Witness CCS – 5 D Dismukes Cost of Service/Rate Design

Exhibit CCS – 5 D Dismukes Cost of Service/Rate Design

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of	**)**	**Docket No. 07-057-13**
Questar Gas Company to Increase	**)**	**Pre-filed Direct Testimony of**
Distribution Non-Gas Rates and	**)**	**David E. Dismukes, Ph.D.**
Charges and Make Tariff Modifications	**))**	**For the Committee of Consumer Services**

August 18, 2008

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I. Introduction

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is David E. Dismukes. My business address is 6455 Overton Street, Baton Rouge, Louisiana.

Q. WOULD YOU PLEASE STATE YOUR OCCUPATION AND CURRENT PLACE OF EMPLOYMENT?

A. I am a Consulting Economist with Acadian Consulting Group ("ACG"), a research and consulting firm that specializes in the analysis of regulatory, economic, financial, accounting, statistical, and public policy issues associated with regulated and energy industries. ACG is a Louisiana-registered partnership, formed in 1995, and is located in Baton Rouge, Louisiana, with additional staff in Los Angeles, California, and Fallon, Nevada.

Q. HAVE YOU PREPARED ANY ATTACHMENTS TO YOUR TESTIMONY OUTLINING YOUR QUALIFICATIONS IN ENERGY AND REGULATED INDUSTRIES?

A. Yes. Attachment 1 to my testimony provides my vita that includes a full listing of my publications, presentations, and pre-filed expert witness testimony, expert reports, expert legislative testimony, and affidavits.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I have been retained by the Utah Committee of Consumer Services ("Committee") to review the rate design and class cost of service issues in the rate application submitted by Questar Gas Company ("Questar," "QGC," or "the Company").

Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A. My testimony is organized into the following sections:

- Section II: Summary of Recommendations
- Section III: Class Cost of Service
- Section IV: Rate Design

II. <u>Summary of Recommendations</u>

Q. WOULD YOU PLEASE SUMMARIZE YOUR COST OF SERVICE RECOMMENDATIONS?

A. I recommend the following regarding the Company's Class Cost of Service Study (CCOSS).

- The Commission should order the Company to provide a cost of service study in its next general rate case that includes all customers and all customer classes as separate rate classes.
- The Commission should require the Company to file its CCOSS using its current rate classes in future rate cases.
- The Commission should adopt the following alternative allocation factors:
    - For small distribution mains, service lines and meters and regulators, a 75 percent weight on the distribution plant factor and a 25 percent weight on the throughput factor should be adopted.

- For main feeder lines, compressor station equipment and measuring and regulation station equipment a factor of 50 percent demand and 50 percent throughput should be adopted.
- CIAC should be directly assigned to the class that made the contributions.
- A&G expenses should be allocated using a factor consisting of 75 percent O&M expense and 25 percent distribution throughput.
- Income taxes should be allocated based upon taxable income for each rate schedule.
- Revenue credits should be allocated on the basis of total cost to serve each class.

Q. HOW WILL THESE PROPOSED CHANGES IMPACT THE DISTRIBUTION OF THE PROPOSED REVENUE DEFICIENCY?

A. If my CCOS recommendations are adopted, the distribution of the proposed revenue deficiency (based upon full cost of service) will tend to move away from the current GS-1 customers, and towards the remaining customer classes. Further, the need for a gradualism adjustment, as proposed by the Company, will be eliminated. Instead, the GSR and GSC show a small revenue sufficiency and the remaining classes show a revenue deficiency. I recommend that the revenue sufficiency of the GSR and GSC classes be distributed proportionately to the revenue deficiency of the remaining classes.

Q. WOULD YOU PLEASE SUMMARIZE YOUR RATE DESIGN RECOMMENDATIONS?

A I am making the following rate design recommendations:

- The Commission should reject the Company's proposals to increase the BSF.
- The Company's proposal to split the GS-1 class into GS-R and GS-C components should be modified to one that splits the class into a GS and GS-L rate schedule.
- All customers with maximum monthly usage of 100 Dth or less would take service under the new GS rate schedule.
- All former GS-1 customers with maximum monthly usage above 100 Dth would take service under the new GS-L rate schedule.
- Uniform rates (on dollar per Dth basis) for the GS and GS-L classes should be adopted.
- The relative seasonal differential for my proposed GS and GS-L class should be proportional to the first and second blocks of the former GS-1 rate structure. In other words, even with a new rate design proposal, the relative difference in the summer winter differentials should be preserved, not expanded (i.e., there should not be greater summer discounts). Thus, the GS class summer-winter differential should be at roughly 19 percent while the differential for the GS-L class should be approximately 33 percent.

- The natural gas vehicle equipment lease program should be eliminated.
- NGV rate should be moved towards full cost of service. The Commission should examine the full cost of service for the other classes excluded from the cost of service study to determine if any movement to full cost of service is desirable.
- Line extension allowances should be reduced by one-third.

III. <u>Class Cost of Service Study</u>

A. Purpose

Q. WHAT IS THE PURPOSE OF A CLASS COST OF SERVICE STUDY?

A. A CCOSS is a method by which utility costs and revenues are reconciled across different customer classes. The goal of the study is to determine the cost of providing service to each class and the contribution, in terms of revenues, that each class makes to those costs. The results of this analysis produce a rate of return and revenue requirement for each individual rate class. As a result, the CCOSS can be used as a tool in developing the revenue responsibility for each rate class when designing rates.

Q. HOW IS A CCOSS CONDUCTED?

A. Generally, costs are first identified based on the function for which they are incurred. However, since the provision of many utility services can be the result of joint and common costs, as well as costs that are not easily identifiable to one function alone, a method of cost and revenue allocation must be developed. One of the first steps in a CCOSS is to determine if there are any costs or revenues that are easily identified to one class. These costs and revenues are then "directly-assigned." The remaining costs are allocated to customer classes using various allocation factors designed to identify demand, commodity, and customer-related costs.

Q. WHAT PRINCIPLES ARE FOLLOWED WHEN PERFORMING A CLASS COST OF SERVICE STUDY?

A. Generally, costs are allocated to customer classes based upon the concept of "cost causation," but as noted earlier, a number of allocation factors need to be estimated in order to spread a variety of different types of costs to different customer classes. This process can often involve a considerable degree of subjectivity and opinion regarding the type and nature of cost-causation.

Q. WOULD YOU PLEASE DEFINE THE THREE MAJOR TYPES OF COSTS ALLOCATED IN A CCOSS?

A. Yes. Demand-related costs are associated with meeting maximum gas flow requirements, such as transmission and distribution mains, or more localized distribution facilities that are designed to satisfy individual customer maximum demands. Gas supply contracts can also have a capacity component and are considered demand-related. Commodity-related costs are defined as those that change with throughput sold or transported for customers as well as those associated with measuring throughput. Lastly, customer-related costs are incurred to connect customers to the distribution system, meter usage, and perform customer functions.

Q. DID THE COMPANY CLASSIFY COSTS AND DEVELOP ALLOCATION FACTORS?

A. The Company's proposed allocation factors are based upon the following categories and definitions:

> Direct Assignment: Associated with revenues only where actual revenues were assigned to each customer class.
>
> Revenue Factors: Utilized to allocate revenues from those classes that were excluded from direct examination in the CCOSS.
>
> Expense Factors: Developed within the CCOSS that were in turn used to allocate other general expenses like internal gas use, gas used for compression, and allocation of the value of interruptible gas purchased.
>
> Plant Factors: Method by which most plant in service (rate base) is allocated as well as related expenses.
>
> Volumetric Factors: Utilized to allocate some expenses and some utility plant.
>
> Customer Factors: Allocates customer-related costs.
>
> Taxes: Used to allocate taxes.

Q. HAVE YOU PREPARED AN EXHIBIT WHICH COMPARES THE ALLOCATION FACTORS THAT YOU RECOMMEND TO THE ONES PROPOSED BY THE COMPANY?

A. Yes, Exhibit CCS-5.1 shows on an account by account basis, the allocation factors proposed by the Company compared to the ones that I recommend. This exhibit is organized in the same manner as the cost of service study. It presents the revenue accounts, expense accounts, and the rate base accounts. The first column lists the account name and the second and third columns compare the Company's proposed allocation method with mine.

Q. THERE HAVE BEEN SEVERAL CLASS COSTS OF SERVICE STUDIES FILED IN THIS CASE. WHAT STUDY HAVE YOU EXAMINED?

A. Over the course of this proceeding, I have examined each of the studies prepared by the Company. My recommendations however, are based upon the Company's CCOSS with the file name "Revised Ordered % Inc_06_27.xls." In preparing this study, the Company has included the revenue requirement approved by the Commission, and has corrected for errors found in earlier analyses.

B. Disagreements With the Company's Cost of Service Study

Q. CAN YOU DISCUSS YOUR DISAGREEMENTS WITH THE COMPANY'S PROPOSED CCOSS?

A. Yes. First, I disagree with the Company's exclusion of several rate schedules from its cost of service study. Second, the Company developed its CCOSS assuming that its proposed rate class restructuring is adopted by the Commission. Such an approach leaves the Commission (and other parties) in the position of being unable to determine the rate of return achieved by each class under the current rate schedules. Third, there appears to be a reference error in the Company's COSS workpapers that needs to be corrected. Fourth, I disagree with several allocation factors used by the Company.

