GATHERING, TRANSPORTATION AND STORAGE

Gathering and Processing Issues

A substantial portion of the cost-of-service natural gas supplies Questar Gas receives under the Wexpro Agreement is contractually dedicated to the System-Wide Gathering Agreement between Questar Gas and Questar Gas Management Company (Gas Management). This long-standing agreement, effective September 1, 1993, incorporates a cost-of-service methodology to determine the reservation and usage rates for gathering services. Each year, new rates are calculated based on the previous-calendar-year costs-of-service allocable to Questar Gas and the previous-calendar-year natural-gas throughput. New rates are effective each year from September 1 through August 31. As specified in the agreement, sixty percent of the annual cost of service is allocated to the reservation charge and forty percent is allocated to the usage charge.

For the System-Wide gathering rate effective September 1, 2008, the total cost of service declined slightly from the previous year resulting in a slightly lower monthly reservation charge. The usage charge increased due to a lower billing determinant resulting from the shut-in of some of the cost-of-service supplies Questar Gas is entitled to receive under the Wexpro Agreement during the summer and fall of 2007. The Company shut in these sources of supply to take advantage of the availability of low-cost purchased gas.

Volumes of natural gas gathered under the System-Wide Gathering Agreement from October 2008 through January 2009 are the highest four months for at least the last five years. These increased volumes reflect the success of Wexpro drilling programs in recent years.

Questar Gas updates the gathering and processing cost data included in the SENDOUT modeling process each year. A logical gas supply network is utilized by the SENDOUT model to define the relationships between modeling variables. Exhibit 7.1 illustrates those logical relationships for the gathering, processing and transportation functions as utilized by the model this year.

Transportation Issues

As discussed in more detail in the May 1, 2008, IRP, the Federal Energy Regulatory Commission (FERC) issued an order on August 6th 2007, accepting tariff sheets proposed by Questar Pipeline to modify its gas quality provisions.[1] These gas quality provisions established cricondentherm-hydrocarbon-dew-point (CHDP) zones with CHDP limits for each zone effective January 1, 2008.[2] These zones and their limits are shown in Exhibit 7.2. Questar Gas believes that the implementation of these CHDP zones and limits has worked well during 2008 and early 2009 as no major gas quality

[1] Questar Pipeline Company, Docket No. RP07-457-000, FERC Gas Tariff Filing, May 18, 2007.
[2] Federal Energy Regulatory Commission, Questar Pipeline Company, Docket No. RP07-457-000, "Order Accepting Tariff Sheets," Issued August 6, 2007.

issues have arisen. These CHDP provisions appear to be an effective long-term solution to equitably resolving gas quality matters. It is difficult to predict the interchangeability of future gas streams received by Questar Gas. The Company may need to arrange for additional processing or blending in the event it is required to ensure that the gas received from the transmission systems of either Questar Pipeline or Kern River Gas Transportation Company (Kern River) are compatible with the needs of Questar Gas' customers.

Also of interest this year are developments in Kern River's rate case. Questar Gas is a shipper on Kern River's system holding 50,000 decatherms per day of seasonal capacity and 3,000 decatherms per day of year-round capacity made available from Kern River's 2003 Expansion Project. On April 30, 2004, Kern River filed a Section 4 rate case with the FERC. A Presiding Administrative Law Judge (ALJ) issued an initial decision on March 2, 2006, addressing many cost-of-service and rate-design issues.[3] On October 19, 2006, the FERC issued Opinion No. 486.[4] Requests for rehearing of Opinion No. 486 were addressed in Opinion No. 486-A, issued on April 18, 2008, resolving most issues, with the notable exception of return on equity (ROE).[5] On January 15, 2009, the FERC issued Opinion No. 486-B.[6] This Opinion articulated, for the first time, the new FERC policy of including master limited partnerships in the rate-of-return proxy group, making this a landmark opinion. Opinion 486-B also established an ROE of 11.55 percent and ordered Kern to file, within 45 days, a compliance filing incorporating that ROE in its rates.

Of note in the Kern Rate case is the establishment of a straight-fixed-variable (SFV) rate design methodology. Kern River had filed to continue using an enhanced-fixed-variable rate design methodology. Only one other shipper, of the more than 30 intervening in this rate case, supported the use of SFV along with Questar Gas Company. Given the ability of Questar Gas to utilize segmentation on Kern River's system, and given its relatively high load factor, substantial benefits will accrue to the Company's customers as a consequence of this change in Kern River's rate design methodology.

