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Division of Public Utilities

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ACTION REQUEST RESPONSE

To: Public Service Commission

From: Division of Public Utilities
Chris Parker, Director
Artie Powell, Manager, Energy Section
Doug Wheelwright, Technical Consultant
Carolyn Roll, Technical Consultant

Date: August 31, 2017

Subject: Action Request Docket No. 17-057-12, Dominion Energy Utah 2017-18 Integrated Resource Plan (IRP) Report, Division's Recommendation - Acknowledgement.

RECOMMENDATION (Acknowledgement)

The Division of Public Utilities (DPU or Division) recommends to the Public Service Commission of Utah (PSC or Commission) that the Integrated Resource Plan (IRP) plan filed by Dominion Energy Utah (DEU, Company or QGC)[1] be 'acknowledged' for reasons discussed in the IRP Process Comments section. 'Acknowledgement' of the Plan means the PSC deems the planning process and the Plan itself reasonable at the time the Plan is presented. "Acknowledgement of an acceptable Plan will not guarantee favorable ratemaking treatment of future resource acquisitions."[2]

On June 14, 2017, the Company filed its IRP for the plan year June 1, 2017 to May 31, 2018. On June 20, 2017 the Commission issued a notice of scheduling conference to be held on June 27,

[1] Throughout this memo when referring to an historical docket of event Dominion Energy Utah will be referred to as QGC.
[2] Final Standards and Guidelines for Integrated Resource Planning for Mountain Fuel Supply Docket No. 91-057-09.

2017. The scheduling order was issued on June 28, 2017, which called for all parties to submit their comments to the Commission by August 31, 2017. This memorandum is in response to the Commission's Scheduling Order.

HISTORY

Since the early 1990s, Dominion Energy Utah, formerly known as Questar Gas Company (QGC) and Mountain Fuel Supply Company, has been filing Integrated Resource Plans with the PSC.

The purpose of the IRP filing is to provide regulators with an update of the "process in which known resources are evaluated on a uniform basis, such that customers are provided quality natural gas services at the lowest cost to DEU and its customers consistent with safe and reliable service."[3] For planning purposes, the time period of this process had been from May of the current year through April of the following year. QGC recommended that integrated resource planning activities reflect a planning year June 1st through May 31st, which the PSC accepted in its order issued March 31, 2009.[4] The plan reviews the demand forecasts, gas supply resources, system delivery and storage capabilities, as well as any constraints that are foreseen within the next several years.

In order to make these projections, which require a multitude of interrelated variables and processes, DEU utilizes a computer model called SENDOUT, which has been designed specifically for local natural gas distribution systems. This computer model is marketed and maintained by Ventyx, which is owned by ABB, headquartered in Zurich, Switzerland. QGC used version 14.3 in the preparation of the IRP for the 2017-2018 year.[5]

Originally, QGC's IRP filing was on a biennial schedule with an annual update in the intervening years.[6] In December 1997, Mountain Fuel Supply Co. (QGC) submitted, to the PSC, a petition to modify the Final Standards and Guidelines for Integrated Resource Planning.

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[3] Proposed IRP Guidelines for Questar Gas Company, Docket No. 97-057-06, p. 1.
[4] In the Matter of Revision of Questar Gas Company's Integrated Resource Planning Standards and Guidelines, Report and Order, Public Service Commission of Utah , Docket No. 08-057-02, Issued March 31, 2009, pp.4-6.
[5] Questar Gas Company Integrated Resource Plan (For Plan Year: June 1, 2017 to May 31, 2018) p. 10-1.
[6] Docket 95-057-04, p. 1.

Subsequent to that filing, QGC met with the staffs of the Office of Consumer Services (OCS) and the DPU and developed a new set of proposed guidelines. Under these new guidelines, QGC is to prepare and file annually a new IRP. In addition, QGC is required to prepare and file with the PSC, DPU and OCS confidential quarterly reports that update the differences between actual results and those projected in the IRP. Dominion Energy's final IRP report also considers comments from regulators and other parties obtained during meetings held with regulators to discuss assumptions and events that are taking place, or expected to take place, regarding natural gas markets, demand forecasts and system capabilities or constraints.

The PSC considered new IRP guidelines and the provisions of the Energy Independence and Security Act of 2007 (EISA) as they apply to utilities. On December 14, 2007, the PSC issued its Report and Order on Questar Gas Company's integrated resource plan for the plan year extending from May 1, 2007 to April 30, 2008.[7] The PSC required QGC to "continue with its current IRP approach and time lines," requested the inclusion of some additional information, and also requested that specific issues be addressed in the 2008 IRP. Those issues were addressed in QGC's 2008 IRP.[8] On April 3, 2008, the PSC issued draft standards and guidelines governing IRPs for QGC with comments by interested parties due by May 30, 2008.[9] Comments were submitted by interested parties including the DPU and discussion meetings were held. On March 31, 2009, the PSC issued its Report and Order on Standards and Guidelines for Questar Gas Company requiring QGC to file its 2009 IRP in accordance with the December 14, 2007, Report and Order.[10] QGC was ordered to prepare and file future IRPs effective June 1, 2009, in compliance with new IRP standards and guidelines attached to the Order. Consequently, QGC filed its 2009-2010 IRP during May of 2009 in conformity with the December 14, 2007 Order.

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[7] In the Matter of the Filing of Questar Gas Company's Integrated Resource Plan for Plan Year: May 1, 2007 to April 30, 2008, Report and Order, Public Service Commission of Utah, Docket No. 07-057-01, Issued: December 14, 2007.