C. Rate Schedules Excluded from Cost of Service Study

Q. WOULD YOU DISCUSS YOUR FIRST DISAGREEMENT -- THE EXCLUSION OF CERTAIN RATE SCHEDULES, CUSTOMER CLASSES AND ONE CONTRACT CUSTOMER FROM THE COST OF SERVICE STUDY?

A. Yes. The Company excluded the following rate schedules from its cost of service study: GSS (General Service Expansion), FT-1 and FT-1L (Firm Transportation), FT-2C (Firm Transportation Contract Customer), NGV (Natural Gas Vehicles), and MT (Municipal Transportation). The revenues from these rate schedules are allocated to the other classes and therefore reduce their revenue requirement. According to the Company, this is consistent with the methodology used in past cases.[1]

Q. DID THE COMPANY PROVIDE ANY FURTHER EXPLANATION ABOUT WHY IT EXCLUDED THESE RATE SCHEDULES?

A. No it did not. However, the FT-1 rate schedule was established in Docket No. 99-057-20 for customers that have alternative transportation options. It was considered a bypass rate for certain customers. In that proceeding eligibility was limited to customers having annual usage of more than 4 million decatherms ("Dths") or annual usage of at least 100,000 Dth and a

[1] Robinson Updated Testimony, Lines 166-173.

location within five miles of an interstate pipeline.[2] Currently, these same requirements exist today and are proposed to remain the same in this proceeding.[3]

Q. WHAT ABOUT THE MUNICIPAL RATE SCHEDULE?

A. The MT rate class was established by stipulation on October 26, 1999, in Docket No. 98-057-01.[4] In Docket No. 98-057-01, there were no customers taking service under this tariff.[5] In the Company's last rate case, Docket No. 02-057-02, there was no discussion about the MT rate in Commission's Order approving the settlement.[6] It appears from a review of prior Commission orders that the cost of serving this customer class has never been examined.

Q. WHAT ABOUT THE NGV CLASS?

A. The cost to serve this class was last done in Docket No. 89-057-15 and the rate was established in 1990.[7] In response to CCS Data Request 16.04 the Company explained: "The original NGV rate established in Docket 89-057-15 was a cost based rate based on the [levelized] cost of service of NGV compression facilities over their expected life. Since that time, they have been treated as a revenue credit in the cost of service and the rate has been percentage-changed with each change in DNG rates."[8]

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[2] Questar Exhibit 9.5, p. 5-8.
[3] Ibid.
[4] Commission Order 99-057-20, p. 45.
[5] Ibid.
[6] Commission Order 02-057-02.
[7] Response to CCS 16.04 and DPU 32.04.
[8] Response to CCS 16.04.

Thus, it would appear that the true cost to serve this class has either not been examined or it has not been examined in nearly twenty years.

Q. DO YOU AGREE WITH THE COMPANY'S TREATMENT OF THESE RATE CLASSES?

A. No. If the Company is basing its rate increase proposal upon the results of its CCOSS for purposes of determining the revenue requirement of each class, then there is no reason why certain classes should be excluded. This information is critical in determining the benefits or costs that each of these classes contributes to the overall system. Further, the cost of many of these classes has either never been examined, or examined well nearly two decades ago. Continuing to exclude these customers from a CCOSS makes no sense and potentially exacerbates the Commission's and parties' understanding of these classes' contribution to the overall cost of service.

Q. DO YOU DISAGREE WITH THE PREMISE THAT THERE SHOULD BE DISCOUNTED RATES FOR CUSTOMERS THAT HAVE SIGNIFICANT BYPASS OPTIONS?

A. It is difficult to answer this question since the degree to which these rates are discounted relative to full cost of service is unknown. This leaves the Commission, as well as other parties to this proceeding, operating in an informational vacuum.

Q. DID THE COMMITTEE REQUEST INFORMATION THAT MAY FACILITATE THE DEVELOPMENT OF A COST OF SERVICE ESTIMATE FOR THESE OMITTED CLASSES?

A. Yes the Committee did ask, but the Company stated in Response to CCS Data Request 22.03 that it could not produce the distribution plant allocation factors (small distribution mains, services and meters) for these classes. Specifically, the Company noted that:

> The referenced data was not prepared for the test period due to the exclusion of these rate classes from the cost of service study. To create some of the allocation factors needed to include them in the cost of service study, the Company would need to start the study over again, which would take several months.[9]

Q. DO YOU HAVE ANY INITIAL CCOSS RECOMMENDATIONS REGARDING THESE OMITTED CLASSES?

A. Yes, I recommend that the Commission order the Company to provide a cost of service study in its next general rate case that includes all customers and all customer classes. This will allow the Commission to fully examine the cost of serving these classes and weigh these costs against the benefits provided by the customers.

Q. DESPITE THIS INFORMATIONAL SHORTCOMING WERE YOU ABLE TO ESTIMATE THE COST TO SERVE THE FIRM TRANSPORTATION CUSTOMERS THAT WERE NOT MOVED TO THE INTERRUPTIBLE TRANSPORTATION CLASS?

[9] Response to CCS 22.03.

A. Yes, but only in part. I was not able to perform a complete allocation of all of the costs to these rate schedules (FT-1, FT-1L and FT-2C) because the Company did not develop allocation factors for services, meters, and regulators for these customers. Thus, these costs have been excluded from the analysis. The remaining costs (i.e., expenses, and rate base items that contained throughput as an allocation factor) were allocated using the Company's proposed methodology. Based upon these assumptions, I estimate that these rate schedules, if combined into one class, under existing rates, produced a negative rate of return of 7.7 percent. However, it is important to note that most meters and regulators and services that should be allocated to this class were not because the Company did not include them in its Distribution Plant Factor Study. In the future, the Company should generate its cost of service study with complete results for all classes and customers.

Q. WERE YOU ALSO ABLE TO FORM AN ESTIMATE FOR THE COST TO SERVE THE NGV CLASS?

A. No, I was not. There was insufficient information contained in the Company's class cost of service study and workpapers to develop a meaningful estimate. However, in response to DPU's Data Requests 32.05 and 32.08, the company produced a breakeven cost of $1.68 per gas gallon equivalent or $13.96 per dekatherm. In an updated response to DPU Data Request 32.05, the Company indicated that full cost of service for the NGV class is $1.75 per gas gallon equivalent or $14.61 per dekatherm. However, it is not clear that all common costs have been adequately considered in the cost of service estimate.

Q HOW DID THE COMPANY ALLOCATE COSTS FOR THESE OMITTED CLASSES WITHOUT A SEPERATE COST OF SERVICE ANALYSES?

A The costs associated with the GSS, MT, NGV, FT-1 and FT-2C customer classes were simply included, or rolled into the costs of the remaining rate schedules. Other things being equal, this would have the effect of inflating each of the remaining customer classes' cost of service. The Company has however, attempted to offset these over-allocated costs through a revenue credit approach that seemingly helps to reduce the overall revenue requirement.[10] This revenue credit approach simply assigns the revenues from the omitted classes to those for which cost of service estimates are being developed.

Q. CAN YOU FURTHER EXPLAIN HOW THE COMPANY ALLOCATED REVENUES FROM THE OMITTED CUSTOMER CLASSES?

A. Yes. The Company allocated the revenues from the GSS, MT, NGV, FT-1 and FT-2 Special Contract (FT-2C) rate schedules based upon test year DNG revenue. Thus, each class, for which the cost of service was estimated, received a pro-rata share of the omitted classes' revenues. In theory, this should result in a proportional offset to the remaining classes' cost of service (i.e., proportional to the over-allocated costs in each classes' estimated cost responsibility). The allocation of GSS class revenues, however, was the one exception to this rule. The GSS

[10] Response to CCS 8.12.

revenues were directly assigned to the GS-1 class since these customers are entirely residential and commercial. However, this class, in turn, was separated into separate residential (GS-R) and (GS-C) commercial classes using a "Residential Commercial DNG" allocation factor.

Q. DO YOU AGREE WITH THE COMPANY'S REVENUE CREDIT ALLOCATION METHODOLOGY?

A. No. The only way an approach of this nature would be truly offsetting is if the method for allocating revenues were the same as the method used by the Company to allocate costs. Yet that is not the case under the Company's CCOSS approach. The Company's method effectively allocates the revenues based upon the Commission's last rate case determination of the revenue distribution and rates. The approach would also account for growth as well as the implementation of the CET since the last rate case. This adjusted revenue distribution is different, however, from the Company's current CCOSS proposals which allocates costs and differs from the last rate case.

Q. WHAT ARE YOUR RECOMMENDATIONS?

A. To correct this mismatch, I recommend that the Commission distribute these revenue credits using a cost of service factor (i.e., a factor that consists of the allowed net operating income plus expenses). It is my opinion that using a COS Factor will result in a more appropriate allocation of revenue credits since this allocator will tend to match how costs are estimated for the respective customer classes. In other words, by using a COS Factor, revenues will be allocated in the same fashion as costs.

