

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION
OF QUESTAR GAS COMPANY TO MAKE
TARIFF MODIFICATIONS TO CHARGE
TRANSPORTATION CUSTOMERS FOR
SUPPLIER-NON-GAS SERVICES

Docket No. 14-057-31

REBUTTAL TESTIMONY OF WILLIAM F. SCHWARZENBACH

FOR QUESTAR GAS COMPANY

July 31, 2015

QGC Exhibit 2.0R

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1 I. INTRODUCTION

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

4 A. My name is William F. Schwarzenbach. My business address is 333 South State Street,
5 Salt Lake City, Utah.

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

7 A. I am employed by Questar Gas Company (Questar Gas or Company) as Director of Gas
8 Supply. I am responsible for supervising the gas purchasing and nominations group
9 within the Gas Supply department.

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

11 A. I have listed my qualifications in QGC Exhibit 2.1R.

12 **Q. What is the purpose of your testimony in this docket?**

13 A. The purpose of my testimony is to address operational concerns associated with the
14 testimony presented by the intervening parties in this docket. I will offer evidence related
15 to the following issues: (1) operational concerns arising from inaccurate nominations, (2)
16 nomination practices and responsibility, (3) management of imbalances, (4) system
17 flexibility, (5) problems associated with aggregation and imbalance trading, (6)
18 imbalance restrictions and (7) real-time meter data.

19 II. OPERATIONAL CONCERNS ARISING FROM INACCURATE NOMINATIONS

20 **Q. Mr. Swenson states, “In the past there has been no apparent reason for a transport**
21 **customer to spend significant time and resources to refine its nomination process**
22 **beyond making sure that it remained within the existing monthly tolerance and that**
23 **it complied with any OFOs” (Swenson, lines 31-33). Has this created any recent**
24 **problems?**

25 A. Yes. During the past two heating seasons, operational constraints have caused the
26 Company to require transportation customers (TS Customers) to limit their usage to

27 match their nominations. The TS Customers' Agents¹ current nominating practices
28 resulted in confusion and penalties for TS Customers because their daily nominations did
29 not accurately match their required usage for the day. The increasing number of TS
30 Customers further complicates this problem.

31 **Q. Why is it important that TS Customers or their Agents make accurate nominations**
32 **on a daily basis?**

33 A. All shippers are required to enter a nomination for each day. This is an industry standard
34 throughout the country. It is important to always have correct nominations in place every
35 day because supply availability concerns may arise at any time, without notice, due to
36 weather, maintenance or unforeseen operational issues.

37 **Q. Why is it important that TS Customer nominations are accurate for each customer?**

38 A. Aside from the costs associated with the use of the services used to manage the daily
39 imbalances (see QGC Exhibit 1.0R, Rebuttal Testimony of Kelly B Mendenhall
40 (Mendenhall Testimony)), TS Customers' inaccurate nominations cause operational
41 problems. Specifically, during periods of limited flexibility on the Questar Gas system,
42 no-notice transportation, transportation, and storage may not be available for TS
43 Customers. As a result, TS Customers would be limited to usage based on their supply
44 availability. Supply availability for a given TS Customer is determined by that
45 customer's confirmed nomination of gas on that day (scheduled quantity). If the TS
46 Customer's usage does not closely match the nomination, the Company experiences
47 operational problems.

48 **Q. What happens when Questar Gas does not have sufficient no-notice transportation,**
49 **transportation, and storage services to manage TS Customer imbalances?**

50 A. On days when Questar Gas does not have these services available for use by TS
51 Customers, Questar Gas will limit TS Customer's usage to their scheduled quantities for

¹ The term "Agents" refers to agents that TS Customers have retained to manage their gas supply. For Example, interveners CIMA Energy LTD. (CIMA), Summit Energy, LLC, and Continuum Retail Energy Services, LLC are "Agents" who manage supply for a number of Questar Gas TS Customers'.

