



State of Utah
Department of
Commerce

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**Division of
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MEMORANDUM

To: Public Service Commission

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

Date: July 28, 2008

Subject: 1st Quarter Review of 2008 QGC DSM programs, Docket No. 07-057-05

ISSUE:

On January 16, 2007, the Utah Public Service Commission (PSC) issued an order in Docket No. 05-057-T01 authorizing Questar Gas Company (QGC) to offer a suite of Demand Side Management (DSM) programs to its customers for a three year period as a pilot program. On August 27, 2007, the PSC issued a notice separating the DSM programs from Docket No. 05-057-T01 into Docket No. 07-057-05. The Division of Public Utilities (DPU) is required to monitor the development and progress of the DSM programs and report back to the PSC their findings. This report reviews the 1st quarter 2008 results on those approved DSM programs.



DISCUSSION:

Eight (8) separate DSM programs, which are designed to help customers improve the efficiency of their natural gas consumption, are in the 2008 QGC DSM program. In addition to these programs, funds were budgeted for a continuation of the **Market Transformation Initiative**. This program is designed to help educate natural gas customers on the need to reduce their consumption of natural gas on an ongoing basis. The 2008 annual budget for the DSM Programs is \$10.5 million. Six of the eight programs contain multiple offerings or measures to help customers reduce their natural gas consumption. They are (1) **ThermWise Appliance Rebates Program**, (2) **ThermWise Multi-Family Rebates Program**, (3) **ThermWise Business Rebates Program**, (4) **ThermWise Builder Rebates Program**, (5) **ThermWise Home Energy Audit Program**, (6) **ThermWise Weatherization Program**. A new program called the **ThermWise Business Custom Rebates Program** has been added to assist business in developing energy savings initiatives. The **Low Income Weatherization Assistance Program** continues with an additional increase in the annual funding of \$250,000 for a total annual amount of \$500,000. The Department of Community and Economic Development administers the funds and provides the expertise to improve energy efficiency for low income residents.

SUMMARY

The table below summarizes the Benefit Cost Ratios for each program group (using the same model that was filed with the 2008 DSM program applications) updated with first quarter results.¹

DEMAND SIDE MANAGEMENT 1Q ACTUAL PARTICIPANTS 2008 - PROGRAM PORTFOLIO DESCRIPTIONS (1 Year)									
PROGRAMS	Total Resource Cost		Participant Test		Utility Cost Test		Ratepayer Impact Measure Test		Total Participants 1 Years
	NPV	B/C	NPV	B/C	NPV	B/C	NPV	B/C	
Thermwise Appliance Rebate	\$1,569,280	2.0	\$2,198,491	2.2	\$2,159,722	3.2	\$1,596,289	2.0	7,646
Thermwise Business Rebates	\$1,266,336	5.4	\$1,210,270	4.3	\$1,400,302	10.1	\$1,225,615	4.7	233
Thermwise Builder Rebates	\$1,655,151	2.4	\$2,079,137	2.5	\$2,164,455	4.4	\$1,660,808	2.5	1,236
Thermwise Weatherization Rebates	\$1,649,893	2.7	\$2,135,214	2.9	\$1,753,709	3.1	\$1,309,814	2.0	3,142
Thermwise Home Energy Audit	\$21,980	1.2	\$158,142	17.0	\$20,292	1.2	-\$7,666	0.9	708
Low Income Weatherization	-\$125,000	0.0	\$0	0.0	-\$125,000	0.0	-\$125,000	0.0	0
Thermwise Multi-Family Rebates	-\$36,985	0.3	\$5,598	1.5	-\$32,875	0.3	-\$35,037	0.3	18
Thermwise Business Custom Rebates	-\$101	0.0	\$0	#DIV/0!	-\$101	0.0	-\$101	0.0	0
Market Transformation	-\$332,153	0.0	\$0	N/A	-\$332,153	0.0	-\$332,153	0.0	850,000
Totals	\$5,668,401	2.2	\$7,786,853	2.6	\$7,008,351	3.2	\$5,292,569	2.1	862,983

¹ QGC ran all four California Tests using actual YTD participants, YTD costs and assuming the engineering estimates of savings for each prescriptive program filed in the original application. Cost data for the Low Income Weatherization Program was furnished by Mike Johnson of the Department of Community and Economic Development.

The following table compares, by program, the actual first quarter 2008 expenditures to the 2008 annual budget. It shows a total of \$3.3 million (Col E ln 10) spent in the first quarter of this year for DSM. This results in a net increase of \$2.2 million (Col E ln 15) to the DSM FERC 182.4 account bringing the balance to \$7.8 million at the end of this quarter (Col E ln 17).