D. Cost of Service Study Conducted Under Proposed Rate Structure

Q. WOULD YOU DISCUSS THE NEXT CONCERN WITH THE COMPANY'S CCOSS?

A. Yes. While each rate case can be unique, there is usually a certain path along which rate case application is prepared. Generally a cost of service model is developed to estimate achieved class rates of return in the test year. It is usually the case that the CCOSS is developed on existing rates not (at least initially) on proposed rates. The Company's CCOSS results, however, are presented exclusively on a proposed class structure, not on the existing structure. In doing so, the Company has effectively prevented the Commission from examining the cost to serve the existing customer classes under the existing and proposed revenue distribution.

Q. CAN YOU GIVE AN EXAMPLE OF HOW THIS PRESENTS A PROBLEM?

A. Yes. One of the Company's proposed rate design changes includes moving customers from the current FT-2 rate schedule to a proposed TS rate schedule. The former class consists of firm transportation customers while the latter consists of interruptible transportation customers. The FT-2 customers pay more per Dth than the TS customers. Specifically, the FT-2 customers' test year average revenue per Dth was $0.2070. The TS customers' average revenue per Dth was $0.1528. By combining these two classes, the rate of return resulting from the class cost of service study is higher than it would be for the TS class if it were not combined with the FT-2 class. If the Commission does not agree with the Company's proposal to combine these two classes, it might allocate an unnecessarily small rate increase to the TS class because the rate of return for the combined class is higher than the rate of return for the TS class alone.

Q. WHAT ARE THE IMPLICATIONS OF UTILIZING A CCOSS BASED ON THE PROPOSED CUSTOMER CLASSES AS OPPOSED TO THE EXISTING CLASSES?

A. If the Commission relies entirely, or even partly, on the Company's CCOSS to develop the class revenue distribution in this proceeding, it runs the risk of either understating or overstating any given classes' revenue requirement. This is especially true if the Commission does not adopt the Company's proposals for consolidating rate classes since the original CCOSS is not known.

Q. DOES THE COMPANY'S CCOSS ON PROPOSED RATES SERVE ANY USEFUL PURPOSE?

A. Yes, it is instructive in examining the potential class rates of return under the numerous rate design proposals offered by the Company. However, its usefulness is limited since it lacks a reference point. That is, how does the cost of service for the newly proposed rate structure compare with rates currently in effect?

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Commission require the Company to file its CCOSS using its current rate classes in its future rate cases. If the Company chooses to do an additional CCOSS for any proposed rate classes, that analysis should be welcome, but not as a substitute for the primary filing requirement that the CCOSS be based upon the current rate structure.

E. Reference Error in Cost of Service Study

Q. WOULD YOU DESCRIBE THE REFERENCE ERROR CONTAINED IN THE CCOSS?

A. Yes. In developing the allocation factor for customer assistance expense, the Company's workpapers included an incorrect link ("reference") to the supporting spreadsheet. In response to CCS Data Request 22.12, the Company supplied the correct allocation percentages, and I have included these in my recommendations.

F. Alternative Allocation Factors

Q. WOULD YOU PLEASE DISCUSS YOUR DISAGREEMENTS WITH THE COMPANY'S PROPOSED ALLOCATION FACTORS?

A. Yes. My first disagreement is with the factor used to allocate small distribution mains. To develop this factor the Company conducted a special study of the major components of its distribution plant. This study, called the "distribution plant factor study," visually examined meters, regulators, service lines, and small diameter main lines (6 inches and smaller in diameter). This allocation factor is important since its results impacts approximately 70 percent of the distribution non-gas costs.[11]

Q. WOULD YOU BRIEFLY DESCRIBE THIS STUDY?

A. Yes. The distribution plant factor study is based upon a sample of smaller-sized meters and the entire population of larger meters. Meter proximity was then compared to major infrastructure categories to develop a proxy for cost-causality.

Q. HOW DID THE COMPANY DETERMINE THE AMOUNT OF THE MAIN ATTRIBUTABLE TO THE SAMPLED METERS?

A. The Company examined main lines within 1,000 feet of a service tap point, which generally translated into 500 feet in each direction. The Company recorded the length of each size of main line within the 1,000 feet using a manual process of measuring distance with actual hard copies of system maps. This literally involved a process of looking at a map, locating a meter, and using a ruler to measure distance. From there, the number of mains within the relevant proximity were counted and tabulated as being associated with the meter being examined. In addition to mains, the Company also measured/counted the number of service taps within the 1,000 feet of a given meter. The Company explained that it selected 1,000 feet in order to capture the character of the area surrounding a customer, including street crossings.[12] The Company then

[11] Bateson Updated Testimony, Lines 52-54.
[12] Bateson Updated Testimony, Lines 126-130.

estimated the current cost of the meters and regulators associated with each meter.

Q. HOW DID THE COMPANY ESTABLISH THE CURRENT COST LEVELS?

A. The Company explained that current costs for intermediate-high-pressure (“IHP”) main and service lines were taken from pricing in effect for 2007, weighted by the footage installed in 2006. Current costs for high-pressure service lines were based upon recent projects. The current cost of meters was based on engineering estimates.[13] After the Company determined the current cost of the three items of plant, it created an adjustment factor, based upon the ratio of total embedded cost to current cost, to convert current costs to embedded costs for each rate class.[14]

Q. WHAT COSTS ARE ALLOCATED USING DISTRIBUTION PLANT FACTORS?

A. The costs of small distribution mains, services, and meters and regulators are allocated on the distribution plant factor. In addition, some components of rate base are allocated on distribution plant and as a result, are based upon the distribution plant factors. For example, land and land rights costs are allocated using an internally-generated factor that consists of all components of directly-allocated distribution plant. Operating expenses are also allocated using these factors.

Q. ARE YOU DISPUTING THE COMPANY’S DEVELOPMENT OF ITS DISTRIBUTION PLANT FACTORS AND THE STUDY IT CONDUCTED?

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[13] Bateson Updated Testimony, Lines 145-149.
[14] Ibid., Lines 188-199.

A. No, I am not. However, as is evident from the description above, and the evidence provided by the Company, the process used to develop these factors was very manual and involved significant amounts of paper records, creating some concerns about its accuracy as well as interpretation. Because of this, as well as other reasons that I will discuss later, I am recommending that the Commission use a combination of the Company's study, as well as other causative factors, in developing final allocation factors for distribution plant costs.

Q. CAN YOU EXPLAIN YOUR DISTRIBUTION PLANT RECOMMENDATIONS IN GREATER DETAIL?

A. Yes. For small distribution mains, service lines, and meters and regulators, I recommend that the Commission place 75 percent weight on the distribution plant factor proposed by the Company and 25 percent weight on the throughput (Dth) factor. Placing a 25 percent throughput weight on the overall distribution plant factor recognizes the fact that the cost of mains, services, meters and regulators are incurred for the purpose of distributing gas to customers and can have some volumetric considerations. For example, mains are installed to both provide gas to a large group of customers, as well as move a large volume of gas, throughout the year. Meters are necessary to measure the Dths used by customers.

Q DO ANY OF THE COMPANY'S POLICIES RECOGNIZE THIS ADDITIONAL CAUSALITY?

A Yes, the Company's main extension policy for commercial customers provides a construction allowance based upon customer Dth volumes. Specially, the Company's extension policy states:

> The Company will extend a main at no cost to the applicant if the cost does not exceed that determined by the following allowance formula:
>
> 2.5 ((TxN) + BSF
>
> Where T = Estimated annual usage in Dth
>
> N = Non-gas-cost rate component in $/Dth
>
> BSF = Total yearly Basic Service Fee
>
> If the main extension cost exceeds the allowed cost, the applicant will pay to the Company a cash contribution in aid of construction equal to the difference between the cost and the allowance.[15]

Since its main extension policy recognizes usage (throughput), it is only reasonable that the costs associated with mains include some volumetric component. Exhibit CCS-5.2 shows the results on modifying the allocation factor relative to the Company's proposed cost of service study results. As shown, the residential class rate of return would increase from 7.11 percent to 8.40 percent. All other classes' rates of return would decrease. The largest change is shown for the firm service class (FS) with its rate of return declining from 5.84 percent to negative 0.17 percent.

Q. WHAT OTHER DISTRIBUTION ALLOCATION FACTORS ARE YOU RECOMMENDING?

A. I am also recommending an alternative allocation factor for the costs of main feeder lines, compressor station equipment, and measuring and

[15] Questar, Exhibit 9.5, p. 9-7.

regulation station equipment. The Company proposes an allocation that consists of 60 percent peak demand and 40 percent throughput. I recommend a factor that consists of 50 percent demand and 50 percent throughput. A 50-50 allocation is more consistent with the methodology utilized by the Company in its last rate case (Docket No. 02-057-02).[16] In addition, in the last rate case that did not result in a settlement, the Commission established a weighting of 71 percent throughput and 29 percent peak. All cases subsequent to this one have settled and there has been no determination by the Commission of the appropriate weighting. The Company has not provided any convincing evidence to support changing this weighting.