52 the day. If nominations are not done correctly for each TS Customer on that day, they
53 may not have enough gas to meet their needs. In fact, during recent supply curtailment
54 events, customers did not limit their usage to match their supply; instead, they continued
55 to use the gas and incurred penalties. Based on experience, TS Customers like hotels,
56 schools and grocery stores do not restrict their usage during a curtailment. Since
57 curtailments occur when Questar Gas does not have as much supply flexibility, TS
58 Customers utilizing more than their nominated volumes could result in loss of services to
59 firm sales customers.

60 **III. NOMINATION PRACTICES AND RESPONSIBILITY**

61 **Q. Mr. McGarvey claims that “TS customers and their agents already operate with the**
62 **goal of providing the correct amount of supply to meet actual needs.” (McGarvey,**
63 **lines 112-114). Is this true for most TS Customers and their Agents?**

64 A. No. Most TS Customers or their Agents do not appear to attempt to match their
65 nominations with expected usage for each customer on a daily basis. Mr. Fishman admits
66 that, “Under the current natural gas transportation service operating requirements, the
67 obligations of the typical transportation customer of which I am familiar are limited to
68 informing their supplier of expected monthly natural gas usage and any unexpected
69 deviations from that usage as soon as it is known” (Fishman, lines 151-154).

70 **Q. Do you have any evidence that supports the claim that TS Customers or their**
71 **Agents do not attempt to match their nominations to their daily usage.**

72 A. Yes. QGC Exhibit 2.2R shows two examples of actual nominations from 2014 illustrating
73 nominating behavior used by Agents. This daily usage data and the usage data for all
74 other transportation customers can be found in the data tab Mr. Mendenhall used to
75 calculate the rate in QGC Exhibit 1.3.

76 The first example on page 1, Customer 228, shows a customer with varying usage on a
77 day-to-day basis. Actual usage for this customer is shown in Column C. As shown in
78 Column B, the Agent for this customer did not attempt to match the nomination to the

79 expected daily usage for this customer. In fact, as shown in Columns B and C, Rows 3
80 and 4, on the days when the customer used the most gas, the Agent did not nominate *any*
81 gas for the customer's consumption. This example also shows that the Agent only
82 changed the nomination four times over the entire month. When the Agent did change the
83 nomination, it appears that the Agent was nominating in an attempt to manage the
84 monthly imbalance, not to match the daily usage. The cumulative monthly imbalance is
85 show in Column E.

86 As the example shows, there were twelve days in this month that the customer used more
87 gas than it had nominated for its use. If a supply curtailment occurred for any reason
88 during these days, the customer would not have had enough gas allocated for its use on
89 those days.

90 During a curtailment event on December 5, 2013, this same customer used over four
91 times the amount of gas that was available based on its nomination (See the "Data" Sheet,
92 Row 72989, in QGC Exhibit 1.3). This resulted in penalties for the customer and if too
93 many TS Customers would have engaged in this behavior, it could have resulted in
94 service interruptions to firm sales customers.

95 **Q. Can you explain the second example?**

96 A. The second example on pages 2 and 3 of QGC Exhibit 2.2R, Customer 157 shows
97 multiple months of nominations. The nominations, shown in Column B, were put in
98 place at the beginning of each month and not changed at all during the month despite
99 daily changes in usage by the customer. This shows that some Agents are nominating on
100 a monthly basis instead of a daily basis.

101 In this example, the nomination for each day in the month of December was 11 Dth, as
102 shown in Column B, Rows 1-31. The actual usage for this customer was on average five
103 times the amount nominated for it every day of the month. Again, if a supply curtailment
104 occurred for any reason during this month, this customer would not have had enough gas
105 for its use and could have resulted in penalties.

106 **Q. What can be learned from these examples?**

107 A. Both of these examples show that Agents do not appear to communicate with their
108 customers to find out their planned usage for the next day and adjust the nominations
109 accordingly. The customer in the first example is an industrial user that uses a larger
110 quantity of gas to start up its facility. Had the Agent been communicating with the
111 customer, they would have been aware of the customer's operations and made
112 nominations accordingly.

