

- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

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In the Matter of Questar Gas Company's )  
Integrated Resource Plan (IRP) for Plan Year: ) DOCKET NO. 13-057-04  
June 1, 2013 to May 31, 2014 ) REPORT AND ORDER  
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ISSUED: October 22, 2013

SHORT TITLE

**Questar Gas Company 2013 Integrated Resource Plan**

SYNOPSIS

The Commission determines Questar Gas Company's 2013 Integrated Resource Plan substantially complies with the requirements of the 2009 Standards and Guidelines. The Commission also requests supplemental information and provides guidance for future IRPs.

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By The Commission:

**PROCEDURAL HISTORY**

On May 31, 2013, Questar Gas Company ("Questar" or "Questar Gas") filed its Integrated Resource Plan for the period of June 1, 2013, through May 31, 2014 ("2013 IRP" or "Plan") with the Public Service Commission of Utah ("Commission"). The 2013 IRP was submitted in accordance with the 2009 Integrated Resource Planning Standards and Guidelines contained in the Commission's March 31, 2009, Report and Order on Standards and Guidelines for Questar Gas Company in Docket No. 08-057-02 ("2009 Standards and Guidelines").<sup>1</sup>

<sup>1</sup> Docket No. 08-057-02, "In the Matter of the Revision of Questar Gas Company's Integrated Resource Planning Standards and Guidelines."

On June 4, 2013, the Commission issued a notice of filing and scheduling conference to be held on June 18, 2013. On June 18, 2013, following the completion of the duly-noticed scheduling conference, Questar Gas conducted a workshop to discuss and further explain its 2013 IRP.<sup>2</sup> On June 19, 2013, the Commission issued a scheduling order inviting parties to review and provide comments on the 2013 IRP by August 9, 2013, and reply comments by August 30, 2013. On August 9, 2013, the Division of Public Utilities (“Division”) and the Office of Consumer Services (“Office”) filed comments on the 2013 IRP. No reply comments were filed in this docket.

#### **SUMMARY OF THE 2013 IRP**

The 2013 IRP presents Questar’s annual forecasts, summaries of system and gas modeling activities, and resource selection results. The 2013 IRP also includes a discussion of regulatory, resource, and operational challenges which Questar Gas faced during the previous year or could face in the future. Forecasts include annual temperature-adjusted system sales and throughput, system firm peak design-day gas demand, residential usage per customer, and the number of customer additions. Questar uses the forecast information, along with other operational data, to evaluate gas supply needs and system infrastructure requirements. Questar also uses these forecasts to inform the development of its annual natural gas Request for Proposals (“RFP”) for base load and peaking gas supplies.

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<sup>2</sup> Notice of the June 18, 2013, meeting was posted on the State of Utah’s Public Notice Website and at the Heber M. Wells Building.

Information on proposed gas-supply packages received from potential suppliers in the RFP, estimates of cost-of-service gas (otherwise known as “company-owned gas”) supplies<sup>3</sup> and other resources, and load forecasts data are entered into the Ventyx SENDOUT model, Version 14.2.<sup>4</sup> The SENDOUT model is a gas supply planning and portfolio optimization model capable of performing Monte Carlo method/stochastic simulations on two variables, i.e., price and weather. Information on heating-degree days, usage-per-customer-per-heating-degree-day, and the number of customers is used in SENDOUT to calculate a customer demand profile. Questar uses both historic and forecast gas prices as the basis for developing stochastic natural gas price inputs.

In conformance with the 2009 Standards and Guidelines, Questar’s 2013 IRP includes an executive summary, modeling results, a distribution infrastructure/facilities action plan (otherwise known as a distribution non-gas (“DNG”) action plan), and general guidelines. These components are supported by the following specific sections and associated exhibits within the 2013 IRP: IRP background, customer and demand forecasts, system constraints and capabilities, purchased gas, cost-of-service/company-owned gas, gathering/transportation/storage, energy efficiency (“EE”), and final modeling results.

In conjunction with the development of the 2013 IRP and pursuant to the public input component of the 2009 Standards and Guidelines, Questar conducted public meetings on March 13, March 27, and May 14, 2013, which addressed Questar’s integrity management program, gas storage issues, a comparison of transportation alternatives, Questar’s various pipe

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<sup>3</sup> Cost-of-service gas, otherwise known as company-owned gas, is that which is produced under the provisions of the Wexpro Agreement approved by the Commission on December 31, 1981.

