

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
PEAK HOUR SERVICES

Docket No. 17-057-09

DIRECT TESTIMONY OF KELLY B MENDENHALL

FOR QUESTAR GAS COMPANY

May 1, 2017

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 Kelly B Mendenhall. My business address is 333 South State 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 the General Manager
7 of Regulatory Affairs. I am responsible for state regulatory matters in Utah and Wyoming.
8 My qualifications are included in Exhibit 1.1.

9 **Q. Attached to your written testimony are QGC Exhibits 1.1 through 1.8. Were these**
10 **prepared by you or under your direction?**

11 A. Yes.

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

13 A. The purpose of my testimony is to explain the peak hour needs on the Questar Gas system,
14 discuss alternative services available to meet this need and propose a mechanism to charge
15 transportation customers an allocated share of the costs of these firm peaking services.

16 **II. PEAK HOUR DEMAND**

17 **Q. What is peak hour demand?**

18 A. Peak hour demand is the hour during the day when total customer usage is at its highest.
19 QGC Exhibit 1.2 provides a graphical example of the calculated peak hour on the Questar
20 Gas system for the last seven Integrated Resource Plan (IRP) heating seasons. This graph,
21 prepared by the system planning and analysis engineering group, shows the expected usage
22 by hour for all firm sales and transportation customers, assuming a peak weather event.

23 **Q. How does peak hour demand differ from peak day demand?**

24 A. Peak day demand calculates the total amount of usage during a 24-hour period (day), while
25 the peak hour demand is the maximum flow rate during that day.

26 A good everyday comparison between peak hour demand and peak day demand would be
27 driving an automobile. I might drive 60 miles in one hour. During that hour I may have a
28 maximum speed of 70 miles per hour. Peak day measures the average rate of flow for the
29 entire period (60 mph) while peak hour measures the maximum flow for the period (70 mph).
30 QGC Exhibit 1.3 shows the usage by hour compared to the average usage for the peak day.
31 As the graph shows, the estimated 2016/2017 peak hour of 2.05 BCF is 17% higher than the
32 average usage for the peak day of 1.74 BCF.

33 **Q. Is any portion of the usage that is above the peak day provided on a firm basis?**

34 A. No. When hourly usage is above the firm contractual daily amounts, the upstream pipelines
35 that serve Questar Gas can only meet those usage levels on an operationally available
36 (interruptible) basis. It is not guaranteed on a firm basis.

37 **III. PEAK HOUR SOLUTIONS**

38 **Q. Are there solutions available to manage the peak hour demand usage on a firm basis?**

39 A. Yes. As discussed in our 2016/2017 Integrated Resource Plan, there are several different
40 ways to manage peak hour demand so that system reliability for all of our customers is not
41 impaired. One possible solution is demand response, where firm customers have agreed to
42 (or are willing to) reduce usage during that peak period of time. Unfortunately, when the
43 Company questioned large customers about their willingness to reduce usage during this
44 period of time, the customers did not embrace the idea. Additionally, our recent experience
45 with interrupting or curtailing customers during peak events has reinforced the fact that many
46 customers (almost half during the last interruption) were unable or unwilling to reduce usage
47 when called-upon to do so.

48 Another option that many utilities use to manage their fluctuations is on-system storage such
49 as liquefied natural gas facilities. As explained in IRP workshops this year and last year's
50 IRP, the Company continues to evaluate this option as a long-term solution.

51 Additionally, there are other upstream pipelines who also offer a firm peak service.

52 **Q. How has Questar Gas explored different ways to manage its Peak Hour issue?**

53 A. On February 26, 2016, Questar Gas issued a request for proposal to pipeline companies and
54 marketers for potential services that could meet future peak hour needs. Kern River
55 Transmission Company (Kern River) and Questar Pipeline LLC (Questar Pipeline) both
56 provided proposals for potential peak hour services. On August 17, 2016, Kern River filed
57 with the Federal Energy Regulatory Commission (FERC) in Docket RP16-1174-000 to
58 implement a new, firm peaking transportation service on its pipeline. The service was
59 approved by the FERC on September 16, 2016. A copy of the Commission letter order is
60 shown in Exhibit 1.4.

61 **Q. Will the Company be using these services in the upcoming 2017/2018 winter heating**
62 **season?**

63 A. Yes. The Company has entered into a precedent agreement with Kern River to provide
64 100,000 Dth of Firm Peaking Service in the 2017/2018 winter heating season and additional
65 volumes in future winter heating seasons. The total cost of this contract is \$864,500. This
66 cost has been included in the Company's May 1 pass through filing. Questar Gas continues
67 to review other options to meet the remaining peak hour demand requirements.

68 **Q. Please explain how the Kern River Firm Peaking Service works.**

69 A. The service provides for the delivery of up to 4,167 Dth per hour during a six-hour period for
70 a total delivery not to exceed 25,000 Dth per day, which is the hourly equivalent of 100,000
71 Dth/day. This is achieved by nominating the gas on Kern River and effectively packing the
72 Kern River system prior to the peak hour and then drafting their system during the hours the
73 service is in use. Questar Gas will nominate the gas to be used during peak periods during
74 normal NAESB nomination cycles. In an effort to match the service term with when the
75 Peak Day can occur, the Peaking Service will begin November 15 and extend through
76 February 14, and will be provided under the Rate Schedule KRF-PK.

77 **IV. TRANSPORTATION CUSTOMER CHARGE**

78 **Q. Are you proposing to charge transportation customers for the use of these Peak Hour**
79 **services?**

80 A. Yes. These customers contribute to the peak hour and the Company proposes that they pay
81 for a portion of these services.