113 The allowance for aggregation of imbalances on a monthly basis does not provide any
114 financial incentive for TS Customers or their Agents to make accurate daily nominations
115 by customer. In the absence of financial incentives, the TS Customers or their Agents
116 often make no attempt to nominate accurately.

117 **Q. Have any of the Agents confirmed the results expressed in this data?**

118 A. Yes. Mr. Swenson and Mr. Medura both testify that their normal operating practices are
119 consistent with this data.

120 Mr. Swenson states that "In the past there has been no apparent reason for a transport
121 customer to spend significant time and resources to refine its nomination process beyond
122 making sure that it remained within the existing monthly tolerance and that it complied
123 with any OFOs" (Swenson, lines 31-33).

124 Mr. Medura testifies that the normal practice at CIMA is to only adjust the nominations
125 of a few large customers to manage their supply. "An agent's aggregate pool is much
126 more easily managed by adjusting the nominations of several of its largest customers
127 with variable use, which variability contributes the lion's share towards any imbalance"
128 (Medura, lines 103-105).

129 This practice is causing and/or exacerbating problems, especially in times of limited
130 supply. This prompted the Company to propose the Tariff changes in this docket.

131 **Q. Will a charge for no-notice transportation, transportation and storage, as the**
132 **Company has proposed, result in more accurate nominations by the TS Customers**
133 **or their Agents?**

134 A. Yes. The changes proposed in this docket will provide a financial incentive for TS
135 Customers or their Agents to make accurate daily nominations by customer.

136 Mr. Swenson (Swenson, lines 44-49) confirms this in his testimony saying, “I certainly
137 agree with Mr. Mendenhall that customers will respond to the incentives in any new daily
138 imbalance charges. Customers will begin spending more time and resources on daily
139 accuracy and fine-tune their nominations practices.”

140 **Q. Mr. Fishman claims the change proposed in this docket “disrupts well established**
141 **and efficient business practices where the transportation customer’s supplier is**
142 **responsible for managing nominations and imbalances.” (Fishman, lines 44-46) Do**
143 **you agree with this?**

144 A. No. While many customers and agents have not historically matched daily nominations
145 and usage, they should have been doing so all along. That is, in part, why the Company
146 is proposing changes to the Utah Natural Gas Tariff No. 400 (Tariff) in this docket.

147 **Q. Do you agree with Mr. Fishman that “A fundamental consequence of the proposal is**
148 **to place the obligation of monitoring natural gas usage and adjusting supply**
149 **nominations directly on the transportation customer” (Fishman, lines 42-44)?**

150 A. Yes. The obligation of monitoring usage and adjusting nominations is the responsibility
151 of the TS Customer or their Agent. This has always been true for TS Customers. The
152 Company believes that this proposal, if approved by the Public Service Commission of
153 Utah (Commission), will motivate TS Customers or their Agents to finally fulfill the
154 responsibility that comes with being a transportation customer.

155 **IV. MANAGEMENT OF IMBALANCES**

156 **Q. Mr. Medura states that “Maintaining dozens of individual customer imbalances**
157 **within narrow tolerance levels will be unduly burdensome, costly and difficult.”**
158 **(Medura, lines 39-40) Do you believe the Company proposal results in the process**
159 **becoming “unduly burdensome” for the TS Customer or their Agent?**

160 A. No. The nominations process is a daily process with multiple nominations cycles
161 specifically designed to allow customers to manage their nominations throughout the day.
162 As I discuss in detail below, it is a common industry-wide practice for customers to
163 utilize these cycles to manage their nominations on a daily basis. The TS Customer
164 assumes the responsibility of making accurate nominations on a daily basis when it
165 chooses transportation service. The Agent then accepts this responsibility when he/she
166 agrees to act on behalf of the customer.

167 **Q. Will the Company’s proposal result in physical restrictions for TS Customer usage?**

168 A. Not typically. The Company’s proposal will allow the TS Customer to continue to utilize
169 the no-notice transportation, transportation and storage services, when available, to assist
170 in managing daily imbalances.

