

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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IN THE MATTER OF THE APPLICATION  
OF QUESTAR GAS COMPANY TO  
INCREASE DISTRIBUTION NON-GAS  
RATES AND CHARGES AND MAKE  
TARIFF MODIFICATIONS

Docket No. 07-057-13

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**DIRECT TESTIMONY OF BARRIE L. McKAY**

**FOR QUESTAR GAS COMPANY**

December 19, 2007

**QGC Exhibit 1.0**

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1

## I. INTRODUCTION

2 **Q. Please state your name and business address.**

3 A. My name is Barrie L. McKay. My business address is 180 East First South Street, Salt Lake  
4 City, Utah.

5 **Q. By whom are you employed and what is your position?**

6 A. I am employed by Questar Gas Company (Questar Gas or Company) as Manager of State  
7 Regulatory Affairs. I am responsible for state regulatory matters in Utah and Wyoming.

8 **Q. Attached to your written testimony are QGC Exhibits 1.1 through 1.5. Were these  
9 prepared by you or under your direction?**

10 A. Yes.

11 **Q. What are your qualifications to testify in this proceeding?**

12 A. I have listed my qualifications in QGC Exhibit 1.1.

13 **Q. What is the purpose of your testimony in this Docket?**

14 A. The purpose of my testimony is to introduce Company witnesses and to (i) show why a  
15 forecasted test year should be used as the test period in this case; (ii) propose a new level of  
16 funding for research and development costs; and (iii) provide the allowed revenue per  
17 customer for each month for the residential and commercial classes given the proposed  
18 increase in revenue requirement to be used in the Conservation Enabling Tariff (CET).

19

## II. INTRODUCTION OF WITNESSES

20 **Q. Would you please identify the Company's witnesses?**

21 A. Yes.

22 **Mr. Alan K. Allred**, the President and CEO of Questar Gas Company, will provide  
23 testimony on the Company's high level of performance, the benefit of the Questar  
24 Corporation organization, the affiliate expenses included in rates, the need for significant

25 investment in capital improvements, the need for an adequate return to allow the Company to  
26 fund the capital investment and the driving factors for this rate case.

27 **Mr. Robert Hevert**, President of Concentric Energy Advisors, an independent consultant,  
28 will present testimony on the Company's allowed cost of equity capital and the  
29 reasonableness of its capital structure. Mr. Hevert will also address why the approval of the  
30 CET does not justify any additional adjustments to his recommended cost of equity capital.

31 **Mr. John Reed**, Chairman & CEO of Concentric Energy Advisors, an independent  
32 consultant, will present testimony comparing Questar Gas with other utilities and explain  
33 why the Company's allowed return on equity (ROE) should be at or near the top of the  
34 reasonable range of ROEs.

35 **Mr. David M. Curtis**, Vice President and Controller of Questar Gas, will provide testimony  
36 supporting the forecast for revenues, operation and maintenance expenses, rate base and  
37 other related costs/expenses used in the Company's proposed test period.

38 **Mr. Kelly B. Mendenhall**, Senior Rate Analyst in the regulatory affairs department for  
39 Questar Gas, will provide testimony showing the revenue requirement deficiency that results  
40 from the proposed test period after all currently required Commission adjustments are made.  
41 Additionally, he will present the results of the Company's 2007 Lead Lag study and make  
42 recommendations on the expense level and amortization of pipeline integrity costs.

43 **Mr. Gary L. Robinson**, Director of State Regulatory Affairs for Questar Gas, will provide  
44 testimony supporting the Company's proposed class Cost of Service (COS) and Rate Design.  
45 He will recommend that the combined (residential and small commercial general service) GS  
46 class be separated into a Residential and Commercial class. Finally, he will support the  
47 termination of the F-3 and F-4 firm sales rate schedules and will propose new transportation  
48 schedules.

49 **Mr. Steven R. Bateson**, an independent consultant to the regulatory affairs department, will  
50 provide testimony supporting the allocation factors used in the COS model and propose new

51 basic service fees, administrative charges and firm transportation charges.