<sup>4</sup> Version 14.2 of SENDOUT is a new release of the model which provides an enhanced network diagramming and portfolio schematic visualization feature.

replacement programs, cyber security, the SENDOUT model, and an update of firm sales customers changing to transportation service schedules. In addition, Questar conducted a meeting on April 30, 2013, during which market-sensitive information addressing the recently-issued RFP was presented to participants subject to non-disclosure obligations. At the meeting, issues surrounding company-owned gas supply were discussed. Finally, Questar conducted a public meeting on June 18, 2013, to discuss the recently-filed 2013 IRP. These meetings were attended by representatives of the Commission, Division, Office, and other interested organizations.

Questar Gas identifies the following goals and objectives in the 2013 IRP: 1) to project future customer requirements; 2) to analyze alternatives for meeting customer requirements from the standpoints of the distribution system, upstream capacity, and gas-supply source taking into consideration the inter-day load profile of each source; 3) to develop a plan using stochastic data and methods, and risk management programs, that will provide customers with the most reasonable costs over the long term consistent with reliable service and stable prices within the constraints of the physical system and available gas supply resources; and 4) to use the guidelines derived from the IRP process as a basis for creating a flexible framework for guiding day-to-day as well as longer-term gas supply decisions, including those associated with cost-of-service gas, purchased gas, gathering, processing, upstream transportation, and storage.

The IRP provides both historic and forecast prices for purchased gas. The 2013 IRP indicates a 2012 annual average of the actual first of month index price for natural gas on Questar Pipeline of \$2.57 per decatherm (compared with a 2011 index price of \$3.75 per decatherm), an average actual first of month index price for the 2012-2013 heating season (November through March) of \$3.32 per decatherm (compared with the 2011-2012 price of \$2.94 per decatherm), and

a forecast 2013-2014 heating season gas price based on Rockies indices of approximately \$4.63 per decatherm.

With respect to system sales, the 2013 IRP indicates an annual system sales forecast of 110.0 million decatherms in 2013 increasing to 121.0 million decatherms in 2023.<sup>5</sup> For comparison, the 2012 IRP forecast ranged from 111.0 million decatherms in 2012 to 120.0 million decatherms in 2022. Questar's 2012 weather-normalized natural gas sales were 111.1 million decatherms. The projected slight decrease between 2012 actual system sales and the 2013 forecast reflects the expected switching of sales customers to transportation services in July of 2012.

Pertaining to peak demand, the 2013 IRP projects a firm sales and transportation demand forecast of approximately 1.479 million decatherms per day at the city gates for the 2013-2014 heating season (1.267 million decatherms of firm sales and 0.212 million decatherms of transportation demand). For comparison, the 2012 IRP peak demand forecast was 1.474 million decatherms per day for the 2012-2013 heating season (1.286 million decatherms of firm sales and 0.188 million decatherms of firm transportation), and the actual firm peak demand for both sales and transportation for the 2012-2013 heating season was 1.225 million decatherms per day (0.993 million decatherms for firm sales and 0.232 million decatherms for firm transportation).

For the gas-day January 14, 2013, Questar set a new record for distribution system deliveries of more than 1.2 million decatherms. Questar indicated that although this record did not

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<sup>5</sup> The projections contained in the 2013 IRP reflect the temperature and elevation compensation adjustments agreed to in a Settlement Stipulation and approved by the Commission on June 3, 2010, Report and Order in Docket No. 09-057-16, "In the Matter of the Application of Questar Gas Company to Increase Distribution Non-Gas Rates and Charges and Make Tariff Modifications."

reflect a design-day peak event, the unusually cold temperatures were a good test of the adequacy of the distribution system and the upstream transportation and storage facilities.

Pertaining to system throughput, the 2013 IRP projects a temperature-adjusted system throughput (sales and transportation volumes) forecast of 173.0 million decatherms in 2013 increasing to 214.0 million decatherms in 2023.<sup>6</sup> For comparison, the 2012 IRP forecast ranged from 170.0 million decatherms in 2012 increasing to 205.0 million decatherms in 2022, and the actual 2012 temperature-adjusted throughput was 173.1 million decatherms.

The 2013 IRP indicates the actual temperature-adjusted usage per Utah residential customer for the twelve months ending December 2012 was 82.31 decatherms, a decrease of approximately 1.2 decatherms from year-end 2011. As the pace of new dwelling construction increases and energy-efficiency programs continue to incentivize greater efficiency, Questar Gas predicts a 2013 annual average usage per Utah residential customer of 81.2 decatherms.

