BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE REQUEST OF DOMINION ENERGY UTAH FOR APPROVAL OF A VOLUNTARY RESOURCE DECISION TO CONSTRUCT AN LNG FACILITY	Docket No. 18-057-03

REBUTTAL TESTIMONY OF MICHAEL L. PLATT

FOR DOMINION ENERGY UTAH

September 6, 2018

DEU Exhibit 3.0R

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Michael L. Platt. My business address 1140 West 200 South, Salt Lake City, UT 84104.

Q. Are you the same Michael Platt who filed Direct Testimony in this proceeding?

A. Yes, I am.

Q. Have you testified before this Commission before?

A. Yes. I provided testimony in Utah Dockets No. 17-057-09 and 17-057-20. I have also made presentations at technical conferences and Integrated Resource Plan workshops.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to aspects of direct testimony filed by intervenors in this docket. Specifically I respond to concerns about Dominion Energy Utah's (DEU or the Company) system analysis that were raised in intervener testimony. I also provide some discussion on the capabilities of the proposed LNG facility. I compare the Company to other local distribution companies (LDCs). Finally, I discuss some of the limitations and concerns with off-system storage.

II. SYSTEM ANALYSIS

Q. The Office of Consumer Services (Office) suggests that the Company's due diligence is inadequate, in part, because the Company has not provided sufficient system analysis (Vastag lines 58-59). Do you agree?

A. No. In my pre-filed direct testimony, I provided a summary of the analysis I conducted in determining whether an on-system LNG facility would mitigate issues associated with supply shortfalls. I also attached a series of system pressure comparisons showing the impact of an on-system LNG facility as well as the impact the Magnum options would have. Indeed, Mr. Neale, a consultant for the Utah Division of Public Utilities (Division) gathered more detailed information in discovery and concluded that "The Company has

shown that its network analysis model demonstrates that a strategically located resource that provides the same delivery capacity as the Proposed LNG Facility will maintain minimum system-wide operating pressures under the design peak-day supply deficiency scenarios the Company's Gas Supply Planning Department has evaluated." Pre-filed Direct Testimony of Allen R. Neale, Lines 1388-1392. I have attached as DEU Exhibit 3.08R and 3.09R copies of the Company's responses to Data Requests issued by the Division, showing that the proposed LNG facility will meet the described need.

The Office had access to the same data in this docket and, other than making a cursory statement of deficiency, has failed to identify any additional system analysis or information that is required. The Company's analysis, as reviewed and not disputed by the Division's consultant, is wholly sufficient, and the Company has made available for review to the Office and other interested parties additional information that has been requested.

Q. Would the Company include the LNG facility in analysis that accompanies the Joint Operations Agreement (JOA)?

A. No. To be clear, the JOA process deals specifically with interconnect points between DEQP and the Company, and the proposed facility is not such an interconnect. This analysis is performed annually as the basis for the JOA with Dominion Energy Questar Pipeline ("DEQP"). This analysis simulates the Design Peak Day with the limitations imposed by all contractual limits on Kern River, DEQP and other upstream pipelines. It is an iterative process in which the Company determines system needs on a Design Peak Day, including pressures and volumes required under these conditions. The results at the interconnect points are shared with DEQP for analysis. If DEQP's system is capable of performing as required, the analysis is complete. The more likely scenario is that adjustments are made to the volumes taken at each interconnect, and thus, the analysis of the Dominion Energy Utah, Wyoming and Idaho (DEUWI) system will take into consideration DEQP system constraints. The process continues until an agreed upon scenario, that meets all requirements, is achieved.

Additionally, this proposed facility is intended to operate under non-ideal circumstances, and the JOA analysis assumes the system is operating normally so it would not be

included in the JOA analysis. It is not part of the JOA process with DEQP. Rather, it would be included in an overall Gas Supply analysis to ensure reliability to customers. The amounts and timing of LNG flowing onto the system would not be shared with other companies, including DEQP.

Q. Mr. Mierzwa claims that the Wasatch Front Distribution system is connected to Kern River via four gate stations (Lines 364-365 of Direct Testimony) by inspecting a map of the system. Is this accurate?

A. No. It is true that there are four Kern River gate stations that feed into the Wasatch Front. However, the Eagle Mountain and Saratoga gates are isolated from the majority of customers due to a maximum allowable operating pressure (MAOP) difference along with pipeline capacity restrictions. For system planning purposes there are really only two main gate stations on Kern River that feed the Wasatch Front.

Q. Mr. Mierzwa has stated at lines 160-170 of his Direct Testimony, that the Company's Design Peak Day probability is one in 55 years. Is this correct?

A. No, Mr. Mierzwa suggests that because the Company hasn't experienced such an event in 55 years, that there is limited (if any) probability of it ever occurring. Mr. Mierzwa's conclusion that the facility will not be required but once every 55 years is incorrect. Properly done, a probability analysis involves fitting all known data to an appropriate probability distribution and determining at what temperature we would expect a 20-year recurrence interval. It appears that Mr. Mierzwa has not followed this approach. If a coin is flipped twice and it lands on heads both times, it does not reassign the probability of flipping heads as 100 percent. Nor should Mr. Mierzwa reassign a probability of temperature occurrence based on the past 55 years of not experiencing a specific temperature.