52

53 **Mr. Brent A. Bakker**, Senior Rate Analyst in Regulatory Affairs for Questar Gas, will  
54 provide testimony on the proposed tariff changes for residential security deposits, after-hours  
55 charges for service initiation requests, the elimination of the Natural Gas Vehicle (NGV)  
56 equipment lease program, and clarification regarding property owner duties regarding  
57 Questar Gas' rights-of-way. Finally, he will propose the use of five additional weather  
58 zones.

59

### III. TEST YEAR

60 **Q. What is the test year that the Company proposes to use in this case?**

61 A. The Company proposes to use a 12-month forecasted test period commencing July 1, 2008  
62 and ending June 30, 2009.

63 **Q. Why was this test period chosen?**

64 A. As QGC Exhibit 1.2 illustrates, this test period best reflects the conditions that Questar Gas  
65 will encounter during the period when rates will be in effect.

66 **Q. Is the proposed test period consistent with the statute that governs this proceeding?**

67 A. Yes. Utah Code Ann. § 54-4-4 provides that, "the [C]ommission may use a future test period  
68 that is determined on the basis of projected data not exceeding 20 months from the date a  
69 proposed rate increase or decrease is filed." The statute further provides that, "the  
70 [C]ommission shall select a test period that, on the basis of evidence, the [C]ommission finds  
71 best reflects conditions that a public utility will encounter during the period when the rates  
72 determined by the Commission will be in effect." The test period ending June 2009 meets  
73 these criteria.

74 **Q. Why is a test period composed of the 12 months ending June 2009 more representative**  
75 **of conditions expected to be encountered during the rate-effective period than a**  
76 **historical or intermediate test period?**

77 A. There are several reasons. First, given the 240-day statutory deadline for the implementation  
78 of the rate request in this docket (Utah Code Ann. § 54-7-12(3)(a)), the rate change should go  
79 into effect no later than mid-August of 2008. Therefore, the proposed test period is  
80 consistent with the rate-effective period.

81 Second, and more importantly, the Company's capital expenditures are significantly  
82 increasing from the \$95 million per year level in 2007 to approximately \$135 million per  
83 year for the next five years. Mr. Allred will explain the reason for this increased level of  
84 expenditures and how customers will benefit in more detail. I will note that the expenditures  
85 are primarily associated with necessary system expansion and feeder line replacement that  
86 will allow the Company to continue to provide safe and reliable service to its growing  
87 number of customers. A test period that does not fully include these expenditures would not  
88 be reflective of the costs the Company will incur for system expansion and feeder line  
89 replacement during the rate-effective period.

90 Third, operation and maintenance expenses (O&M) are increasing. Although Mr. Curtis'  
91 QGC Exhibit 5.6 shows that the Company has done an excellent job controlling O&M costs  
92 for the past two decades, which has benefited both customers and the Company's investors,  
93 these costs are rising. This same exhibit shows that the recent trend of declining costs per  
94 customer has flattened. QGC Exhibit 5.7 shows labor costs increasing in recent years. This  
95 same exhibit shows the increase in medical insurance and other overhead costs during the  
96 last few years. These exhibits illustrate that costs in total, as well as on a per customer basis,  
97 are increasing. The Company has included the expected increase in O&M costs necessary to  
98 meet continued customer growth and the expansion and replacement of its system that will  
99 occur during the test period. Mr. Curtis has explained in his testimony conclusion that the  
100 Company has made conservative estimates for O&M costs. These costs are most  
101 representative of what is expected to be encountered during the rate-effective period.

102 Fourth, continued customer growth will increase revenues. Additionally, there is a large  
103 industrial customer that will come on line during the test period and has been included in the  
104 forecast. Using the revenues from these additional customers will be more reflective of what

105 will actually occur during the rate-effective period. This increase in revenue has been  
106 included in the projection of the test year.

107 **Q. In the past, the Commission has favored use of historical test periods because they were**  
108 **based on actual rather than forecasted results. What assurances can the Company**  
109 **provide that its forecasted test period is reliable?**

110 A. With respect to the capital expenditure forecast, Mr. Curtis has shown in QGC Exhibit 5.2  
111 that for the last six years the Company's actual expenditures have been on average within 5.5  
112 percent of forecasted levels. If 2003 is excluded for reasons that it is anomalous as explained  
113 by Mr. Curtis, then the average is within 3.5 percent of forecasted levels. In addition, the  
114 Company's engineers have developed detailed plans and budgets for actual feeder line  
115 replacements that will occur in 2008 and 2009. This shows that the new plant investment is  
116 not only needed but will occur at the forecasted level.

