SYSTEM CONSTRAINTS AND CAPABILITIES

Questar Gas System Overview

Historically, Questar Gas customers have been served by an integrated transmission and distribution system connecting natural gas fields in Utah, Wyoming and Colorado to the Company's Utah, Wyoming, and Idaho markets. This original integrated system remains intact. Questar Gas' ability to serve its customers is dependent upon gas transmission companies such as Questar Pipeline Company (Questar Pipeline) and Kern River Gas Transmission Company (KRGT). To a much smaller extent, the Company relies on deliveries from Northwest Pipeline Corporation to serve the towns of Moab, Monticello and Dutch John, and Colorado Interstate Gas Company to serve the town of Wamsutter. These upstream pipeline systems and costs are part of the modeling process discussed in other IRP sections. This section will concentrate mostly on Questar Gas' local distribution system.

Steady-state and unsteady-state Gas Network Analysis (GNA) system models are built each year to account for changes in piping facilities and customer growth. Due to the timing of this report, the 2009 GNA models are not yet complete. Therefore, the 2008 GNA models were used for the analysis work for this report. These GNA models were built with data from January of 2008. The revised schedule for next year's report will allow for the use of a more recent GNA model for the analysis.

The GNA models are used to perform system analysis to ensure future capacity requirements are met while maintaining system reliability. Each time the GNA models are built they are checked for validity and then reviewed to determine any need for system improvements, supply changes or contract revisions. The GNA models can then be expanded to meet needs including planning analysis and operational analysis. This may include creating models at different temperature assumptions or creating different types of models from the standard system model.

Ongoing and Future System Analysis Projects

Intermediate High Pressure Mapping System (IGIS) and High Pressure Mapping System (APDM)

There are a number of changes taking place in 2009 that will directly impact engineering and system modeling in particular. The first of these changes is the upgrade to a new IGIS system. This new mapping system for the Intermediate High Pressure (IHP) system will directly impact the creation of the IHP models. This, in turn, will affect the creation of the High Pressure (HP) system GNA models. This change has been planned for several years and preparations are complete to make this a smooth transition. A new process will be in place to create the IHP models. The HP system model will be created using the existing methodology. The facilities configuration will be manually upgraded and the loads will be provided from the IHP models.

Contingency Planning

As part of emergency planning, the HP system GNA models are being used to develop contingency plans for potential emergency scenarios. The scenarios are being coordinated with the Company's Pipeline Compliance Group. Modeling is being done using the Unsteady-State Module (USM) to determine the system impact and time required to make changes to maintain system integrity or enact emergency procedures.

In the future, additional potential emergency scenarios will be identified and evaluated using the HP GNA models. These scenarios may include station shutdowns, line breaks, and supplier issues. While it may not be possible to model every possible scenario, it will be beneficial to prepare general plans that can be tailored to specific events.

Develop Operational GNA Models

Another way to prepare for unforeseen scenarios is to develop and maintain operational models of the system. These models are being developed to enable predictions of system operation over a range of non-peak, temperature dependent load conditions. For example, GNA models have been developed to represent all of the maintenance work being done on the system in April at the lowest expected temperature for April and at base conditions. These models assist with planning for maintenance activity and ensure uninterrupted service to customers.

Intermediate High Pressure Distribution System Modeling and Reinforcement

Questar Gas Engineering utilizes steady-state Intermediate High Pressures (IHP) GNA models to analyze the improvements needed to maintain adequate pressures in the IHP systems. These models are used to identify the required location and sizing of new mains and or regulator stations. The GNA models are also used to compare the required flow from the regulator stations to the maximum capacity of the existing stations. This analysis typically results in IHP main being installed each year to reinforce the system. It also results in a number of new station installations and a few station upgrades each year.

In 2008, Questar Gas installed more than 386 miles of IHP main, more than 10,300 service lines, and 17 new regulator stations. Also in 2008, more than 23 miles of IHP main and 1,489 service lines were replaced.

High Pressure System Modeling

The analysis of the High Pressure (HP) system GNA models is much more complex than that of the IHP system. Gate stations, existing supply contracts, supply availability, line pack, and the piping system must all be considered in the HP analysis. The time it takes to complete larger HP projects also requires that reinforcement needs be identified much earlier than with IHP projects.

Model Validation

The steady-state GNA models are validated for accuracy using pressure and demand comparisons. A steady-state high pressure GNA model was built to represent the system

conditions on a specific day. Settings in this model were all adjusted to match this day. The modeled pressures were compared to actual pressures at key points recorded on this day. The pressures were all found to be within 7% and on average were within 2.38%. Based on this comparison, the models are considered accurate.

Another method of validation used was to compare the customer demand in the GNA models with the daily recorded demand for all of the cold days from 2003-2008. GNA models were created for differing temperatures to create a linear prediction of demand by heating degree day. These models were built using two methods; calculated loads and contract loads. The calculated loads GNA models represent the predicted loads for large customers based on their actual historical usage. The contract loads GNA model represent the loads for the large customers based on their total contract amounts. When graphed, the recent actual demands followed closely with the calculated load GNA models with only a few outliers above the predicted demand line. These outliers all fell under the GNA model contract demand line. The results of the comparisons confirmed the accuracy of the demands in the GNA models.

Gate Station Flows versus Capacity

When setting up the system GNA models, it is important to stay within the pressure and flow parameters for each of the stations. To achieve this, a capacity study was completed for each of the gate stations. Hourly and daily flow capacities were calculated for each station based on set pressures in the system GNA model, inlet pressures from Questar Pipeline Company (QPC) and known parameters from interconnect agreements with other suppliers.

According to this study, Hunter Park will require immediate upgrades to meet a peak required capacity of 152.1 mmcfd. These upgrades will be completed prior to the 2009/2010 heating season. Hyrum, Central, and Moab Stations are all near capacity. Hyrum and Moab will be reviewed for possible upgrade scenarios in the near future. Central Station was upgraded in December 2008, however, increasing Southern System loads will require construction of a new gate and feeder line within the next 2-3 years. Sunset Station is also constrained due to the upstream piping of Main Line 3 (ML 3) on the QPC system. This station is therefore held at near 70,000 Dth/day in all of the GNA models. There is currently no planned upgrade to this line.

Unsteady-State Analysis

The newest feature to be used for system analysis is the Unsteady-State Model (USM) of the HP system. These are GNA models built from the steady-state GNA models, however a USM GNA model can be set with time driven pressure or flow changes to better reflect how the system will change throughout a day or a number of days. These models also take into account the effects that line pack has on the system. It is common for Gas Control to build up pressures by increasing flow into the system prior to a cold weather event so that over time the system will use this excess gas in order to maintain higher overall pressures. This is different than a steady-state GNA model which requires that the flows into the system equal the flows out of the system at all times. While USM has been used in the past, this is the first year the entire system has been analyzed using this technique.

USM has also been used to create a USM GNA model of the system under peak day conditions. This model was set up to match the steady-state model demands and supplies as closely as possible. The sources were profiled as closely as possible to how Gas Control would operate the station on a peak day. The settings take into account historic profiles, pressure versus flow and station capacities.

System Pressures

One of the most basic uses of the system GNA models is also the most important. Once the system GNA models are verified and set up to match the contractual obligations and station capacities, they can be used to analyze the system pressures to ensure the system has adequate capacity to supply all of the Questar Gas customers. The peak GNA models are used for this analysis. These models include all firm loads for both sales and transportation customers. The daily contract limits are used for customers with signed contracts. All interruptible customers are considered to be curtailed in the peak models.

Utah Northern Region

This region consists of the main system around Salt Lake City and northern Utah. This area includes Salt Lake County, Tooele County, Summit County, Utah County, Wasatch County, Davis County, Morgan County, Weber County, Cache County, and Box Elder County. The Northern Area receives gas deliveries from QPC at Meter Allocation Point (MAP) 164 through Hyrum, Little Mountain, Payson, Porter's Lane, and Sunset stations. Multiple smaller taps from QPC serve the area through MAP 162 (Utah North). It is also served by KRGT at Hunter Park and Riverton stations.

The ability to take gas from both QPC and KRGT allows QGC to meet its peak-day obligations to the Northern Region. The gas supply at the two KRGT gate stations make up the difference between QGC's firm obligations and the contracted delivery capacity from QPC.