Q. WHAT RATIONALE DID THE COMPANY PROVIDE FOR CHANGING THESE RELATIVE WEIGHTS?

A. In response to CCS Data Request 25.07, the Company gave the following reason for changing its weights:

> The distribution facilities and the costs that are related to the functions subject to the 60/40 weighting include high-pressure feeder mains, system regulation, system measurement and system compression. These facilities fulfill a two-part function. They are designed to meet the peak requirements of firm customers, and they are used 365 days of the year to move gas to all customers, both firm and interruptible. The allocation of these costs does not lend itself to a single definitive solution. On the one hand it has been argued that firm customers should pay the entire cost in recognition of the underlying design function of these facilities. On the other hand it has been argued that customers should share responsibility for these facilities in proportion to actual use of the facilities. It is generally agreed that it would be unreasonable to allocate 100% on Peak Responsibility, just as it would be unreasonable to allocate 100% on Commodity Throughput. Historically the weighting

[16] McKay Exhibit QGC 5.5, p. 3, Docket No. 02-067-02.

> used to allocate cost for similar facilities has been between 75/25 and 50/50.
>
> The Cost of Service and Rate Design Task Force looked at Cost of Service studies based on alternative weightings between peak and commodity of 75/25, 60/40 and 50/50. No consensus was reached as to the most appropriate weighting.
>
> The Company has based its initial Cost of Service study on the middle weighting examined by the Task Force.[17]

Q. DO YOU AGREE WITH THE COMPANY'S EXPLANATION?

A. In part. I do agree that these costs should be assigned on the basis of both demand and throughput. The facilities that are being allocated are used to meet both peak demand as well as provide year-round gas service to customers. However, I disagree with the weighting selected by the Company and recommend a 50-50 weight. While the Company is correct that the 60-40 split is in the middle of those examined by the earlier-referenced task force, this does not serve as strong justification for changing the status quo. As the Company notes, its selected 60-40 weighting was not a consensus of the task force in their deliberations. Thus, the historical weighting approach should be preserved.

Q. ARE THERE ANY OTHER FACTORS THE COMMISSION SHOULD CONSIDER IN CONTEMPLATING YOUR 50-50 RECOMMENDATION?

A. Yes. Factors other than demand and throughput contribute to the cost of these distribution facilities. Customer density, weather at the time of installation, and terrain are all factors that contribute to cost. In fact, the Company's main extension policy specifically references the additional

[17] Response to CCS 25.07.

construction costs caused by "…difficult construction problems caused by rock, frost, etc."[18] I believe that these additional factors place a "damper" on moving to the 60-40 weight as proposed by the Company. The use of a 50-50 weighting approach allows these additional factors to be allocated more on a volumetric basis.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Exhibit CCS-5.2 shows the impact of this recommendation. The Company's proposed commercial class is the largest beneficiary, with its rate of return increasing from 10.37 percent to 10.60 percent. The residential class has next largest gain with its rate of return increasing by 0.07 percent. All other classes' rates of return decline as a result of this recommendation, with the largest decline occurring in the transportation class.

Q. DO YOU HAVE ANY ISSUES WITH ANY OF THE RATE BASE ACCOUNT ALLOCATIONS?

A. Yes. I disagree with the Company's methodology to allocate contributions in aid of construction ("CIAC").

Q. WHAT ARE YOUR RECOMMENDATIONS?

A. I recommend that the Commission directly assign the CIAC to the class that made the contributions. The Company must keep a record of the class (and customers) from which it collects these charges since, in certain instances, the charges can be refunded. In CCS Data Requests 13-19 through 13-24 Questar provided the actual amount of CIAC

[18] Questar Exhibit 9.5, p. 9-8.

collected from each customer class. I have used this information to develop a direct assignment of CIAC in my recommendations. A summary of my recommended changes in the CIAC allocations have been provided in Exhibit CCS-5.3. As depicted on Exhibit CCS-5.2, this recommendation increases the class cost of service results for the residential class, the interruptible service class, and the transportation class.

Q. DO YOU HAVE ANY DISAGREEMENTS WITH THE COMPANY'S EXPENSE ACCOUNT ALLOCATIONS?

A. Yes. However, most disagreements stem from the methodology used to allocate the corresponding plant accounts. For example, the Company allocated the cost of Compressor Station Labor & Expenses using the 60 percent peak/40 percent throughput factor used to allocate plant. Like my earlier recommendation, I am proposing that this account be allocated based upon 50-50 peak/throughput factor I recommended for the plant account. I am also recommending similar types of adjustments in expense account items to ensure consistency with my earlier plant allocation recommendations.

Q. DO YOU HAVE ANY OTHER EXPENSE-RELATED ALLOCATION PROPOSALS?

A. Yes, I have two additional recommendations. The first is related to the allocation of administrative and general ("A&G") costs and the second is related to the allocation of income tax expenses.

Q. WILL YOU PLEASE DISCUSS YOUR A&G EXPENSE PROPOSALS?

A. Yes, the Company allocated A&G costs using its gross plant factor, which is the total of all plant accounts. I recommend that A&G expenses be allocated using a factor that consists of 75 percent of operations and maintenance ("O&M") expenses and 25 percent distribution throughput. A&G expenses consist of costs such as the president's salary, insurance expenses, planning, purchasing, payroll, human resources, regulatory expenses, and advertising expenses. These functions support the entire operations of the Company, including gas purchasing operations, which are a function of the throughput requirements of its customers. I believe that my recommendation recognizes the diversity of the types of expenses included in A&G accounts.

Q. HOW DOES THIS IMPACT THE CCOS RESULTS?

A. Exhibit CCS-5.2 shows a comparison of the cost of service results from changing this one allocation factor. As shown, the residential class' rate of return increases from 7.11 percent to 7.24 percent. The commercial classes' rate of return decreased from 10.37 percent to 10.22 percent. The firm service class's rate of return also decreased from 5.84 percent to 3.35 percent. The interruptible service class witnessed the largest decline from negative 0.26 percent to negative 4.94 percent. The transportation class also saw a decline in its rate of return from 0.35 percent to negative 0.46 percent.

Q. WHAT ARE YOUR RECOMMENDATIONS FOR INCOME TAX ALLOCATIONS?

A. The Company initially used rate base as the allocator to distribute income taxes. I support the change recently made by the Company to allocate income taxes based upon taxable income for each rate schedule (consisting of earnings before taxes but after interest expense.)

G. Summary of CCOSS Recommendations

Q. WOULD YOU PLEASE SUMMARIZE YOUR CCOSS RECOMMENDATIONS?

A. Yes. In summary, I am making the following CCOSS recommendations:

- The Commission should order the Company to provide a cost of service study in its next general rate case that includes all customers and all customer classes.
- To correct the mismatch between allocating costs and revenues, I recommend that the Commission distribute revenue credits using a cost of service factor.
- The Commission should require the Company to file its CCOSS using its current rate classes in future rate cases. Should the Company choose to prepare an additional CCOSS for proposed rate classes, it should not be used as a substitute for the current rate structure.
- The Commission should adopt the following alternative allocation factors:

- For small distribution mains, service lines and meters and regulators, a 75 percent weight on the distribution plant factor and a 25 percent weight on the throughput factor should be adopted.
- For main feeder lines, compressor station equipment and measuring and regulation station equipment a factor of 50 percent demand and 50 percent throughput should be adopted.
- CIAC should be directly assigned to the class that made the contributions.
- A&G expenses should be allocated using a factor consisting of 75 percent O&M expense and 25 percent distribution throughput.
- Income taxes should be allocated based upon taxable income for each rate schedule.

Q. HOW DOES THIS CHANGE THE CLASS RATES OF RETURN?

A. The rates of return achieved by each customer class are:

- 8.42 percent for the residential class;
- 8.68 percent for the commercial class;
- 0.34 percent for the firm service class;
- (5.07) percent for the interruptible service class; and
- (4.12) percent for the transportation class.

These compare to the Company's overall achieved rate of return of 7.39 percent. Under Questar's methodology all classes earn below the achieved rate of return except the commercial class (proposed GS-C). In contrast, under my recommended changes, the re-estimated CCOSS finds that the firm service, interruptible service, and transportation service classes earn below the Company's overall achieved rate of return. A comparison of the Company's CCOSS results (rate base and income statement) and those estimated under my recommended changes has been provided in Exhibits CCS-5.4 and CCS-5.5. Exhibit CCS 5.4 depicts the results of the Company's CCOSS and Exhibit CCS 5.5 show the results of my recommended CCOSS.

Q. HOW WILL THESE PROPOSED CHANGES IMPACT THE DISTRIBUTION OF THE PROPOSED REVENUE DEFICIENCY?

A. If my CCOS recommendations are adopted, the distribution of the proposed revenue deficiency (based upon full cost of service) will tend to move away from the current GS-1 customers, and towards the remaining customer classes. As shown on Exhibit CCS 5.5, both the GSR and GSC classes show a small revenue sufficiency, while the remaining classes show a revenue deficiency. I recommend that the GSR and GSC revenue sufficiency of $703,790 be distributed to the remaining classes in proportion to their revenue deficiency.

IV. <u>Rate Design</u>

A. Rate Design Objectives

Q. WHAT CRITERIA OR PRINCIPLES DID YOU RELY UPON WHEN DEVELOPING YOUR RATE DESIGN RECOMMENDATIONS?

A. I relied upon the following principles in developing my recommendations concerning rate design.

1) Rates should be fair, just and reasonable, and not unduly discriminatory.
2) Rates should avoid rate shock, to the extent possible. Gradualism should be used to protect customers from rate shock.
3) Rate continuity should be maintained.
4) Rates should be cost based, but class cost of service ("COS") results should not be the only factor considered when developing rates.
5) Rates should be understandable to customers.