The probability of experiencing a -5°F mean day is approximately once every twenty years. Regardless, as I stated in my Direct Testimony, the facilities are expected to be needed at least once every 14 years because it will be used on days other than Design Peak Days. Additionally, this facility provides other benefits as outlined in DEU Confidential Exhibit 2.11 and will be used every year.

Q. Mr. Mierzwa indicates that No-Notice Transportation could be used, on an interruptible basis, for reliability purposes (lines 321-333 of his Direct Testimony). Should an LDC ever rely on service on an interruptible basis to meet the needs of firm service customers?

A. No. I don't think that would be wise at all. In fact, the Office indicated in a response to a data request (OCS Data Request No. 1.08) that "In Mr. Mierzwa's opinion, an NGDC should not rely on an interruptible service" such as the one he suggested serve as an alternative in his testimony. I have attached the referenced data request as DEU Exhibit 3.10R.

III. LNG CAPABILITIES

Q. Mr. Vastag claims that the Company would have no direct means to flow gas to Coalville in order to prevent the outage. Would an LNG plant prevent an outage like the one that occurred in Coalville in 2016?

A. No. The specific problem at issue in the Coalville outage did not result from a supply shortfall. What caused the outage in Coalville was an equipment failure on the regulator station feeding the area. The reason LNG would not improve this situation is that the Intermediate High Pressure (IHP) system did not have enough capacity, without this regulator station, to feed the local needs of the area. Conversely, if the outage had been the result of a supply disruption of similar proportion, the proposed LNG plant would completely resolve the issue.

Q. Why are the outages listed by the Company relevant at all if LNG would not have remedied any of the scenarios?

A. These examples are relevant because they show that equipment failures or operational failures do occur, and the associated costs are significant. If these scenarios occurred at one of the Company's major gate stations after the LNG plant is installed and fully operational, the probability of an extensive outage is significantly reduced.

Q. Could the proposed LNG facility prevent customer outages in shortfall situations that were greater than 150,000 Dth/day?

A. Depending on the duration of the shortfall and the amount of linepack in the system at the onset, it is possible that the LNG facility could prevent outages in shortfall amounts larger than 150,000 Dth/day.

Q. Is the LNG plant susceptible to equipment failures as well?

A. Equipment failures are potential for any facility. However, as Mr. Gill discusses in his testimony, critical vaporization components of the LNG plant will be designed with an n+1 design such that no single component failure will result in loss of capability. Furthermore, the equipment failures that caused the customer outages that Mr. Mierzwa refers to are equipment that preformed for years in a remote area of Utah, before failure. By contrast, the proposed an LNG plant will be located in the Company's demand center and will have defined liquefaction and vaporization seasons, in which turnover will involve a rigorous inspection of the facility in order to ensure that the plant is ready to operate when needed most.

IV. COMPARISONS TO OTHER LOCAL DISTRIBUTION COMPANIES (LDCs)[1]

Q. In his direct testimony, Mr. Vastag implies that no outages have occurred due to recent events. Therefore, the Company should not plan for these scenarios. Do you agree that Mr. Vastag's suggested approach would be consistent with the Company's obligation to operate reliably?

A. No. The Company is responsible for providing safe and reliable service to firm customers. The Company plans and builds the system for future growth and demand. The System Planning and Analysis department models the distribution system to determine what size pipes will be required to meet demand growth in order to provide reliable service to the customers. The Company's obligation to provide supply reliability is subject to the same rigorous modeling and analysis.

1 Mr. Mierzwa refers to Local Distribution Companies as Natural Gas Distribution Company. The more common industry term is Local Distribution Company, and I will use that terminology in my testimony.

Q. Mr. Vastag argues that using Southwest Gas to support building an LNG plant is not appropriate due to Southwest's reliance on a single transportation company (Lines 104-108). Does the number of transmission companies interconnecting with an LDC system affect the reliability of that system?

A. No. The number of separate pipelines feeding a specific system potentially affects the reliability of the distribution system, but the number of companies does not. Therefore the increase in reliability is not proportional to the amount of "extra" pipelines. It is also notable that Tucson is fed by multiple pipelines[2], and therefore Mr. Vastag's observation is not valid. The upstream pipelines feeding the DEUWI distribution system may not have sufficient redundancy or capacity to accommodate shifting volumes. If a similar disruption occurred on a single major pipeline feeding the Company's system, it would be devastating or even catastrophic during cold temperature scenarios.

Q. Mr. Vastag states that using Southwest Gas as an example for this Docket isn't appropriate. Do you agree with his assessment?

A. No. I believe that using their case as an example is appropriate. The most notable difference between the two companies is that if the Company lost gas service to 50,000 customers in its service area, the consequences would be much more severe to its customers' due to the colder weather that we experience on the Wasatch Front. It is not acceptable for the Company to wait for this scenario to play out before taking action.

