State of Utah

DEPARTMENT OF COMMERCE
Committee of Consumer Services

To: Utah Public Service Commission

From: The Committee of Consumer Services
Michele Beck
Eric Orton
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Date: September 4, 2007

Subject: Docket No 07-057-01: In the Matter of the Filing of Questar Gas Company's Integrated Resource Plan 2007

1. Background

On May 1, 2007, Questar Gas Company (Questar, Company or QGC) filed its 2007 Integrated Resource Plan (IRP) describing the period of May 1,2007 to April 30, 2008. On June 4, 2007, the Commission issued an order asking all interested parties to provide comments on the following issues:

- The appropriateness of this IRP
- Acknowledgement
- Change in guidelines and process

The Committee of Consumer Services offers the following comments in response to the Commission's request. First, the Committee provides specific comments and critique of the 2007 IRP. Second, the Committee addresses what it believes is the appropriate regulatory treatment of the IRP filings in general. Next, the Committee examines potential changes to the guidelines for Questar's IRP filings. Finally, the Committee provides its recommendations.

2. Review and Critique of Questar's 2007 IRP

The Committee's general comment is as follows: Certain areas of the IRP lack detailed analysis, information and explanation supporting QGC's conclusions and/or its proposed recommendations. In addition, key issues impacting gas supply –such as gas interchangeability and risk analysis—are not adequately addressed in the IRP.

Our specific comments are organized by topic area (Demand forecast, System Constraints and Capabilities, Gas Supply, etc.) and conclude with a number of recommended changes or improvements that should be required prior to the

Commission acknowledging the current IRP or should be made in conjunction with the next IRP.

2.1 Customer and Gas Demand Forecast

2.1.1 Long-Term Sales Forecast (2007-16)

On page 3-1, QGC asserts that long-term system sales growth is expected to increase from 105 million decatherms (Dths) in 2007 to 110 million Dths in 2016, which is 10 million Dths lower than forecasted in 2006. The Company claims this slower growth in sales is due to lower GS-1 usage per customer in the 2007 forecast. Specifically, the Company predicts a 10% decline in usage per GS-1 customer by 2016.

In its presentation of IRP results to the Commission, QGC stated that DSM was largely responsible for the forecasted 10% decrease in GS-1 customer usage. If DSM is the primary driver underlying the change in the Company's long-term sales forecast, QGC should clearly state that in its current IRP and support any statements to that effect with thorough analysis and documentation.

2.1.2 Forecasted System Throughput (2007-16)

On page 3-1, QGC states that there is a significant decrease (58 million Dths) in forecasted system throughput for 2007-2016 period in the current IRP compared to the 2006 IRP. According to the Company, this decrease results from substituting "expected" volumes for "take-or-pay" volumes for electric generation. However, the Company provides no explanation of the information relied on to determine this "expected" volume. A detailed explanation of the information relied on to substantially revise the system throughput forecast in the current IRP should be provided by QGC.

2.1.3 Economic and Demographic Data Used in Forecasting Customer Additions, System Sales and Throughput Forecasts

On page 3-3, Questar provides a "Utah Economic Outlook" table that includes growth rates in various areas such as personal income, construction and mining employment, manufacturing employment, et cetera. The Committee has three main concerns with this information: (1) the source(s) of this information are not provided by the Company; (2) the growth rates appear to be considerably lower than economic and demographic information published by the Governor's Office of Planning and Budget (GOBP) in 2007; (3) there is no discussion how these growth rates were factored into forecasting Customer Additions and System Sales and System Throughput. In future IRPs, QGC should be required to explicitly reference the sources of state economic and demographic information included in its IRP, assess the reliability of this information

against similar information published by publicly available sources, and explain how this information was used in forecasting Customer Additions, System Sales and System Throughput.

2.2 System Constraints and Capabilities

2.2.1 No Notice Transportation Service (NNT)

On page 4-3 of its IRP, QGC indicates that it requires no-notice transportation (NNT) service from Questar Pipeline to meet times when instantaneous demand on its system differs from the daily gas supplies QGC has nominated from Questar Pipeline and Kern River Pipeline. QGC states this provides the Company flexibility to meet transient flow effects and enhance operations in all areas, except those served by Kern River (who does not offer NNT service).