Q. HOW ARE THE ABOVE CRITERIA USED IN THE DEVELOPMENT OF RATES FOR CUSTOMERS?

A. It is necessary to consider all of the principles enumerated above although the weighting of these can change depending on the importance of certain policy goals. The formulation of rate design is important because it strikes the balance between setting fair, just, and reasonable rates on the one hand, and establishing a mechanism by which regulated utilities are allowed to recover their allowed revenue requirement. Because there is no pre-set universally-accepted formula for developing rates, judgment is often necessary in formulating a rate design that meets these objectives.

B. Basic Service Fee

Q. WHAT IS A BASIC SERVICE FEE ("BSF")?

A. A BSF is a monthly fixed charge assessed to customers based on the type of installed meter and the pressure level of the gas flowing through that meter. This fee is often called a "customer charge" and is typically fixed regardless of the amount of gas consumed. During the Company's last rate case, the parties to the settlement agreed to change the name of the customer charge to a "Basic Service Fee."[19]

Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S PROPOSED CHANGES TO THE BSF?

A. The Company proposes to increase its BSF for all meter categories in addition to creating a new BSF category for apartment complexes which has been designated by the Company as "BSF-1." Exhibit CCS-5.6 outlines the current and proposed BSF charges by category.

Q. HOW SIGNIFICANT ARE THESE PROPOSED BSF INCREASES?

A All of the proposed increases are significant in percentage terms. Apartment complexes, for instance, would see as much as a 20 percent increase in their BSF under the Company's proposal. A typical residential customer that is charged under the BSF-2 schedule would see a 60 percent increase under the Company's proposal. Larger commercial and industrial customers would see very significant increases in the BSF category, increasing by as much as 145 percent.

Q. FROM A POLICY PERSPECTIVE, DO YOU FIND IT NECESSARY TO INCREASE THESE BSF CHARGES AT THIS TIME?

A. No, rate proposals of this nature are not in keeping with the policy goals of rate continuity I discussed earlier, nor are they consistent with the Commission's efforts at promoting energy efficiency.

[19]Commission Order, Docket No. 02-057-02, p. 18.

Q. WHY IS THIS TYPE OF RATE DESIGN PROPOSAL INCONSISTENT WITH THE PROMOTION OF ENERGY EFFICIENCY?

A. It places more costs into the fixed component of rates than in the variable component. In the extreme case of a Straight Fixed Variable rate design, customers will pay the same charge regardless of their usage level. Thus, inefficient customers will pay the same bill as relatively more efficient customers. Such an approach can also be regressive in nature since smaller and less economically advantaged customers, who can have lower total usage, pay the same amount as larger and typically more affluent customers.

Q. HOW HAS THE COMPANY RESPONDED TO THE POSITION THAT ITS PROPOSALS COULD NEGATIVELY IMPACT ENERGY EFFICIENCY GOALS?

A. In response to CCS Data Request 9.15, the Company responded that its proposed increase in the BSF was unrelated to its conservation goals: "The proposal is a cost-based proposal and is unrelated to the Company's goal of conservation. The proposal affects the relative level of BSF, as opposed to the absolute level of the BSF."[20]

Q. WHAT IS THE BASIS FOR THE COMPANY'S PROPOSAL TO INCREASE ITS METER-SPECIFIC BSF?

A. The primary reason rests with the method by which costs are allocated into the BSF. This approach differs from past, Commission-approved methods.

[20] Response to CCS 9.15.

Q. HOW DOES THE COMPANY'S METHODOLOGY DIFFER FROM PAST APPROACHES?

A. The most significant difference is the Company's proposal to include 50 percent of the mains cost to all customers and not just interruptible customers as has been done in the past. The Company's rationale for this change in cost allocation rests with its premise that nearly every customer requires some main with the exception of those larger customers receiving high-pressure service.[21]

Q. DID THE COMPANY EXAMINE ANY OTHER COST ALLOCATION METHODOLOGIES RELATIVE TO ITS BSF RATE PROPOSAL?

A. Yes. The Company also presented a comparison of alternative methods of calculating the BSF where a range of zero to 33 percent of the mains costs are included in the calculation of the BSF. Greater shares of service lines, as well as meters and regulators, were also considered in this analysis. A summary of these calculations have been provided in CCS Exhibit 5.7. The latter two methodologies were designed to produce the same numeric result as the recommended method for the Type II BSF (i.e., the Company's primary proposal). In other words, the percentage of mains, meters, and services was apparently changed to meet the same price level as estimated under the Type II BSF approach.

Q. HAS THE COMPANY INCLUDED ANY OTHER COSTS IN ITS CALCULATION OF THE BSF?

[21] Bateson Updated Testimony, Lines 345-353.

A. Yes. In addition to the capital costs associated with mains, service lines, and meters and regulators, the Company's BSF calculation also includes the cost of the operations and maintenance ("O&M") expenses associated with plant components; customer installation expenses; billing-related expenses, including supervision, meter reading, customer records and collection expenses; and property taxes associated with the plant investment.

Q. DO YOU AGREE WITH THIS METHODOLOGY?

A. No. The approach has a number of potential flaws that include its:

(1) failure to reduce mains by the collected contributions in aid of construction ("CIAC");

(2) inconsistency relative to the cost allocation methodology used in the CCOSS.

Q. HOW DOES THE FAILURE TO APPROPRIATELY CREDIT CIAC IMPACT THE BSF?

A. The Company failed to offset the cost of mains with the CIAC collected from customers. Therefore, under the two proposed BSF methodologies which used mains as a component, the BSF is overstated.

Q. WHY DO YOU BELIEVE THE COMPANY'S BSF METHODOLOGY IS INCONSISTENT WITH OTHER ASPECTS OF ITS CCOSS?

A. First, the Company has used three different methodologies, which indicates that it has not followed the approach used in its CCOSS. For example, under its preferred approach the Company included 51.78

percent of the investment costs of service lines, mains and meters & regulators in the BSF. However, in its class cost of service study, it allocated these costs using its DPFS which is an allocation factor analogous to a customer factor. Therefore, while in its CCOSS it assumed these costs were 100 percent customer related, it has assumed 51.78 percent of these costs are customer related its BSF calculations.

Q WHAT ABOUT EXPENSES?

A. Similar problems exist with expenses. For example, the Company assigned 100 percent of the supervision, customer records, collection, and interest expense on customer deposits to the BSF. However, in its CCOSS it allocated 75 percent supervision and customer records expenses on the basis of customers. The Company did not assign any portion of collection expenses and interest expense on the basis of the number of customers for cost of service purposes.

Q. WHAT ARE YOUR RECOMMENDATIONS REGARDING THE COMPANY'S BSF PROPOSAL?

A. The Commission should reject the proposals to increase the BSF. The Company is proposing to include costs that aren't justified as part of a customer charge. Further putting in this level of costs in a customer charge is contrary to the goals of conservation.

Q. WHAT GUIDANCE DID THE COMMISSION GIVE IN ITS LAST ORDER WHICH ADDRESSED THIS SUBJECT?

A. The Commission found that only costs associated with plant that is on the customer's premises should be included in the BSF. The Commission identified these costs as: service lines, meters, regulators and the related costs such as taxes and return. This finding would therefore not allow the inclusion of the mains as proposed by the Company as they are not on the customer's premises. The Commission also found that:

> Expenses that should be included in a customer charge calculation are those expenses which are caused by every customer each month. Costs that generally increase with the number of customers, but are not caused by each customer should be excluded from the customer charge and instead included in the commodity portion of Mountain Fuel's rates.[22]

C. General Service

Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S GENERAL SERVICE RATE DESIGN PROPOSALS?

A. Yes. The Company is proposing to separate the current General Service Class (GS-1) into two separate components: a general service residential class (GS-R) and a general service commercial class (GS-C). The purpose of this separation appears to be based on the goal to create two more homogenous customer classes, with similar usage levels and patterns, than what exists under the current GS-1 rate structure. Even with this proposal, the new GS-C class will still have a considerable degree of heterogeneity since the class can represent customers from a small retail establishment to a large hotel or shopping mall.

[22] Order, Case No. 82-057-15, p. 27.

Q. HOW DID THE COMPANY DIFFERENTIATE CUSTOMERS BETWEEN RESIDENTIAL AND COMMERCIAL ACCOUNTS?

A. Current billing practices do not clearly identify current GS-1 customers as being strictly residential or commercial. These customers do however pay different sales tax rates. The Company therefore, used this information to separate existing GS-1 customers into the new GS-R and GS-C classes.

Q. DO YOU SUPPORT THE COMPANY'S PROPOSAL TO SEPARATE THE GS-1 CLASS?

A. In part. As noted earlier, there can be significant differences between the relatively heterogeneous commercial class and the more homogeneous residential class that might support the separation of these two groups into separate rate classes. However, simply splitting these classes based upon tax rates may not be the most appropriate manner for developing two new classes. Numerous commercial customers, representing as much as a third of the proposed GS-C class have usage patterns (or at least levels) that are very similar to residential customers. These smaller commercial customers, like their residential counterparts, use natural gas for primarily for space and water heating. Thus, it may make more sense to develop these new customer classes from a usage perspective rather than a tax rate perspective.

