

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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

**UPDATED DIRECT TESTIMONY OF STEVEN R. BATESON
FOR QUESTAR GAS COMPANY**

March 31, 2008

QGC Exhibit 8.0U

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Steven R Bateson. My business address is 1467 Wilton Way, Salt Lake City, Utah.

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

A. I am self-employed and have been retained by Questar Gas Company (Questar Gas or Company) as an independent consultant to the Regulatory Affairs department.

Q. Attached to your written testimony are QGC Exhibits 8.1U through 8.7U. Were these prepared by you or under your direction?

A. Yes.

Q. Have you updated your direct testimony to comply with the Commission’s test period order dated February 14, 2008?

A. Yes. My testimony has been updated from my original direct testimony filed December 19, 2007. I have incorporated the changes necessitated by the new test year. In addition I have added some question and answers to clarify a couple of aspects of the allocation factors. Please refer to lines 153 through 163 for the additions related to the Distribution Plant Factor Study and lines 315 through 320 for the additions related to the Peak-Day Factor Study. I have also made a few non-substantive edits to my original direct testimony.

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

A. I have listed my qualifications in QGC Exhibit 8.1U, which is the same as QGC Exhibit 8.1.

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

A. I describe the Company’s calculations and recommendations with regard to specific aspects of the class cost-of-service study presented by Mr. Robinson in this case. The specific studies I will sponsor are the Distribution Plant Factor Study, the Distribution Throughput Factor Study and the Peak-Day Factor Study. I will also discuss three specific rate-design proposals, the basic service fee (BSF), the transportation administrative charge and the transportation demand charge.

28 **Q. Did you participate in the Cost-of-Service and Rate Design Task Force ordered by**
29 **the Commission in Docket No. 02-057-02?**

30 A. Yes. I was an active participant on behalf of the Company from the third meeting to the
31 conclusion of the Cost-of-Service and Rate Design Task Force (Task Force).

32 **Q. Were the cost-allocation studies you are presenting in this case discussed in the Task**
33 **Force?**

34 A. Yes. The three allocation studies I will present are the Distribution Plant Factor Study, the
35 Peak-Day Factor Study and the Distribution Throughput Factor Study. The Distribution
36 Plant Factor Study was discussed extensively, while the other two studies were discussed, but
37 not as extensively.

38 **II. COST-OF-SERVICE METHODOLOGY**

39 **A. *Distribution Plant Factor Study***

40 **Q. Will you please describe the Distribution Plant Factor Study?**

41 A. The Distribution Plant Factor Study is an analysis of distribution plant installed to provide
42 service to customers in each rate class. The types of distribution plant analyzed are meters,
43 regulators, service lines and small diameter main lines (6 inches and smaller in diameter).
44 The Distribution Plant Factor Study uses a non-proportional stratified random sample of
45 active meters to measure the average investment for each plant category. Studies of this
46 nature have been a central aspect of the Company's Cost of Service (COS) studies since the
47 mid-1960's.

48 **Q. Please describe the aspects of the Distribution Plant Factor Study that have been**
49 **modified from past studies as a result of the Task Force collaboration.**

50 A. A number of aspects of the Distribution Plant Factor Study were discussed at great length in
51 the Task Force. This is not surprising given the importance of the Distribution Plant Factor
52 in the Company's COS study. Approximately 70% of distribution non-gas cost (DNG) is
53 ultimately allocated using this factor. The Distribution Plant Factor Study has historically
54 been based on an analysis of installed plant, calculated from a random sample of the active
55 meters installed in the Company's Utah service territory. In the Task Force, the Committee

56 of Consumer Services (Committee) advocated a material change to this procedure. The
57 Committee suggested the Company should: 1) include the entire population of large
58 industrial customers; 2) establish the quantity of plant associated with only those customers;
59 and 3) attribute the balance of the distribution plant to the customers served under the
60 remaining rate schedules. This amounts to a subtractive approach to cost allocation. When a
61 subtractive approach is used, the quality of the data becomes critical. Any bias, high or low,
62 will translate directly into an over or under allocation of costs to the remaining customers.