In the steady-state GNA model, the low point in the Northern Region is 263 psig at the endpoint of FL 62, in Alta. The next lowest pressure occurs at the endpoint of FL 36 in West Jordan. The low point at West Jordan is 264 psig. Both of these pressures are substantially higher than our lowest allowable pressure of 125 psig.

The pressures at some of the key locations in the system are shown in Table 1 and Figure 1. These are pressures in the peak GNA model at system endpoints, low points in the area or important intersections.

Table 1 – Key Pressures

Name	Description	Pressure (psig)
No27	North Temple Pressure Station - Outlet	325.00
IN0340	Endpoint of FL 48 - Tooele Army Depot	321.58
1449877	Intersection FL 29 & FL 23 - Brigham City	317.87
IN0312	Endpoint of FL 63 - West Desert Pumps	316.83
1504308	Endpoint of FL 70 - Thiokol	287.93
1504378	Endpoint of FL 29 - NuCor	278.61
HPS0001	Endpoint of FL 74 - Preston	278.34
HWA0590	Endpoint of FL 36 - West Jordan	264.40
HWA1364	Endpoint of FL 62 - Alta	262.94

Figure 1 – Key Pressures

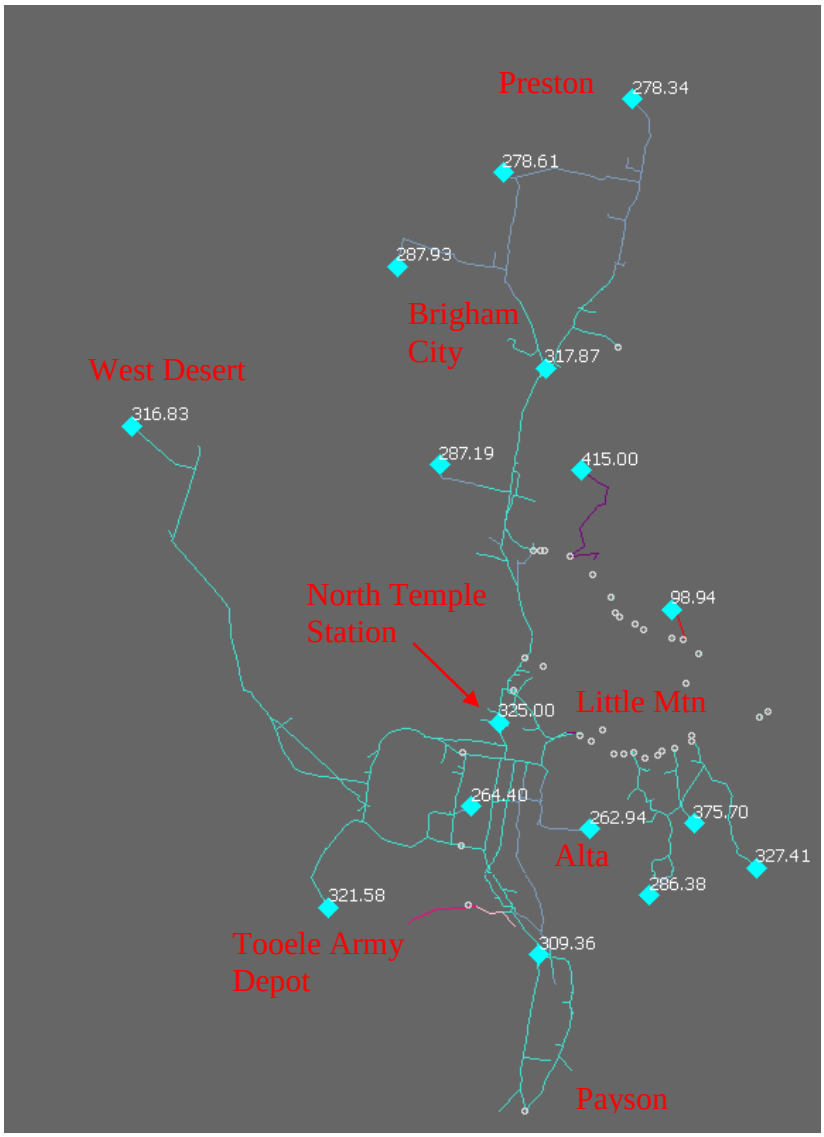
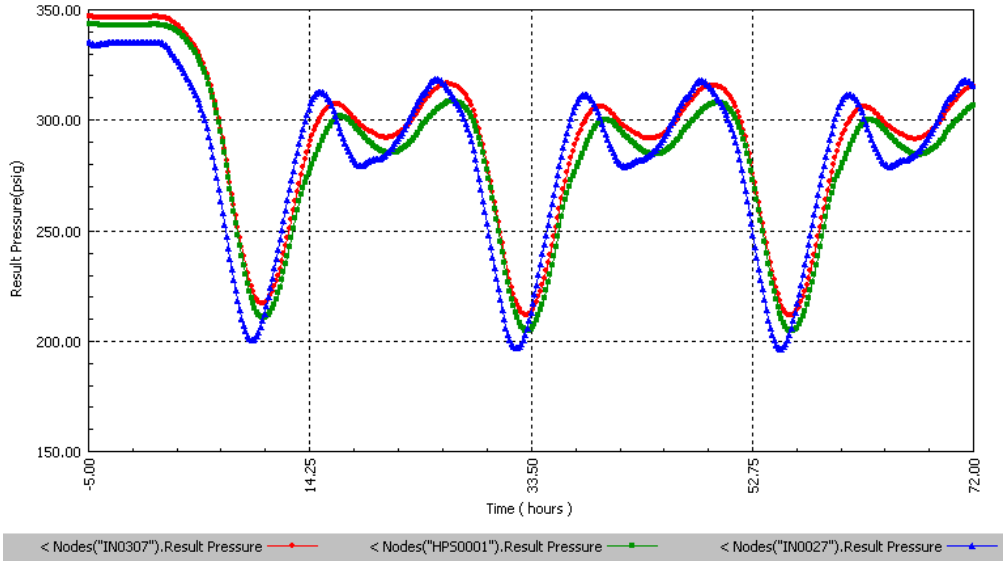


Figure 2 shows the pressure variations at several end points in the northern part of the Utah Northern Region using the USM GNA model. The lowest pressure is 196 psig at the end of FL 50 at Great Salt Lake Minerals in Ogden at 7:00am on the third day (55 hours after

the start of the simulation). This pressure is lower than the steady-state GNA model pressure at this point which is 287 psig. However, it is important to remember that the steady-state GNA model calculates an average daily pressure at each point. If the USM GNA model pressure is averaged over a 24 hour period at this point it is 283 psig. This is only a 1.4% difference from the pressure in the steady-state model.

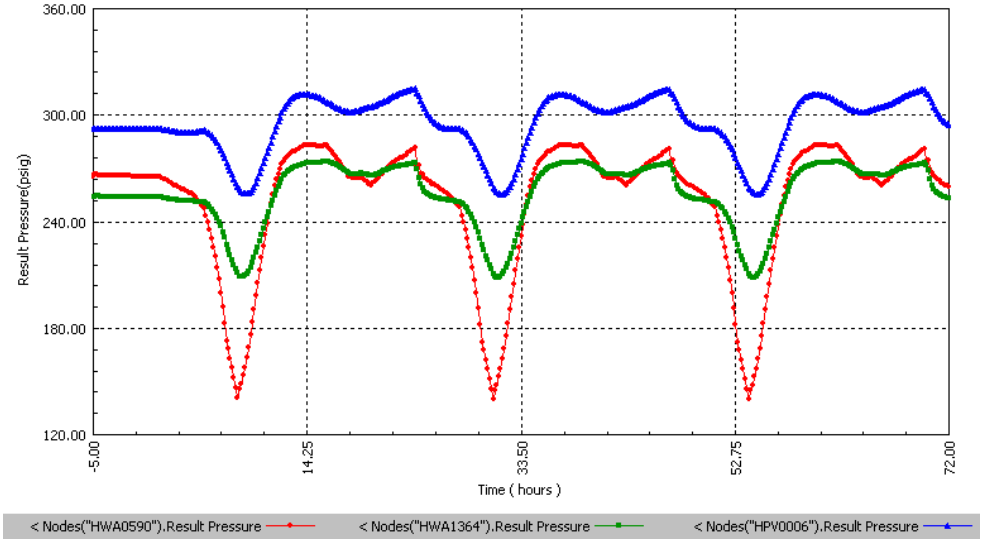
Figures 3 and 4 show the pressures at the end points in the central part of the Utah Northern Region and in Summit County. The lowest pressure in this area is 138 psig at the end of FL 36 in West Jordan at 8:00am. The average pressure at this point over a 24 hour period is 250 psig. The lowest pressure in the Summit County area is 165 psig in Charleston at the end of FL 56 at 8:30am. The average pressure over a 24 hour period is 279 psig.