Q. HOW WOULD YOU PROPOSE TO RE-FORM THESE TWO NEW CUSTOMER CLASSES?

A. I recommend that the Commission consider establishing a GS (general service) and GS-L (general service, large) class. All residential customers and small commercial customers with a maximum monthly usage of 100 Dth or less, would be eligible for service under the GS class. Those commercial-only customers with maximum use per customer greater than 100 Dth would be included in the GS-L class.

Q. HOW DID YOU SET THE THRESHOLD POINT (100 DTH) FOR THE GS CLASS?

A. The threshold was based upon an analysis that utilized bill frequency, customer and usage data provided by the Company in Response to CCS 26.10. The analysis initially examined residential usage to develop an appropriate "break-point" for determining "like" use within the residential class. A cumulative frequency distribution was then developed from the most recent peak month (January 2007) to determine the usage level that included 97 percent of all residential usage. This resulted in an estimated threshold point of roughly 100 Dth. Thus, residential customers with usage above this level were defined as having significantly different (larger) usage than other residential customers and more appropriately allocated into a GS-L class. In addition, commercial customers with usage below the 100 Dth level were defined as being similar in nature (level) to residential usage, and allocated to the new GS class.

Q. HOW WILL THESE NEW CLASSES BE DISTRIBUTED?

A. Based upon 2007 data, close to 100 percent of all residential customers and about 97 percent of all residential usage will be assigned to the new GS class if my proposal is accepted. Some 90 percent of all commercial customers and 31 percent of all commercial usage will also be assigned to the new GS class.

Q. WHY DID YOU PICK A 98 PERCENT LEVEL ON THE CUMULATIVE DISTRIBUTION?

A. All of the data that is "under" the 98 percent level can be said to represent observations that are not statistically different at commonly accepted levels and more likely to be similar than observed usage levels above this significance threshold. Those observations of usage that were greater than 100 Dth can be said to be "significantly different," relative to the overall distribution.

Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S CURRENT GS-1 DECLINING BLOCK RATE STRUCTURE?

A. Yes. The Company's current GS-1 rate schedule is based upon a declining block rate structure with the first block set at one rate for the first 45 Dth of usage and a lower rate for usage above 45 Dths. The current rate structure also includes a seasonal differential that prices gas distribution service at a higher rate during winter peak months than summer off-peak months.

Q. IS THE COMPANY PROPOSING TO MAINTAIN THIS BASIC DECLINING BLOCK RATE STRUCTURE FOR THE NEW RESIDENTIAL CLASS?

A. No, the Company is instead proposing a constant rate per Dth across all levels of usage for residential customers. The Company is making this recommendation based upon its perception that a uniform rate is easier for customers to understand and will help promote conservation, and that the upper tail rate has been infrequently used in the past.[23]

Q. DO YOU AGREE WITH THE COMPANY'S UNIFORM FIXED RATE PROPOSAL?

A. Yes. Given current energy prices, as well as the high cost of infrastructure development, this is a unique time for the Commission to consider a movement away from a declining block rate structure and towards one that is more uniform to encourage conservation. I recommend that both classes have uniform (i.e., non-declining block) rate structures.

Q. HAS THE COMPANY PROPOSED A SIMILAR UNIFORM RATE FOR COMMERCIAL CUSTOMERS IN THE NEW GS-C CLASS?

A. No, the Company is proposing a three-block structure for the GS-C rate class, the first block consisting of the first 45 Dth, the second consisting of usage over 45 Dth up to 200 Dth, and the third above 200 Dth. The Company's rationale for this structure is that smaller commercial customers typically have usage patterns similar to the residential customers; therefore, the first block stops at 45 Dth, and the rate proposed

[23]Robinson Updated Testimony, Lines 500-508.

is the same as the residential rate. The intention of this design is to eliminate controversy and curtail the attempt of some residential and commercial customers to switch rate classes.[24] The structure of the second and third blocks was designed to provide consistency between the GSC and FS rate schedules since some customers will be required to move from the GSC rate schedule to the FS schedule and vice-versa because of the 40 percent load factor requirement on the FS schedule.[25]

Q. WHAT INFORMATION DID THE COMPANY PROVIDE TO SUPPORT THE USAGE BLOCKS UPON WHICH ITS GS-C RATES ARE BASED?

A. The Company's testimony and exhibits did not provide a considerable amount of information to support neither the class separation (between GS-R and GS-C) nor the intra-class rate block segmentation for the proposed GS-C class. The Company did define a type of regression analysis in Response to CCS Data Request 8.15 that examined the usage patterns for commercial customers that would comprise the proposed GS-C class. This statistical analysis was based off bill frequency data for 36 months ending in June 2007. The proposed blocks that were modeled in the analysis include usage blocks from 0 to 45 Dth, 46 to 200 Dth, and usage above 200 Dth.

Q. DO YOU AGREE WITH THE COMPANY'S DECLINING BLOCK RATE PROPOSAL?

[24] Robinson Testimony, Lines 530-532.
[25] Robinson Testimony, Lines 514-521.

A. No. The proposal is inconsistent with both the Company's stated conservation goals as well as its pricing proposals for the GS-R class. Further, even if the Company's GS-C rate design proposal is accepted, given the low load factor for the GS-C class, offering decreased rates to stimulate additional usage does not appear to be supportable since it is unlikely that additional usage will create any measurable improvement in these customers' load factor. The only benefit of a declining block rate structure will be to stimulate additional usage which is contrary to the goals of conservation. A more uniform rate structure, like that proposed for the GS-R class (or my proposed GS class), should be adopted.

D. Winter-Summer Rate Differentials

Q. WOULD YOU DISCUSS THE COMPANY'S CURRENT WINTER/SUMMER RATE DIFFERENTIALS?

A. Yes. Like many LDCs, the Company charges lower per-unit rates for off-peak summer months (April through October) than it does for on-peak winter months (November through March). In the past, the purpose of this rate differential (or seasonal spread) has been to provide a discount for customers that use natural gas more evenly during the course of the overall year. Under the current GS-1 rate design, summer rates are roughly 19 percent below winter rates for the first block and 33 percent below winter rates for the second block.

Q. WHAT IS THE COMPANY PROPOSING IN THIS RATE CASE?

A. For the GS-R rate class and the first block of the GS-C rate class, the Company is proposing to decrease summer rates by 16 percent and increase winter rates by 1 percent. This increases the seasonal spread to 43 percent – considerably higher than the current spread under the GS-1 rate structure of 19 percent. These spreads increase to 43 percent and 76 percent for the upper two blocks of the newly proposed GS-C class.

Q. DO YOU AGREE WITH THIS PROPOSAL?

A. No. The proposed spreads are too significant relative to their historic trends. Like declining block rates, it is probably time for LDCs and their respective Commissions to think about these seasonal differentials and the signals they potentially send for natural gas usage. While summer usage has historically been considered off-peak, and still is, usage during this season is beginning to increase considerably and is likely to continue to increase as more and more power generation is fired by natural gas. This is not an argument for eliminating the seasonal differential entirely, but the relative differences should not be increased.

E. Natural Gas Vehicle Rates and Leasing Program

Q. CAN YOU PLEASE EXPLAIN THE COMPANY'S NATURAL GAS VEHICLE EQUIPMENT LEASE PROGRAM?

A. Yes. The Company currently offers a program where it leases NGV equipment to customers who meet certain requirements and agree to sign a lease agreement. The equipment under lease includes both natural gas motor vehicle conversion equipment and natural gas compressors and fueling equipment. The equipment is installed at the customer's expense and the Company will repair, alter and maintain the equipment at the Company's expense during the term of the lease.

Q. WHAT IS THE PURPOSE OF THIS PROGRAM?

A. Approved in Docket No. 92-057-04, the natural gas vehicle equipment lease program was implemented to help "jump-start" the use of natural gas as an alternative fuel for vehicles and to promote the development of the refueling infrastructure necessary to serve the local NGV market. At the time, the up-front cost of vehicle conversions was estimated at $2,500 to 3,500 per vehicle and considered to be a major factor reducing the attractiveness of vehicle conversions to natural gas as a primary fuel. The leasing program was developed to help spread those costs over time, making conversion opportunities more attractive.[26]

Q. WHAT IS THE COMPANY'S PROPOSAL REGARDING THIS PROGRAM?

A. The Company is proposing to eliminate its natural gas vehicle equipment lease program on a forward-going basis since it is no longer needed. The Company has noted that it believes the appropriate refueling infrastructure is in place and there are few barriers preventing customers from purchasing NGV equipment services. Further, there have been no new lease agreements signed over the past seven years. The Company

[26] Docket 92-057-04, Report and Order Issued July 2, 1992.

currently only has eight customers under contract and it intends to honor the terms of the existing NGV equipment leases.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?

A. Yes. I agree that many of the original purposes of the program appear to have been met. Further, the relative economics of natural gas use in vehicles has changed considerably since the inception of this program. Currently, high retail gasoline and diesel prices make the conversion to natural gas much more economic and reduce the need for a subsidized lease agreement. Further, having the Company exit this business may help facilitate a broader, more competitive market since it will open up opportunities for third-parties to offer this service.