63 **Q. Has the Company followed this recommendation?**

64 A. We have adopted one aspect of this approach. The Company's Distribution Plant Factor
65 Study includes the entire population of the largest meters installed at the time the sample was
66 drawn, but also includes meters from all of the other meter-rating strata. This allows for a
67 less biased analysis of the distribution plant associated with all customers. The advantage of
68 including all meter types in the sample is that it reduces the impact of any measurement error
69 on the outcome. While the methodology for measuring the facilities and establishing the cost
70 basis remains important, it becomes far less critical than would be the case with a subtractive
71 approach. By including all meter types in the stratified sample, the fully weighted results
72 will better reflect the proportion of plant installed to serve each rate class.

73 **Q. Why did the Company over-sample the industrial-type meters?**

74 A. We adopted this approach to address the Committee's suggestion that there was greater
75 potential for sampling error with the largest meters. We recognized there was some merit
76 with this concern.

77 **Q. Are there other aspects of the Distribution Plant Factor Study that have been
78 modified as a result of the Task Force?**

79 A. Yes. The traditional method of establishing the investment in plant for the distribution
80 facilities identified in the study was to use average book cost for that specific size and type of
81 facility. While this approach worked well historically, a number of influences have resulted
82 in this approach producing intuitively odd intermediate results. These influences include: 1)
83 the high level of cost inflation that has occurred during the last 35 years; 2) the transition
84 from a primarily steel distribution system to a hybrid system with both high-pressure steel

85 and lower-pressure plastic pipe; and 3) changing accounting practices resulting in less
86 detailed cost data on each size of facility. The Committee pointed out some of the resulting
87 inconsistencies and suggested that current cost levels be substituted for booked-cost data in
88 developing the factor.

89 **Q. Has the Distribution Plant Factor Study been modified to address this concern?**

90 A. Yes. The Company adopted the Committee's recommended solution. The Distribution Plant
91 Factor Study uses current cost levels for pricing the plant used to develop the relative levels
92 of distribution plant investment by class. This modified approach yields results that are both
93 consistent with past studies and appear to be a reliable measure of the distribution plant
94 installed to serve customers in each rate class. The resulting factor is used to allocate the test
95 period COS. Therefore, using current cost data does not increase the amount of costs
96 recovered in rates.

97 **Q. Please describe how the Distribution Plant Factor is developed.**

98 A. The Distribution Plant Factor begins with a non-proportional stratified random sample of
99 installed meters to determine the amount of plant installed for each meter type. QGC Exhibit
100 8.2U, page 2, is a summary of the sample design. Column A, lines 5-22, lists the meter
101 groupings used to stratify the population, column B, lines 5-22, shows the strata populations
102 at the time the sample was drawn and column C, lines 5-22, shows the sample size by strata.
103 Columns D through K break out the sampled meters in terms of geographic distribution and
104 the spread between the general service class and the non-general service classes. As seen on
105 QGC Exhibit 8.2U, page 2, meters are stratified by nominal capacity. The entire population
106 of meters with nominal capacity of 16,000 cubic feet per hour (CFH) and greater were
107 included in the sample. The three categories of plant investment calculated through the study
108 are the main lines, service lines and meter sets, including individual customer regulation.

109 **Q. How was the amount of plant required to serve customers estimated?**

110 A. Each meter selected in the sample was evaluated using information from the Company's
111 customer care and billing system (CC&B), engineering files, and the graphical information
112 system (GIS). Based on current cost estimates, the costs to reproduce the meter set, service
113 line and the portion of main line attributable to the sampled meter were determined.

114 **Q. How did you determine the amount of main line attributable to the sampled meters?**

115 A. The study examines the main line directly connected to the service line serving a sampled
116 meter. The study examines the main line within 1,000 feet of a service tap point. Usually
117 this translates into 500 feet in each direction. The length of each size of main line within the
118 1,000 feet is recorded, along with the number of service taps within the 1,000 feet. QGC
119 Exhibit 8.2U, page 3, shows the map from the GIS for an individual sampled meter. The
120 map for this sampled meter, designated Sequence ID #17, includes the measurements for
121 main (1,000 feet of two-inch main line, with 20 service taps), and service line (97 feet of
122 half-inch service line). The main line attributable to this meter (1,000 feet/20 taps, or 50
123 feet) is then priced at current cost.¹ The cost associated with the identified main line divided
124 by the service line taps is included in the Distribution Plant Factor Study.