Figure 2- Northern Utah Region Critical Point Pressures – Northern Points



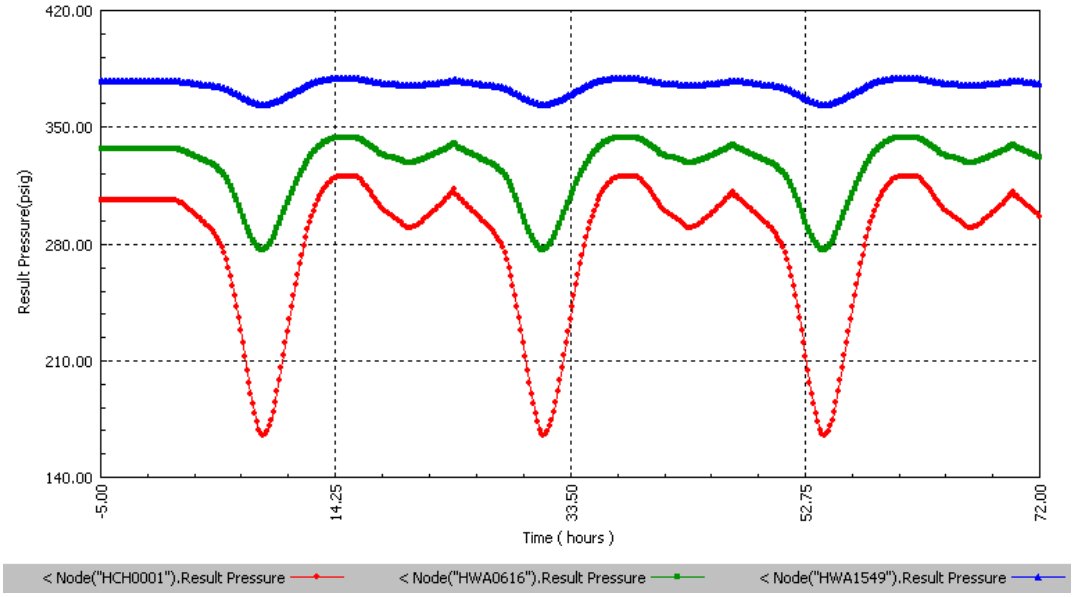
IN0307 = ATK HPS0001 = Preston, ID IN0027 = Ogden

Figure 3 – Northern Utah Region Area Critical Point Pressures – Central Points



HWA0590 = West Jordan HWA1364 = End of FL 62 HPV0006 = Provo

Figure 4 - Northern Utah Region Area Critical Point Pressures – Summit County Points



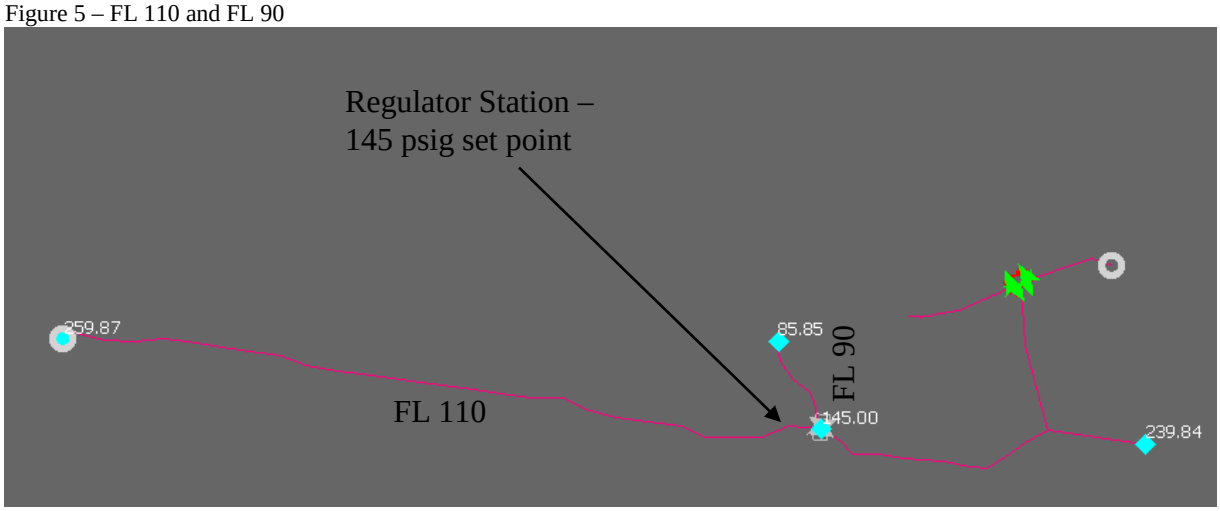
HCH0001 = Charleston HWA0616 = Kamas HWA1549 = End of FL 99

North Eastern Region

This area consists of Duchesne Country, Uintah County, Carbon County, and Emery County including Price and Vernal. The Vernal system is one of the systems that were previously owned by Utah Gas. This area is served from QPC by multiple taps through MAP 163.

The systems that make up the North Eastern Region operate at different pressure levels. The only system that does not have adequate pressure is FL 90 in Vernal. FL 90 is a 4-inch line that feeds VN0007, a major feed into Vernal. FL 90 is fed by FL 110 through a high-pressure regulator station. At the regulator station the pressure is cut to 145 psig. With this starting pressure, the low pressure at the endpoint is predicted to be 85.85 psig on a peak day. A pressure recording chart was placed in this area this past winter and low pressures were experienced. Research is ongoing to implement a resolution to this problem prior to the 2009-2010 heating season. The likely solution is a pressure upgrade to FL 90. Figure 5 shows the pressures on FL 107 and FL 30 on a peak day.

Figure 5 – FL 110 and FL 90



Eastern Region

This area consists of Moab, Monticello and Dutch John. The Eastern Region was previously owned by Utah Gas. This region is served from Northwest Pipeline by two stations in Moab, one station in Monticello, and one tap in Dutch John.

The pressures in this region are regulated to IHP pressure at the Gate Stations with Northwest Pipeline. Improvements are ongoing to ensure the Monticello IHP system has adequate pressures.

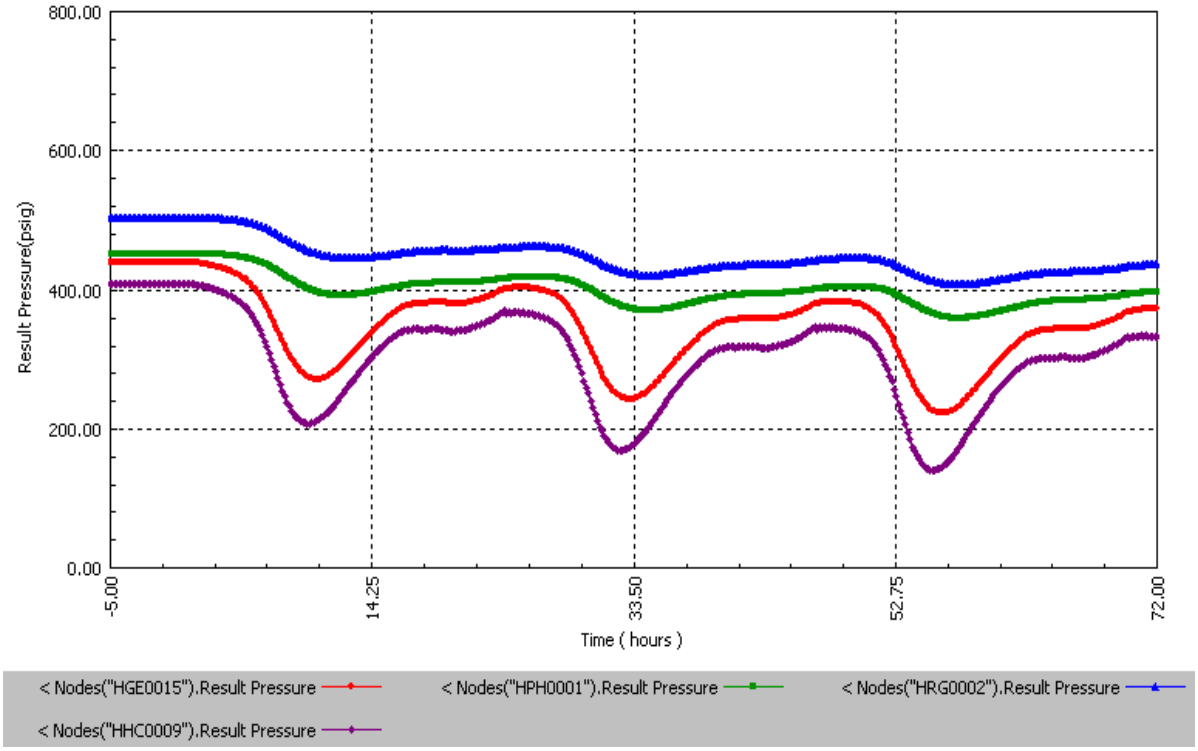
Southern Region

This region consists of areas in Southern Utah that are served by the Indianola/Wecco/Central system, including Richfield, Cedar City and St. George. These areas have gas delivered from QPC at Indianola station through MAP 166 and from KRGT at Central and Wecco stations.