[8] Questar Gas Company Integrated Resource Plan (For Plan Year: May 1, 2008 to April 30, 2009), Submitted: May 1, 2008.

[9] In the Matter of the Revision of Questar Gas Company's Integrated Resource Planning Standards and Guidelines, Request for Comments on Draft Standards and Guidelines, Docket No. 08-057-02, Issued: April 3, 2008.

[10] In the Matter of the Revision of Questar Gas Company's Integrated Resource Planning Standards and Guidelines, Report and Order on Standards and Guidelines for Questar Gas Company, Docket No. 08-057-02, March 31, 2009. It is assumed that the order referenced on page 20 as the "December 17, 2007, Report and Order" is in fact the "December 14, 2007, Report and Order."

On May 6, 2009 the PSC issued an action request to the DPU requesting comments on the adequacy of the 2009 IRP, since the PSC acknowledged that there were "many changes and enhancements to the information provided" by QGC in the 2009 IRP. The PSC also asked for comments on changes, if any that would be necessary for the 2009 IRP to meet the requirements of the 2009 IRP Standards as if they had been in effect.[11] Subsequently, the PSC issued an order broadening the action request by inviting all interested parties to comment on the same matters.[12]

In a Clarification Order[13] QGC was commended for its commitment to the IRP process and timely IRP filings. The PSC recognized that QGC's 2008 and 2009 IRP filings contents were improved as required by the PSC in its December 14, 2007 order.[14] The PSC also made a number of findings clarifying the 2009 IRP Standards. For some issues, the comments from parties were so dissimilar that the PSC directed QGC to meet with interested parties in attempt to reach consensus on outstanding issues. Details of these meetings held prior to the filing of the 2010-2011 IRP were included in Section 2 of that filing. Included in the 2010-11 IRP are descriptions of the clarification meetings that were held on June 2 and July 1, 2010.[15]

The Commission required in the Clarification Order that QGC: 1) include in future IRPs a more detailed description of the models used to derive long-term forecasts of residential usage per customer and number of customers; 2) discuss the relationship between avoided gas costs and IRP modeling in a future IRP meeting; 3) include five years of historical information in the peak demand forecast graph; 4) engage in formal and informal training on stochastic modeling; 5) address in a public meeting, the planned increase in Company-owned gas volumes given the costs of Company-owned gas relative to purchased gas; and 6) provide all relevant data to the Utah Commission given the change in the quarterly reporting schedule.[16] Guidance and suggestions were discussed with QGC so that future IRPs could be improved and to be in

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[11] Action Request – Revised, From: Public Service Commission, Subject: Questar IRP; 09-057-07, May 6, 2009.
[12] In the Matter of Questar Gas Company's Integrated Resource Plan for Plan Year: May 1, 2009 to April 30, 2010, Request For Comments, Docket No. 09-057-07, Issued: May 11, 2009.
[13] In the Matter of Questar Gas Company's Integrated Resource Plan for Plan Year: May 1, 2009 to April 30, 2010, Report and Order, Docket No. 09-057-07, Issued: March 22, 2010.
[14] Docket No. 07-057-01, pp.17-22.
[15] Docket No. 11-057-06, pp.2-11 to 2-12.
[16] In the Matter of Questar Gas Company's Integrated Resource Plan for Plan Year: June 1, 2010 to May 31, 2011, Report and Order, Docket No. 10-057-06, Issued: October 27, 2010.

compliance with the IRP guidelines. All Parties recognize that integrated resource planning is a continually evolving process.

The following is a brief discussion of the major components found in the current IRP for the plan year June 1, 2017 through May 31, 2018.

CUSTOMER & GAS DEMAND FORECASTS

The 2016-2017 IRP year is projected to finish at 114.9 MMDth of temperature-adjusted system sales demand. The sales demand for the 2017-2018 IRP year is forecasted to be 115.0 MMDth. The Company forecast a steady growth rate in the GS class but forecasts only the small growth rate of 0.1% for the 2017-2018 IRP year after approximately 1.3 MMDth of annual sales demand shifts to the TS rate schedule in July of this year. The rate of customer growth is expected to continue its upward momentum as a healthy economy and in-migration lead to increased housing demand. Average GS usage is expected to continue the long-term decline, residential usage averaged 82.01 Dth for the twelve months ending December, 2016. The Company projects an average of 80.6 for the 2017-2018 IRP year. Non-GS commercial and industrial consumption will continue to grow modestly. Annual demand among electric generation customers increased over the prior year by about 25% in 2016. Much of the total demand is used for peaking load generation and can vary considerably over time making accurate forecasting difficult. The forecast projects a leveling off of electric generation demand at the current level of about 45 MMDth per year.

On January 6, 2017, the Company issued an interruption and curtailment notice to its interruptible sales and transportation customers in Utah and Wyoming. The interruption and curtailment was necessary because multiple freeze-offs at processing plants and upstream pipelines resulted in supply uncertainty. About 50% of the customers receiving notification were either unable or unwilling to curtail to the lower of their firm demand or delivered quantities. The Company imposed penalties on those customers who failed to curtail pursuant to the Tariff. This interruption highlights the Company's concern that it may not be able to depend upon its interruptible customers to reduce their demand during a peak event. The Company will continue to improve its interruption processes and evaluate options to ensure the reliability of service for its firm customers.

SYSTEM CONSTRAINTS AND CAPABILITIES

For planning and meeting supply requirements, DEU separates its distribution system into five distinctive areas. Those areas or systems are the Northern Region, the Eastern (North) Region, the Eastern (Northwest Pipeline) Region, the Southern (Main System) Region, and the Southern (Kern River Taps) Region.