82 **Q. How do transportation customers contribute to the peak hour?**

83 A. Exhibit 1.5 shows the average hourly usage for transportation customers (less Lakeside) used
84 during the 2016/2017 winter heating season. As the graph shows, the differential between
85 the transportation customers' peak hour and average daily usage is about 17%. Notice that
86 this differential is similar to the overall system peak day differential of 17% shown in Exhibit
87 1.3. It should be noted that the peak day/peak hour differential for transportation volumes
88 shown in Exhibit 1.5 includes interruptible volumes.

89 **Q. Do you take the non-weather-sensitive usage into account when calculating your charge**
90 **for the transportation customers?**

91 A. Yes. During the 2016/2017 winter heating season transportation customers (excluding
92 Lakeside) used 458.3 MMDth, or about half of the total gas usage on the Utah system as
93 shown in the table below:

	Sales	Transportation	Total
November 2016	93,785,309	91,556,303	185,341,612
December 2016	94,017,386	91,423,401	185,440,787
January 2017	95,476,290	92,247,481	187,723,771
February 2017	93,942,106	91,854,676	185,796,782
March 2017	92,940,802	91,198,480	184,139,282
Total	470,161,893	458,280,341	928,442,234
Percent of Total	50.6%	49.4%	100%

95 While the transportation customers use almost half of the gas consumed in Utah during the
96 winter heating season, I am proposing to allocate them a much smaller portion of the peak
97 hour service costs by allocating these costs based on their peak day usage.

98 **Q. How is the peak day usage calculated?**

99 A. The peak day calculation includes both transportation and sales volumes. Each
100 transportation customer contracts for a certain amount of firm transportation service per day.
101 This contractual amount is aggregated for all transportation customers to determine the total
102 firm demand for the transportation class. For sales customers a statistical algorithm is used
103 to determine their overall usage on a peak day. As explained in the Company's IRP section
104 3, the statistical algorithm includes inputs such as historical usage, temperature and wind
105 speed to determine what the sales customer usage would be during a peak event. Both the
106 transportation and sales customer's peak hour demands are added together to calculate the
107 total peak day demand.

108 **Q. What percentage of the peak day demand is attributable to the transportation**
109 **customers?**

110 A. The table below shows the Peak Day allocation (excluding Lakeside) for the 2016/2017
111 integrated resource plan:

Customer Group	Usage	Percentage
Sales (GS, FS)	1,316,588	86.1%
Transportation (TS, FT-1, MT)	213,201	13.9%
Total	1,529,789	100%

112 As the table shows, about 13.9% of the peak day costs would be assigned to the
113 transportation customers. Multiplying 13.9% by the \$864,500 total cost of the Kern River
114 firm peaking service results in an allocation of \$120,166 to transportation customers.

115 **Q. How do you propose to collect this \$120,166 from transportation customers?**

116 A. I propose to collect these costs through a demand charge. As the table above shows, firm
117 transportation customers are currently signed up for 213,201 Dth in firm demand. Dividing
118 \$120,166 by 213,201 results in a firm peaking demand charge of \$0.56 per Dth, paid
119 annually.

120 **Q. What impact does this charge have on the typical transportation customer?**

121 A. QGC Exhibit 1.6 provides a sample for the impact on three transportation customers using
122 different levels of usage. While it is difficult to identify a “typical” transportation customer,
123 the exhibit calculates the bill impact has been calculated for three different size customers.
124 As the exhibit shows, the impact is between 0.04% and 0.12%, assuming a \$2.50/Dth gas
125 commodity price.

126 **V. TARIFF SHEETS**

127 **Q. Have you updated the FT-1, TS and MT tariff sheets to include this new charge?**

128 A. Yes. The tariff has been updated to include a description of the Peak Hour Demand Charge
129 and the \$0.56/Dth per year rate. The updated rate sheets for the TS, FT-1 and MT classes
130 include this charge. Legislative and Proposed versions of these tariff sheets are included in
131 QGC Exhibit 1.7. QGC Exhibit 1.8 includes legislative and proposed versions of the
132 combined changes proposed in this docket and in Docket 17-057-08.

133 **Q. When are you proposing the rate become effective?**

134 A. The Company is proposing that this rate become effective June, 1, 2017.

135 **Q. How will this rate be calculated going forward?**

136 A. The Company is proposing to calculate this rate along with the other Supplier Non-Gas rates
137 at the time of each pass-through application. The rate would be calculated based on the
138 percentage of combined transportation firm demand in the most recent integrated resource
139 plan and the annual costs for the firm peaking services from Kern similar to what I have done

140 in this application. The rate would be included as part of the FT-1, TS and MT rate
141 schedules.

142 **Q. How will the Company treat the revenues collected from this charge?**

143 A. These revenues will be treated as a reimbursement to sales customers for the use of the firm
144 peaking hourly service that they are paying for in their rates. Any money collected from
145 transportation customers will be credited to sales customers in the 191 account in each pass-
146 through application.

147 **VI. RECOMMENDATIONS**

148 **Q. Can you summarize your recommendations?**

149 A. Yes. Questar Gas is in need of Firm Peaking Services to manage the peak hour demand
150 fluctuations on its system caused by transportation and sales customers. To more properly
151 match costs to the transportation customers who utilize the services, the Company is
152 requesting that the transportation Firm Peaking demand charge be added to the FT-1, TS and
153 MT rate schedules effective June 1, 2017. In addition the Company is requesting that it be
154 allowed to recalculate the rate as part of each pass-through filing and that the revenues
155 collected from this charge be credited to all sales customers as a credit to the 191 account in
156 pass-through proceedings.

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

158 A. Yes.

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

I, Kelly B Mendenhall, 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.

Kelly B Mendenhall

SUBSCRIBED AND SWORN TO this _____ day of May, 2017.

Notary Public