The 2013 IRP also indicates for the October 2012 through March 2013 time period Questar Gas fixed the prices for 2.25 billion cubic feet, or 25 percent, of its base-load purchased gas supplies at an average price of \$3.31/MMBtu. Due to the forecast of Wexpro/company-owned production, Questar concludes there is no need for any additional price stabilization and does not plan to enter into fixed-price agreements during the 2013 IRP year. Questar indicates it will review this issue on an annual basis to determine whether such measures are appropriate in the future.

Finally, the 2013 IRP forecasts, for the 2013-2014 period, a total natural gas requirement of 115.0 million decatherms consisting of approximately 80 million decatherms (or

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<sup>6</sup> The Company's current forecast includes anticipated throughput for electricity generation plants fueled by natural gas.

approximately 70 percent) of company-owned natural gas (assuming completion of new development drilling projects) and 35 million decatherms of purchased natural gas. For comparison, the 2012 IRP forecast was 117.7 million decatherms consisting of 67.7 million decatherms (or approximately 58 percent) of company-owned gas and 50.0 million decatherms of purchased gas.

Also of note in the 2013 IRP, Questar: 1) discusses the U.S. Environmental Protection Agency's greenhouse gas reporting requirements and provides a chart indicating its estimated carbon dioxide/greenhouse gas emissions from 2010 through 2012; 2) summarizes the joint operating agreement ("JOA") between Questar and Questar Pipeline, the purpose of which is for Questar Pipeline to provide "a listing of the expected operating conditions projected for a peak day during the next winter heating season at each of the major Interconnection Facilities;"<sup>7</sup> 3) discusses the recently-approved Wexpro II agreement; 4) clarifies excess flow valves are installed on any new or replaced service line up to 1,000 cubic feet per hour (in comparison, the 2012 IRP indicated Questar installs excess flow valves on any new or replaced service line serving a single-family dwelling, when commercially available); 5) provides an update on the Hunter Park Gate Station Project and details on the Feeder Line 26 uprate project;<sup>8</sup> 6) explains the forecast budget of \$6.4 million per year for transmission and distribution integrity management activities in

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<sup>7</sup> See 2013 IRP, Page 4-7. The JOA, which will be updated on an annual basis, allowed Questar's system planning group to more accurately model the inlet pressure to gate stations from Questar Pipeline and led to higher modeled pressures throughout Questar's system.

<sup>8</sup> The Feeder Line 26 uprate project is associated with the Commission's June 20, 2012, approval of the agreement between Questar and PacifiCorp to provide natural gas transportation service to the Lake Side Power Plant. See Docket No. 12-057-04, "In the Matter of the Application of Questar Gas Company to Provide Natural Gas Transportation Service to the Lake Side Power Plant Facility" (Report and Order dated June 20, 2012).

2013 through 2015; and 7) provides an update on the Ryckman Creek gas storage project and Questar's associated Park-and-Loan agreement.

The 2013 IRP also indicates: 1) the total costs, net of credits and overriding royalties, for cost-of-service gas increased approximately 5 percent from calendar year 2011 to 2012; 2) Wexpro produced a record 57.5 billion cubic feet of cost-of-service supplies during calendar year 2012, and by year-end 2012, reserve additions for the year replaced 156 percent of the production for the year; 3) Questar extended the time horizon modeled by SENDOUT from 21 years to 31 years for cost-of-service production; 4) Questar used the No Notice Transportation Service provided by Questar Pipeline every day throughout the 2012/2013 heating season; 5) Questar finished creating master planning models; and 6) the first-year total gas resource cost from the base case determined by the SENDOUT model is \$647 million (an increase of approximately 4 percent over that reported in the 2012 IRP). In addition, Questar Gas provides an update of the legal and analytical activities associated with the System-Wide Gathering Agreement ("SWGA") between Questar and QEP Field Services.