117 With respect to O&M expense, Mr. Curtis' QGC Exhibit 5.2 shows that for the last six years  
118 the Company's actual expenditures have been, on average, 3.2 percent of forecasted levels.  
119 If 2003 is excluded for reasons that it is anomalous as explained by Mr. Curtis, our budgets  
120 on average equal actuals. Overall, the Company's budgeting and planning process has been  
121 very accurate.

122 With respect to total system sales and usage per customer basis, the Company has tracked  
123 system sales and usage in the Integrated Resource Plan (IRP) process on a historical and  
124 forecasted basis since at least 1992. QGC Exhibit 1.3 shows what has been forecasted in the  
125 last five IRP's for system sales and temperature adjusted usage per customer and compares  
126 the forecasts with actual results. Column C shows that the forecast has been within plus or  
127 minus a few percentage points of actual for the last five years. System sales and usage per  
128 customer can be accurately forecasted and reflected in the test period. Additionally, as noted  
129 above, the forecast includes anticipated revenues and costs from large industrial customers  
130 that will come on line during the test period. Both the revenues from these customers and the  
131 cost of serving them can be accurately forecasted.

132 **Q. Does the CET alleviate some of the arguments against the use of a forecasted test**  
133 **period?**

134 A. Yes. One of the benefits of the CET is that it corrects for any variance that may occur in the  
135 usage per customer forecasted. Although declining use per customer is generally understood  
136 and accepted by all parties, determining how much the customer usage will decline during a  
137 forecasted test period can be an issue of debate in a rate case. Test-period revenues are  
138 dependent upon accurately forecasting usage. The CET resolves this potentially contentious  
139 issue.

140 **Q. Please explain how the CET corrects for variances in the usage forecast.**

141 A. The goal of the ratemaking process should be to arrive at an unbiased estimate of customer  
142 usage during the rate-effective period. An unbiased estimate is as likely to be high as it is to  
143 be low. Actual results will undoubtedly be different. If the reduction in use per customer is  
144 smaller than forecasted, then the CET accrual will credit (reduce what the Company can  
145 collect) an adjustment to the CET balancing account. In contrast, if the reduction in use per  
146 customer is greater than forecasted then the CET accrual will debit (increase what the  
147 Company can collect) an adjustment to the CET balancing account. This CET accrual is  
148 made on a monthly basis. Since it is as likely that forecasted usage will be too high as it is  
149 too low, then customers are benefited by having the CET.

150 **Q. Are there other reasons that the Commission should use the Company's recommended**  
151 **forecasted test period in this case?**

152 A. Yes. Use of historical information without updating it based on known trends and plans puts  
153 the Company in a position of always trying to "catch up" with the increasing costs of  
154 providing utility service. Although this has eliminated debate about the accuracy of forecasts  
155 and thus perhaps made setting rates a bit easier, it doesn't satisfy the more important goal  
156 which is to set rates to be in effect in the future that will provide the Company with sufficient  
157 revenues to recover its costs of providing service, including an appropriate return on  
158 investment. If a utility is in a period of rising costs and customer growth, as Questar Gas is  
159 at this time, using a historical test period virtually guarantees that the Company will not have  
160 a reasonable opportunity to earn its authorized return. Thus, the Company is put in a position

161 of being expected to devote its property to public service without a realistic opportunity for  
162 fair compensation.

163 One alternative for the Company is to attempt to decrease its costs of providing service  
164 between rate cases in an effort to come closer to earning the returns to which its investors are  
165 entitled. In fact, creating this incentive has been used as a justification for setting rates based  
166 on historical data even though it was undisputed that costs were increasing. While there may  
167 be some merit to this position with respect to some utilities in some circumstances, it is  
168 fundamentally wrong for two reasons. First, utilities do not need this incentive to be  
169 efficient. Whether rates are set on the basis of historical or forecasted results, utilities still  
170 have the incentive to be efficient to increase earnings between rate cases. Second, there is a  
171 point of diminishing returns in gaining reasonable efficiencies. During Questar Gas' last  
172 general rate case, this subject was thoroughly explored and I believe there was a consensus  
173 that the Company was on the verge of cutting services customers wanted in its continuing  
174 struggle to catch up.