The Northern System, which serves the Wasatch Front, receives gas from Dominion Energy Questar Pipeline (DEQP) and Kern River Transmission Company (KR) at six major city gates. The Northern System currently has enough capacity to meet peak day requirements of 1,337,000 Dths for the projected 2017-2018 IRP year. In order to ensure that peak day capacity requirements can be met, DEU is constantly looking at the condition of the physical distribution system and planning for system integrity upgrades or expansion. The following system expansion and replacement projects are scheduled for 2017-2018: District Regulator Stations in Santaquin and North Ogden to be completed in August and October 2017 respectively and FL 54 extension in Park City: Belt Line Replacement Project will continue in Salt Lake County, Weber and Utah Counties: and Dominion Energy is continuing its Feeder Line replacement program in 2017 with replacements planned on FL 26, FL 21-50, FL 21-20, and possibly FL 51. Pursuant to the Settlement Stipulation and the Utah Commission's bench order approving the Settlement Stipulation, in Docket No. 13-057-05, the Company will file an infrastructure replacement plan each fall detailing the planned projects, the anticipated costs and other relevant information. Additionally, the Company is taking necessary steps to obtain the required approvals to build an on-system LNG storage facility. Details on this facility are discussed in the Peak-Hour Demand and Reliability section of this report, pages 8-1 through 8-6.

The Eastern (North and Northwest Pipeline) Region includes distribution systems that QGC acquired from Utah Gas in 2001. After several years of operation, the Company determined that the systems in Monticello, Moab and Vernal were in need of replacement. In 2009, QGC began a replacement program. The Company has completed replacements in Monticello and Moab and work is underway in Vernal. In Vernal, the Company will replace approximately 50,000 lf of main and 525 services in 2017. Of the 50,000 lf of main, about 15,000 lf will be replaced with 2-inch plastic pipe, about 25,000 lf will be replaced with 4-inch plastic pipe, and about 10,000 lf will be replaced with 6-inch plastic pipe. The total estimated project cost for 2017 is $2,400,000. The Company plans to complete this project in 2017. There are no other viable alternatives for replacement.

The Southern (Main System and Kern River Taps) Region receives its gas supply from DEQP at Indianola and from KR at the WECCO and Central taps. All segments in this area have adequate pressures and do not require any improvement to meet the existing demand. The Southern System will require substantial upgrades within the next ten years. The Company has monitored the Southern System growth since the Central Compressor station was installed. Based on the current projections, it is estimated that a new feeder line will need to be installed from the Bluff St station east to the Washington 2 tap line prior to heating season 2022-2023 in order to maintain system pressures.

Questar Gas continues to implement integrity activities for transmission lines as originally mandated by the "Pipeline Safety Improvement Act of 2002" and later codified in the Federal Regulations (49 CFR Part 192 Subpart O). 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. On December 4, 2009, the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued the final rule titled: "Integrity Management Program for Gas Distribution Pipelines." This final rule became effective on February 12, 2010, with implementation required by August 2, 2011. The distribution integrity management rule requires operators to develop, write, and implement a distribution integrity management program. PHMSA initially published an advanced notice of proposed rulemaking (ANPRM) for the Safety of Gas Transmission and Gathering Lines (Mega Rule) on August 25, 2011. On April 8, 2016, PHMSA published a notice of proposed rulemaking (NPRM) in the Federal Register. The Mega Rule is intended to increase the level of safety associated with the transportation of gas by imposing regulations to prevent failures like those involved in recent incidents. The Mega Rule also seeks to clarify and enhance some existing requirements and address certain statutory mandates and National Transportation Safety Board (NTSB) recommendations. If adopted, the proposed rule would require additional pipeline integrity management measures for pipelines that are not in HCAs, as well as clarifications and selected enhancements to integrity management activities related to pipelines within HCAs. The new administration has delayed the publication of the Mega Rule regulation. The industry anticipates the regulation will be published by the end of 2017 or early 2018. DEU is forecasting costs for transmission and distribution integrity management will be approximately $8.3 million for 2017; $8.7 million for 2018; and $8.9 million for 2019. Details of the anticipated costs associated with transmission and distribution integrity management are found on pages 4-30 through 4-33. The DPU will monitor these initiatives as required.

PURCHASED GAS AND COMPANY PRODUCTION

Monthly index prices for natural gas delivered into Questar Pipeline's system during the 2016 calendar year averaged $2.24 per Dth. This was lower than the 2015 average price of $2.49 per Dth, a decrease of $0.25 per Dth or 10%. The price for natural gas on Questar Pipeline during the 2016-2017 heating season (November-March) averaged $2.95 per Dth compared to an average price of $2.01 per Dth during the 2015-2016 heating season, an increase of $0.94 or 46%. The current forecast shows prices increasing 9% to an average of $3.23/Dth for the coming heating season.

DEU implements a hedging program for the portion of its winter gas supply purchases that cannot be met from Company-owned production. This program consists of three basic strategies. The first strategy consists of buying approximately one-third of the estimated winter requirement at physical swap prices. The second strategy uses financial hedges, if priced prudently, for an additional one-third in order to place an upside cap on the prices. The last strategy lets the other third of the purchase requirement float with the market, which is based on the first of month price as quoted in Inside FERC's Gas Market Report. This three-pronged approach was developed in 2000-01 through consultation with regulatory officials. Regular update meetings have been held with regulatory authorities where input has been sought by DEU on the strategies being employed. Given the forecast for Company-owned production of approximately 61% of the gas requirements, the Company does not plan to enter into any such fixed-price agreements during the IRP year, but it may do so in the future.