However, from an economic standpoint, the IRP does not expressly address the benefits of NNT against the costs of receiving what appears to be a somewhat unique service. Nor does the IRP discuss feasibility and costs of potential alternatives to NNT. For example, in areas of its system served largely off Kern River Pipeline how does the Company manage the difference in nominated versus actual daily gas supplies required to meet demand? Do other LDCs in areas of the country where rapid weather (temperature) changes can impact daily gas nominations typically contract for transportation services similar to NNT? In its next IRP the Company should provide a cost-benefit study of NNT and potential alternatives.

2.2.2 Feeder Line Projects

Beginning on page 4-5, QGC identifies numerous short-term feeder line projects that are budgeted for completion in 2007-08. The Company also identifies several long-term projects on page 4-8. While the type of projects, location, and expected completion timeframe are set forth in the IRP, the IRP lacks project-specific cost estimates, analysis of alternatives, and calculations showing the impact on the Company's revenue requirement. Moreover, Questar Corporation has publicly indicated that investment in the Utah distribution system will likely trigger the need for QGC to file for a general rate increase by early 2008.

The near-term feeder line projects, along with additional investments in the distribution infrastructure, could involve significant rate impacts for Utah customers. The Commission should require QGC to provide project-specific cost estimates, analysis of alternatives and expected revenue requirement impacts prior to any consideration of rate recovery. Further, in order to encourage robust long term planning as well as relevance of the IRP filing, the Commission should require QGC to provide similar analysis of any future projects discussed in future IRP filings

2.3 Gas Supply

2.3.1 SENDOUT Model

The Company uses its SENDOUT optimization model to determine the least cost mix of Wexpro Gas and market gas supplies (annual, seasonal, peaking and spot) for the current IRP cycle. A base case gas planning and operating strategy is developed based on various factors such as Wexpro reserve estimates, the availability of new Wexpro production, market price forecasts, price seasonality, system operating constraints and so forth. 48 different categories of Wexpro production were modeled in IRP 2007 and monthly data for each category of Wexpro Gas and market gas "packages" is used by QGC in the process of making monthly and daily nomination decisions.

QGC should be commended for its efforts to model the availability and production of Wexpro Gas with greater precision. The IRP is silent, however, in describing whether the expansion of Wexpro categories and other recent changes to the model, database, or assumptions have been reviewed by the developers of the SENDOUT model or some other independent expert that can verify the reasonableness of the current specification of the model. In the next IRP, the Company should be required to discuss by what process they determine that the model is correctly specified so that regulators can be confident that SENDOUT continues to be a reliable tool for gas planning and procurement purposes.

2.3.2 Future Wexpro Resources

On page 6-2, QGC indicates that the 2007 Wexpro drilling plan involves 43 net wells at a cost of $85 million. The Company further states that it anticipates drilling 25-45 net wells annually over the next five years at an estimated cost of $100 million/year. Based on this limited information it appears that net well costs may be rapidly escalating.

The Committee understands that the Wexpro Hydrocarbon Monitor (Monitor) does not review and file recommendations on Wexpro's pre-drilling plans. The Monitor simply performs a post-drilling review to verify that the actual wells drilled conform to the plan.

QGC's customers need to be confident that Wexpro gas supplies are being developed in a timely and least cost manner. In order to ensure that these objectives are achieved,, the Commission should consider directing the Monitor to report on the reasonableness of Wexpro's proposed annual drilling plans, including the projected annual budgets. An appropriate starting point is a comparison of the proposed drilling plan and annual budgets to the Wexpro gas development plan and budgets for the past five years. The Committee proposes that an initial report from the Monitor be filed with the Commission no later than December 31, 2007.

2.3.3 Producer Imbalances

On page 6-2, QGC states that as of December 31, 2006 its overall Wexpro production was essentially in balance (slightly over-produced at a volume of 0.15 bcf). To achieve that re-balancing the Company has been recouping gas owed to QGC by other partners in the Trail and Ace fields. QGC also states that is considering recouping volumes from two other fields. A key issue is whether there is economic consistency in the value of the gas returned to Questar and the gas Questar owes to other parties. The IRP should more explicitly detail the terms (time period and volume) under which gas was recouped from partners in under-produced fields (e.g., Trail and Ace) and returned to partners in over-produced fields. The IRP should also specify the two additional fields from which gas may be recouped in the near future.