The lowest point in the Southern Region is on a spur in Hurricane. Using the steady-state GNA model, the lowest pressure on a peak day is 262 psig. While this is still fairly high compared to the pressures in the Northern Region, it is important to note that this region operates at higher pressures than most of the QGC system. The pressures in this model are near 600-625 psig at the gate stations.

Using the USM GNA model, the lowest pressure in the Southern Region is 140 psig in Hurricane at 7:30am on the third day of a peak event. An important trend to note is that the pressures in the Southern Region do not rebound entirely after each 24 hour period. This means each day the low pressure gets lower than the previous day.

Figure 6 – Southern Region Critical Point Pressures



HGE0015 = St. George HPH0001 = Panguitch HRG0002 = Redmond HHC0009 = Hurricane

Southern Region (KRGT Taps)

This region consists of all of the towns served south of Payson Station that are not part of the Indianola/Wecco/Central system. This consists of towns in Juab County, Millard County, Beaver County, Iron County, and Washington County. These areas are all single feed systems served by KRGT.

The Southern Region (KRGT Taps) is made up of separate systems with individual taps from KRGT. All of the segments in this area have adequate pressures and do not require any improvement to meet the existing demand.

Wyoming

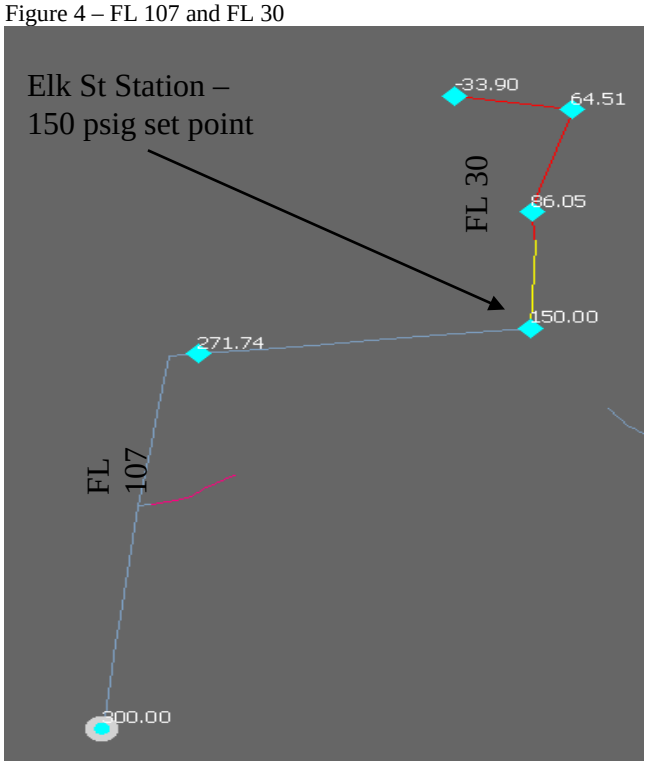
This area consists of Rock Springs, Evanston, Lyman, Kemmerer, Baggs, Granger, Wamsutter, LeBarge and Big Piney. These areas are served off of QPC through MAP 168, MAP 169, and MAP 177, from Colorado Interstate Gas (CIG) at Wamsutter and from Williams Field Services (WFS) at LeBarge and Big Piney.

The lowest pressure in this GNA model is shown to be at the end of Feeder Line 30 (FL30) in Rock Springs. This area is shown as out of pressure in the GNA model. FL 30 is fed by FL 107 and is cut to 150 psig at Elk Street station. This pressure cut is the reason for the low pressures. Figure 4 shows the pressures on FL 107 and FL 30 on a peak day.

Some of the smaller systems have lower pressures, however, these generally have lower pressures at the gate stations feeding them.

This model was recently verified with a pressure chart at the end of FL 30 in Reliance. Research is ongoing for resolutions to this issue. The proposed resolution is to increase the pressure output of the Elk Street station which will be implemented prior to the 2009-2010 heating season.

Figure 4 – FL 107 and FL 30



System Capacity Conclusions

The current assessment of the state of the QGC HP feeder line system is that the system is capable of meeting the current peak day demands with adequate supplies and pressures in the system. This system capacity assessment is based on the fact that the gate stations have adequate capacity, the supply contracts are adequate, and both the steady-state and USM GNA models show that system pressures do not drop below the design minimum of 125 psig. The system will continue to grow along with the demand and this analysis will be completed on an annual basis to ensure that the system has adequate capacity and supply to meet the peak day needs.

The two exceptions to this assessment are FL 30 near Rock Springs, WY and FL 90 in Vernal, UT. Both of these issues are caused by regulator stations that reduce the pressures into these feeder lines. Research is ongoing to determine if these regulators stations and downstream feeder lines can be operated at higher pressures. Higher inlet pressures to these lines would resolve the current issues. A resolution to both of these issues will be determined and implemented prior to the 2009/2010 heating season.

Some of the other issues that are being analyzed for future improvements are as follows:

- Due to gas supply availability issues at the QPC gate stations, additional future volume increases will potentially need to come from KRGT gate stations. As demand increases in areas that are only served by QPC (primarily Summit and Wasatch counties), the QGC contracts will need to be amended to supply more gas to those areas. Without increased availability from QPC the result of this will be less gas available from QPC to the Wasatch Front. In the short term, this reduction, as well as demand growth on the system, will need to be met with additional supplies at Hunter Park and Riverton stations. Upgrades are currently being designed for Hunter Park station to meet the additional supply requirements. The station will be upgraded to at least meet the required capacity of 152.1 mmcfd. The station will likely also be designed to a higher capacity to meet growth. Unfortunately, there are capacity limitations on the KRGT equipment. This will limit the capacity of the station to 155 mmcfd until upgrades are made to their facilities as well. These upgrades would be at the cost of QGC and will likely be required for 2011. This will be reviewed in the next modeling session. The improvements completed in 2008 to FL 4, FL 5, and FL 11 have already increased the takeaway capacity from Hunter Park station.

Additional options will need to be considered in order to meet the long term needs of system growth. Possible options include new stations from KRGT, Ruby Pipeline or QPC. Upgrades to existing stations with additional supply contracts may also be considered.

- The Southern Region does not rebound completely after each 24 hour cycle. After 55 hours of operation under peak conditions, the pressure will drop to near the 125 psig minimum required operating pressure. System improvement plans are being developed for this area. The only feasible improvement options require additional supply from KRGT near St. George. All of these options include construction of long distances of large HP pipe into St. George. KRGT is the only available supplier nearby and there are multiple routes being considered for the reinforcement. Preliminary analysis shows the need for a new 20-inch main to be installed in 2011. The exact timing of this improvement is being reviewed on an annual basis based on growth in the area. Engineering, environmental, permitting and right-of-way work is ongoing for this project.

Maps reflecting peak day pressures and flow rates for each of the areas are contained in Exhibits 4.1 through 4.6.

Questar Gas Reinforcement Projects

The following are the reinforcement projects that are planned for Questar Gas' system. These projects are based on the engineering analysis of the HP and IHP systems.

Utah

Questar Gas completed the following general reinforcement projects in 2008:

1. Feeder Line 105, West Haven, Utah: Significant residential and commercial growth in the West Haven area drove the need for this project. This project involved the installation of approximately 23,000 ft of 8-inch HP pipeline from 1200 South and 4300 West in Weber County to 4800 West and 4000 South in West Haven. This line was completed in late 2008.

