

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

**IN THE MATTER OF)
THE APPLICATION OF)
QUESTAR GAS COMPANY)
FOR AN INCREASE IN)
RATES AND CHARGES)**

Docket No. 02-057-02

Testimony of URA

DIRECT TESTIMONY OF

MICHAEL R. JOHNSON

ON BEHALF OF

**SALT LAKE COMMUNITY ACTION PROGRAM,
CROSSROADS URBAN CENTER, AND
UTAH LEGISLATIVE WATCH,
COLLECTIVELY
UTAH RATEPAYERS ALLIANCE**

August 30, 2002

TABLE OF CONTENTS

| | |
|---|----|
| I. QUALIFICATIONS..... | 1 |
| II. PURPOSE AND SUMMARY | 4 |
| III. DESCRIPTION OF CURRENT QUESTAR WEATHERIZATION PROGRAM..... | 5 |
| IV. FUTURE FUNDING..... | 11 |

1 A. I am currently employed by the State of Utah, Department of Community and
2 Economic Development, Division of Community Development as state Weatherization
3 Program Director. My business address is 324 South State Street, Suite 500, Salt Lake City,
4 Utah. I have been employed by the State of Utah in the housing and energy programs since
5 1982 and have been in my current position since 1997. My primary responsibilities include
6 administration of the Utah Weatherization Assistance Program and implementation of single-
7 family housing rehabilitation programs.
8

9 Q. DO YOU HAVE ANY OTHER WORK EXPERIENCE RELEVANT TO THE
10 ISSUES ON WHICH YOU ARE TESTIFYING?
11

12 A. Yes. I am the recent past chair of the Olene Walker Housing Trust Fund Team. This
13 group is comprised of the Lt. Governor and a diverse representation of affordable housing
14 advocates in the state whose goal is to provide additional affordable housing options for the
15 citizens of the state. I was a past Chair of the Utah Energy Advisory Council, which is the
16 policy and advisory council for both the Low Income Home Energy Assistance Program
17 (LIHEAP) and the Weatherization Assistance Program. I continue to serve as a member of this
18 board through which I have become aware of the energy affordability needs of low-income
19 Utah households and the challenges faced by gas and electric utilities in providing their
20 services to these citizens. I have also served two terms as president of the Weatherization
21 Managers Association. It is the goal of this twelve-state professional organization to
22 understand the technical reasons for high energy usage in residential dwellings and how to cost
23 effectively assist low-income households in dealing with the root cause of their high energy
24 usage.
25

26 Q. HAVE YOU TESTIFIED PREVIOUSLY IN REGULATORY PROCEEDINGS?
27

1 A. Yes, I testified in the previous Questar Gas Company case, UPSC Docket No. 99-057-
2 20, in support of using Questar funding to provide weatherization assistance to low-income
3 households. After approval of the weatherization assistance in that docket, I have directed the
4 use of those funds during the past eighteen months.
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1 **II. PURPOSE AND SUMMARY**

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3 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

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5 A. The purpose of my testimony is to describe the experience of the Division of
6 Community Development in using the funding collected from customers of Questar Gas
7 Company that was approved by this Commission in the preceding docket. Over six hundred
8 residences were provided furnace repair or replacement using funds from this program during
9 2001. The average payback for the actions taken in the residences served is estimated at 2.3
10 years, a truly cost-effective program. The Division of Public Utilities (DPU) has examined the
11 program and found it to be administered effectively and efficiently and recommends that it
12 continue. Secondly, I will discuss the use to which additional funding could be put.

13

14 With our enhanced U.S. Department of Energy (DOE) funding we are increasing our
15 production of homes weatherized. At the same time DOE is requiring additional measures and
16 procedures without significantly increasing the allowable average expenditure per home.
17 Dealing with lead-based paint during Weatherization is the latest task that essentially reduces
18 the amount available for addressing mechanical problems. Where the current \$2,568 average
19 per home cost is insufficient to address general Weatherization and all gas appliance and
20 furnace ducting needs, production increases will further strain the affordability to take care of
21 all problems encountered. Based upon the experience of the first one and one half years of the
22 Questar Gas program, an additional \$200,000 is needed to meet all the current and near-future
23 needs of the Questar Gas customers served by this program. \$50,000 more is needed for
24 furnace duct repairs, natural gas piping, and other measures not normally completed under the
25 DOE program.