125 **Q. Why was 1,000 feet selected for the main line measurements?**

126 A. 1,000 feet was selected as the measured length in order to capture the character of the area
127 surrounding a customer, including street crossings. Experience has shown that longer
128 measurement lengths have a tendency to include dissimilar neighborhoods while shorter
129 lengths tend to capture too few or no intersection crossings. Also, the effort required to
130 perform this analysis increases substantially as the measurement length increases. One
131 thousand feet produces reliable information regarding the size of mains installed in the
132 vicinity of a customer as well as the local density of customers attached to the same main.
133 Additionally, the use of 1,000 feet is consistent with the methodology employed since the
134 early 1980's.

135 **Q. How is the service line cost determined?**

136 A. The length and size of service line for each sampled meter is recorded. For the sampled
137 meter shown on QGC Exhibit 8.2U, page 3, the service line associated with this meter was
138 97 feet of half-inch pipe. The length of service line is then multiplied by current cost for the
139 identified pipe size.

¹ The only exception is that if main with a diameter greater than six inches is found in the sample, the excess cost above the cost of six-inch main line is excluded. These excess costs are allocated using the Distribution Throughput Factor that is discussed below.

140 **Q. How are the meter and regulator costs determined?**

141 A. For each active meter installed in the system, a comparable model is identified. The current
142 cost for the comparable model, along with standard ancillary facilities, was determined.
143 These current cost amounts are then assigned to the sampled meters.

144 **Q. How were the current cost levels established?**

145 A. The current cost estimates were provided by distribution engineering. The current costs for
146 intermediate-high-pressure (IHP) main and service lines are based on the actual pricing in
147 effect for 2007, weighted by the footage installed in 2006. The current costs for high-
148 pressure service lines are based on recent actual projects. The current costs for meter sets are
149 based on current engineering estimates for standard meter sets of like size. Exhibit 8.2U,
150 page 4 lists the current cost data for main, service line and meter sets used to price the
151 facilities identified through the sample measurements.

152 **Q. Have you used the same current cost data for mains, service lines and meters in the**
153 **updated filing as used in the original filing?**

154 A. No. The current cost data for mains and service lines have been updated to reflect 2007 cost
155 levels. This information was not available at the time of filing the original case. The current
156 costs for meters have also been updated. A review of the work papers supporting the current
157 costs for meters revealed some inconsistencies that have been corrected.

158 **Q. What effect did these changes have on the calculation of the Distribution Plant Factor?**

159 A. The changes in the factor were very minor. For example the percent of distribution plant
160 allocated to the general service rate classes increased by .08% (eight one-hundredths of a
161 percent) as a result of these updates. The percent allocated to the industrial rate classes
162 decreased by that same amount.

163 **Q. How is the sample used to establish the small diameter main investment by rate**
164 **class?**

165 A. QGC Exhibit 8.2U, page 5, shows the calculation of plant investment for small diameter
166 mains for each rate class. Column B, lines 1-26, shows the average investment in mains by
167 nominal rating at current cost. These average values are multiplied by the number of active

168 meters in each rate class. The product of these calculations is shown in columns C through I,
169 lines 1-26. The total for each rate class is shown on line 27. The sum of the values on line
170 27 is shown in column J. The total in column J, line 27, represents the total main line
171 investment at current cost attributable to the customers receiving service under the rate
172 classes included in the COS study. The next step is to proportion this total to match the book
173 investment for small diameter mains (column K, line 28). The percentage reduction required
174 to proportion the unadjusted total investment (column J, line 27) to equal the book
175 investment is then applied to the class totals on line 27 to arrive at the adjusted class totals
176 shown on line 28.

177 **Q. How is the sample used to establish the service line investment by rate class?**

178 A. QGC Exhibit 8.2U, page 6, shows the calculation of plant investment for service lines for
179 each rate class. Column B, lines 1-26, shows the average investment in service line by
180 nominal rating at current cost. These average values are multiplied by the number of active
181 meters in each rate class. The product of these calculations is shown in columns C through
182 I, lines 1-26. The total for each rate class is shown on line 27. The sum of the values on line
183 27 is shown in column J. The total in column J, line 27, represents the total service line
184 investment at current cost attributable to the customers receiving service under the rate
185 classes included in the COS study. The next step is to proportion this total to match the book
186 investment for service lines (column K, line 28). The percentage reduction required to
187 proportion the unadjusted total investment (column J, line 27) to equal the book investment
188 is then applied to the class totals on line 27 to arrive at the adjusted class totals shown on line
189 28.