The following projects are currently in the planning phase:

1. Hunter Park Station Upgrades: Minor changes are planned to Hunter Park Station in order to increase the capacity of the station. The upgrades will focus on replacing the control valve. The estimated cost for this project is $100,000. The first-year revenue requirement for this project is estimated to be $20,000.

2. Feeder Line 16, Heber, Utah: Questar Gas is currently in the design stages for approximately 18,500 linear feet (lf) of 8-inch HP pipeline in Heber, Utah. The project will run from approximately 500 North and Main Street to Lake Creek Road at about 400 East. Significant residential development on the east side of Heber City has been the driver for the project. Questar Gas has been reinforcing IHP mains in the area, but increased growth has made it necessary to extend HP service to the east side of Heber. Questar Gas has utilized GNA modeling to determine the best location for the new regulator station to serve both existing and future loads. Questar Gas is currently analyzing the needs of the area to determine when the project needs to be constructed. The estimated cost for this project is $3,108,000. The first-year revenue requirement for this project is estimated to be $500,000.

3. Providence, Utah Feeder Line: Significant growth in Providence, Utah and the surrounding communities is driving the need for high pressure reinforcement. The plan is to tap Feeder Line 23 in Nibley and run approximately 12,500 lf of 6-inch HP main along 3200 South. Questar Gas is currently analyzing the needs of the area to determine when the project needs to be constructed. The estimated cost for this project is $2,100,000. The first-year revenue requirement for this project is estimated to be $320,175.

4. Park City, Utah Feeder Line: Increasing demand in the past few years on the HP system in Park City is the driver for a potential feeder line reinforcement in the Park City area. Questar Gas is currently using GNA modeling to look at various options for increasing feeder line pressures in Park City. Some of the factors that are included in the planning and decision making process include cost and right-of-way (ROW) availability. Questar Gas is currently analyzing the needs of the area to determine when the project needs to be constructed. The estimated cost of the first phase of this project is

$1,900,000. Possible subsequent phases are estimated to cost $11,000,000 if needed. The first-year revenue requirement for this project is estimated to be $300,000.

5. FL100 Santaquin, Utah: Signficant residential development on the west side of Santaquin has been the driver for an extension west of Santaquin, Utah of approximately 20,000 lf of 8-inch HP pipeline. The project will run from approximately 100 North Hwy 114 to Summit Ridge Parkway at about 500 South. Questar Gas has been reinforcing IHP mains in the area, but increased growth makes it necessary to extend HP service to the west side of Santaquin. Currently, Questar Gas has suspended design of the HP extension due to minimal residential development in 2009. Design will resume as development increases. The estimated cost for this project is $3,300,000. The first-year revenue requirement for this project is estimated to be $500,000.

6. FL 99 Francis and east Summit County: Increasing demand on the HP system in Francis and east Summit County area is the driver for Feeder Line 99 reinforcement. Questar Gas is currently using GNA modeling to look at various options for increasing feeder line pressures in this area. Some of the factors that are included in the planning and decision making process include cost and right-of-way (ROW) availability. Questar Gas is currently analyzing the needs of the area to determine when the project needs to be constructed. The estimated cost for this project is $4,500,000. The first-year revenue requirement for this project is estimated to be $700,000.

7. FL 108 Washington County, Utah: Forecasts show that with the current level of growth in the Southern Region, the load will soon surpass the delivery capacity of the existing stations and the take-away capacity of the existing pipeline infrastructure. Using flow models loaded with population trends and forecasts, Questar Gas predicts that a new pipeline feeding the greater St. George area could be required as soon as 2011. To maximize efficiency and minimize costs, the line options would begin at Kern River (at a location yet to be determined in Washington County) and extend east or southeast to Questar Gas' existing high pressure piping network in and around St. George. Currently Questar Gas is reviewing options to reinforce the greater St. George area.

   The estimated cost for a total build-out for the St. George area ranges from $60 million to $120 million. In evaluating these options, Questar Gas is considering constructability, environmental impacts, landowner / land manager concerns, and expandability. In considering these options, Questar Gas is looking for expansion options that can be constructed over several phases to meet the growing demand for natural gas. The first-year revenue requirement for this project is estimated to range from $9,000,000 - $18,000,000.

Wyoming

Questar Gas currently does not have any reinforcement projects scheduled but continues to monitor its Wyoming service territory for future reinforcement needs. A system reinforcement project may be required for FL 30 if a pressure increase is not a feasible option.

Questar Gas Replacement Projects

Replacement work is required on a periodic basis to replace aging infrastructure. Unlike reinforcement projects that are customer and system driven, replacement projects are driven by system integrity and capacity needs. Questar Gas analyzes all replacement projects with GNA models to determine the appropriate size for replacement pipes. Accordingly, Questar Gas is often able to improve and reinforce its system when it replaces facilities.

Utah

Questar Gas completed the following general replacement projects in 2008:

1. Feeder Lines 4, 5, and 11, Salt Lake City, Utah: This project was a continuation of Questar Gas' multi-year plan to replace aging pipe within its system. The project involved the replacement of 86,000 lf of 8-inch, 16-inch and 20-inch HP pipe with 24-inch HP pipe. The project lay primarily on 3300 South in Salt Lake County between 2700 East and 9150 West.

Questar Gas is constructing the following replacement projects in 2009*:*

1. Feeder Line 19, Weber Canyon to Harrisville, Utah: This project is part of Questar Gas' replacement/reinforcement plan. It will involve the replacement of approximately 16,000 lf of 10-inch and 14-inch HP pipe with 12-inch and 20-inch HP pipe. The estimated cost for 2009 is $10,000,000. The first-year revenue requirement for this project is estimated to be $1,500,000.

   Questar Gas utilized GNA modeling to determine the appropriate size of replacement pipe to meet anticipated future loads. Alternatives using 14-inch, 16-inch, and 20-inch diameter pipelines were considered for the replacement of the existing 14-inch HP main. These alternatives were modeled with current and future loads and peak-day conditions.

   In both the current-load and future load scenarios, the 20-inch feeder line main provided higher pressures throughout the system (15-35 psig) compared to the 14-inch alternative. This included a 22 psig pressure increase in Preston, ID, a 19 psig increase at the end of FL 70 and a 14 psig increase at the end of FL 51 in the 2008 peak day model. The 20-inch main also provides for additional system line pack which will provide additional margin to meet peak transient loads in the system. Another consideration is the efficiency of adding incremental capacity in the future.

Using 20-inch main is also consistent with the existing 20-inch infrastructure from Hyrum Station. Using 20-inch pipe will therefore allow this to be the beginning phase of a major north/south trunk line. A major north/south trunk line would provide for increased flexibility between existing gate stations in the area and potential stations that may be built in the future.

Finally, the incremental cost of installing larger diameter pipe is small relative to the increased capacity.

Questar Gas is planning to construct the following replacement project in 2010:

1. Feeder Line 19, Weber Canyon to Harrisville, Utah: This project is part of Questar Gas' replacement/reinforcement plan and a continuation of the previous year's project. It will involve the replacement of approximately 19,000 lf of 14-inch HP pipe with 20-inch HP pipe. The estimated cost for 2010 is $10,000,000. The first-year revenue requirement for this project is estimated to be $1,500,000.

   This project was analyzed as part of the overall project for replacing FL 19. This analysis is described above.

Wyoming

1. Diamondville/Kemmerer Replacement: In 2008, Questar began a six year program to replace a majority of the gas distribution systems in Diamondville and Kemmerer, Wyoming. These systems, previously acquired from Utah Gas Company, are being replaced to ensure system integrity, compliance with Department of Transportation regulations, and consistency with Questar Gas design and construction standards. By the end of 2009, replacement in Diamondville will be substantially complete. Replacement work will begin in Kemmerer in 2010. The approximate budget for 2009 work is $725,000. It is estimated that approximately $850,000 per year will be spent in subsequent years until the replacement project is complete. The first year revenue requirement for this project is estimated to be $120,000.

Explanation of Revised Feeder Line Replacement Funding Levels

It should be noted that the funding level for feeder line replacement work presented in this year's plan ($10 million/year) is significantly reduced from the $45 million/year level presented in last year's submittal. As is indicated in Introduction and Background, global financial markets have undergone the most severe credit crisis since the 1930's starting in the the second half of 2008 and continuing to date in 2009. This crisis has impacted Questar's ability to fund feeder line replacement work at previously anticipated levels.