1 **III. DESCRIPTION OF CURRENT QUESTAR WEATHERIZATION PROGRAM**

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Q. PLEASE EXPLAIN THE CURRENT OPERATION OF THE WEATHERIZATION PROGRAM.

A. The weatherization program is administered by the Utah Department of Community and Economic Development (DCED) Division of Community Development in the Office of Housing & Weatherization through contracts with local agencies around the state. Eight local Weatherization agencies implement the Questar Gas Weatherization Program. These include five associations of governments, one county government agency, one housing authority and one private non-profit entity. Each agency has two or more trained furnace technicians who provide the furnace services, totaling 28 trained technicians. These 28 individuals are also all scheduled to attend the Rocky Mountain Gas Association Furnace Technician Training and take the certification exam required by the Utah Legislature in its 2002 Session in House Bill 133. All furnace technicians will be required to become certified by the date established by the Division of Occupational and Professional Licensing.

An allocation of Questar Gas funding was made to each of the eight local Weatherization agencies based upon the number of residential Questar Gas customers in each agency area. These local agencies expend this funding only on those residences with Questar Gas service.

Q. WHAT SERVICES ARE PROVIDED TO THESE RESIDENCES?

A. In addition to the extensive shell Weatherization services offered by the program, a comprehensive package of appliance inspection, safety tests, tune-ups, repairs, efficiency

1 adjustments, and replacements are provided where funding is available. Some of the services
2 offered for furnaces, water heaters, and gas ranges/stoves where applicable include:

- 3 1. Client interview to determine known problems and history
- 4 2. Equipment inspection, testing, and assessment
- 5 3. Pre and post carbon monoxide, draft, and gas leak testing
- 6 4. Electric component testing including gas valve, thermostat, thermocouple, limit & fan
7 switch, etc.
- 8 5. Complete “Clean and Tune” of appliances, replace filters, and leave extra set for client
- 9 6. Safety and efficiency adjustments and repairs
- 10 7. Provide adequate combustion air, repair venting and gas leaks
- 11 8. Worst-case draft testing utilizing blower door equipment
- 12 9. Duct inspection, testing, and sealing
- 13 10. Adjustment and repairs to motors, controls, valves, switches, thermostats, etc.
- 14 11. Questar Gas “Green Sticker” program implementation, testing and adjustment
- 15 12. Appliance replacement when safety standards require
- 16 13. Provide client education and materials on how to properly operate and maintain gas
17 appliances

18
19 Copies of the documents and forms used are attached to my testimony as
20 Exhibit____(MRJ-1).

21
22 Local agencies often leverage Questar Gas funds with other funding sources to provide
23 a more comprehensive service package to the natural gas appliances encountered. Over
24 \$300,000 in other matching funds is available for non-Questar Gas Weatherization customers
25 and to supplement Questar Gas funding on natural gas equipment. During calendar year 2001,
26 the Weatherization Program completed furnace repairs and replacements in over 1,000
27 residences, of which 634 were served with Questar funds. During this time furnace

1 replacement (206 units) costs alone utilizing Questar and other funds was over \$300,000.
2 Copies of the Semiannual Reports dated January 31, 2002 and August 12, 2002 are attached to
3 my testimony as Exhibit_____(MRJ-2).
4

5 Q. HAS THE USE OF QUESTAR FUNDING BEEN A SUCCESS?
6

7 A. The use of Questar funding has unquestionably been a success. The Division of Public
8 Utilities reported to this Commission on April 15, 2002, that it concluded “the DECD is
9 administrating the funds in an effective and efficient manner.” It also concluded “the Questar
10 Weatherization Program should continue as the Commission has ordered.” The complete DPU
11 report is attached to my testimony as Exhibit_____(MRJ-3).
12