The IRP gas purchase plan is based on a set of assumptions derived from the best available data at the time the IRP was put together. Throughout the plan year, actual results will vary from the plan due to circumstances that are different than the plan's assumptions. These variances have been tracked and reported on a quarterly basis. For the 2016-2017 IRP, three of the quarterly reports have been filed with the Commission.

For the first quarter of the 2016-17 plan-year (June-Aug, 2016) Clay Basin and the Aquifer inventory levels were slightly above target for the quarter. June and July cost-of-service production exceeded IRP projections, in August production was reduced due to shit-in of 5,724 decatherms per day but remaining volumes still exceeded IRP estimates. Gas purchases were well below IRP projections due elevated cost-of-service production and warmer temperatures, which resulted in no heating degree day demand. Firm sales for the quarter totaled 7,825 MDth versus a forecast of 8,494 MDth.

During the second quarter of the 2016-17 plan-year (Sep-Nov, 2016), firm sales were 20% below the forecast for the quarter, actual of 17.6 million decatherms versus projection of 22.0 million decatherms. This resulted from actual temperatures for the quarter being warmer than anticipated and heating degree days being 33% below the 30-year normal. Clay Basin inventory levels closely matched the IRP estimates. The remaining available capacity allows for daily fluctuations in injecting and withdrawal that are common during fall and spring. Cost-of-service gas saw increased production over IRP projections due to new wells that came on in September and October.

December 2016 and January 2017 were colder than forecasted with February 2017 slightly warmer than normal resulting in sales that were 1.5 million Dth above forecast, for the IRP year sales are 0.3 million below forecast. Firm sales for the year total 80.4 million decatherms, just 4% below the forecasted sales for 83.8 million decatherms. Cost-of-service gas for the year total 50.6 million decatherms, 5% above the forecasted production of 48.3 million decatherms. Clay Basin inventory ended the quarter at 2,809 MDth, above the forecast of 251 MDth. As the heating season progressed, withdrawal rates forecasted for Clay Basin were more aggressive than actual operations would allow.

The 2017-2018 IRP reflects Company-owned production of 70.7 million Dth and gas purchase volumes of 45.6 million Dth. For the current plan, the price of natural gas for 2017-2018 heating season is forecasted to be $3.23/Dth. There is not a need for any additional price stabilization, but the Company will review this issue on an annual basis to determine whether such measures are appropriate in the future.

The DPU recognizes that variances will exist between the forecasted and actual natural gas prices and the complexity of the interaction between the variables used in preparing an IRP. As actual events unfold, it is a given that actual results will vary from the planned IRP. DEU will continue meetings to keep regulators informed about the magnitude and the reasons for any variance that will occur from the base plan of this 2017-18 IRP.

GATHERING, TRANSPORTATION & STORAGE

Most of the Company-owned gas produced by WEXPRO is gathered under the System Wide Gathering agreement (SWGA) between DEU and QEPM Gathering I, LCC (QEPM) which is owned by Tesoro Inc., (Tesoro). QEPM was formerly QEP Field Services (QEPFS). QEPFS was formerly Questar Gas Management Company, an affiliate of Questar Gas. Effective June 30, 2010, Questar Corporation spun off QEP Resources. On December 2, 2013, QEP Resources announced its decision to pursue a separation of its midstream (gathering and processing) business including QEPFS.[17] On October 19, 2014, QEP Resources announced that it had entered into an agreement to sell its midstream business to Tesoro Logistics LP (Tesoro).[18] On December 2, 2014, Tesoro announced that the deal had closed. This agreement is based on cost-of-service and was approved by the Commission in Docket No's. 95-057-30, 96-057-12 and 97-057-11. The rates change each year on September 1st. The table below summarizes the history of the one-part cost-of-service rate broken out between the monthly reservation charge and the commodity charge, as billed by QEPM. The billing determinant for the commodity rate is based on the previous calendar-year gathering-system throughput.

[17] "QEP Resources Announces Decision to Pursue a Separation of its Midstream Business," QEP Resources News Release, Denver, Colorado, Business Wire, December 2, 2013.
[18] "QEP Resources Announces Sale of its Midstream Business to Tesoro Logistics LP for $2.5 Billion," QEP Resources News Release, QEP Resources Investor Relations, October, 19, 2014.

System Wide Gathering Agreement Rates

1993 - 2016

Effective Date	One-Part Rate ($/Dth)	Monthly Reservation Charge ($)	Commodity Charge ($/Dth)
9/1/1993	0.55682	844,610	0.22273
9/1/1994	0.55682	844,610	0.22273
9/1/1995	0.48295	761,644	0.19318
9/1/1996	0.48295	761,644	0.19318
9/1/1997	0.34956	432,668	0.13982
9/1/1998	0.33282	394,284	0.13313
9/1/1999	0.28656	379,372	0.11463
9/1/2000	0.26276	361,552	0.10510
9/1/2001	0.24863	376,435	0.09945
9/1/2002	0.28413	390,229	0.11365
9/1/2003	0.27273	473,384	0.10909
9/1/2004	0.28067	496,173	0.11227
9/1/2005	0.30718	541,336	0.12287
9/1/2006	0.34424	628,108	0.13770
9/1/2007	0.48664	888,053	0.19148
9/1/2008	0.46694	852,099	0.22616
9/1/2009	0.45127	955,513	0.18160
9/1/2010	0.50090	1,060,315	0.20764
9/1/2011	0.41750	1,008,209	0.19530
9/1/2012	0.42693	988,803	0.17077
9/1/2013	0.42226	1,000,624	0.16890
9/1/2014	0.47912	1,144,282	0.19165
9/1/2015	0.54291	1,351,595	0.21717
9/1/2016	0.40991	1,020,487	0.16397