## **COMMENTS**

### **I. The Division**

The Division's comments provide: 1) a summary of the results of the 2013 IRP; 2) historical information on the IRP process, Questar's EE efforts and results, gas commodity and gathering rates, and gas transportation and storage issues; 3) a discussion of Questar's hedging program, variance reports, and gas quality issues; and 4) a summary of Questar's integrity management obligations under the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration's ("PHMSA") rule addressing integrity management programs



for gas distribution pipelines. The Division also provides a history of Questar's EE activities and notes that Questar reported estimated savings of 478,200 decatherms and a total net benefit cost ratio of 0.91 for all ThermWise programs in 2012.<sup>9</sup>

The Division briefly summarizes some of Questar's expansion and replacement projects, particularly the Hunter Park Gate Station project and St. George reinforcement project. The Division also discusses the SWGA and the current lawsuit between Questar and QEP Field Services and states, "Questar Gas continues to dispute the monthly invoices [from QEP Field Services], but makes payment based upon its own calculation of gathering costs under the SWGA. These payments are subject to adjustment pending the outcome of the litigation."<sup>10</sup>

The Division indicates Questar Gas addressed all of the follow-up items from the Commission's December 16, 2011, Report and Order in Docket No. 11-057-06, "In the Matter of Questar Gas Company's Integrated Resource Plan for Plan Year: June 1, 2011 to May 31, 2012." The Division believes Questar Gas has made reasonable attempts to satisfy the 2009 IRP Standards and Guidelines and has also committed, through continuing discussions with parties, to continue to improve on details of some aspects presented in this IRP. The Division recommends the Commission acknowledge the 2013 IRP.

## II. The Office

The Office comments on four aspects of the 2013 IRP, as discussed below, pertaining to: 1) cost-of-service/Wexpro gas production; 2) the relationship between peak demand

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<sup>9</sup> Note: The Division's stated benefit cost ratio of 0.91 reflects the results of the Total Resource Cost Test. Questar also provided benefit cost ratios reflecting three other standard tests as follows: Participant Test – 2.17, Utility Cost Test – 1.35, and Ratepayer Impact Measure Test – 0.86. See 2013 IRP, page 8-3.

<sup>10</sup> See Division's August 9, 2013, comments, p. 11.

design-day forecasts and the DNG action plan; 3) the impact of EE programs on peak demand at design-day and the need for new infrastructure; and 4) lost and unaccounted for (“LAUF”) gas.

The Office notes cost-of-service/Wexpro gas is projected to comprise 70 percent of Questar’s gas supply for 2013 as compared to about 60 percent in the three previous IRPs. The Office is concerned that Wexpro production is approaching an excessive level and commented that experience has shown that high percentages of Wexpro gas have prevented Questar from taking advantage of market conditions producing particularly low-priced gas. The Office questions whether this level of production remains manageable and allows adequate operational flexibility.

To address these concerns, the Office recommends the next IRP should contain responses to the following questions: 1) What is the maximum percentage of Wexpro gas production that can be managed (through storage, shutting in wells, etc.) without resulting in excess gas, especially if a low-demand heating season were to be experienced; 2) What are the costs of excess Wexpro gas (storage, lost market opportunities, etc.); 3) At what percentage of Wexpro gas production would Questar Gas anticipate significant increases in the amount of gas that would need to be shut in; and 4) How much Wexpro gas can be feasibly shut in and how much notice is needed to take such actions and at what cost to ratepayers?

In addition, the Office recommends the IRP address multiple scenarios with varying percentages of Wexpro gas and varying demand levels (e.g., low, normal, and high) and provide the anticipated range of management actions (such as projected well shut-ins in each scenario) as well as the impacts of such actions on overall costs. The Office also recommends that when large changes occur in the forecasted production of Wexpro gas between the most recent 191

Account pass-through filing and the IRP, Questar should provide an explanation of these changes in the IRP.

The Office provides a comparison of the 2013 IRP's actual and forecasted peak day demand and concludes growth in firm transportation is the primary driver underlying the need for additional physical capacity on Questar's system. The Office maintains there is not a clear distinction in the 2013 IRP as to how each project in the DNG action plan addresses the different types of needs (i.e., peak demand versus other needs). The Office recommends in future IRPs Questar Gas should provide the linkage between the need for new capacity as demonstrated in the increase in the forecasted peak demand at design-day and the specific projects in the DNG action plan. For example, will the project address increasing demand on the system due to new firm sales or firm transportation loads or are they requirements related to the maintenance of capacity for existing demand?

Pertaining to EE programs, the Office points out Questar states its model calculates the sole benefit of EE programs as the avoided cost of gas purchases. The Office, however, believes an additional benefit of the EE programs is that they should reduce peak demand at design-day which in turn should reduce the amount of new infrastructure required to meet peak demand. Due to the magnitude of EE expenditures (i.e., \$22.8 million in 2013 as compared with the St. George reinforcement project cost of \$20.5 million), the Office believes it would be helpful to better understand how EE is specifically affecting the peak day and thus lessening the amount of new infrastructure needed. The Office, therefore, recommends future IRPs discuss the effect of EE programs on peak demand and the need for new infrastructure. Additionally, the Office requests Questar explore how EE programs could reduce or offset the need for future capital projects such

as some of the reinforcement projects described in the DNG action plan. For example, in constrained areas, is it possible to design targeted EE programs to eliminate or delay the need to construct new facilities?