2.3.4 Gas Interchangeability

The development of low BTU content coal seam gas near Price, Utah in the 1990s, raised serious safety and efficiency concerns relating to the new mix of gas flowing onto Questar Gas' distribution system. A gas processing facility was built and operated by a Questar affiliate to process the gas until the utility's customers could have their gas furnaces and water heaters inspected and adjusted (if necessary) to meet a new appliance set point range. The question of who should bear the processing costs was hotly contested through a series of cases before the Utah Commission and Utah Supreme with yet another Supreme Court decision still pending.

The experience of the past 10 years suggests that gas quality issues for QGC have been, and will continue to be, important as new gas production and transportation systems are developed. On page 7-3, QGC briefly discusses one gas quality issue relating to possible changes by Questar Pipeline to its current cricondentherm-hydrocarbon-dew-point (CHDP) limits. However, the IRP lacks a comprehensive discussion of long-term gas quality issues that the Company may need to account for in its gas planning process.

The Commission should require QGC to comprehensively address long-term gas quality issues in future IRPs. To accomplish this, the Company should be required to submit gas quality forecasts, describe alternatives available to remedy potential gas quality problems, and provide a cost-benefit assessment of alternatives. Further, the Commission should require QGC to similarly address short-term gas quality issues in future pass-through filings.

2.4 Gathering, Transportation and Storage

2.4.1 System-Wide Gathering Agreement

According to Questar, the commodity rate in its gathering agreement has increased 12% due to higher volumes gathered as a result of new drilling activity and higher "midstream industry costs." However, the Company provides no specific cost information in the IRP supporting the 12% increase. Moreover, current Wexpro operating plan targets production levels at 49.6 million Dths, a level which is virtually identical to the production level targeted in QGC's 2006 IRP. The Commission should direct QGC to provide specific data, calculations and workpapers supporting the 12% increase in its gathering rate in its next gas pass-through proceeding.

2.4.2 Gas Storage Issues

On page 7-3, QGC indicates that it plans to keep two of its three peaking reservoirs (Leroy and Coalville) at a 50% inventory level during the summer. The Company provides no explanation why they view this as a least cost solution. In the past, the Company has explained these storage aquifers were usually drawn down quickly because they have limited long-term storage capability.

QGC needs to better explain whether they are effectuating an ongoing change to its past practice of generally depleting all peak storage reservoirs by the end of the winter heating period and re-filling them in the October-November timeframe. The Company should also explain the resulting cost implications of not fully depleting its peaking reservoirs.

On page 7-4, QGC states that one of its three Clay Basin firm storage contracts expires on August 31, 2008. The contract volume is 3.5 Bcf or 28% of its total Clay Basin storage capacity. QGC further indicates that it plans to retain its right of first refusal on this contract by notifying Questar Pipeline of its intent to continue this existing piece of base storage capacity. However, the Company fails to discuss what modeling efforts were or will be undertaken to support continuation of this base storage contract at various volumes and prices. QGC should be required to explain what modeling efforts were or will be undertaken to ascertain the value of continuing this base storage contract with Questar Pipeline.

2.4.3 Risk Analysis

In the base case planning scenario, the SENDOUT optimization model selects 49.6 million Dths of Wexpro Gas, which the Company notes on page 9-3 is virtually identical to the 49.4 million Dths selected by SENDOUT in the 2006 IRP. Various sensitivity runs (market price forecasts, discount rate, etc.) are performed that increase or decrease the level of Wexpro Gas selected by SENDOUT.

While useful information is available from the sensitivity runs, the Committee is unclear regarding the following:

--under what future conditions or parameters would management decide to produce more or less Wexpro Gas than the targeted production level of 49.6 million Dths;

--given the new Wexpro drilling plan, what is the maximum level of Wexpro production in the short run;

--if more or less Wexpro Gas is produced, what market supplies are increased/decreased and what is the impact on gas supply costs.