Under the present economic conditions, liquidity in the global credit markets has severely contracted, making certain financings either un-economic or completely unavailable. As a result, Questar's management has reduced budgets such that cash flow

from operations will cover the 2009 capital expenditure program.

Accordingly, Questar Corporation will reduce 2009 capital expenditures to $1.3 billion dollars – a reduction of approximately 50 percent from 2008 budgets. The 2009 capital budget for Questar Gas Company has been reduced to approximately $84 million from a level of approximately $136 million in 2008.

The feeder line replacement program continues to be an important on-going priority for Questar Gas Company. If the economic environment and credit markets improve, it is intended to fund the program at increased levels up to the $45 million per year budgets of 2007 and 2008.

Questar Gas System Expansion Projects

System expansion projects are driven by new customer growth. In past years, this growth has been largely residential. Several large residential developments have been constructed in outlying areas. These projects can typically only be served by extending HP pipelines to the area. Recently, there have been several large residential projects constructed around the Jordanelle Reservoir in Summit and Wasatch Counties. Questar Gas has worked with the developers of these projects to extend natural gas service to their communities. In general, Questar Gas analyzes the customers' needs and determines the minimum-sized system (Minimum System) that is required to serve the development. The developers of the projects are required to pay the actual costs of the minimum system.

Questar Gas also works with large commercial and industrial customers to extend natural gas service to them. Questar Gas uses the same minimum system concept to pass along actual costs to the customers that are requesting service.

Questar Gas sizes the pipe required to serve these expansion projects to meet both existing customer needs and to serve additional firm sales customers in the future. Questar Gas utilizes GNA modeling and information on growth rates to determine the appropriate size of pipe to install.

Utah

Questar Gas completed construction of the following system expansion projects in 2008*:*

1. Feeder Line 106, Box Elder County, Utah: This project consisted of the installation of approximately 31,000 lf of 12-inch HP pipe extending from Questar Gas' Feeder Line 29 in Box Elder County to the new site for Proctor and Gamble on approximately 5315 North Wakegan Road in Bear River primarily to serve Proctor and Gamble.

2. Feeder Line 99, SR-248, Summit County, Utah: This project consisted of the installation of approximately 10,600 lf of 8-inch HP pipe extending from Questar Gas' Feeder Line 99 near Browns Canyon to the new IHC hospital

site located at the northwest intersection of SR-248 and SR-40 in Summit County.

Questar Gas is planning to construct the following system expansion project in 2009:

1. Feeder Line 99, SR-248, Summit County, Utah: This project is the continuation of a project that was started in the fall of 2007 to provide natural gas service to the Victory Ranch subdivision near Francis, Utah. The project consists of the installation of approximately 21,200 lf of 12-inch HP pipe, extending from the existing termination point of Feeder Line 99 near the Tuhaye subdivision to the Victory Ranch Subdivision and is estimated to cost about $4.3 million. Victory Ranch will pay a contribution for their actual minimum system costs. Victory Ranch will pay a contribution of $2,153,000. This project will be started in June 2009. The first-year revenue requirement for this project is estimated to be $650,000.

Wyoming

Questar Gas currently does not have any system expansion projects scheduled in the Wyoming service territory.

Questar Gas Relocation Projects

In addition to the types of projects listed above, Questar Gas is often required or requested to relocate its existing facilities to allow for future residential and commercial development or state and local road projects. While these projects occur routinely on an annual basis and are too numerous to list here, Questar Gas' policy on relocating facilities should be discussed.

If Questar Gas is asked to relocate facilities in areas in which it owns private rights-of-way (ROW), then the requestor is required to pay 100% of actual relocation costs. If the Questar Gas facilities are not in private ROW, but instead located on government-owned property, then the terms of the ROW agreement apply for the reimbursement of the relocation. Typically, if the requestor is a city or county entity, Questar is required to relocate the pipe at its cost. If the requestor is the Utah Department of Transportation (UDOT), state statute requires that 50% of the cost of the relocation is borne by UDOT. If UTA requests a relocation, Questar Gas is generally entitled to 100% of the costs of relocation under state statute.

UDOT is planning several reconstruction projects that impact Questar Gas facilities over the next several years. Those projects include:

- Pioneer Crossing, Utah County
- SR 92, Alpine Highway, Utah County
- I-15 CORE, Utah County
- Layton Interchange, Davis County

UTA is also in the process of planning or constructing the following projects:

- Airport Light Rail, Salt Lake County
- West Valley Light Rail
- Mid Jordan Light Rail
- Draper Light Rail
- Front Runner South Commuter Rail

In addition to the relocation projects discussed above, there are a few potential projects that will affect Questar Gas facilities in the near future. These include Kern River's planned project to increase the maximum allowable operating pressure (MAOP) of their pipeline and UDOT's proposal to build the Mountain View Corridor road project.

Kern River is in the process of increasing the MAOP on their lines from 1,200 psig to 1,333 psig. The contract for this project has been signed and Questar Gas will have to modify the tap facilities along the Kern River Pipeline during 2009. In most instances this can be achieved by pressure testing the facility. In other cases, existing equipment will have to be replaced. Questar Gas estimates that approximately 10 tap stations will be impacted. Kern River will reimburse Questar Gas for the cost of facilities.

The Mountain View Corridor is a proposed UDOT highway project running from 2100 South and 5600 West in Salt Lake City to Utah County. The Draft Environmental Impact Statement (DEIS) study has been completed and the preferred corridor outlined in the DEIS is the 5600 West corridor. Questar Gas owns several pipelines in the corridor that could be affected by the new highway; in particular, Feeder Lines 10 and 104. The scope of all potential relocations is not known at this time. However, since Questar Gas' feeder lines are located within privately held ROW, UDOT would be responsible for 100% of the costs to relocate the feeder lines.

Pipeline Safety and Environmental Compliance Costs

The federal government continues to take an aggressive stance toward increasing pipeline safety for natural gas pipelines. The United States Congress and the U.S. Department of Transportation both continue to have a broad national agenda for increasing natural gas pipeline safety. The enactment of the "Pipeline Safety Improvement Act of 2002" and the "Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006," resulted in rule changes and other related regulatory and non-regulatory initiatives. The full text of these recent pipeline safety laws can be found online at:

http://www.phmsa.dot.gov/pipeline/library (see "Pipeline Safety Act of 2002")
http://www.phmsa.dot.gov/pipeline/library (see "Pipes Act")

To comply with the federal requirements, operating and capital expenditures for Questar Gas have increased. The impacts of some of the more significant recent federal actions are further discussed below. It is likely that further increases in operating and capital expense will result from aspects of this aggressive federal agenda on pipeline safety, particularly as new distribution integrity management regulations are implemented, as

discussed below.

Transmission Integrity Management

The most significant changes with respect to current operating costs are the rules established for transmission integrity management at 49 CFR Part 192, Subpart O – Pipeline Integrity Management. Title 49 CFR §§ 192.901 through 192.951 provide an overview of the scope of the requirements applicable to transmission pipelines located in highly populated areas. As required under these regulations and the "Pipeline Safety Improvement Act of 2002," Questar Gas must perform extensive risk analyses, data integration, integrity assessments, remedial repair, and preventive and mitigative measures for transmission pipelines located in highly populated areas defined under the regulations as "high consequence areas" (HCAs).

To date, Questar Gas has completed baseline assessments on over 50% of its mileage in HCAs as required by federal law. Fortunately, the Company is finding very few "immediate repairs" as defined by the regulations.

Many of the incremental operating costs for integrity management activities are being captured and addressed through a deferred accounting mechanism approved by the Utah Commission in Docket No. 07-057-13.

Distribution Integrity Management

The "Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006" mandates new regulations for distribution integrity management that are currently under development by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA.) A Notice of Proposed Rulemaking for the new regulations was issued by the agency on June 25, 2008. A final rule is still pending and is expected to be issued in the fall of 2009. Once the final rule is issued, distribution companies will have 18 months to implement their distribution integrity management plans.

The Notice of Proposed Rulemaking for a distribution integrity management program includes the following elements:

- Knowledge. An operator must demonstrate an understanding of the gas distribution system.
- Identify threats. The operator must consider the following categories of threats to each gas distribution pipeline: corrosion, natural forces, excavation damage, other outside force damage, material or weld failure, equipment malfunction, inappropriate operation, and any other concerns that could threaten the integrity of the pipeline.
- Evaluate and prioritize risk. An operator must evaluate the risks associated with its distribution pipeline system.
- Identify and implement measures to address risks. Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline system.
- Measure performance, monitor results and evaluate effectiveness.