13 The Questar Gas Weatherization Program has enabled us to provide a much higher level
14 of inspections, repairs and appliance replacements than would have otherwise been possible.
15 Our furnace inspection, testing and tune-up program is very labor intensive which made it
16 difficult for many local agencies to fully implement. Prior to the Questar Gas program
17 funding, many agencies also deleted furnace replacements from their work orders due to the
18 high cost of new furnaces. That has not been a significant problem this past year. With the
19 availability of Questar Gas funding, every agency is now able to fully address most all furnace
20 needs of Questar Gas Weatherization customers. They are also now able to provide such
21 services to an increasing number of clients. In short, additional customers are served and a
22 higher degree of service is provided.
23

24 We frequently run into very dangerous and life-threatening situations in client homes
25 involving natural gas appliances. High carbon monoxide, venting problems, lack of
26 combustion air, and bad heat exchangers are discovered on a regular basis. Without
27 Weatherization inspections and testing, it is likely that many of these problems would remain

1 undiscovered and not corrected. Most clients cannot afford to call a contractor and others are
2 reluctant to call Questar Gas for fear of getting “Red Tagged” and have service cut off.
3 Weatherization can get into these homes and fix the problems where others cannot.
4

5 It might be helpful to the Commission for me to relate some anecdotal information
6 about some of the responses from Weatherization staff and people in residences we have
7 assisted. It is not uncommon for our clients to write us about their experiences.
8

9 One such letter by an elderly woman specifically thanked Questar Gas for funding the
10 Weatherization program that enabled the crew to “get her furnace running properly”. Due to
11 furnace back-drafting and high carbon monoxide levels measured, the residents were at great
12 risk. This person also went on to say, “There was a lot of sickness due to the (*lack of*) venting
13 and ventilation that was there. I had never had Mountain Fuel come out and didn’t even know
14 about ventilation that was supposed to be in my home”.
15

16 Another letter said, "I don't know how I would have gotten through the winter if it
17 weren't for you. My furnace was 50 years old and I kept having to relight the pilot. I was sick
18 a lot. When that nice young man came out and tested my furnace he said there was a crack in it.
19 He put in a whole new furnace! Then he put some new pipe on my water heater and got up on
20 the roof and put the pipe up higher. He even put on those green stickers they told us about.
21 I'm so grateful!"
22

23 In Salt Lake City a community nurse relayed to us another situation saying, "This
24 family lost their only source of income when the husband died last month. The mother and her
25 teenage daughter both just gave birth within a month of each other. Their furnace was
26 producing carbon monoxide in the home and their old water heater was so dangerous. It was
27 leaking water so badly that the floor had begun to buckle underneath. Even the venting was

1 almost non-existent. The mother was despondent and close to a breakdown. With your help
2 the furnace has been repaired and the water heater replaced. Even the floor was repaired. You
3 are such a wonderful asset to the community! I, for one, am grateful to you and to whoever
4 furnishes the funding for your program. You may have saved several lives today, and I know
5 you saved a family from completely falling apart”.

6
7 One of our Weatherization crew said, “Just recently we inspected a home in Santaquin
8 where a single mother with several small children had been heating her home with her gas
9 range for several years after their furnace broke down. The stove was producing high levels of
10 carbon monoxide and the family was experiencing “flue-like” symptoms on a regular basis.
11 Through the Questar Gas program, a new furnace was installed and the family will now be able
12 to enjoy a safer, healthier and more comfortable house for many winters to come”.

13
14 Another Weatherization agency reported of a single mother of four plus her 67-year-old
15 mother living in an Ogden home with a very dangerous furnace. The family had been running
16 the furnace by turning the gas valve on and off at the furnace. This created an extremely
17 dangerous fire danger due to the overheating of the furnace. Questar funds made it possible for
18 the furnace to be immediately replaced. Extensive efforts were made by several local agencies
19 to coordinate the work due to language barriers. This is one case where we will not be reading
20 about the tragic loss of an entire family because of a faulty operation furnace.

21
22 Finally, a woman from Sandy said, "I can't believe it! I just got my first bill since you
23 guys finished the work and it 's already half as much as I paid last month! You're the
24 greatest!"