190 **Q. How is the sample used to establish the meter investment by rate class?**

191 A. QGC Exhibit 8.2U, page 7, shows the calculation of plant investment for meters for each rate
192 class. Column B, lines 1-26, shows the current cost for each nominal meter rating. These
193 current cost values are multiplied by the number of active meters in each rate class. The
194 product of these calculations is shown in columns C through I, lines 1-26. The total for each
195 rate class is shown on line 27. The sum of the values on line 27 is shown in column J. The
196 total in column J, line 27, represents the total meter investment at current cost attributable to

197 the customers receiving service under the rate classes included in the COS study. The next
198 step is to proportion this total to match the book investment for meters (column K, line 28).
199 The percentage reduction required to proportion the unadjusted total investment (column J,
200 line 27) to equal the book investment is then applied to the class totals on line 27 to arrive at
201 the adjusted class totals shown on line 28.

202 **Q. Why are the plant investment values calculated at current cost proportioned to**
203 **match book cost?**

204 A. This step is required to ensure that no component of plant is given too much weight when
205 combined in the Distribution Plant Factor.

206 **Q. What costs are allocated using the Distribution Plant Factor?**

207 A. The costs allocated using this factor include the rate-base related costs, including return,
208 taxes and depreciation, operating and maintenance expenses related to distribution activities
209 and a portion of administrative and general expense.

210 **Q. What is the result of the Distribution Plant Factor Study?**

211 A. The results are shown in QGC Exhibit 8.2U, page 1, column I, lines 1-5. The Distribution
212 Plant Factor Study shows that 98.51% (85.64% + 12.87%) of IHP small diameter mains,
213 service lines and meters are installed to serve GS residential and commercial customers,
214 0.70% are installed to serve large commercial sales customers, 0.17% are installed to serve
215 industrial sales customers and 0.62% are installed to serve transportation customers. The
216 percentages calculated based on the 2007 Distribution Plant Factor Study are used for the
217 2008 Test Year COS study.

218 **B. *Distribution Throughput Factor Study***

219 **Q. Please describe the Distribution Throughput Factor Study.**

220 A. The Distribution Throughput Factor Study develops an allocation factor based on the
221 commodity volumes delivered through the IHP distribution system. The factor is developed
222 by identifying customers who are not connected to the IHP system and then subtracting the
223 decatherms delivered to those customers from the commodity throughput numbers.

224 **Q. What costs are allocated using the Distribution Throughput Factor?**

225 A. The costs associated with large-diameter main lines (greater than 6-inches in diameter) are
226 allocated using the Distribution Throughput Factor. These facilities are generally sized for
227 more than just local delivery requirements, and therefore are excluded from the Distribution
228 Plant Factor Study. The Distribution Throughput Factor is designed to reflect the underlying
229 purpose of these facilities. Large-diameter main lines installed within the IHP system are
230 typically designed to move gas from the high-pressure feeder-line system to the smaller
231 distribution lines. These facilities benefit all customers connected to the IHP system. The
232 booked cost of the large-diameter main lines is used to determine the portion of the
233 distribution cost associated with these facilities.

234 **Q. What do the results of the Distribution Throughput Factor Study show?**

235 A. The factor developed from the study is shown on QGC Exhibit 8.3U on line 7, columns B
236 through F. The study shows that some rate classes, such as the Transportation Service rate
237 class, have very few customers connected to the IHP distribution system, while in the case of
238 the General Service classes, nearly all of the customers are served from the IHP system. As a
239 result transportation customers are allocated a relatively small portion of costs associated
240 with large diameter mains.

241 **C. Peak-Day Factor Study**

242 **Q. What is the Peak-Day Factor Study?**

243 A. The Peak-Day Factor Study attributes responsibility for the design peak day between the rate
244 classes. This factor is used to allocate costs related to the coincident peak demand of
245 customers.

246 **Q. What design peak day is used in developing the Peak-Day Factor?**

247 A. I have used the peak day from the 2007 IRP. The Utah design peak day for 2007, adjusted
248 for known changes, is 1,443,845 Dth. The 2007 design peak day was used to match the
249 customer-specific data used in the Peak-Day Factor Study. The percentages calculated based
250 on the 2007 Peak-Day Factor Study are used for the 2008 Test Year COS study.