During the fall of 2010, Questar Gas requested an audit of the calculation of the gathering rates and charges. Based on the information provided by QEPFS, Questar Gas disputed the rates and charges. Disagreements over the interpretation of the contract were not able to be resolved over the ensuing months. On May 1, 2012, Questar Gas filed a lawsuit against QEPFS. Questar Gas continued to dispute the monthly invoices, but make payment based upon its own calculation of gathering costs under the SWGA. These payments are subject to adjustment pending the outcome of the litigation. In conformity with the Utah Commission's IRP Order dated December 16, 2011, Questar Gas has been engaged in an analysis of the SWGA.[19] An update of that analysis was provided in a Utah IRP technical conference on April 18, 2012. The Commission ordered the Company to provide a quarterly update of the proceedings associated with the SWGA.[20] The Company has done so in its quarterly variance reports. In the IRP variance report dated May 29, 2015 the Company reported that the parties (with QEP now being owned by Tesoro Logistics LLP) entered into a standstill agreement under which they agreed to hold the proceedings in the lawsuit in abeyance until September 1, 2015 while they attempt to settle their disputes. On December 2, 2014, Tesoro Logistics LP (Tesoro) purchased the midstream (gathering and processing) business of QEP Resources including QEPFS and QEPM[21]. On March 22, 2016, the parties entered into a confidential settlement agreement which resolved all claims in the lawsuit. As part of the confidential settlement, certain gathering agreements were amended, effective January 1, 2016, to clarify the determination by Tesoro of the cost-of-service gathering rates charged under the agreement. The current gathering rate reflects the amended gathering agreements which were effective January 1, 2016.

Questar Gas holds firm transportation contracts on Dominion Energy Questar Pipeline, Kern River Pipeline, Colorado Interstate Gas (CIG), and Northwest Pipeline. The Company also has storage contracts with DEQP. Dominion Energy Utah continues to review capacity requirements to determine the amount of transportation and storage required. The Company evaluates all transportation options using assumptions that ensure the Company provides safe, reliable, diverse and cost-effective service to its customers. In March, 2017 the Company extended Dominion Energy Questar Pipeline Contract #241 for 798,902 Dth/D until June 30, 2027. This contract provides capacity from multiple receipt points and interconnects with Northwest Pipeline, Overthrust Pipeline, and White River Hub. With this extension, the Company also signed a Precedent Agreement to upgrade the Hyrum Gate station and expand the total capacity by 100,000 Dth/D. Simultaneously, the Company and Dominion Energy Questar Pipeline entered into a Facilities Agreement that obligates Dominion Energy Questar Pipeline to construct at least

[19] In the Matter of Questar Gas Company's Integrated Resource Plan for Plan Year: June 1, 2011 to May 31, 2012, Report and Order, Docket No. 11-057-06, Issued: December 16, 2011, Page 12.
[20] In the Matter of Questar Gas Company's Integrated Resource Plan (IRP) for Plan Year: June 1, 2012 to May 31, 2013, Report and Order, Docket No. 12-057-07, Issued: August 6, 2012, Page 8.
[21] "Tesoro Logistics LP Completes the Acquisition of QEP Field Services, Creating Full-Service Logistics Business," Tesoro Logistics News Release, Tesoro Logistics Investor Relations, December 2, 2014.

$5,000,000 of delivery point upgrades. The expansion of the Hyrum gate station and associated capacity will provide necessary increased supplies to the northern area of the Company's distribution system.

To meet growing customer demand and ensure access to reliable supply sources, the Company also entered into two new transportation contracts for released capacity on Kern River. One contract was for a permanent release and the other is a seasonal release. These contracts provide firm transportation capacity that will allow the Company to purchase gas at locations with available supply and transport the gas to the Company's city gate stations. The contract for seasonal release of capacity on Kern River consists of a release of 27,000 Dth/D for the months of November through the succeeding March with a term of November 1, 2017 through March 31, 2032. It also includes a release of 56,925 Dth/D for the months of December through the succeeding February, and 6,000 Dth/D for November and March with a term of November 1, 2017 through March 31, 2031. This capacity will have a path from Opal/Muddy Creek to Goshen with full segmentation rights.

As a result of a large scale electric power outage in the southwestern United States in February 2011, the FERC and industry groups began closely looking at ways to better coordinate the resources of natural gas power generation facilities and the interstate FERC-regulated pipelines that deliver gas to those power plants.[22] The FERC issued an order on March 20, 2014 to commence a rulemaking on the Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities (NOPR). FERC proposed changes to: (1) the natural gas operating day (Gas Day); and (2) the natural gas intra-day scheduling practices. On April 16, 2015 FERC issued Order No. 809, which changed the nationwide Timely Nomination Cycle deadline for scheduling natural gas transportation from 11:30 a.m. Central Clock Time (CCT) to 1:00 p.m. CCT, revised the intraday-nomination timeline to include an additional intraday scheduling opportunity during the Gas Day, adopted revisions to provide contracting flexibility to firm natural gas transportation customers through the use of multi-party transportation contracts but did not change the start time of the Gas Day. FERC required interstate natural gas pipelines to comply with the new business practice standards beginning on April 1, 2016. In Order No. 809, the FERC

[22] See http://www.ferc.gov/industries/electric/indus-act/electric-coord.asp

also requested that North American Energy Standards Board (NAESB) explore the potential of the gas and electric industries for faster, more streamlined, computer-based scheduling. On March 30, 2017, NAESB submitted its status report to the FERC documenting this effort. NAESB was unable to garner the necessary support from the Wholesale Gas Quadrant (WGQ) to implement new standards and/or change existing standards. On April 12, 2017, FERC Acting Chairman LaFleur responded by thanking all the stakeholders for their efforts and acknowledging that the record developed will help to inform the FERC in its future deliberations and will help inform the industry in its continuing efforts to coordinate the integration of the gas and electric industries.