- Periodic evaluation and improvement. An operator must continually re-evaluate threats and risks on its entire system and consider the relevance of threats in one location to other areas.
- Report results. Report the following four measures annually to PHMSA:

    - Number of hazardous leaks either eliminated or repaired;
    - Number of excavation damages;
    - Number of excavation tickets (one-call); and
    - Number of excess flow valves (EFVs) installed.

The Notice of Proposed Rule Making mandates the use of excess flow valves[1] (EFVs) to protect single-family residences served by new or replaced service lines. Questar Gas has previously implemented voluntary installation of EFVs on new ½" and ¾" diameter service lines to single family residences. EFVs have generally proven reliable in this application, are readily available, and can be installed with minimal incremental costs. EFVs are also being voluntarily installed on replacement ½" and ¾" service lines where customer usage requirements are verified as compatible with EFV capacities. The use of EFVs will likely increase maintenance expenses. EFVs are not without operating pitfalls, including false-closure due to expanded customer loads (after original service), excavators damaging and leaving severed lines where the valve has tripped-close (these would normally be detected with a "no gas" service call, or possibly by a "gas leak" call due to the bypassing reset feature), and limiting the rate at which the Company can back-feed supplemental gas through a service line to help maintain system pressure (e.g. in the event of a third-party distribution line tear-out.)

The costs associated with new distribution integrity management rules have not yet been assessed or forecasted. However, it is reasonable to assume that the regulations will necessitate incremental staffing to administer a program, as well as some new costs for data/information management and compliance activities. Ultimately, the analysis and activities under the distribution integrity program will likely result in targeted activities to mitigate risks, including replacement programs when needed.

Excavation Damage Prevention

Third-party excavation damage to natural gas pipelines remains the largest single threat to pipeline safety. The 2002 and 2006 federal pipeline safety acts both included provisions pertaining to excavation damage prevention. The recent nationwide roll-out of the new "811" toll-free number for excavation one-call is a visible example. Most recently, the "Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006" included provisions for states to encourage and enforce more robust state damage prevention programs. In the 2008 Utah legislative session, Questar Gas supported passage of the "Damage to Underground Utility Facilities" act (codified at Utah Code Ann § 54-8A-1 *et seq*. (1993). This act has provisions to increase education and awareness of the need to have underground facilities located before excavation begins. It also increases the maximum fines for violators

[1] An excess flow valve is a safety device installed in a natural gas service line, normally near the tap to the main, to limit the flow of gas in the event a service line is damaged.

and transfers jurisdiction for enforcement to the Utah Attorney General's office.

Questar Gas does not currently anticipate that the enhanced damage prevention program in Utah will result in any significant incremental operating or capital expense. The enhanced program has the potential for reducing costs if fewer excavation damages/tear-outs occur. Questar Gas will continue to monitor trends with excavation damages as the enhanced state damage prevention program is implemented.

Questar Gas also supported the advancement of a rulemaking in the State of Wyoming under which owners of underground utility facilities would report detailed information on incidents in that State. The accumulation of such information is expected to assist the Wyoming Public Service Commission and other public bodies in determining whether changes should be made to enhance the Wyoming's Damage to Underground Public Utility Facilities statute codified at Wyoming Stat. Ann. (section symbol) 37-12-301 *et seq.*

Corrosion Control Regulation

PHMSA pipeline safety statistics continue to point to external and internal corrosion as significant threats to pipeline integrity. Consequently, PHMSA continues to pursue its regulatory agenda regarding the corrosion threat. New federal standards on the design and construction of transmission pipelines were promulgated in 2007 to further reduce the risk of internal corrosion in gas transmission pipelines, *see 49 CFR § 192.476.* These new requirements are accounted for in conjunction with the design and construction of new or modified transmission pipelines, as applicable. In general, there will be some incremental capital expenses for liquids collection/removal, gas quality and/or corrosion monitoring devices associated with future feeder line projects. Questar Gas does not have any notable history of internal corrosion problems, but these requirements will likely drive some incremental increases in future capital costs to comply with the new regulation. Other changes (e.g. change in acceptance criteria for adequate cathodic protection) to the corrosion control standards continue to be evaluated and may significantly increase costs if enacted.

Increased Public Education

The "Pipeline Safety Improvement Act of 2002" included requirements for the modification and enhancement of existing public education programs as conducted by natural gas pipeline operators. PHMSA adopted new regulations in 2005 to implement these legislative requirements, s*ee 49 CFR § 192.616.* Questar Gas has already reviewed and modified its written public education program and commenced related enhancements. These costs are currently reflected in Company operating expenses. Further requirements regarding public education programs (including future revisions to the underlying standard, American Petroleum Institute Recommended Practice 1162, "Public Awareness Programs for Pipeline Operators") will continue to be monitored. This is not currently seen as a major new cost driver, but will continue to be monitored as additional requirements are proposed or adopted.

Encroachment Issues

The "Pipeline Safety Improvement Act of 2002" included a requirement to study land

use practices, zoning, and resources affected by pipeline ROW and their maintenance. To meet this requirement, PHMSA contracted with the Transportation Research Board (TRB) to conduct the study, culminating in TRB Special Report 281, "Transmission Pipelines and Land Use, A Risk-Informed Approach" (2004.)[2] As a result of the study, PHMSA then formed the Pipelines and Informed Planning Alliance (PIPA) to develop land-use guidance for use by various stakeholders. PHMSA hosted the first meeting of PIPA in January 2008, including the creation of three task force teams to address protecting communities, protecting pipelines, and communicating risks/benefits. PHMSA is working through PIPA to engage property developers, home builders, pipeline operators, public interests and government at all levels to assist with development of best practices for property development adjacent to transmission pipelines.

Questar Gas will continue to monitor developments from PIPA and PHMSA regarding land-use planning and encroachment issues. Presently, there have been no new cost drivers identified with this new initiative, but it is discussed here as the potential exists for impacts as this effort moves forward. For example, new inspection methods, inspection frequencies or ROW buffers (note that these are hypothetical examples) could have adverse cost impacts in the future.

Land use development is often occurs in the vicinity of Questar Gas ROWs. Unauthorized encroachments on Questar Gas ROWs continue to be monitored for ROW violations, as they create the potential for third-party damage to the pipelines, and can impair the ability of the company to conduct future activities including required inspections, maintenance, repairs and replacements. Questar Gas has established policies on raw encroachments and pipeline relocations to assist with managing development and encroachment-related concerns. Questar Gas agrees with the underlying principle involved with the PIPA effort that more can be done. Once the PIPA effort has been completed, it may be advisable to look at the results and seek consensus in Utah on how further changes could be made to state/local practices.

Control-Room Practices

PHMSA was mandated under the "Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006" to issue regulations by June 1, 2008, on pipeline control room management. A Notice of Proposed Rule Making was issued belatedly on September 12, 2008. The proposed rule requires operators to amend their existing written operations and maintenance procedures, operator qualifications (OQ) programs, and emergency plans to assure controllers and control room management practices and procedures used maintain pipeline safety and integrity. The tentative date for a final rule is summer of 2009. Currently, Questar Gas does not anticipate any significant impact from the proposed regulations unless the scope is expanded to activities beyond traditional SCADA[3]-type control rooms. Questar Gas will continue to monitor rulemaking developments.

[2] Referenced document is available on-line at http://onlinepubs.trb.org/onlinepubs/sr/sr281.pdf.

[3] SCADA is an acronym referring to supervisory, control and data acquisition systems.

Pipeline Security

Protection of critical infrastructure has been a matter of national priority in the aftermath of the September 11, 2001, terrorist attacks, and continuing intelligence reports of terrorist interest in striking the U.S. homeland. The natural gas industry developed voluntary guidelines on pipeline security in 2002, and the federal government published security guidelines in a September 5, 2002, "Pipeline Security Information Circular." Natural gas pipeline operators, including Questar Gas, were previously required to submit written certification to the U.S. Department of Transportation that they have reviewed the guidance and adopted a corporate security plan. Questar Gas continues to maintain a confidential pipeline security plan that guides its infrastructure security program.