251 **Q. How is the Peak-Day Factor calculated?**

252 A. The first step is to determine the portion of the design peak day that can be assigned directly
253 to specific rate classes. The contract demand attributable to customers served under the FT,
254 TS and MT rate classes is removed from the design peak day. The total firm contract
255 demand for these three classes is 297,362 Dth. This is the same quantity that is added for
256 these classes in calculating the design peak day. The balance of the design peak day
257 attributable to the other classes is 1,146,483 Dth. These calculations are shown on QGC
258 Exhibit 8.4U, page 2, lines 1 through 4.

259 **Q. How is the remaining quantity of design peak day apportioned among the other rate**
260 **classes?**

261 A. The remaining rate classes are the GSR, GSC and FS rate classes. An analysis of the
262 population for these classes was performed using data from the CC&B to establish the
263 proportionate responsibility for the remaining design peak day. This study involved
264 estimating the contribution to peak for customers grouped by weather zones within the three
265 remaining rate classes. The total estimated design peak day was calculated using individual
266 customer data and was then summed by rate class. The remaining design peak day is
267 allocated between these three classes based on their share of the calculated peak.

268 **Q. How were the contributions to peak calculated for each customer segment?**

269 A. A factor is calculated and recorded in the CC&B for each GS and FS customer with at least
270 six months history representing the level of temperature sensitivity for that customer's use
271 history. This factor has been designated as the linear regression slope (LRS). The LRS is the
272 slope of a line-of-best fit between the individual customer's monthly use and the degree days
273 for the same period. The other factor used is the intercept value associated with the line-of-
274 best fit. This factor has been designated the linear regression intercept (LRI). The units for
275 the LRS are Dth/Degree Day (Dth/DD). The units for the LRI are Dth/day. On any given
276 day the quantity of gas used by an individual customer can be estimated if the LRS, LRI and
277 degree days for the weather zone applicable to that customer are available. For the purpose
278 of calculating the contribution to peak attributable to each customer, the coldest temperature
279 expected by weather zone, based on the 20-year return statistics, was used. Page 3 of QGC

280 Exhibit 8.4U shows the details of the calculation of peak responsibility for the GSC, GSR
281 and FS rate classes.

282 **Q. Please describe the data and calculations shown on QGC Exhibit 8.4U, page 3.**

283 A. The data shown on QGC Exhibit 8.4U, page 3, are grouped by rate class. The first data
284 grouping, lines 1-4, represents the data for the GSC class. The data for the GSR class are
285 shown on lines 5-8. The data for the FS class are shown on lines 9-12. The data in each
286 grouping are broken out by weather zone as recorded in the CC&B. For example, line 1
287 provides the detailed information for non-residential, general service customers served in the
288 Salt Lake City weather zone. These 49,904 customers are considered by definition to be in
289 the Salt Lake City weather zone. Of these 49,904 customers, 49,132 had sufficient history to
290 calculate the LRS and LRI factors. The total LRS value for these 49,132 customers is
291 3,721.3 Dth/DD. The total LRI value for these 49,132 customers is 9,821.5 Dth/day. Under
292 peak conditions (mean temperature of minus 6 degrees F.), without consideration for
293 diversity, these 49,132 customers can be expected to use 274,036 Dth. This estimate of peak
294 contribution is then increased to reflect the total population in this segment, or 49,904
295 customers. The contribution to peak calculated for these 49,904 customers is 278,342 Dth.
296 This set of calculations is repeated on lines 2-11 for each weather zone of the GSC, GSR and
297 FS class populations.

298 **Q. Does this approach to calculating the peak-day contribution result in an unbiased**
299 **estimation of peak-day responsibility for these rate classes?**

300 A. Yes. This approach treats every customer the same in terms of utilizing the data that best
301 explain customer usage, including temperature sensitivity, base load and expected
302 temperatures under peak conditions. For the small percentage of customers with insufficient
303 history to calculate the LRS and LRI factors, the peak contribution for the other similarly
304 situated customers is proportionately increased to account for the total population.

305 **Q. How does this approach differ from the methodology historically used by the**
306 **Company in its COS study?**

307 A. Historically, an estimate of the load factor for the FS class was used to develop this class'
308 share of the peak day. The minimum load factor of 40% was used as the estimate. The

309 estimated load factor was used to back into a peak-day responsibility for the FS class, and
310 this amount was subtracted from the total. The remaining peak day was assigned to the GS
311 class. In contrast the proposed methodology uses the same factors to calculate the
312 proportionate responsibility for peak day for the GSR, GSC and FS rate classes, which yields
313 an unbiased allocation factor.