1 Q. HAVE YOU BEEN ABLE TO ESTIMATE THE ANNUAL DOLLAR AND ENERGY
2 SAVINGS FOR THE HOUSES SERVED DURING THE FIRST YEAR OF THE
3 PROGRAM?
4

5 A. Yes. The latest numbers from the U. S. Department of Energy shows that for every
6 \$1.00 invested in Weatherization, \$2.10 is returned in energy savings. In addition the program
7 increases safety and comfort, preserves affordable housing stock, reduces carbon dioxide
8 emissions by one metric ton, and creates 52 direct jobs for every \$1 million in funding.
9 Weatherization also decreased national energy consumption by 15 million barrels of oil every
10 year. Utah specific estimates for calendar year 2001 show savings of approximately 32
11 decatherms per home or over \$200 in annual savings. These estimates however did not take
12 into account the savings due to the increased number of furnace replacements provided in part
13 though the Questar Gas Weatherization program. This should increase these estimated savings.
14

15 Q. HAVE THERE BEEN ANY PROBLEMS IMPLEMENTING THIS PROGRAM?
16

17 A. Where an existing (albeit under-funded) program already existed, the implementation of
18 the Questar Gas Weatherization program was fairly easy. The biggest problems were probably
19 start-up delays by some local agencies and initial underreporting of services by others.
20 Currently, other than making some additional fine-tuning adjustments to the reporting side of
21 the program, we are not experiencing any problems at this time.
22

1 **IV. FUTURE FUNDING**

2

3 Q. WHEN THIS PROGRAM WAS ORIGINALLY APPROVED BY THE UTAH PSC,
4 THE U.S. DEPARTMENT OF ENERGY (DOE) HAD CHANGED REQUIREMENTS
5 SO THAT IN ORDER TO RECEIVE FUTURE DOE FUNDING, THE STATE HAD
6 TO PROVIDE MATCHING FUNDING. HAS THAT MATCHING REQUIREMENT
7 BEEN MET?

8

9 A. The U.S. DOE has changed the Weatherization regulations in several ways that impact
10 the Questar Gas Weatherization program. First, the non-federal matching requirement was, at
11 least, temporarily rescinded. If reinstated it would require Utah provide nearly \$526,000 in
12 non-federal matching funds at current DOE funding levels in order to receive full
13 Weatherization funding.

14

15 Second, as stated earlier, increasing and additional funding sources are expanding our
16 production of homes, which also increases the number of furnaces needing testing, repairs, and
17 replacements. This further stresses our furnace funding resources and may result in cutting
18 back on the level of services now being provided. These other funding sources often do not
19 provide sufficient resources to do both building shell Weatherization and furnace work. The
20 eight local Weatherization agencies have estimated that they would need an additional
21 \$200,000 in furnace funding just to keep up with the increased production of the program.
22 Another \$50,000 is needed to take care of ducting, gas piping, and other measures not
23 addressed with DOE funds. Often old coal-converted natural gas gravity flow furnaces need to
24 be replaced which requires extensive additional duct and natural gas piping work for which we
25 do not have funding for.

26

1 Finally, the DOE is increasing the types of work required such electrical base load
2 measures and requirements in dealing with lead-based paint, without a significant increase in
3 per-unit funding. This further stresses the funding availability for furnace testing, repairs and
4 replacements.
5

6 Q. WHAT IS THE STATUS OF OTHER FUNDING FOR THIS KIND OF WORK?
7

8 A. Other funding for Weatherization increased significantly in Federal Fiscal Year 2001
9 and has remained generally at that level. Unfortunately for us, most increases and new funding
10 sources require us to follow DOE regulations. These regulations require the technician to
11 perform additional work in each house (such as addressing the lead-based paint problem), but
12 have not adequately increased the amount of funding that can be expended in each house. By
13 doing this we are faced with per-house average expenditure requirements that are not sufficient
14 to do all that is needed in the dwelling. Absent other funding, we could only address the more
15 superficial problems with the building, but not replace furnaces or other gas appliances in many
16 dwellings as we are now.
17

18 This additional federal funding also means that we can inspect more residences than we
19 have been able to previously. During these inspections, we typically find additional problems
20 that need to be addressed. We can only meet this additional need through other funding
21 sources. This creates a greater need for additional funding for the Questar program.
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23 Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?
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25 A. Yes.
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