171 **Q. Is it appropriate for TS Customers to receive these services without paying for**
172 **them?**

173 A. No. The TS Customers should pay for the services that they use. The Company’s
174 proposal will allow the Company to recover costs from the TS Customers for their use of
175 these services and to reimburse the sales service customers for the costs of the services.

176 **Q. Will this result in the process becoming “costly” as Mr. Medura states?**

177 A. It should not. The TS Customer or their Agent has the ability to minimize the cost of
178 these services by improving the accuracy of their nominations. The Company has
179 included a 5% tolerance which allows the TS Customers or their Agents to avoid costs
180 completely if their nominations are done accurately.

181 **Q. Mr. Medura claims that managing customer imbalances to a +/- 5% tolerance level**
182 **is “unrealistic in practice when an agent is managing many dozens of customers.”**
183 **(Medura, lines 101-102) Mr. McGarvey also claims that a +/- 5% is “functionally**
184 **unrealistic.” (McGarvey, lines 100-101) How do you respond?**

185 A. The data shows the Agents and TS Customers can improve their nominations processes.
186 The average TS Customer changes its nomination once every five days. If TS Customers
187 or their Agents will update their nominations daily, their imbalances will improve.

188 **Q. In addition to adjusting nominations daily, do TS Customers and their Agents have**
189 **the ability to change their nominations during the day to match unexpected**
190 **changes?**

191 A. Yes. While most TS Customers and Agents do not nominate daily, they currently have 4
192 cycles per day to adjust nominations to match customer usage. This includes two cycles
193 during the day when TS Customers or their Agents can update their nominations for that
194 day (intraday cycles). The Federal Energy Regulatory Commission (FERC) has also
195 approved the addition of another intraday cycle starting in April 2016. In the event
196 customer usage is different than the nomination for the day, the TS Customer or their
197 Agent has multiple opportunities to adjust the nomination during the day to more closely
198 match the customer’s usage.

199 **Q. Why did the FERC add a cycle?**

200 A. The FERC added a cycle to allow customers to better match their supplies to usage
201 throughout the day. As customer demand changes from hour-to-hour through the day,
202 customers can change their nominations on the pipeline to match the changing demands.
203 Notably, this is much more frequent nominating than the daily adjustments that the
204 Company hopes to achieve with the charges proposed in this docket.

205 **Q. Mr. Medura (Medura, lines 124-126) and Mr. McGarvey (McGarvey, lines 100-131)**
206 **both argue that a greater tolerance band than +/- 5% should be allowed. Do you**
207 **agree with this?**

208 A. No. The TS Customers will be using the no-notice transportation, transportation and
209 storage services any time their nominations differ from their usage (no tolerance).
210 Questar Gas believes that the TS Customers should pay for these services any time they
211 are used. However, Questar Gas proposed a 5% tolerance as a concession, based upon
212 discussions with the 2014 working group. This also matches the existing commodity
213 daily balancing provision in Section 5.09 of the Tariff which states, "The Company will
214 allow +/-5% of a customer's volumes delivered from upstream pipelines as a daily
215 imbalance tolerance window."

216 **V. SYSTEM FLEXIBILITY**

217 **Q. In their testimony, Mr. Higgins (Higgins, lines 63-67) and Mr. Swenson (Swenson,**
218 **lines 115-118) claim that the Questar Gas system has enough system flexibility to**
219 **tolerate inaccurate nominations. Is this true?**

220 A. Not on the Questar Gas distribution system. The Questar Gas distribution system
221 balances receipts and deliveries for both sales and transportation customers on its system
222 each day. Any gas used on the system will result in the same amount of gas being
223 delivered from the upstream pipeline, regardless of the nominations, creating an
224 imbalance for the day if the nomination does not match this usage. This imbalance is
225 automatically managed on the upstream pipeline through the use of Questar Gas' no-
226 notice transportation, transportation and storage services.