314 **Q. How did you adjust the calculated responsibility for peak day to account for known**
315 **changes related to customers changing rate classes?**

316 A. The specific customers were identified along with the daily contract requirements for each
317 customer. The appropriate daily contract quantities were added to or subtracted from the
318 calculated peak day responsibility for the affected rate classes to arrive at the Peak-Day
319 Factor.

320 **Q. What are the results of the Peak-Day Factor Study?**

321 A. The results are shown on page 1, line 2 of QGC Exhibit 8.4U. Also shown on line 4 are the
322 resulting class load factors. This shows that the residential portion of the GS class has an
323 average load factor of 22.70%, the commercial portion of the GS class has an average load
324 factor of 21.27% and the FS customers have an average load factor of 45.03%.

325 **III. RATE DESIGN**

326 **Q. What aspects of the Company's rate-design proposal are you presenting?**

327 A. I will describe the Company's proposals for basic service fees, transportation administration
328 charge and the demand charge applicable to transportation customers requiring firm service.

329 **A. Basic Service Fee**

330 **Q. What is the purpose of the basic service fee in the Company's rate design?**

331 A. The basic service fee (BSF) is comparable to the customer charge element of a generic rate
332 design. The BSF is scaled for different size customers, as reflected in the installed capacity
333 of the meter. The BSF allows for the collection of a portion of customer costs directly from
334 the customers responsible for those costs. Only costs that can be associated with individual
335 customers are included in BSF. Because only a portion of the customer related costs are

336 included in the BSF, the balance of customer related costs are collected through usage
337 charges, typically in the first block.

338 **Q. Have you followed the approach used by the Company historically?**

339 A. For the most part, yes. There are three deviations from past practice. I am proposing to
340 include an additional BSF category. This new category covers meters serving individually-
341 metered residential apartments. The individually-metered apartments tend to have a lower
342 investment in main and service line than other small customers. The lower investment
343 results from the sharing of a single service line and slightly higher density on the IHP system.

344 **Q. What is the second deviation from past practice you referenced?**

345 A. The second change is to include a small portion of main in the BSF calculation for all
346 customers as opposed to just interruptible customers. I am proposing to include
347 approximately 50% of the average investment in main in the BSF calculation. This is
348 justified since nearly every customer requires some main. The exception to this rule involves
349 customers receiving high-pressure service. In the case of those customers, essentially no
350 main is involved in delivering their requirements. Most of the meters connected directly to
351 the high-pressure system are included in BSF category Type V, as described later in my
352 testimony. Another motivating factor is the combination of interruptible and firm
353 transportation customers into one rate class.

354 **Q. What is the impact on the BSF calculation of including main in the calculation?**

355 A. I have prepared three separate BSF studies to illustrate the impact of varying the amounts and
356 types of plant in the calculation. Pages 1-3 of QGC Exhibit 8.5U contain these three studies.
357 Page 1 shows the Company's recommended calculation of the BSF amount for the five
358 category Types. Page 1 shows the BSF calculations using approximately 50% (column B) of
359 the average plant investment for service line, main and meter. Page 2 shows a similar
360 calculation using about two-thirds of the average investment in service lines and meters and
361 about one-third of the average investment in main. Page 3 shows the results of including
362 almost 100% of service line and meter and no main. For purpose of comparison, the three
363 studies have been adjusted to derive the exact same annual dollar amount for the Type II BSF
364 category. In all three studies, the BSF monthly amounts have been rounded to the nearest

365 half dollar for Category Type I & II and the nearest dollar for the other categories. This
366 comparison shows that the proposed level of BSF can be supported using the proposed
367 methodology or the methodology that the Commission has adopted in the past, with no main
368 being included. I believe that including a portion the cost of mains is more reflective of the
369 costs incurred in providing service.

370 **Q. What is the third change from past practice?**

371 A. The meter capacity ranges that define which BSF category apply have been adjusted based on
372 the underlying cost study. The range for the Type I & II categories has been extended to
373 include meters with capacity of 1,000 CFH. The Type III category applies to meters with
374 capacities between 1,001 CFH and 23,000 CFH. The Type IV category applies to meters
375 with capacities between 23,001 CFH and 60,000 CFH. The Type V category includes meters
376 with capacity greater than 60,000 CFH. In addition meters served with full IHP line pressure
377 are included in Type IV and meters served at high pressure are included in Type V. These
378 new definitions were determined by grouping meters with similar cost characteristics
379 together.