While the IRP contains a large number of sensitivity runs (231 IRP cases are noted on page 9-6), it falls short in the area of a detailed risk analysis. Future IRPs should more fully address under what future conditions or parameters would management elect to produce more or less Wexpro Gas, the cost impact of producing more or less Wexpro Gas, how the Company's risk analysis informs its market gas hedging strategies, whether market gas price risk can be mitigated through capacity alternatives, and other risk analysis.

3. Appropriate Commission Treatment of the IRP

The Committee contends that the Commission's Standards and Guidelines for Questar's integrated resource planning must call for a conclusion or end product or outcome upon which regulatory authorities and ratepayers may depend and rely as one measure of whether the utility is performing as required; that is, providing natural gas energy services at the lowest cost consistent with safe and reliable service, the fiscal requirements of a financially healthy utility and the long-run public interest.[1] Questar is expected to engage in a planning process "in which all known resources are evaluated on a consistent and comparable basis, in order to meet current and future natural gas energy services needs at the lowest total resource cost to [Questar] and its ratepayers, and in a manner consistent with the long-run public interest."[2] In order to evaluate whether Questar has provided an adequate and useful long term plan, the Commission must have a process by which it provides its feedback and acknowledgement.

3.1 Current Concerns

One of the Committee's primary concerns about the current acknowledgement process is that whether or not the IRP is acknowledged does appear to make any practical difference. Questar has filed many IRPs; some have been

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[1] See *Final Standards and Guidelines for Integrated Resource Planning for Mountain Fuel Supply*, Docket No. 91-057-09, September 26, 1994, page 2, Statement of Objective and Purpose.A similar purpose is stated for PacifiCorp's IRP in *Report and Order on Standards and Guidelines*, Docket No. 90-2035-01, June 18, 1992.

[2] *Final Standards*, Docket No. 91-057-09, Guidelines, Part 1. Definition, page 13.

acknowledged and some have not. Regardless of outcome, there seems to be no difference in how they are treated by either the Company or Regulators. Commission acknowledgement must have meaning if it is to be pursued by the Company or offered by the Commission.

Another significant concern is the timing of the IRP filing and the timeline addressed within the filing. In an effort to provide more relevancy to the natural gas industry, the most recently proposed guidelines shifted the focus of the IRP to shorter term planning and issues. Typically, the IRP is filed in early May describing a planning cycle that runs from May 1st through April 30. Thus, the plans described in the IRP are well underway during the time in which it is being evaluated. If stakeholders or the Commission desire to influence the plan, by the conclusion of the regulatory process it is simply too late to do so. Thus, the timing of Questar's IRP, in the context of pass-through rate proceedings and Questar's market purchase/hedging activity, means that the IRP provides little or no guidance to resource acquisitions that have in large part, already occurred for the next winter heating season and to rates thereby determined.

The Committee also contends that the current IRP process appears to be disconnected from the pass-through mechanism and has little importance to test years available to the utility in a general rate case. Scrutiny of the utility's natural gas acquisition or production, for prudence and the just and reasonable character of rates, is not materially or perhaps at all benefited by an acknowledged IRP. Given the dilute character of the Commission's action upon an IRP, the Committee contends that the current IRP process does not assist the utility's "selection of the optimal set of resources given the expected combination of costs, risk and uncertainty."[3] Therefore, the guidelines must be changed in order to reflect a more robust and meaningful process prior to an acknowledgement of this, or any, Questar IRP.

3.2 Process for Defining Guidelines and Acknowledgement

While the standing order governing Questar's IRP is the September 1994 order, Questar indicates that since May 1999, the utility has followed modified IRP guidelines that were submitted to the Commission on April 17, 1998 in Docket No. 97-057-06, Questar's Petition to Modify IRP Guidelines, filed December 19, 1997. The Committee understands that Questar applied the 1997 proposed guidelines with the Commission's knowledge and tacit approval. No other interested party or regulating authority challenged this practice. Thus, the Committee recommends that those proposed standards be the basis for evaluating this 2007-2008 IRP. The Committee also recommends that the standards and guidelines that will govern future resource planning and related filings, including coordination with pass-through filings, be determined in this docket. Specifically, the Committee recommends against referring these questions to a generic proceeding.

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[3] *Final Standards*, Docket No. 91-057-09, Guidelines, Part 1. Definition, page 13.