If approved by the FERC, Kern's compliance filing, made on March 2, 2009, will establish the future rates to be paid by Kern's shippers. Questar Gas is a 15-year-2003-expansion shipper on Kern River's system. The rates in the March 2nd compliance filing for such a shipper in a non-leap year consist of a reservation charge of $0.4686 per decatherm and a usage charge of $ 0.0044 per decatherm (before the applicable FERC annual charge adjustment).

[3] Federal Energy Regulatory Commission, Kern River Gas Transportation Company, Docket No. RP04-274-000, Initial Decision, March 2, 2006.
[4] Federal Energy Regulatory Commission, Kern River Gas Transportation Company, Docket No. RP04-274-000, Opinion No. 486, Opinion and Order on Initial Decision, October 19, 2006.
[5] Federal Energy Regulatory Commission, Kern River Gas Transportation Company, Docket No. RP04-274, Opinion No. 486-A, Order on Rehearing Establishing Paper Hearing Procedures, April 18, 2008.
[6] Federal Energy Regulatory Commission, Kern River Gas Transportation Company, Docket No. RP04-274-000, Opinion No. 486-B, Order on Rehearing, Proposed Settlement and Paper Hearing, January 15, 2009.

On June 20, 2008, Kern River filed with the FERC, pursuant to Section 7(c) of the Natural Gas Act, an application for a certificate of public convenience and necessity authorizing the construction and operation of facilities designed to increase the year-round firm transportation capacity of its system by approximately 145,000 decatherms per day.[7] Because the in-service date of the proposed expansion was anticipated to be November 1, 2010, it became known as the "2010 Expansion Project". This incremental transportation capacity will be achieved through the installation of additional compression and meters at existing sites along Kern River's system, and from raising the certificated maximum allowable operating pressure of the pipeline from 1,200 pounds per square inch gauge (psig) to 1,333 psig. The total cost of the project is expected to be in excess of $60 million.

Prior to the 2010 Expansion Project application, Kern River held open seasons soliciting offers for this increment of new unsubscribed capacity. On Monday, June 2, 2008, Questar Gas submitted a bid for 10,000 decatherms per day. Due to the level of interest in this resource, Questar Gas was allocated 1,885 decatherms per day of year-round ten-year capacity. The rate to be paid will be the maximum recourse rate for the 2003 Expansion Project. As discussed previously, the final FERC order establishing this rate has not been issued yet. Questar Gas believes that this capacity will be beneficial in meeting future customer growth in the Company's service territory served only by Kern River's system. With the ability to segment, this capacity will also be useful for all of Questar Gas's customers including the facilitation of the transportation of cost-of-service supplies available at interconnection points near Opal, Wyoming.

As described in the introductory section, Ruby Pipeline, L.L.C. (Ruby) filed with the FERC, on January 27, 2009, an application, under Section 7(c) of the Natural Gas Act, to obtain a certificate of convenience and public necessity facilitating the construction and operation of an interstate pipeline system.[8] The system proposed by Ruby would extend from Opal, Wyoming to Malin, Oregon. The decline in natural gas imports from Canada and anticipated long-term growth in the Pacific Northwest and California have given impetus to this project. The project is comprised of approximately 675 miles of 42-inch diameter natural gas pipeline, four compressor stations, and measurement facilities. The design capacity of the project is approximately 1.5 million decatherms per day and the estimated capital cost is approximately $3 billion.

The planned route of the Ruby pipeline project passes through northern Utah where Questar Gas has natural gas distribution facilities (see Exhibit 7.3). It is expected that the pipeline will cross the southern end of Cache Valley (south of Logan, Utah) as it extends west in a route past Brigham City, Utah in Box Elder County. Because of the proximity to the facilities of Questar Gas, the Company is considering an interconnection with Ruby. It is premature to know what all the costs of gas supply resources on Ruby will be when compared with other gas supply options available to the Company. Transportation billing rates derived for new interstate pipelines are typically much higher

[7] Federal Energy Regulatory Commission, Kern River Gas Transmission Company, "Kern River 2010 Expansion Project," Abbreviated Application for Certificate of Public Convenience and Necessity, Docket No. CP08-429-000, June 20, 2008.