To date, the federal government has pursued a largely voluntary partnership model for infrastructure security. A tremendous amount of effort has gone into the partnership, including the creation of the National Infrastructure Protection Plan (NIPP) and 17 Sector-Specific Plans (SSPs), each led by a governing Sector-Specific Agency (SSA.) Natural gas pipeline systems are covered within the scope of three of the sectors – Energy, Transportation and Chemicals. Sector Coordinating Councils (SCCs) and Government Coordinating Councils (GCCs) have been established to coordinate the voluntary efforts and report on progress made under the NIPP partnership model. Suffice it to say that there is a full array of federal initiatives underway regarding infrastructure security, involving numerous government partners including the Department of Homeland Security (DHS), Department of Energy (DOE), Transportation Security Administration (TSA), Department of Transportation (DOT), and Federal Energy Regulatory Commission (FERC).

Natural gas pipeline operators are thus covered within the scope of multiple SSPs and must coordinate with more than one SSA, as well as other federal and state (e.g Utah Department of Public Safety, Division of Homeland Security) agencies involved with security. To date, the federal government has utilized the SCC/GCC model to coordinate the non-regulatory agenda for natural gas pipeline security. The need for coordination between the multiple agencies remains great, and the challenge exists for the federal government to try and rationalize this more complex (multiple agency) oversight structure – i.e. take coordinated rather than independent agency actions affecting pipeline security and the natural gas industry. In any event, Questar Gas is actively participating in the American Gas Association (AGA) security committee. Participation through the industry association gives Questar Gas the needed insights and assistance in dealing with the vast array of federal security initiatives. AGA also facilitates participation in monthly non-classified threat briefings from DHS. Questar Gas is also an active participant in the Homeland Security Information Network (HISN) established by DHS for the oil and natural gas sector to facilitate information sharing with the private sector.

The State of Utah also has an active program for security and energy concerns. Questar Gas continues to support these very important state initiatives, including the 2006 updates made to the "Utah Energy Shortage Contingency Plan." The Division of Public Utilities is assigned as the lead agency for electricity and natural gas energy emergencies under this plan. Obviously, such emergencies could result from either natural or intentional (criminal or terrorist) acts.

Of particular note for purposes of the IRP is the regulatory agenda on pipeline security now being contemplated at the national level. Congress has already mandated regulations for the U.S. chemical industry, something that DHS has interpreted as having some application to the natural gas pipeline industry – notably, LNG (liquefied natural gas), propane-air, and natural gas storage systems. Presently, DHS has opted to leave most gas transportation pipelines and pipeline facilities out of the chemical regulations, absent large quantities of stored chemicals as identified in the regulations.[4] None of this has yet been determined to directly apply to the quantities of chemicals stored or transported (including natural gas) by Questar Gas. Questar Gas will continue to monitor these regulatory proceedings for further developments.

The TSA is also contemplating new regulations for the natural gas pipeline industry, including gas distribution operators, as required under the "Implementing Recommendations of the 9/11 Commission Act of 2007" signed into law on August 3, 2007. Under the NIPP, TSA has been assigned as the SSA over the Transportation Sector, inclusive of natural gas pipelines. The recent act requires TSA to visit the critical facilities of the top 100 pipeline operators (encompasses both hazardous liquid and natural gas transmission and distribution operators), and to determine if new security regulations are needed. New federal security regulations, if deemed necessary, would be promulgated after consultation between TSA and PHMSA. In recent discussions with the industry, TSA has been giving clear indications of its intent to proceed forward with new regulations in the future. Obviously, new federal security regulations have the potential to be a new cost-driver for Questar Gas, depending on their scope, nature and complexity. Questar Gas will continue to monitor TSA activities and related regulatory developments.

Global climate change/greenhouse gas

Since natural gas is an abundant and economical energy source, it will likely play an important role in future policies that address climate change and the environment. Questar Gas believes that it is important to reduce overall emissions, including greenhouse gases (GHG), in a way that does not significantly increase prices for customers or costs for the Company. The Company is working with industry trade organizations and state regulators to help shape a future energy policy that will encourage energy conservation, energy efficiency and natural gas development. To encourage continued conservation and wise use of gas, Questar Gas now offers seven ThermWise programs that provide customer education, while supporting tight building standards and improved appliance efficiency.

Questar Gas' strategy to address GHG emissions is based on a long-standing commitment and reputation for excellence in environmental stewardship. The strategy is based on a commitment to:

- Be proactive in protecting the environment. This strategy extends past climate change and GHG to other environmental considerations.
- Distribute a clean, efficient fuel to residential, commercial and industrial

[4] Refer to 6 CFR Part 27 for additional information on Chemical Facility Anti-Terrorism Standards.

customers. Questar Gas is prepared to meet future demand for clean fuel, while maintaining the Company's commitment to environmental integrity.

- Maintain and manage its GHG emissions footprint. Questar Corporation compiled its first corporate-wide GHG emissions inventory for calendar year 2005, based on internationally recognized protocols. Questar Gas recently completed its 2007 GHG inventory and will continue to update the GHG inventory as an integral part of the climate change policy and plan.
- Adopt fugitive emissions initiatives where technologically feasible and commercially reasonable. Questar Gas participates in EPA Natural Gas STAR to identify fugitive methane emissions and to employ best practices for reducing fugitive emissions, when feasible.
- Promote ThermWise energy efficiency and conservation programs. In 2006 Questar Gas embarked upon an innovative pilot program in Utah. The Conservation Enabling Tariff/DSM Pilot Program was approved for three years. The CET enables the Company to promote energy conservation without a financial penalty to the Company due to reduced energy use. Under this program, Questar Gas provides customer education, as well as rebates on energy-efficient appliances and homes, low income weatherization and residential energy audits.
- Promote use of natural gas vehicles (NGVs). Since the 1990's, Questar Gas, implemented the second largest compressed natural gas (CNG) fueling infrastructure for NGVs in the United States. In 2009, recently announced initiatives, including upgrading several existing CNG stations, adding at least two CNG refueling stations, and opening State-owned CNG stations for public use, will increase public access to CNG by nearly 50% and support travel on the I-15 corridor. NGV emissions related to air quality are considerably lower than diesel or gasoline-powered engines; CO_2 emissions are 20-30% lower than a comparable gasoline powered vehicle.
- Work with industry trade organizations and regulators to help shape future GHG policies and programs. Questar Gas has participated with the American Gas Association (AGA), the Utah Blue Ribbon Advisory Council on Climate Change (BRAC) and other groups to help shape a future energy policy that encourages energy conservation and use of natural gas to promote energy efficiency.
- Encourage and support employee innovations in energy conservation and energy efficiency. Questar Gas employees participate on a corporate team to promote environmental sustainability in the workplace and to coordinate with the Company Volunteer Program to conduct "green" outreach activities that benefit the community-at-large.

Hazardous materials recognition, management and disposal in the field

Nearly all real estate development projects, whether commercial, residential or industrial, in Utah request natural gas service. Increasingly, these new developments are located on "impaired" lands (former Superfund sites, leaking underground storage tank sites, EPA "brownfields" and/or state voluntary clean-up sites) that have undergone remedial measures to render them safe for development. The regulatory agencies responsible for ensuring site remediation also may have required institutional controls regarding future development of the site, including, but not limited to, controls regarding excavation, storage

and disposal of soils.

When Questar Gas is asked to install gas service at a known impaired site, Company environmental personnel meet with the developer, regulatory agency and other site-knowledgeable individuals to determine what precautionary measures are required. If contaminant levels are unknown, Questar Gas "pot holes" the proposed route and samples prior to excavation to determine the extent and levels of contamination. If contaminant levels are above regulatory limits, specially trained crews may be required to work on the project and excavation debris must be properly disposed at a hazardous waste disposal site or regulated industrial waste landfill.

Another related situation, whether installing new pipe, conducting maintenance operations, or replacing existing pipe occurs when excavation unexpectedly unearths contaminated soils. In this case, the crew is shut down until regulatory agencies are contacted and environmental samples are collected and analyzed to ensure use of appropriate personal protective measures and proper disposal methods. In all of the above situations, deployment of specially trained crews, analytical sampling, and disposal at a hazardous waste site all result in increased costs of conducting business.

Questar Gas is in the process of upgrading capacity on parts of the system which can involve removing the original pipe and replacing it with a larger diameter pipeline. It is sometimes necessary to remove/install pipe through areas with known and/or unknown contamination. For the reasons stated above, excavation activities sometimes result in hazardous materials that must be properly disposed and increased costs are incurred when disposal at hazardous waste landfills is necessary.