energy audits can either be an on-site audit, conducted by a qualified QGC technician or a mail in audit in which the participants answers questions and receive advice from QGC.

Table 6							
QUESTAR GAS COMPANY							
THERMWISE AUDIT PROGRAM							
30-Jun-11							
DOCKET NO. 10-057-15							
A	B	C	D	E	F	G	H
	2011	YTD	2011	YTD	YTD \$	Budget	YTD
	Estimated	Actual	Budget	Actual Costs	% of	Dth	Dth
	Participants	Participants	(000)	(000)	Budget	Savings*	Savings*
1 RESIDENTIAL HOME ENERGY AUDIT PROGRAM							
2 Audit Efficiency Measures (1)	3773	870	\$ 24.33	4.9	20.1%	9,334	2,157
3 Administrative & Overheads	NA	NA	\$ 736.3	300.9	40.9%		NA
4 Total	3,773	870	\$ 760.6	\$ 305.8	40.2%	9,334	2,157
(1) Participant numbers reflect total number of efficiency units given out, not number of in home audits performed.							
*Savings reflects the net Dth deemed savings based on actual participants with an 80% net-to-gross ratio applied.							

Table 6 shows the June 30, 2011 year-to-date actual audit rebates given out amount to 20.1% of the budgeted amount. The value of this program provides a gateway for customers to see potential savings available to them by implementing additional energy efficiency measures through participation in other programs, namely the Thermwise EE Weatherization and Appliance programs.

THERMWISE EE WEATHERIZATION PROGAM

Table 7 summarizes the June 30, 2011 results for the Thermwise EE Weatherization program. On a total program basis, the EE Weatherization program is 27% of the expected expenditures. Tier 1 attic insulation is the primary driver for this program lagging behind in expected year-to-date paid rebates.

Table 7								
QUESTAR GAS COMPANY								
THERMWISE WEATHERIZATION PROGRAM								
30-Jun-11								
DOCKET NO. 10-057-15								
A	B	C	D	E	F	G	H	
	2011	YTD	2011	YTD	YTD \$	Budget	YTD	
	Estimated	Actual	Budget	Actual Costs	% of	Dth	Dth	
	Participants	Participants	(000)	(000)	Budget	Savings	Savings*	
1	RESIDENTIAL WEATHERIZATION PROGRAM							
2	Windows - Residential	16,937	9,529	\$ 819	\$ 572	69.8%	28,410	19,844
3	Wall Insulation	2,225	895	\$ 501	\$ 237	47.3%	7,085	3,351
4	Attic Insulation Tier 1	39,465	9,438	\$ 10,513	\$ 2,483	23.6%	222,874	52,636
5	Attic Insulation Tier 2	16,252	7,146	\$ 1,523	\$ 643	42.2%	22,627	9,552
6	Floor Insulation	1,665	407	\$ 282	\$ 70	24.9%	7,662	1,905
7	Programmable Thermostat -	286	44	\$ 9	\$ 1	15.2%	609	94
8	Duct Sealing & Insulation	1,996	468	\$ 778	\$ 85	10.9%	18,894	3,052
9	2010 Carryover	0	601	\$ -	\$ 127	NA	NA	2,621
10	Administrative & Overheads	NA	NA	\$ 2,872	\$ 425	14.8%	NA	NA
11		78,826	28,528	\$ 17,296.8	\$ 4,642.6	26.8%	308,162	93,055
12								
13	*Savings reflects the net Dth deemed savings based on actual participants with an 80% net-to-gross ratio							

The program's TRC ratio was 1.3.

THERMWISE MARKET TRANSFORMATION PROGAM

Table 1, on page 3, shows the ThermWise EE Market Transformation Program is tracking close to expected levels year-to-date.

THERMWISE LOW INCOME PROGAM

The next payment of \$250,000 for funding of the ThermWise Low Income Weatherization Program is expected to occur in the third quarter of the year. This \$500,000 is used to provide low-income qualified residences with energy efficient furnaces.

DSM Amortization Account Balance

FERC account 182.400 is the account where the company accumulates the costs expended in the DSM program and at least semi-annually, requests permission from the Commission to amortize those accumulated balances. In table 1 on page 3 the balance at of the end of June 30, 2011 was \$30.7 million (Col E, Line 20). The current amortization rate for the GS class is \$0.441 / Dth

which was set in Docket No. 11-057-04 to amortize \$10,000,000 a year over the next three year period as well as the expected current annual expenditures of \$32,000,000.

CONCLUSION & RECOMMENDATIONS:

The Division is pleased with the success of the Energy Efficiency Programs initiated by Questar Gas Company as they benefit all rate payers by reducing usage levels. As shown in Table 1 of this report, the TRC for all Energy Efficiency programs is 1.1.

On August 22, 2011, the Company notified the Commission by letter, in accordance with DPU guidelines established in Docket No. 10-057-15, that the ThermWise Builder Program has reached 78% of its 2011 budget and based on current projections may exceed its annual budget by 129%. However, due to lower than expected demand in other programs like the ThermWise Weatherization program, QGC projects the total ThermWise EE Program expenditures for 2011 to be around \$23.3 million, which is \$8.9 million lower than the \$32.2 million 2011 budget. Because of this projection, the Division recommends that the Commission needs no further action regarding the Company's August 22, 2011 letter to the Commission. The decrease expenditures in the other programs will absorb any increases over budget in the ThermWise Builder Program

As previously mentioned, QGC is reimbursed by customers of the GS rate class for the total costs of the DSM programs through amortization requests, which occur no less than twice a year but can occur more often. Because of this fact, the Division urges all GS customers to participate in the programs in order to take advantage of the energy savings provided by the programs.

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