[8] Federal Energy Regulatory Commission, "Application of Ruby Pipeline, L.L.C. for a Certificate of Public Convenience and Necessity," Docket No. CP09-54-000, January 27, 2009.

than those associated with older depreciated pipelines. Nevertheless, a northern system interconnection with this independent pipeline could potentially be valuable in terms of enhancing reliability of service for QGC's customers. On February 11, 2009, Questar Gas filed a motion to intervene in the Ruby application so that it can be afforded full party status in these proceedings.

No-Notice Transportation

On April 8, 1992, the FERC issued Order 636 and on August 3, 1992, the FERC issued Order No. 636-A which required interstate pipeline companies to unbundle their sales and transportation services ensuring that all natural gas suppliers could receive the same quality of transportation services. Among those services which the FERC required interstate pipeline companies to provide on an unbundled basis, was "no-notice transportation service."

Questar Gas, as a transportation customer of Questar Pipeline, was entitled to the provision of no-notice transportation (NNT) service since it had been receiving "'no-notice' bundled, city-gate, firm sales service" from Questar Pipeline previous to Order 636. In its Order 636 restructuring application, Questar Pipeline filed a NNT service rate schedule. In order to receive the same "quality and quantity of transportation service" needed previously, Questar Gas subscribed to this NNT service offered by Questar Pipeline. It was primarily the rationale given by the FERC which necessitated the receipt of this service by Questar Gas . . . "unexpected changes in temperature."

Temperatures in the service area of Questar Gas can be among the coldest in the nation. Temperature swings along the Wasatch Front can be large, sudden and difficult to predict. As a cold front moves south from Canada towards the Rocky Mountain region, it is difficult to forecast whether it will move into the Great Basin or slide down along the Front Range into Colorado. Weather forecasts are typically modeled on a daily basis. The transient flows resulting from unexpected hourly changes in temperature can be substantial. Nominations are made using those forecasts for a gas day that won't begin to flow for almost 24 hours in the future. This lag makes it difficult to manage daily swings and nearly impossible to manage hourly swings. Exhibit 7.4 is a graph of the total system load for Questar Gas that shows the variability in daily load from March 2007 through February 2008. Even more telling is the graph in Exhibit 7.5 showing the dramatic variability in hourly flows for a winter time-frame extending from January 6-12, 2008. It was precisely for this purpose that the FERC required that NNT be offered to achieve comparability of service. NNT provides Questar Gas flexibility far beyond what is available under the FERC approved nomination process on Questar Pipeline. Questar Gas uses this NNT flexibility to facilitate withdrawals and injections of gas throughout the day utilizing Clay Basin and the aquifers in order to meet Questar Gas customers changing loads. *See subsequent Storage Issues Section.*

Questar Gas' gas supply "schedulers" rely on multiple weather forecasts in developing their daily gas supply plans. Even if these forecasts of the daily mean temperature were all perfectly correct every day, it would not totally solve the problem of meeting "unexpected requirements" as addressed by Order 636. Exhibit 7.6 is a scatter

graph of firm sales for Questar Gas versus the daily mean temperature for the calendar-year 2007. At any given mean temperature, there was a wide historical band of actual daily sales volumes during 2007.

As discussed previously, Questar Gas holds transportation capacity on Kern River. This capacity was contracted for during Kern River's 2003 expansion. It consists of 53,000 Dth/d for the winter heating season months of November through March and 3,000 Dth/d for the months of April through October. Because Questar Gas' acquisition of this capacity was after the FERC 636 series of orders, Kern River was not obligated to offer NNT to Questar Gas (Questar Gas had not previously been receiving no-notice bundled, city-gate firm sales service on Kern River). Questar Gas utilizes, as needed, and to the extent possible, its NNT service from Questar Pipeline to balance hourly demand fluctuations on its entire system. Exceptions to this would be the small Utah west-desert towns that are served exclusively by Kern River (Delta, Scipio, Holden, Fillmore, Beaver, and Newcastle). These loads are small and hourly demand fluctuations are inconsequential. The total hourly demand fluctuations for Questar Gas's firm residential customers in these west-desert towns is smaller than the threshold for incurring imbalance penalties as stated in Kern River's tariff.[9]