3.3 Potential Remedy

To restore the IRP into a more robust long term planning document, the Committee recommends a return to a longer term time horizon. The IRP should focus on long-range planning using long-range forecasts, with the specific time period of "long-range" defined as best suits the natural gas industry. However, the Committee is concerned that the regulatory process does not lose any of the benefits of the current filing. Therefore, it also recommends that the more detailed short-term modeling, forecasting, and treatment of issues be moved into the pass-through filing and filed on a timeline that will allow for meaningful input and analysis from stakeholders and regulators.

4. New Guidelines

4.1 Development of Current and Past Guidelines

In Docket No. 89-057-15, the gas planning function was transferred from Questar Pipeline to Questar Gas. At that time, the Utah Commission ordered Questar Gas to prepare and file an IRP and initiated a process to develop gas IRP guidelines. The Utah Commission issued its order on draft gas IRP guidelines on December 16, 1991 and issued a subsequent order on final gas IRP guidelines on September 26, 1994. Questar Gas prepared and filed four complete IRPs and two interim IRP updates in accordance with these guidelines beginning September 30, 1991 through May 19, 1997.

Modified IRP guidelines jointly developed by Questar Gas, the Committee and the Division were submitted for Commission approval on April 17, 1998. While these proposed guidelines were never formally approved by the Commission, the Company was directed by the Commission to prepare and file future IRPs in accordance with these modified guidelines. Questar Gas has submitted eight IRPs in accordance with these guidelines.

Since the Committee had actively participated in the formulation of the modified guidelines proposed in 1998 and viewed them to be reasonable, the Committee's analysis of gas IRPs since the IRP filed May 10, 1999 has been based on these guidelines. However, since it has been nearly a decade since the modified guidelines were proposed, the Committee believes that now is an excellent time to examine their continued relevancy and appropriateness.

4.2 Key Information included in IRPs Should be Augmented

Overall, the Committee recommends that the Commission needs to formulate guidelines that re-establish the long-term focus of the IRP while making necessary changes that provide more relevant oversight of Questar Gas. The Committee proposes the following topics in order to accomplish this goal. Most of these topics are included in the IRP, but many lack full explanation, information and analysis. Other key topics for the Commission to incorporate in revised guidelines that aren't currently included are a discussion of projections of

gas interchangeability and a more thorough treatment of risk analysis. Finally, as discussed further in the sections below, some current aspects of the IRP are better suited for inclusion in other regulatory filings. (In some cases, filings may need to be justified with testimony in addition to exhibits.)

IRP Topics:

- Executive Summary and Action Items
- Demand and Peak-Day Forecasts
- Gas Supply Modeling
- Wexpro Production and Future Resources
- Gas Interchangeability
- Transportation, Storage and Gathering
- Distribution System Planning
- Demand-Side Planning
- Risk Analysis

4.3 Importance of appropriate timing and time period

In order to re-establish the long-term focus of the IRP, the Commission should establish new guidelines for the time period to be examined. This time period should begin April 1 in the year following the IRP submission, as decisions for the upcoming season have largely been completed and are often underway at the time of the IRP filing. The Commission should also establish clear guidelines for the time horizon examined. The natural gas industry is different than the electric industry resulting in what will likely be a different definition of an appropriate long-term time horizon. The Committee suggests that for many of the items examined, a three-year time period is the appropriate outlook. However, certain individual topics may require longer or shorter time horizons. For example, it would be appropriate for the Company to look at farther than three years to examine certain long term contracts to include timelines for renegotiation in its IRP. The key element to this aspect of the IRP is for the Commission to provide clear guidance that the IRP focus on long-term planning based on long-term forecasts and other information.

4.4 Incorporate some of the IRP analysis into other filings

In order to maintain some of the benefits of the information currently included in the IRP, the Commission should require the Company to continue providing its detailed forecasts and plans for the upcoming year. However, rather than incorporating this into a document designed to review longer term plans, the Company should instead integrate this more detailed analysis into pass-through

filings. Such detail should be included in one pass-through filing per year and filed in a timely manner to allow for review and feedback prior to the execution of the plans that are outlined. Subsequent pass-through filings made throughout the year could be treated as updates and contain information similar to that which is currently included.