175 As Mr. Allred and Mr. Hevert mention in their testimony, if rates are set at a level that allows  
176 the Company a reasonable opportunity to earn a fair rate of return, neither customers or  
177 shareholders are disadvantaged. Customers will be paying a fair price for service, and the  
178 Company will be financially healthy and have access to capital on reasonable terms so that it  
179 can continue to provide safe and reliable service to its customers. If the Company can  
180 consistently, over an extended period of time, provide safe, reliable service in an efficient,  
181 effective manner and earn a rate of return around its authorized rate of return, then the  
182 regulatory process will have been successful for all concerned. Use of a forecasted test  
183 period ending June 2009 in this case is vital to achieving that proper balance.

184 **IV. RESEARCH AND DEVELOPMENT**

185 **Q. Please describe how the current level of R&D expense in rates was established?**

186 A. In 2000, FERC Order FP99-323-000 began phasing out of pipeline rates the Gas Research  
187 Institute (GRI) surcharge. This FERC-approved surcharge was a part of pipeline tariff rates

188 and was included in the pass-through portion of rates. More efficient gas appliances and  
189 reduced O&M costs resulted from GRI's R&D and continue to be the primary focus of  
190 Questar Gas' support for R&D. To continue its support for R&D, the Company proposed  
191 that the Commission not change customers' total rates, but instead increase the distribution  
192 non-gas (DNG) portion of rates by the same amount that the supplier non-gas (SNG) portion  
193 of rates was decreasing. The Commission approved this request in Docket No. 99-057-19.  
194 Over the next four years, the GRI charge was phased out of pipeline rates, and SNG rates  
195 were transferred into the DNG portion of rates. This process resulted in \$1.4 million of R&D  
196 expenses being included in the DNG portion of rates.

197 **Q. What are some of the projects and organizations that the R&D funds have been**  
198 **invested in?**

199 A. Questar Gas has worked closely with the following organizations on various R&D projects:

200  
201 **Operations Technology Development (OTD).** The OTD is a Gas Technology Institute  
202 (GTI)-administered program for operations R&D. This R&D program includes various  
203 operations-related projects to improve efficiency and reduce cost, enhance safety and  
204 integrity, and improve reliability. The program includes near, mid, and long term technology  
205 development. GTI performs most of the research, but some projects are contracted out to  
206 third-parties with expertise in the subject matter.

207 **Utilization Technology Development (UTD).** The UTD is a GTI-administered program for  
208 end-use research. This R&D program includes various end-use projects to improve  
209 efficiency and reliability and reduce emissions from residential, commercial and industrial  
210 gas equipment.

211 **Northeast Gas Association (NGA) – NYSEARCH.** NYSEARCH is a program for  
212 operations R& D and demonstrations. It includes a robust portfolio of valuable operations  
213 projects, including projects dealing with pipeline integrity, leak detection, third party damage  
214 prevention and others. NYSEARCH develops and manages the projects. The projects are  
215 contracted out to companies with the expertise in the subject matter.

216 **Q. Please provide some examples of R&D projects that Questar Gas participated in.**

217 A. One such project is the Remote Methane Leak Detector (RMLD) sponsored by NYSEARCH.  
218 RMLD is a hand held remote inspection tool capable of identifying methane concentrations  
219 as small as five ppm-meter at distances of up to 100 feet. The development of this project is  
220 considered a quantum leap in technology, since it is the first instrument that is not required to  
221 be in the plume of the venting gas to detect it. Where RMLD is employed, there are gains in  
222 productivity due to not having to walk the entire service length, by avoiding access problems  
223 due to dogs, gates/fences, and from a more rapid walking rate. Technicians also are safer  
224 using the RMLD along the roadways because surveys can be completed without walking in  
225 vehicle traffic lanes.