380 **Q. Why are you proposing these specific levels of BSF charges?**

381 A. The relative level of recovery of customer costs through fixed charges does not lend itself to
382 a single definitive solution. There are many considerations that guide the decision. The four
383 primary considerations are: 1) how the resulting combination of BSF charges and block rates
384 compare to the cost curve for each rate class; 2) diversifying the method of recovery of
385 customer costs between fixed charges and volumetric rates tends to smooth the transition
386 between the discrete BSF categories; 3) including too few customer-related costs in the fixed
387 charge results in intra-class subsidies between the large and small customers in a given rate
388 class; and 4) including too much of the customer-related costs in the fixed charge can result
389 in individual customers overpaying customer-related costs. There is a fine balance between
390 these competing interests. In combination, the addition of the new apartment category, the
391 redefinition of capacity ranges, the placement of special-pressure services in the categories
392 with similar cost structure and the inclusion of only half of the customer-related investment

393 for each of the three distribution plant types, as summarized on page 1 of QGC Exhibit 8.5U,
394 result in BSF charges that are within a reasonable range.

395 **B. Transportation Administrative Charge**

396 **Q. The transportation administrative charge was specifically listed as an issue to be**
397 **addressed by the Task Force. Did the Task Force reach a consensus regarding the**
398 **transportation administrative charge?**

399 A. No. There was much discussion, but no consensus. Some customers like higher up-front
400 charges and lower usage rates. Others would like to enjoy the benefits of transportation, but
401 the high fixed charge can present a barrier. I have looked at the costs traditionally included
402 in the transportation administrative charge, and I have also looked at the burden new
403 transportation customers would bring with them if they became transportation customers. I
404 am proposing a transportation administrative charge that covers both the incremental costs of
405 new transportation customers and a share of the fixed costs all transportation customers
406 cause. The cost analysis includes the same cost components historically used to establish the
407 transportation administrative charge. The only significant change from past studies is the
408 reduction of costs associated with industrial customer representatives. These costs were
409 reduced by 50% to reflect the reality that these employees would continue to have some
410 responsibility for working with the industrial customers in the absence of transportation.

411 **Q. What transportation administrative charge are you proposing?**

412 A. The administrative charge for the first transportation account is proposed to be reduced from
413 \$6,800 to \$4,500. The administrative charge for additional transportation accounts involving
414 the same entity is proposed to be reduced from \$2,550 to \$2,250. I am also proposing that
415 these same transportation administrative charges apply to the MT rate class. QGC Exhibit
416 8.6U, page 1, details the cost components included in the transportation administrative
417 charge; page 2 details the incremental analysis. The proposed combination of transportation
418 administrative charges will allow the Company to recover a reasonable level of the cost of
419 providing the extra transportation services directly from the customers responsible for those
420 costs.

421 **C. *Transportation Firm Demand Charge***

422 **Q. Why is the Company proposing to institute a demand charge for firm**
423 **transportation customers?**

424 A. This was a specific request received during the Task Force collaboration. The existing firm
425 transportation rate requires transportation customers desiring firm service to maintain a load
426 factor of 50% or greater. This excluded a number of customers that could not meet this
427 requirement. The alternative for these customers was to take a portion of their load on a firm
428 sales rate, or to sign up for backup service under the Company's F-3 rate. The F-3 rate was
429 designed to provide backup service for sales customers. Transportation customers have
430 shown a preference for taking 100% of their service on a transportation rate.

431 **Q. How is the demand charge for transportation service calculated?**

432 A. The total demand related costs allocated to the TS rate class is divided by the total of the
433 daily contract limits for the class. The resulting value is divided by 12 to arrive at a monthly
434 demand charge. This calculation is detailed on QGC Exhibit 8.7U. Each customer taking
435 service under the TS schedule will be required to specify a daily firm contract requirement.
436 The monthly transportation demand charge will be multiplied by the firm daily contract
437 requirements for each TS customer.

438 **Q. Does this conclude your direct testimony?**

439 A. Yes.

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

I, Steven R. Bateson, 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.

Steven R. Bateson

SUBSCRIBED AND SWORN TO this 31st day of March 2008.

Notary Public