PEAK-HOUR DEMAND AND RELIABILITY

With increasing sales customer base and the associated demand growth, DEU claims it has begun to see actual hourly demand on high-load days that exceed the physical limits to the hourly deliveries DEQP can make to the City Gates. As part of NNT service, Dominion Energy Questar Pipeline's tariff allows delivery of volumes that exceed Dominion Energy Utah's reserved daily capacity (RDC) for short periods of time as long as those deliveries do not impair Dominion Energy Questar Pipeline's ability to provide service under any other rate schedule. In order to ensure the availability of this supply, the Company contracted for additional transportation capacity to access locations with available supply and entered into peaking contracts for the gas supplies. The peak hour contracts and the allocation of the associated cost are currently under examination in Docket No. 17-057-09.

The Company considered the following potential long-term remedies for meeting future peak-hour demand requirements (separately or in combination): 1) upstream hourly services that can be offered to provide supply to match the demand swings, 2) demand response programs, 3) contracting for additional firm upstream transportation capacity, 4) purchasing excess supply to meet peak demand, 5) facility improvements and 6) the building of a liquefied natural gas (LNG) facility to use for hourly peaking supply. On February 26, 2016, the Company sent out an RFP for on-system storage. The Company selected HDR, Inc. (HDR) to complete a preliminary front end engineering design (Pre-FEED) study and initial site selection. HDR completed this study and the Company plans to have them also commence a FEED study in 2017. The process of building an

LNG facility typically takes 4-5 years and includes regulatory approval; permitting; FEED; preparation of an engineering, procurement, and construction (EPC) RFP; contracting; and construction. The Company states that an on-system LNG facility is a critical component of a long-term solution to meet peak-hour demand and reliability requirements and should be included as part of a portfolio of resources used to meet peak-hour requirements and ensure diverse supply for customers. Therefore, the Company plans to take necessary steps to complete this process in the near future.

ENERGY-EFFICIENCY PROGRAMS

Since the inception of formal integrated resource planning processes in the states of Utah and Wyoming, QGC has periodically investigated the potential of demand-side resources. The first such assessment took place in 1991. The current initiative has its roots in a general rate case filed by QGC on May 3, 2002. On December 30, 2002, the PSC issued an Order stating that the DSM Stipulation was in the "public interest."[23] The Order established a collaborative study group, known as the Natural Gas DSM Advisory Group (Advisory Group), and was ordered by the PSC to report on the possible cost-effective DSM measures in Utah.

The DSM Stipulation specified that a jointly funded study of achievable, cost-effective DSM measures in Utah be undertaken. GDS Associates Inc. was the successful bidder for the Utah Natural Gas DSM study. The final GDS Report concluded that ". . . there is significant savings potential in Utah for implementation of additional and long-lasting gas energy-efficiency measures."[24] The Advisory Group determined that the GDS Report was a "credible indicator" of the potential for cost-effective demand-side management and also identified several barriers to natural gas DSM implementation. The report specifically identified as an example QGC's "economic sensitivity to the loss of gas load that increased DSM would foster."[25]

[23] In the Matter of the Application of Questar Gas Company for a General Increase in Rates and Charges, Report and Order, Utah Public Service Commission, Docket No. 02-057-02, December 30, 2002.
[24] "The Maximum Achievable Cost Effective Potential for Gas DSM in Utah for the Questar Gas Company Service Area," Final Report, Prepared for the Utah Natural Gas DSM Advisory Group, June 2004, GDS Associates, Inc. Engineers and Consultants, Marietta, GA, Page 1.
[25] Ibid

On December 16, 2005, QGC, the DPU, and Utah Clean Energy filed a joint application requesting the approval of a pilot program that would put into effect the Conservation Enabling Tariff Adjustment Option (CET).[26] On January 16, 2007, the PSC issued an order approving a three year pilot program of DSM initiatives undertaken by QGC. As part of that order, the DPU was to prepare a first year evaluation report and file it with the PSC. This report was filed with the PSC on July 25, 2007 in Docket No. 05-057-T01.

Based on work with the DSM Advisory Group, Utah-based trade allies, program administrators and other energy-efficiency stakeholders, QGC proposed and the PSC approved the continuation of the energy-efficiency programs and the ThermWise® Market Transformation initiative for 2008 in Docket No. 07-057-05, in Docket No. 08-057-22 for 2009, in Docket No. 09-057-15 for 2010, in Docket No. 10-057-15 for 2011, in Docket No. 11-057-12 for 2012, in Docket No. 12-057-14 for 2013, Docket No. 13-057-14 for 2014, Docket No. 14-057-25 for 2015, Docket No. 15-057-16 for 2016, and in Docket No. 16-057-16 for 2017. During 2016, QGC reported a deemed savings of 827,637 Dth from DSM programs and a total net benefit cost ratio for all programs of 1.0. Results of 2015 DSM programs were filed with the Commission in Docket No. 17-057-10. These programs are reviewed quarterly by the DPU and reported to the PSC on an annual basis.