Q. CAN YOU DESCRIBE THE PURPOSE OF THE COMPANY'S NATURAL GAS VEHICLE RATE?

A. The Company's NGV rate is used to recover a portion of the cost of service for refueling natural gas-powered vehicles with compressed natural gas at Company-owned refueling stations.

Q. HOW HAVE RATES BEEN HISTORICALLY SET FOR THIS CLASS?

A. The original NGV rate was established in Docket No. 89-057-15 as a cost-based rate based on the levelized cost of service of NGV compression facilities over their expected life.[27] Since that time the NGV customer class has been treated as a revenue credit in the cost of service and the rate has changed on a percentage-wise basis with each Commission-

[27] Response to CCS 16.04

ordered change in DNG rates. The commodity and SNG portions of this rate have reflected the rates approved in the Company's semi-annual pass through cases.

Q. WHAT ARE THE PARTICIPATION LEVELS AND USAGE FOR THIS CLASS?

A. According to the Company, the demand for NGV fuel has more than doubled in the last 5 months. In the first 5 months of 2008, 988,325 gallons of compressed natural gas were sold at Company-owned stations. This represents an increase of almost 110 percent compared to the first six months of 2007. Overall trends show a 33 percent increase in historic volumes from 2005 through 2007. The Company projects a decrease in natural gas vehicle use for 2008 (to 155,682 Dth).[28]

Q. WHAT ARE THE RELATIVE ECONOMICS OF USING NATURAL GAS AS OPPOSED TO GASOLINE OR DIESEL FOR AUTOMOTIVE FUEL?

A. Natural gas becomes increasingly more attractive as a vehicle fuel as retail prices for gasoline and diesel increase. Nationwide and regional prices for conventional gasoline, diesel fuel, and compressed natural gas for vehicle use are shown in Exhibit CCS-5.8. In the Rocky Mountain region, the difference between gasoline and CNG on a gallon-gas equivalent ("GGE") is $2.09. The difference between diesel and CNG is even higher at $2.74.

Q. HOW DO THE RELATIVE ECONOMICS STACK UP IN UTAH?

[28] Response to CCS 8.04.

A. In its most recent fuel price report, the U.S. Department of Energy ("DOE") shows that Utah has one of the highest cost differentials for natural gas relative to gasoline in the U.S. as seen in Exhibit CCS-5.9. The DOE data also shows that Utah is also one of four states with the highest price differential relative to diesel fuel. Graphs of the relative differences in fuel prices on a GGE basis have been provided in CCS-5.10.

Q. SHOULD THE NGV RATE CONTINUE TO BE SUBSIDIZED?

A. No. In the dockets approving the NGV rate and the equipment lease program, the goal was to encourage and even "jump-start" the use of natural gas as an alternative fuel for vehicles. It was found that the local NGV market would "not develop without a Mountain Fuel-provided program to encourage the development of the refueling infrastructure and in converting vehicles to create demand for refueling facilities."[29] Now with the 'tremendous interest'[30] in NGVs and increased demand, there is no need to support this market by providing a "jump start" through a subsidized rate.

F. Extension Charges

Q. CAN YOU PLEASE EXPLAIN THE DIFFERENCE BETWEEN A MAIN EXTENSION CHARGE AND A SERVICE LINE EXTENSION CHARGE?

A. Yes. Generally, these are both charges that the Company assesses to new customers, especially those that are in more remote or newly expanding areas. A main extension charge is designed to cover the cost

[29] Docket 92-057-04, Report and Order Issued July 2, 1992.
[30] Questar Gas Company website; http://www.questargas.com/FuelingSystems/NGV/ngv.html.

of developing a new main to serve a new customer, while the service line extension charge covers the costs of providing a service line to a new customer's premise.

Q. WHAT COSTS ARE INCLUDED IN THE MAIN EXTENSION CHARGE?

A. The Company's proposed tariff identifies several items that are part of the main extension costs. These main extension costs include, but are not limited to: pipe; trenching; asphalt and cement cuts; asphalt and cement replacement; fill and compaction; rights-of-way costs; permit fees; use of special equipment and facilities; accelerated work schedules, special crews or overtime wages to meet the applicant's request; or difficult construction problems due to rock, frost, etc.[31]

Q. WHAT COSTS ARE INCLUDED IN A THE COMPANY'S SERVICE EXTENSION CHARGES?

A. The Company's proposed tariff includes the cost of pipe, pipe installation, and meter and regulator costs.[32]

Q. CAN CUSTOMERS OFFSET PART OF THE COST OF NEW LINE EXTENSIONS?

A. Yes, the Company's tariff has explicit provisions that assist customers with the costs associated with new service extension (main and service line). A specific dollar amount is applied as a credit to the customers' construction costs and is characterized as an "allowance."

[31] Questar Exhibit 9.5, p. 9-8.
[32] Ibid, p. 9-11.

Q. WOULD YOU PLEASE EXPLAIN THE COMPANY'S POLICY REGARDING THE RESIDENTIAL MAIN CONSTRUCTION ALLOWANCE?

A. The Company's policy is separated into two general classifications: one policy for those extensions anticipated to cost under $3,000 per residence; and a different policy for those over the $3,000 per residence threshold. Customers that are anticipated to incur costs below the threshold level receive a fixed $645 per residence allowance if both gas space and water heating are used in the home. If a customer does not utilize both gas space and water heating, then the Company will determine a lesser amount based upon projected usage and other Company policy factors that are not defined in the Company's tariff.[33]

Q. DO CUSTOMERS NOT UTILIZING NATURAL GAS FOR SPACE AND WATER HEATING GET ANY ALLOWANCES?

A. Yes, but they are at somewhat lower amounts. According to the Company, new customers that do not have both gas water and space heating occurs very rarely; in fact, occurring only five times in the last four years.[34] To the extent this situation does occur, customers are given per-appliance credits for the types of gas appliances that included in the home such as ranges, dryers, spa heaters, and gas fireplace logs, to name a few.

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[33] Questar Proposed Natural Gas Tariff, p. 9-7.
[34] Response to CCS 13-20.

Q. WHAT HAPPENS IF THE ACTUAL EXTENSION COSTS EXCEED THE ALLOWANCE FOR CUSTOMERS UNDER THE $3,000 THRESHOLD?

A. These customers are expected to pay what is referred to as a “Contribution in Aid of Construction” (“CIAC”) that is an amount equal to the difference between the actual cost and the allowance.

Q. DO COMMERCIAL CUSTOMERS GET THE SAME CONSTRUCTION ALLOWANCE RESIDENTIAL CUSTOMERS?

A. No. The Company will provide a main extension for commercial customers, provided the main extension cost does not exceed the allowance cost, based upon the following formula: 2.5((T x N) + BSF) where T=Estimated annual usage in Dth, N=Non-gas-cost rate component in $/Dth, and BSF=Total yearly Basic Service Fee.[35] If the cost is in excess of the allowance, the customer will pay the difference, which is booked as CIAC by the Company.

Q. HOW DOES THE COMPANY TREAT INDUSTRIAL CUSTOMERS AND RESIDENTIAL EXTENSIONS THAT HAVE COSTS EXCEEDING THE $3,000 THRESHOLD?

A. Interruptible and industrial customer extensions, residential extensions estimated to cost $3,000 or more per premises, main extensions direct from the Company’s high-pressure main lines, and main extensions not specifically covered in the proposed tariff are made at the option of the

[35] Questar Proposed Natural Gas Tariff, Page 9-7.

Company and subject to terms and conditions that are based on Company policies[36] and agreed upon between the Company and the applicant.

Q. WHAT IS THE COMPANY'S ALLOWANCE FOR RESIDENTIAL SERVICE LINE EXTENSIONS?

A. The allowance to install a service line for customers that have space and water heating is $405, for a dryer $50, and for a range $50. If a customer does not install both space and water heating, the Company will determine a lesser allowance based upon a per-appliance schedule.[37]

Q. DOES THE COMPANY HAVE A SPECIFIC ALLOWANCE FOR COMMERCIAL AND INDUSTRIAL CUSTOMERS?

A. No. The service extension allowance for non-residential customers are not defined in the tariff and are made under the terms and conditions agreed to by the Company and the applicant. According to the Company's Response to CCS Data Request 22-13, the Company does not provide allowances to commercial customers for line extensions.[38]

Q. DID THE COMMISSION MAKE ANY CHANGES TO THE MAIN OR SERVICE EXTENSION ALLOWANCE IN THE LAST RATE CASE?

A. Yes. The last rate case was settled, and part of the settlement approved by the Commission addressed main and service allowances. Prior to Docket No. 02-057-02, a customer requiring a main or service-line extension was granted a "footage allowance" based on the natural gas appliances to be installed at the residence. Similar to the current policy,

[36] The policies are not defined in the tariff.
[37] Response to CCS 13-25.
[38] Response to CCS 22-13.

construction costs for footage greater than the allowance were paid by customers. This practice was in place since the Commission's Order in Docket No. 87-057-13. The Company also accounted for these contributions as revenue as opposed to reductions to rate base. In Docket No. 02-057-02, the parties agreed, and the Commission approved, several changes to prior practices:

> The Parties have also agreed that §§9.01 and 9.02 of QGC's Tariff should be revised to terminate the various footage allowances currently granted to new residences. In place of the footage allowances, the stipulation proposes that a general main-extension allowance of $645 be granted for a new residential premises that will incorporate natural gas-fired space heat and water heat when completed.
>
> With respect to service-line extensions, the revised §9.02 would provide an additional $505 allowance for a residence utilizing space heat and water heat, with $100 of this allowance being dependent upon the premises being "stubbed" for a dryer and natural gas range. In addition, the Parties agreed to the termination of the current new-premises fee for GS-1 customers who initiate service. This current fee is $12 per month for the first 12 months of service.
>
> The Parties agreed that default payments received from main and service-line extension contracts should also be treated as a CIAC and, therefore, as a reduction of rate base. Likewise, the Parties agreed that any interest accruing from such default payments should be treated consistently with generally accepted accounting principles (GAAP).[39]

Q. WHAT IS THE PURPOSE OF A LINE EXTENSION POLICY?

A. A line extension policy is designed to recover excess costs from new customers connecting to the system. It can for example, preserve the cost of a new connection relative to the embedded cost of the old connection.