Finally, the Office indicates the levels of LAUF gas in the 2013 IRP are not unreasonable. However the Office is concerned about the trend in LAUF gas, i.e., LAUF gas has increased 329 percent in two years and LAUF gas as a percent of system receipts has increased 353 percent. The Office recommends Questar explain in the 2013 IRP the cause of significant changes in the amounts of LAUF gas and provide an explanation for any such significant trends in future IRPs.

### **COMMISSION CONCLUSIONS AND GUIDANCE**

We recognize Questar's continuing efforts in preparing the 2013 IRP, managing the IRP process, and addressing Commission guidance from previous IRP orders. These efforts ensure Questar's annual IRP continues to provide up-to-date, valuable information on its plans for, and challenges in, meeting present and future responsibilities as a public utility. We also recognize integrated resource planning is an ongoing process and should be adjusted to reflect changing circumstances.

The Division's analysis of the 2013 IRP addresses procedural, reporting, and informational requirements. The Division concludes the Questar Gas 2013 IRP substantially complies with the 2009 Standards and Guidelines and improves on some aspects of previous IRPs; therefore the Division recommends the Commission acknowledge Questar's 2013 IRP. Based upon our review of the 2013 IRP and the comments from the Division and the Office, we agree

with the Division's assessment that Questar's 2013 IRP substantially complies with the requirements of the 2009 Standards and Guidelines.

We also offer the following guidance on the 2013 IRP. The Office articulates its concern pertaining to the increasing production levels of Wexpro gas and recommends Questar should provide additional information in future IRPs. We agree with the Office's recommendation for additional assessment pertaining to Wexpro production and request Questar Gas address the Office's questions and provide the requested scenario analysis in future IRPs. In addition, we agree with the Office's recommendations that when changes occur in the forecasted production of Wexpro gas between the most recent pass-through filing and the IRP, Questar should provide an explanation of the changes in the IRP. In addition, we continue to encourage parties to meet with the goal of enhancing understanding of the SENDOUT model and the modeling process, including its setup, logic, and constraints and how Wexpro Gas supplies are incorporated into Questar's modeling effort.

The Office recommends future IRPs should provide the relationship between the need for new capacity and specific projects in the DNG action plan including the primary drivers for their construction. As this information may be important for the allocation of costs in a general rate case or an infrastructure tracker case, we find it would be more appropriate for an interested party to request this information from Questar during evaluation of projects in such rate proceedings.

The Office recommends future IRPs should report on the effect of EE programs on peak demand and the need for new infrastructure and how EE programs could reduce or offset the need for future capital projects such as some of the reinforcement projects described in the DNG

action plan. Absent input from other parties on this issue, we find the Office's request should be first addressed by Questar Gas at the next Demand-Side Management ("DSM") Advisory Committee meeting and future meetings, if necessary. Following input from the DSM Advisory Committee, we direct the Company to schedule a discussion of this topic at an IRP public input meeting.

Pertaining to the levels of LAUF gas indicated in the 2013 IRP, we find the Office's recommendation that Questar should explain significant changes in the amounts of LAUF gas has merit. We are aware that Questar Gas has provided this information to the Division; therefore, we request Questar Gas provide a supplemental filing in this docket explaining the increase in LAUF gas in the 2013 IRP and provide similar information in future IRPs if warranted.

**ORDER**

The Commission orders:

1. Questar Gas shall provide the requested supplemental information on LAUF gas within 14 days of the date of this Report and Order and follow the guidance provided herein.

DOCKET NO. 13-057-04

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DATED at Salt Lake City, Utah, this 22<sup>nd</sup> day of October, 2013.

/s/ Ron Allen, Chairman

/s/ David R. Clark, Commissioner

/s/ Thad LeVar, Commissioner

Attest:

/s/ Gary L. Widerburg  
Commission Secretary  
DW#248091

CERTIFICATE OF SERVICE

I CERTIFY that on the 22<sup>nd</sup> day of October, 2013, a true and correct copy of the foregoing was served upon the following as indicated below:

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