In Docket No. 15-057-07 the Commission ordered the Company to "…address Heat Pumps and the impacts of EE programs on peak demand" in the 2016 IRP. The Company addressed Heat Pumps and continued the discussion of the effects of energy-efficiency on peak day in Section 3 pages 9 through 16 of the 2016 IRP. Additionally, the Company has continued to study this topic since that time. At the DSM Advisory Group meeting held on August 24, 2017 the Company presented their findings to date regarding demand response (DR) options that are in use by other natural gas utilities. As a result of that discussion the Company will do further research and continue to update the DSM Advisory Group. The Company also agreed in its 2017 Energy Efficiency budget filing (Letter dated December 7, 2016 in Docket No. 16-057-15) to "…begin

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[26] "Joint Application of Questar Gas Company, the Division of Public Utilities, and Utah Clean Energy", Docket No. 05-057-T01, December 16, 2005.

development of an analytical framework for evaluating efficiency measure benefits and costs unrelated to natural gas savings" in 2017.

IRP PROCESS COMMENTS

On June 4, 2007, the PSC issued a Request for Comments giving parties until July 2, 2007 to file comments not only on the IRP itself but also regarding the approved IRP process (Docket No. 07-057-01) and invited parties to make recommendations regarding whether changes should be made to the process. Based on the review of the Company's 2007 Integrated Resource Plan in Docket 07-057-01, "In the Matter of the Filing of Questar Gas Company's Integrated Resource Plan for the Plan Year: May 1, 2007 to April 31, 2008," the PSC determined it was appropriate to re-evaluate and revise the September 26, 1994, IRP Standards and Guidelines.

The December 14, 2007, Report and Order in Docket 07-057-01 specified a new docket will be opened to address modification to the Standards and Guidelines. Pursuant to this Report and Order, Docket 08-057-02, "In the Matter of the Revision of Questar Gas Company's Integrated Resource Planning Standards and Guidelines" was established. After due notice, on February 13, 2008, a technical conference was held to obtain input, ideas, and feedback regarding modifications to the September 26, 1994, IRP Standards and Guidelines. Based upon the discussion of specific topics during the technical conference, Draft Standards and Guidelines 2008 were developed. On April 3, 2008 the PSC issued Draft Questar Gas Company Integrated Resource Planning Standards and Guidelines 2008 ("Draft Standards and Guidelines 2008") and invited comments from interested parties. The DPU submitted comments to the PSC on May 30, 2008.

In its Report and Order in Docket 07-057-01, the PSC required that, in the interim, QGC continue with its current IRP approach and time lines, but outlined eleven items that were to be included in the 2008 and future IRPs. [27] In its review of the 2009 IRP, the DPU concluded that QGC included the information as directed in the order. The table below itemizes the IRP issues the PSC directed QGC to include in future IRPs.

[27] In the Matter of the Filing of Questar Gas Company's Integrated Resource Plan for Plan Year: May 1, 2007 to April 30, 2008, Docket No. 07-057-01, December 14, 2007, pp.18-20.

Questar Gas Company	
IRP Issues	
Issue No.	Specific Topic
1	Documentation of Long-Term Sales Forecast Drivers
	Explanation of Throughput Forecast
	Economic and Demographic Information Reference
	Reliability of Economic and Demographic Information
	Use of Information in Forecasting
2	Need for No-Notice Transportation
2	Management of Kern-Only Systems
3	SENDOUT Model Configuration
4	Project-Specific Cost Estimates
	Revenue-Requirement Impacts of Expansion Projects
	Long-Term Gas Quality Issues
	Storage Management
	Modeling of Clay Basin Contract
	Other Long-Term Contracts Under Consideration
5	Producer Imbalance Recoupment
6	Wexpro Production Levels
	Gas Hedging and Gas Price Risk
7	Identification and Discussion of Regulatory Drivers
8	DSM Modeling in SENDOUT Base Case
9	Contingency Plans for an Uncertain Future
10	Utah Gas Assets
11	Rationale for Modeling Constraints
	Constraint Removal

QGC submitted this planning document, for the operating year extending from June 1, 2010 to May 31, 2011, to the Utah Commission on May 20, 2010 in accordance with the following: 1) the Report and Order issued March 31, 2009 in Docket No. 08-057-02, and 2) the Report and Order issued March 22, 2010 in Docket No. 09-057-07. The first Utah order established new integrated resource planning guidelines and the second Utah order clarified certain planning requirements. QGC agrees with the PSC that this IRP process is “ongoing” and “is expected to evolve over time.” Interested parties continue to meet, as directed in the March 22, 2010 Order, to “discuss their positions with the goal of reaching a consensus to the extent possible.”

Meetings were held with interested parties and PSC staff on June 17, 2010 and July 1, 2010 to discuss areas of the IRP that needed additional information in subsequent years. The discussion items are outlined in Section IX Specific IRP Components (pp. 29-33) of Docket No. 08-057-02.

The DPU acknowledged that the QGC's 2010-2011 IRP contained expanded in-depth narrative of the areas listed in the order.

On December 1, 2016, the Commission issued its Report and Order on the 2016 IRP.[28] The Commission recognized the Company's efforts in preparing the 2016 IRP, managing the IRP process, and addressing Commission guidance from previous orders. The Commission also acknowledged that integrated resource planning is an ongoing process and should be adjusted to reflect changing circumstances. The Commission agreed with the Division's assessment that the 2016 IRP substantially complied with the 2009 IRP Standards. Finally, the Commission directed that Company to continue to monitor and report on the heat pump trends in its jurisdiction and with respect to the potential DSM impact on peak demand, directed the Natural Gas DSM Advisory Group to collaborate with QGC to explore whether opportunities exist for one or more DSM pilot programs that might alleviate peak demand.