[39] Commission Order 02-057-02, pp. 18-19.

In other words, by charging new customers CIAC associated with the higher cost of a new connection relative to the embedded cost, the intergenerational inequities between old and new customers is minimized. Thus, if a utility's cost to connect a new customer exceeds the value the new connection contributes, the excess cost should be allocated to the new customer.

Q. HAVE YOU EXAMINED THE COMPANY'S CURRENT MAIN AND SERVICE EXTENSION ALLOWANCES RELATIVE TO THE COST TO SERVE NEW CUSTOMERS AND THE EMBEDDED COST OF THESE FACILITIES INCLUDED IN RATE BASE?

A. Yes. My analysis is presented on Exhibit CCS-5.11. This exhibit depicts the embedded cost to serve existing customers compared to the cost to serve new customers. As shown in the exhibit, the average embedded cost of mains for residential customers is $302 compared to an average cost to serve new residential customers of $937. For commercial customers, the average embedded cost of mains is $464 compared to the average cost for a new customer of $1,436. In both instances the cost to serve new customers is much higher than existing customers. The same relationship holds for services and meters. For residential customers, the existing cost of services and meters is $299, whereas the cost to serve new customers is $1,224 – over four times the embedded cost. A similar relationship holds true for commercial customers: the embedded cost of services and meters is $757 compared to an average cost to serve new customers of $2,561 – again, almost four times the embedded cost.

Q. IF THE COST TO SERVE NEW CUSTOMERS IS SUBSTANTIALLY MORE THAN THE COST TO SERVE EXISTING CUSTOMERS, HOW CAN THIS DISCREPANCY BE RESOLVED OR MINIMIZED?

A. The discrepancy can be resolved or minimized by "recalibrating" the Company's main and service extension policy such that the amount of CIAC collected from new customers is closer to the difference between current costs and embedded costs. To be in perfect alignment, the amount of the extension allowance permitted in the extension policy would be equal to the embedded cost for the facilities. In other words, if the extension allowance were exactly equal to the embedded cost of the plant, the amount of CIAC collected from new customers would eliminate the potential intergenerational inequities between existing customers to new customers.

Q. HAVE YOU MADE A COMPARISON TO DEMONSTRATE THE ADDITIONAL AMOUNT OF CIAC REQUIRED FROM NEW CUSTOMERS TO ELIMINATE OR REDUCE THESE INTERGENERATIONAL INEQUITIES?

A. Yes. This comparison is shown in the third column of Exhibit CCS-5.11. For residential customers, the amount of CIAC required from current customers would be $635 for mains and $926 for services and meters. For commercial customers, the amount of CIAC required would be $972 for mains and $1,804 for services and meters. The fifth column of this exhibit shows the average amount of CIAC actually collected from customers. The difference between the required and actual CIAC is shown in the sixth column and represents the CIAC deficiency. The CIAC deficiency for new residential customers is $263 for mains and $654 for services and meters. For new commercial customers, the deficiency is $532 for mains. The Company does not permit a construction allowance for Commercial services and meters[40] so there should be no deficiency for this category.

Q. ARE YOU AWARE OF ANY OTHER STATES THAT HAVE RECENTLY MOVED IN THE DIRECTION OF INCREASING THE CIAC REQUIREMENTS OF CUSTOMERS AND DEVELOPERS?

A. Yes. The Arizona Corporation Commission ("ACC") recently reduced the construction allowance, thereby increasing the CIAC requirements for UNS Gas Company. The ACC summarized the Company's request:

> In its effort to comply with A.A.C. R14-2-307, UNS prepared an incremental contribution study ("ICS") to determine an estimate of the costs and benefits of adding a customer to the system. Under the Company's proposal, the ICS component would be modified to reduce the credit applied to new customers or developers per service line or main extension (thereby increasing the required advances from new customers and developers). According to the Company, this change would ensure that the cost burden is initially placed on new customers and developers for main extensions or line extensions, subject to refund over a five-year period (Tr. at 384-87, 919; Ex. A-35).[41]

[40] Response to CCS 22.13.

[41] Arizona Corporation Commission, Order, UNS Gas Docket No. G-04204a-06-0463; Docket No. G-04204a-06-0013; Docket No. G-04204a-05-0831; Decision No. 70011, November 2007.

The Commission approved the changes, increasing customer cost from average of $310 to nearly $1,000.

> We believe that our finding on this issue achieves a result that is consistent with the rate design concept of gradualism because, although it represents a significant increase in the up-front contribution required to be financed by new customers/developers, it keeps intact the ability of developers to recapture all or part of the initial investment. At the same time, as described by the Company's witnesses, approval of this modified proposal avoids the potential competitive disadvantage that would be faced by UNS Gas if a fully nonrefundable hook-up fee were to be implemented suddenly. . . . . we direct UNS Gas to investigate fully the issue of developer contributions and present in its next rate case viable alternatives to the proposal adopted herein, including but not limited to nonrefundable hook-up fees and other measures that would hold harmless existing customers and require greater contributions to ensure that growth pays for itself.[42]

Q. HAS THE COMMISSION RECENTLY REDUCED THE CONSTRUCTION ALLOWANCE FOR QUESTAR?

A. Yes. In the Company's last rate case, Docket No. 02-057-02, the Commission approved a settlement that reduced the construction allowance for residential customers. Specifically, the Commission found: "The average CIAC required of new residential customers will be increased by $250. This results in a $645 allowance for main extensions and a $505 allowance for residential service-line extensions."[43]

Q. DO YOU RECOMMEND THAT THE COMMISSION REDUCE THE CONSTRUCTION ALLOWANCES BY THE AMOUNT OF THE CIAC SHORTFALL DEPICTED ON YOUR EXHIBIT CCS-5.11?

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[42] Ibid.

[43] Commission Order, 02-057-02, p. 26.

A. No, I do not. Like the UNS gas company case, and consistent with the goal of gradualism and rate continuity, I recommend that the Commission reduce the amount of the CIAC deficiency by one-third. This would increase the CIAC paid by current customers and developers thereby reducing the subsidies between new and existing customers.

Q. WHAT CONSTRUCTION ALLOWANCES DO YOU RECOMMEND?

A. As shown on Exhibit CCS-5.11, I recommend a construction allowance of $560 for residential mains and $150 for residential services and meters. This recommendation would increase the amount of CIAC collected from new customers by $87 for residential main extensions and by $216 for services and meters. For the commercial customers, I recommend an average main construction allowance of approximately $1,395, which should result in an average CIAC increase of $176. Because the commercial classes' allowance is a function of usage, I recommend modifying the formula as shown below. This is the same formula as currently approved by the Commission, but I modified the revenue multiplier from the current 2.5 times revenue to 2.20 times revenue to produce an average allowance of $1,395.

<u>Commercial Allowance Formula</u>

2.20((TxN)=BSF)

Where T= Estimate Annual Usage in Dth

N = Non-gas Cost Rate Component in Dth

BSF = Total Yearly Basic Service Fee

G. Rate Design Recommendations

Q. WOULD YOU PLEASE SUMMARIZE YOUR RATE DESIGN RECOMMENDATIONS?

A I am making the following rate design recommendations:

- The Commission should reject the Company's proposals to increase the BSF.
- The Company's proposal to split the GS-1 class into GS-R and GS-C components should be modified to one that splits the class into GS and GS-L rate schedules.
- All customers with maximum monthly usage of 100 Dth or less would take service under the new GS rate schedule.
- All customers with maximum monthly usage above 100 Dth would take service under the new GS-L rate schedule.
- Uniform rates (on dollar per Dth basis) for the GS and GS-L classes should be adopted.
- The seasonal differential for the GS class should be at 19 percent while the differential for the GS-L class should be 33 percent.
- The natural gas vehicle equipment lease program should be eliminated and the NGV rate should no longer be subsidized.
- Line extension allowances should be reduced by one-third.

Q. DOES THIS COMPLETE YOUR TESTIMONY PREFILED ON AUGUST 18, 2008?

A. Yes, it does.