It is also important to have a robust annual DSM filing. While the DSM projections provide a critical input into short- and long-term planning, neither the IRP nor the pass-though provides an adequate forum for complete examination of the DSM program in totality.

The same is true for Wexpro oversight. While Wexpro planning and data are incorporated into other filings, nothing will substitute for appropriate oversight on a standalone basis. The Committee has made specific recommendations on this topic earlier in these comments.

5. Recommendations

The Committee recommends that the Commission not acknowledge Questar's 2007 IRP filing. The Committee further recommends that the Commission change its guidelines for Questar's future IRP filings to return their focus to long-term planning, better tie to other regulatory filings and make potential acknowledgement of future filings more meaningful. The Committee recommends that standards and guidelines that will govern the content of Questar's future integrated resource planning and related filings, including pass-through filings, and the effect of Commission action upon IRP filings, be determined in this docket.

Specifically, the Committee recommends that the standards and guidelines for Questar IRP filings should establish the following as base requirements:

- The IRP should cover the period beginning April 1 of the year following the year in which it is filed, covering the subsequent three years' worth of data, unless another time horizon is more appropriate to a specific topic (either shorter or longer than three years).

    - Executive Summary and Action Items
    - Demand and Peak-Day Forecasts
    - Gas Supply Modeling
    - Wexpro Production and Future Resources
    - Gas Interchangeability
    - Transportation, Storage and Gathering

- Distribution System Planning
- Demand-Side Planning
- Risk Analysis

- Projected ratepayer impacts from integrated resource plans should be required and separately stated by Rate Schedule and BSF/meter categories.

The Committee also recommends that the Commission require the following changes to future pass-through filings:

- The information and data currently provided in the IRP for the immediate period, i.e. the upcoming heating season, should be available for scrutiny in the pass-through filing and in gas resource management updates. Only one pass-through filing per year should include the complete forecasted outlook, with other filings within the year treated more as updates. The filing with the complete outlook should be filed under a timeline that allows for meaningful review and input from stakeholders and regulators prior to the execution of the strategies reported.
- This short-term outlook should be augmented with data regarding gas quality.
- Specifically in the next pass-through filing, QGC should also be directed to provide specific data, calculations and workpapers supporting the 12% increase in its gathering rate that it reported in this IRP.

The Committee recommends that the Commission consider directing the Wexpro to report on the reasonableness of Wexpro's proposed annual drilling plans, including the projected annual budgets.

Finally, the Committee recommends that the Commission order the following specific improvements to the 2007 IRP and/or changes that should be included in Questar's future IRP filings:

- Clearly state and document whether DSM is the primary driver underlying the change in the Company's long-term sales forecast.
- Include a detailed explanation of the information relied upon to revise the system throughput forecast..
- Explicitly reference the sources of economic and demographic information utilized in the filing, assess the reliability of this information relative to similar publicly available information, and explain how the information is used in forecasting customer additions, system sales, and system throughput.
- Provide a cost-benefit analysis of NNT and potential alternatives.
- Provide project-specific cost estimates, analysis of alternatives and expected revenue requirement impacts for upcoming investments in the distribution infrastructure.

- Discuss by what process the Company determines that the SENDOUT model is correctly specified so that regulators can be confident that SENDOUT continues to be a reliable tool for gas planning and procurement purposes.
- More explicitly detail the terms (time period and volume) under which gas was recouped from partners in under-produced fields (e.g., Trail and Ace) and returned to partners in over-produced fields. The IRP should also specify the two additional fields from which gas may be recouped in the near future.
- Comprehensively address long-term gas quality issues.
- Better explain whether the Company is proposing to permanently change its past practice of generally depleting all peak storage reservoirs by the end of the winter heating period and re-filling them in the October-November timeframe. The Company should also explain the resulting cost implications of not fully depleting its peaking reservoirs.
- Explain what modeling efforts were or will be undertaken to ascertain the value of continuing its base storage contract with Questar Pipeline, and any other long-term contracts under consideration within the time horizon.
- More fully address under what future conditions or parameters would management elect to produce more or less Wexpro Gas, the cost impact of producing more or less Wexpro Gas, how the Company's risk analysis informs its market gas hedging strategies, whether market gas price risk can be mitigated through capacity alternatives, etc.