Over the past year, Dominion Energy has scheduled technical conferences and meetings to respond to specific issues as ordered by the Commission, to receive input for the IRP process, and to report on the progress of the Company's planning effort. The details of the 2017 IRP meetings are included on pages 2-16 and 2-17 of the IRP.

SUMMARY AND CONCLUSIONS

In summary the Division recommends the PSC acknowledge the DEU 2017-18 IRP Report due to the following 2009 IRP guidelines having been met in this filing as outlined below:

General Information Requirements:

1. The Company provides a description of IRP objectives and goals for both gas supply and DNG functions as shown on page 2-14 and 2-15 of the IRP.
2. In the Filing, the Company provides a range of load growth forecasts broken out by GS residential in Exhibit 3.3 and small commercial in Exhibit 3.4. The non-GS category is broken out by commercial, industrial, and electric generation in Exhibit 3.8. The load growth forecasts for firm customer peak-day requirements are shown

[28] In the Matter of Questar Gas Company's Integrated Resource Plan for Plan Year: June 1, 2016 to May 31, 2017, The Public Service Commission of Utah, Report and Order, Docket No. 16-057-08, Issued: December 1, 2016.

in Exhibit 3.9 with winter-season requirements and annual requirements shown in Exhibit 10.90. The average usage per customer is shown in Exhibit 3.2.

3. How a range of weather conditions is utilized in the SENDOUT model is discussed on page 10-3 and shown in Exhibits 10.38 through 10.49.

4. An analysis of how various economic and demographic factors, including the prices of natural gas and alternative energy sources, will affect natural gas consumption, and how changes in the number, type and efficiency of end-uses will affect future loads is discussed to some extent in pages 3-1 through 3-10 of the filing.

191 Account Issues:

1. The Company discusses an economic assessment of all viable delivery, gas supply, load management and demand-side resource options consisting of:

   a. Company production (Wexpro) on pages 6-1 through 6-8, annual market gas contracts, seasonal market gas contracts, spot market purchases on pages 5-1 through 5-4, the utilization of and modeling of demand-side management resources on pages 9-1 through 9-13 and Exhibit 9.1 of the filing.

   b. Transportation and storage service options are discussed on pages 7-1 through 7-14 as required.

   c. For demand-side resources, the Company provides the total resource cost test, the ratepayer impact test, the utility cost test and the participant cost test as approved by the Commission on page 9-10.

2. The Results section of the IRP depicts the Company's proposed gas supply portfolio and operational strategy and demonstrates in numerous graphs, the impact of changes in demand and gas prices in the modeling simulation. In Exhibits 10.89 and 10.90 of the IRP, a summary of the IRP for the gas supply/demand is broken out by residential, commercial and non-General Service ("GS") categories. Company use, and lost and unaccounted for gas; and gas supply is broken out by purchased gas, cost-of-service gas, and storage (both injection and withdrawals).

   A discussion and analysis of the availability and use of storage reservoirs by the Company and an explanation of storage reservoir management practices is also provided on pages 7-7 through 7-11.

3. A discussion and analysis of gathering and transportation-related issues, including pertinent recently negotiated contracts and other relevant contracts is presented in pages 7-1 through 7-7.

4. A discussion of producer imbalances including terms, time-periods, volumes, and fields where recoupment nominations have occurred and/or may occur is found on pages 6-5 through 6-6.

5. Pages 7-13 through 7-14 has a discussion and evaluation of reasonably predicted, anticipated, or known gas quality issues during the planning horizon.

6. A discussion of peak hour demand and reliability, including a description of potential remedies being considered by the Company is found on pages 8-1 through 8-6.

7. The current level of expected lost and unaccounted for gas is discussed on pages 3-9 through 3-10.

8. A planning horizon of 31 years is utilized, which is of sufficient length to effectively model Company production as well as economically viable energy efficiency measures.

9. Pages 3-7 through 3-9 and 4-22 through 4-37 discuss how changes or risks in the natural gas industry, the regulatory environment, and/or industry standards may affect resource options available to the Company and potential impacts on resource options and attendant costs.

10. A set of general guidelines is found on page 11-1, which identifies the specific resource decisions necessary to implement the results of the Planning Process and associated IRP in a manner consistent with the strategic business plan.

DNG Issues

1. An overview of the distribution system and an identification of system capabilities and constraints, which includes:

    a. Identification of substantial projects including feeder line, large diameter main, small diameter main, and measurement and regulation station equipment projects, their associated capital budgets and long-range plan estimates, and a forecast of the revenue requirement impacts for those projects over the three-year time-frame addressed in the IRP is presented in Section 4 of the IRP.

2. A detailed explanation of, and underlying basis for, the Company's integrity management plan activities and associated costs for the three-year time frame are discussed on pages 4-23 through 4-34.

3. A DNG Action Plan is presented on pages 4-14 through 4-21 which outlines specific resource decisions and steps necessary to implement the IRP consistent with the Company's budget and/or business plan.

The DPU agrees that the General Information Requirements have been met. IRP objectives are found on pages 2-16 and 2-17, for load growth forecasts refer exhibits 3.3, 3.4, and 3.8., weather conditions are discussed on page 10-3 and economic and demographic factors are discussed in

Section 3. In general the requirements for the 191 Account were met. Gas supply was discussed in Sections 5 and 6 and transportation options and storage were discussed in Section 7.

The Division believes the Company has made reasonable attempts to satisfy the 2009 IRP guidelines and has also committed, through continuing discussions with parties, to continue to improve on details of some aspects presented in this IRP. Therefore the DPU recommends the PSC acknowledge the 2017-2018 IRP as filed in Docket No. 17-057-12.

CC: Michele Beck, OCS
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IRP Service List