227 **Q. Some interveners claim that Questar Gas has enough line pack to manage daily**
228 **imbalances. Is this true?**

229 A. No. Line pack on interstate natural gas pipelines may serve to provide storage-type
230 services. However, the Questar Gas system operates at pressures that do not provide for
231 this storage-type service. While line pack may exist on many interstate pipelines, the

232 Questar Gas system is a distribution system that operates at much lower pressures than
233 most of those pipelines. At lower pressures, there is significantly less line pack available
234 in the pipes. Therefore, demand on the Company's system draws gas from the upstream
235 pipelines on the same day, resulting in physical flows from the pipelines that match
236 actual daily usage.

237 **VI. PROBLEMS ASSOCIATED WITH AGGREGATION AND**
238 **IMBALANCE TRADING**

239 **Q. Can nominations be managed in aggregate as proposed by Mr. Medura (Medura,**
240 **lines 142-143)?**

241 A. No. As Mr. Medura testified, "An agent's aggregate pool is much more easily managed
242 by adjusting the nominations of several of its largest customers with variable use"
243 (Medura, lines 103-105). Plainly, Mr. Medura has not made an effort to accurately
244 nominate for every customer. If aggregation were allowed, it would be impossible for the
245 Company to inform each customer of the actual amount of gas it is allowed to use on any
246 given day (scheduled quantity). This would create confusion during curtailment events
247 and make it difficult to manage these situations.

248 This practice would also make it impossible for Questar Gas to determine penalties for
249 usage in excess of supply by these customers, when there is no accurate nomination data
250 for each customer. Application of such penalties is currently the only method the
251 Company has to incent TS Customers to comply with supply curtailments.

252 **Q. Are there other challenges associated with aggregation?**

253 A. Yes. Multiple TS Customers being managed in aggregate may not even have the same
254 receipt point on the Questar Gas system. For example, supply may be available for
255 customers in St. George or Park City but not for customers in Salt Lake City. If managed
256 in aggregate, supply being delivered to St. George would theoretically be "used" by
257 customers in Salt Lake City.

258 **Q. Mr. Fishman suggests that TS Customers and their Agents should be permitted to**
259 **“trade” daily imbalances (Fishman, lines 135-137). Do you agree?**

260 A. No. Allowing trading only exacerbates the problems associated with aggregation.

261 **VII. IMBALANCE RESTRICTIONS**

262 **Q. Mr. Wheelwright (Wheelwright, lines 281-285) and Mr. McGarvey (McGarvey,**
263 **lines 145-151) argue that a flat rate charge could be applied to all customers based**
264 **on the Dth usage. Would this type of rate provide the same results as the changes**
265 **Mr. Mendenhall requested in this docket?**

266 A. No. While a flat rate does cover costs incurred for the TS Customers’ use of the
267 balancing services (see Mendenhall Testimony), it provides no financial incentive for TS
268 Customers or their Agents to change their nominating practices to manage nominations
269 accurately on a daily basis. Without that incentive, it is unlikely the nominations practices
270 would improve or, consequently, that the operational concerns would be resolved.

271 **Q. Does Mr. Wheelwright make any recommendations to address this issue?**

272 A. Yes. Mr. Wheelwright recommends that “the Company should begin to more effectively
273 utilize the existing tariff language and impose imbalance restrictions on TS customers
274 with greater frequency” (Wheelwright, lines 299-301).

275 **Q. Are the current imbalance restriction provisions in the Tariff (often called**
276 **“Operational Flow Orders” or “OFOs”) an effective way to incent TS Customers or**
277 **their Agents to manage nominations on a daily basis?**

278 A. No. The current Tariff language is not sufficient to incent TS Customers or their Agents
279 to manage their nominations by customer on a daily basis. The current Tariff contains
280 language that allows for aggregation and trading of imbalances. This language removes
281 the incentive to accurately nominate and all of the problems associated with aggregation
282 and imbalance trading would persist.

283 **Q. Could improvements be made to the current daily balancing restriction (OFO)**
284 **language that would incent proper nomination practices?**

285 A. Yes. If aggregation and trading language were removed from the Tariff it would resolve
286 this issue. I have attached, as QGC Exhibit 2.3R, a legislative draft of the Tariff
287 modifications necessary to resolve the issue.