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Based on actual participation through the first quarter, the engineering expected annual Dth savings is 77,094.²

ThermWise Weatherization (Ln 7) has exceeded its annual budget by 8% due to customers taking advantage of the rebates offered on windows and insulation.

INDIVIDUAL PROGRAM REVIEW

(1) ThermWise Appliance Rebates Program:

The ThermWise Appliance Rebates Program offers consumers eight different energy-efficiency measures which are shown in the following table. 39% of the 2008 budget has been spent in the 1st quarter. All programs with the exception of the Energy Star Clothes Washer-Tier 1 and the Solar Assisted Water Heating are ahead of expected participation (assuming even participation throughout the year).

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Based on actual 1st quarter participation, the engineering expected annual Dth savings for the ThermWise Appliance Rebates Program is 26,859.³

(2) ThermWise Multi-Family Rebates Program:

The ThermWise Multi-Family Rebates Program is a new program for 2008 designed to allow those customers who live in or own multi-family housing units to participate in DSM programs. It is expected that the participation in this program will increase as knowledge increases of the offerings that are available under this program.

² Savings reflects net Dth deemed savings based on actual participants and engineering estimates with an 80% net to gross ratio applied to account for free rider-ship.

³ Savings reflects net Dth deemed savings based on actual participants and engineering estimates with an 80% net to gross ratio applied to account for free rider-ship.

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(3) ThermWise Business Rebates Program

The ThermWise Business Rebates Program offers 30 broad measures, some of which have different size or efficiency standards, which are designed to provide fuel savings to commercial operations. The table below shows several measures which have already exceeded 2008 budgeted levels. Most of these projects budgeted rebates were based on deemed saved Btus. Several of the installed measures had higher deemed saved Btu ratings than anticipated and therefore have exceeded the budgeted amount of costs in rebates paid.

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Based on 1st quarter 2008 participation, the incremental engineering expected annual Dth savings for the ThermWise Business Rebate Program is 12,965.⁴

(4) ThermWise Builder Rebates Program:

The ThermWise Builder Rebates Program is designed to give builders an increased incentive to build homes that meet the federal Energy Star Home ratings requirements. (Energy Star ratings are awarded to homes that are rated as using at least 15% less energy than a comparable home built to comply with the most recent edition of the International Energy Conservation Code.) These incentives can be realized either by building the home to meet the Energy Star Whole Home Certificate or by installing individual appliances. Through the 1st quarter of 2008, 27% of the 2008 budgeted costs have been spent.

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Based on 1st quarter participation, the incremental engineering expected annual Dth savings for the ThermWise Builder Rebates Program is 19,358.⁵

(5) ThermWise Home Energy Audit Program.

⁴ Savings reflects net Dth deemed savings based on actual participants and engineering estimates with an 80% net to gross ratio applied to account for free rider-ship.

⁵ Savings reflects net Dth deemed savings based on actual participants and engineering estimates with an 80% net to gross ratio applied to account for free rider-ship.

The ThermWise Home Energy Audit Program provide customers the opportunity to have an energy audit, either on site with a qualified technician or through a mail in questionnaire form. For the first quarter of 2008, this program paid out \$9,900 is rebates with an expected annual deemed Dth savings of 1,983.

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(6) ThermWise Weatherization Program.

The ThermWise Weatherization Program measures are designed to make existing homes more energy efficient. This program exceeded its annual budget by 8% in the first quarter of 2008 due to rebates on all measures, except for duct sealing, exceeding total annual projections. It is expected this program will continue to see customer participation at current levels. The expected incremental annual deemed Dth savings for the first quarters participation is 15,835⁶.

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(7) ThermWise Business Custom Rebates Program

The ThermWise Business Custom Rebate program is designed to provide demand-side management opportunities to commercial participants by requiring the participants to submit specific information for firm energy saving projects, the cost of which is borne by the participants, in exchange for a fixed price per decatherm rebate up to a cap that is equal to a percentage of the eligible incurred project costs. It is expected that this program will take more time to fully develop before there is any measurable participation.

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(8) Market Transformation Initiative

⁶ Savings reflects net Dth deemed savings based on actual participants and engineering estimates with an 80% net to gross ratio applied to account for free rider-ship.

The Market Transformation Initiative is a continuing education campaign directed at consumers to heighten awareness of the need to save natural gas energy and to provide funding for the State Energy Program to conduct Building Codes awareness training to industry and local government representatives.

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(9) Low Income Weatherization

This initiative provides increased funding to the Questar Low Income Weatherization program administered through the Department of Community and Economic Development.

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Cc: Barrie McKay, Questar Gas Company
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