The FERC required interstate pipeline companies to offer unbundled NNT service to those shippers previously receiving no-notice-bundled-city-gate-firm-sales service, because in most situations shippers such as Questar Gas would not have comparable alternatives on their distribution systems. Alternatives to NNT such as installing multiple propane air or liquefied natural gas vaporization facilities at strategic locations throughout the service territory of Questar Gas to provide additional supplies when demands are increasing would be prohibitively expensive. Facilities of this type would not solve the problem of storing excess supplies when hourly demands are declining.[10] The only resource that could accommodate hourly transient flows by providing either a source or use of natural gas would be multiple small storage facilities spread through Questar Gas' service territory. A resource of this type is not available on Questar Gas' system. And, if such a resource were available, it could not compete with the cost-economies-of-scale associated with Questar Pipeline's Clay Basin storage facility. Questar Gas's capacity at Clay Basin is the primary resource utilized by Questar Pipeline in the provision of NNT service.

Questar Gas is one of two companies who have contracted for NNT with Questar Pipeline. When Questar Pipeline filed its Order 636 restructuring application, the FERC reviewed and approved not only the tariff language for the provision of this service, but also all the costs which are associated with this service. Questar Gas believes that its NNT service from Questar Pipeline is the most reasonable, physically feasible and cost-effective way to receive comparable service.

[9] "FERC Gas Tariff," Kern River Gas Transmission Company, Second Revised Volume No. 1, Filed With The Federal Energy Regulatory Commission, General Terms and Conditions, Section 10, Operating and Balancing Procedures, Sheets 103 – 105.

[10] Natural gas liquefaction facilities are impractical on a small scale in a distributed environment.

Storage Issues

Questar Gas contracts with Questar Pipeline for storage services at four underground gas storage fields to respond to seasonal winter and peak demands. The fields are Leroy, Coalville, Chalk Creek, and Clay Basin. Leroy, Coalville, and Chalk Creek are aquifer-type storage facilities fully subscribed to Questar Gas that are utilized primarily for short term peaking. Clay Basin, utilized by both Questar Gas and other open access storage customers, is a depleted dry gas reservoir used for both seasonal base load and peaking purposes. Questar Gas' key capacity parameters for these facilities are outlined in the following table:

Facility	Maximum Inventory (MDth)	Maximum Injection Rate (MDth/D)	Maximum Withdrawal Rate (MDth/D)	Minimum Withdrawal Rate, MRD (MDth/D)	Sustained 3-Day Peak Withdrawal (MDth/D)
Clay Basin	13,419	75+	203	112	n/a
Leroy	886	7 to 33	84	n/a	79
Coalville	720	7 to 21	63	n/a	53
Chalk Creek	321	6 to 11	37	n/a	26

As was first outlined in the May 1, 2000 IRP, the operation of the Leroy and Coalville storage facilities has been modified from procedures followed historically to provide more flexibility and enhance storage efficiency. Since 2000, following the end of the withdrawal season, the inventories in these facilities have maintained a working gas capacity of approximately 50% of maximum through the summer months. Previous practice was to completely draw down the facilities each year at the end of the withdrawal season. The advantages of this revised mode of operation are as follows:

- Wells are not "watered out" at the end of the withdrawal cycle, improving well efficiency when refill injections are initiated in the fall.
- Injection compression fuel gas requirements are reduced (only 50% of the working capacity needs to be injected in the fall to fill the reservoir).
- A shorter, more predictable, and easily managed withdrawal/depletion schedule results at the end of the heating season.
- A shorter injection season for reservoir refill is required in the fall.
- The flexibility exists to inject significant volumes if required while the reservoirs are at 50% inventory.

Operating experience has indicated that the above operating advantages result without significantly impacting gas losses.

In general, current operating practices at both the Coalville and Leroy facilities are as follows:

- Refill injections into the reservoirs commence in early September from an initial inventory of approximately 50% of maximum working inventory. Injections continue until an inventory of approximately 70% of maximum is reached by early October. Injections follow a specific well configuration and volume profile to minimize the potential for "fingering" and resulting gas loss.
- In early October, scheduled aquifer injections are halted to allow for the testing program conducted at the Clay Basin storage facility. The testing requires one day of injection at a controlled rate followed by a 7-day no flow period for pressure stabilization. Depending upon system demand and the gas supply situation during the no flow period, the 70% inventory at Leroy and Coalville affords the flexibility to either inject or withdraw to meet system balancing requirements.
- Following the Clay Basin test, controlled refill injections again commence in Coalville and Leroy with maximum inventory being reached by early November.
- Both Coalville and Leroy are utilized to meet peak load requirements through the heating season. During periods of lower winter demand, the reservoirs are refilled to maximum inventory when possible.
- During March, when the need for peaking withdrawals has passed, the reservoirs are partially drawn down (for use) to inventories ranging from 50–70% in preparation for Clay Basin testing conducted during April. The April Clay Basin test consists of a one week withdrawal only period followed by 2 days of controlled withdrawal. Following the withdrawal period, Clay Basin is shut in for 14 days for pressure stabilization. Maintaining Coalville and Leroy at the indicated inventory range during this period provides the flexibility to either inject or withdraw based upon system balancing needs.
- At the end of the Clay Basin test, Leroy and Coalville are then drawn down to inventory levels of approximately 50% and then maintained at that level until refill commences in the fall (unless it is necessary to periodically conduct a complete inventory analysis).

This mode of operation has greatly enhanced the value of the peaking storage service to Questar Gas while not significantly impacting gas losses. Through this mode of operation, seasonal withdrawals during a typical yearly operating season in excess of the maximum working volume have been achieved. For example, during the 2006-2007 season, Leroy withdrawals were 1,074,201 MCF (1.29 times the maximum working gas inventory of 830,000 MCF) and Coalville withdrawals were 875,552 MCF (1.27 times the maximum working gas inventory of 690,000 MCF).

Due to the nature of the Chalk Creek storage formation, cycling and partial inventory maintenance during the summer is not practiced at this facility in order to minimize gas losses. Operation at Chalk Creek is as follows:

- Injections from 0 working gas inventory commence in early November following a controlled well and injection profile.

- Maximum inventory is reached by mid-December.
- From December through early March, Chalk Creek is typically held in reserve unless very high demand periods are experienced.
- In early March, the reservoir is blown down in a controlled manner to 0 working gas inventory and is then shut in until refill injections commence in the fall.

Emphasis is placed upon following the above operating procedures to minimize gas losses and ensure efficient storage facility operation.

The costs, contractual terms and operating parameters for each of the four storage facilities subscribed to by Questar Gas are modeled in SENDOUT. A forecast of the Clay Basin storage inventory (available at the beginning of the first gas-supply year) is also included in the SENDOUT modeling process each year. This year, it is expected that the May 1, 2009 inventory will be just over 0.5 Bcf.

The tariff provisions governing Clay Basin assure that customers will receive a minimum withdrawal amount (Minimum Required Deliverability or MRD). To the extent that shippers have inventory in excess of that necessary for their last day of withdrawals, additional deliverability is available for allocation according to predetermined formulas (see the previous table).

During 2007, when Questar Pipeline was resolving CHDP issues on its transmission system, it also remedied CHDP issues at its Clay Basin storage facility. On August 23, 2007, Questar Pipeline filed, with the FERC, revisions to its tariff, Questar Pipeline also filed the "Stipulation and Agreement" negotiated with all of the Clay Basin storage customers. Included with the filing was the "Joint Petition of Questar Pipeline Company and Firm Customers for Approval of Stipulation and Agreement and Request for Expeditious Action."[11] The FERC accepted the revised tariff sheets on November 7, 2007, to be effective on January 1, 2008 and also approved the Stipulation and Petition.[12] As a result of these FERC actions, the Kastler Processing Plant was refunctionalized as a Clay Basin storage asset (previously it was a transmission asset) and additional processing facilities were installed, thus ensuring a total delivery capability of 320,000 decatherms per day to either Northwest Pipeline or Questar Pipeline. This project was completed in December of 2008 at a cost of approximately $12 million. The costs associated with conditioning storage gas, including the installation and operation of these new facilities are expected to be recovered from the sale of natural gas liquids over a 20-year time period. The refunctionalization of the Kastler Plant and the installation of new processing facilities have, at this point in time, effectively resolved the liquids issues at Clay Basin.

[11] Questar Pipeline Company, Docket No. RP07-606-000, FERC Gas Tariff Filing, August 22, 2007; and Questar Pipeline Company, Docket No. RP07-606-001, Amended FERC Gas Tariff Filing, August 30, 2007.

[12] Federal Energy Regulatory Commission, Questar Pipeline Company, Docket Nos. RP07-606-000 and RP07-606-001, Letter Order Accepting Tariff Sheets dated November 7, 2007, "Reference: Stipulation, Petition, and Revised Tariff Sheets."