288 **Q. Are other Tariff changes necessary for Mr. Wheelwright's proposal to effectively**
289 **solve the problems?**

290 A. Yes. The current daily imbalance language requires the Company to "provide notice of
291 such restriction, to each affected nominating party not less than two hours prior to the
292 first nomination deadline for the affected period" (Section 5.09 imbalances, subsection
293 daily imbalances, paragraph 2). If a supply shortfall occurs, this provision would not
294 allow the Company to use daily imbalance restrictions until the next day. As supply
295 shortfalls are never planned, the current tariff language makes it difficult to use a
296 restriction as an imbalance management tool unless the supply shortfall lasts multiple
297 days.

298 **Q. What Tariff changes would be needed to remedy this problem?**

299 A. Changing the language from "first nomination deadline" to "last nomination deadline"
300 would change Questar Gas' notice requirement from 24 hours to two hours' notice for
301 imposing daily imbalance restrictions. Adding a restriction prior to the last cycle of the
302 gas day would still allow time for a TS Customer or their Agent to make nomination
303 changes for that gas day. This change is also reflected in QGC Exhibit 2.3R.

304 **Q. Are you recommending that the Commission approve these Tariff changes?**

305 A. Only if the Commission determines that a "flat rate" should be used to collect imbalance
306 costs from TS Customers.

307

VIII. REAL-TIME METER DATA

308 **Q. Mr. Fishman (Fishman, lines 170-175) and Mr. McGarvey (McGarvey, lines 118-**
309 **119) testified that additional real-time data is necessary for TS Customers or their**
310 **Agents to make improvements to their nominations. Do you agree that additional**
311 **data is necessary?**

312 A. Real-time measurement data is one of many tools that TS Customers and their Agents use
313 to predict the next day's usage. Mr. McGarvey testified that "agents use proprietary
314 forecasting regression models, local weather forecasts, historical consumption profiles
315 and current usage trending" in order to predict a customer's anticipated usage
316 (McGarvey, lines 120-122). As the data in QGC Exhibit 2.2R shows, the Agents are not
317 using the data currently available to them to do their nominations. If the Agents would
318 make changes to nominations each day in order to match their TS Customers' intended
319 usage, it would be a significant improvement.

320 Additionally, the TS Customer or their Agent have more accurate information than the
321 Company does regarding the Customer's planned usage for the upcoming day. This
322 should be the most useful information in determining the correct nomination for the
323 customer. If they use the data currently available, and nominate at least daily, they will
324 be much more likely to match nominations to their actual usage needs.

325 Also, as Mr. Mendenhall testifies, TS customers are responsible for providing their own
326 usage monitoring. Each customer already has a meter at its own location reflecting real-
327 time usage and the option to purchase additional technology to make this information
328 more readily available should they so desire.

329 **Q. Please summarize your rebuttal testimony?**

330 A. I explain that:

- 331
- The lack of accurate daily nominations by TS Customer will cause operational
332 concerns which could result in loss of services to firm sales customers;

- 333 • Daily nominations by customer are already the responsibility of TS Customers or
334 their Agents and requiring nominations to more closely match usage is not
335 unreasonable or unduly burdensome;
- 336 • TS Customers utilize no-notice transportation, transportation and storage services
337 any time they are out of tolerance, a 5% tolerance level is reasonable and a greater
338 tolerance level is not appropriate;
- 339 • The Questar Gas distribution system does not have the available line pack to
340 provide for daily imbalances for TS Customers;
- 341 • The existing imbalance restrictions could be an effective means to incent TS
342 Customers to adjust their nomination practices if the Tariff were changed to
343 remove the aggregation and trading language and the notice provision was
344 modified; and
- 345 • TS Customers do not necessarily need real-time meter data, but if they want such
346 data they should bear the costs of obtaining it.

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

348 A. Yes.

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

I, William F. Schwarzenbach, 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.

William F. Schwarzenbach

SUBSCRIBED AND SWORN TO this ___ day of July, 2015.

Notary Public