226 In addition to participating with the above mentioned collaborative organizations, Questar  
227 Gas has worked on other R&D projects developed internally and contracted to other research  
228 companies. Recently, Questar Gas participated in the Gas Meter Hardening at High  
229 Elevation Project. This project developed a meter shelter to provide meter protection from  
230 falling ice and snow, especially at high elevation locations. GTI designed and tested the  
231 prototype. PlastiPanel has commercialized the product. To date, approximately 300 units  
232 have been installed to protect meters in Questar Gas' service territory.

233 **Q. Has the Company been able to consistently participate in R&D projects likely to benefit**  
234 **Questar Gas' customers?**

235 A. Yes; however, on an annual basis the R&D projects we have participated in have required  
236 less expenditures by the Company than the \$1.4 million included in rates.

237 **Q. What has the Company done with the unused funds?**

238 A. The Company has specifically tracked these costs, rather than take these unused funds to the  
239 bottom line, which would be the typical treatment for expense accounts between rate cases.  
240 By 2005, the unused R&D funds had grown to \$1.3 million and the Company proposed to  
241 transfer these dollars to the demand-side management (DSM) deferral account. The  
242 Commission approved this request when it approved the Settlement Stipulation in Docket  
243 05-057-T01.

244 **Q. Has the unused R&D balance continued to grow?**

245 A. Yes, the balance is currently \$1.3 million.

246 **Q. What does the Company propose to do with this balance and what level of R&D**  
247 **funding is proposed for the future?**

248 A. The Company proposes to transfer the \$1.3 million to the DSM 182.4 account. This is the  
249 same thing that was done previously and will have the effect of reducing rate increases  
250 associated with DSM projects. The Company then proposes to reduce the level of R&D  
251 funding from \$1.4 million to \$1.1 million annually. This will bring actual costs more in line  
252 with what is currently spent on an annual basis.

253 **V. CONSERVATION ENABLING TARIFF**

254 **Q. How will the proposed change to the Company's revenue requirement and the proposal**  
255 **to divide the GS class into residential and commercial classes impact the allowed**  
256 **revenue per customer calculation used for the CET?**

257 A. Attached as QGC Exhibit 1.4, page 1, is a summary and calculation of the monthly allowed  
258 CET amounts for the residential class. Line 1 column B is the total COS assigned to the GS  
259 residential class and comes from Mr. Robinson's QGC Exhibit 7.4, page 2. This amount is  
260 divided by the average number of residential customers in the test period to arrive at the  
261 average annual revenue per customer of \$262.09. On page 2 of this Exhibit, the \$262.09 is  
262 spread over the 12 months based on the average actual revenues for the three years 2005,  
263 2006 and 2007.

264 **Q. Please explain the calculation for the GS commercial class.**

265 A. Attached as QGC Exhibit 1.5, page 1, is a summary and calculation of the monthly allowed  
266 CET amounts for the commercial class. Line 1 column B is the total COS assigned to the GS  
267 commercial class and comes from Mr. Robinson's QGC Exhibit 7.4. This amount is divided  
268 by the average number of commercial customers in the test period to arrive at the average  
269 annual revenue per customer of \$770.11. On page 2 of this exhibit the \$770.11 is spread

270 over the 12 months based on the average actual revenues for the three years 2005, 2006 and  
271 2007.

272 **Q. Have you prepared tariff sheets with these changes?**

273 A. Yes, attached to Mr. Bakker's testimony as QGC Exhibit 9.5 are the tariff sheets reflecting  
274 these changes in legislative format.

275 **Q. Does this conclude your testimony?**

276 A. Yes.

State of Utah            )  
                                  ) ss.  
County of Salt Lake    )

I, Barrie L. McKay, being first duly sworn on oath, state that the answers in the foregoing written testimony are true and correct to the best of my knowledge, information and belief. Except as stated in the testimony, the exhibits attached to the testimony were prepared by me or under my direction and supervision, and they are true and correct to the best of my knowledge, information and belief. Any exhibits not prepared by me or under my direction and supervision are true and correct copies of the documents they purport to be.

\_\_\_\_\_  
Barrie L McKay

SUBSCRIBED AND SWORN TO this \_\_\_\_ day of December 2007.

\_\_\_\_\_  
Notary Public