Q. Is it true that the Southwest Gas system and Dominion Energy Utah system aren't comparable because the DEU system has multiple upstream pipelines and storage facilities?

A. No. While the systems are different I disagree that a comparison can't be drawn for system reliability planning purposes. In the case of both utilities, major pipelines feed large population centers. If any of the major pipelines that feed the Wasatch Front have issues during a cold weather day, whether it be an integrity issue or a gas supply issue, the system is at serious risk of losing service to customers. On a high sendout day, there

2 A map on https://www.eia.gov/todayinenergy/detail.php?id=4090 shows there are a number of separate pipelines that feed into the Tucson area.

may not be sufficient gate station, pipeline or distribution system capacity to shift significant volumes from one upstream pipeline to another. Moreover, the distribution system is not designed to accommodate shifting of pressure sources due to Maximum Allowable Operating Pressure (MAOP) constraints.[3] That is why an on-system LNG facility is so important in this discussion.

Q. Mr. Wheelwright points out that "[d]epending on the location and severity of an earthquake, the time of the year and the demand on the system, the LNG facility may not be able to provide enough supply." Do you agree with Mr. Wheelwright?

A. Not entirely. It is true that there are certain scenarios that could occur where the proposed LNG facility would not provide sufficient supply. This facility is not meant to create ultimate reliability for all scenarios within the realm of possibility. It is meant to provide reliability in the most probable situations when a portion of the upstream supply is compromised due to outages on portions of the system. Part of system planning includes building reliability into the system to ensure the Company has multiple tools to address supply shortfalls. Generally the LNG facility would provide reliability for many scenarios and minimize the extent of affected customers. Arguing that an on-system LNG facility may not be able to perform in every conceivable scenario is not a proper reason to exclude it as a prudent and reliable option.

Q. Mr. Mierzwa states that only 45 percent of companies responded to the AGA survey that was provided as Exhibit 2.04. Is this a misunderstanding?

A. I have to assume that it is a misunderstanding or a misstatement. There were 44 (out of 50) companies that responded to the portion of the survey regarding system reliability. Of those 44 companies, 20 indicated that they had on-system LNG storage to maintain system reliability. This is why the Company concluded that 45% of LDCs have on system LNG (20/44 = 45%). A survey of 44 LDCs is a large enough sample size to draw a statistically significant conclusion. If we interpreted a blank as a "no" the figure would be reduced to 40%. Of all those that were surveyed, 77% possessed some form of on-

3 The same is not true for the proposed LNG facility, and the Company has conducted the analysis to show this is the case up to 150,000 Dth/day.

system storage. Since there aren't any other viable on-system storage options for DEU, an on-system LNG facility is an option that appropriately reduces the risks the Company is working to mitigate.

Q. The Office points out that during recent cold weather events such as the Polar Vortex of 2014 and the Bomb Cyclone of 2018, no customer outages were reported and no plans to build LNG facilities resulted (Mierzwa Direct Testimony, lines 239-248). Does this imply that the Company's request to build an LNG plant is unreasonable?

A. No. Not only do I disagree with this conclusion, and I think that Mr. Mierzwa brings up a good point. There were no issues with gas supply for these companies. Many of these companies already have on-system LNG plants as shown on DPU Exhibit 2.2. While the exhibit labels these LNG plants as "peak shaving" plants, I believe this is a simplification for the purpose of creating a map. Many of these plants are used for reliability, as indicated in the AGA survey (DEU Confidential Exhibit 2.04).

Additionally, none of the temperatures experienced by major demand centers affected by these weather events were close to their respective 20 year recurrence interval temperatures. I confirmed this by analyzing historical temperatures, attached as DEU Exhibit 3.11R, as far back as 1892 from one demand center. The major demand centers I included in my analysis were Chicago, Milwaukee and Minneapolis for the Polar Vortex and Atlanta, Columbia, Jacksonville, Philadelphia, Raleigh and Richmond for the Bomb Cyclone. All of these locations were well above their 20 year recurrence interval temperatures.

Q. In a response to a data request (OCS Data Request No 1.01 Requested by DEU), The Office indicated that in Mr. Mierzwa's recollection, several LDCs regularly include resources above the Design-Day requirements. What conclusions can be drawn from the prevalence of this practice?

A. In my opinion, this is evidence that LDCs and Commissions across the United States find it prudent to build a margin of safety into their supply portfolio for reliability. The

Company is not the lone LDC that is attempting to plan contingency into the supply portfolio.

Q. In Mr. Mierzwa's testimony, lines 266-286, he indicates that the Company's entire supply portfolio is "sourced from locations at significant distances from the DEU system" and states that this has not caused any issues in the past. Why does the Company believe that an on-system solution to provide reliability is so important when off-system sources have been so effective in the past?

A. Aside from minimizing the risks that are listed in DEU Exhibit 2.12 while increasing the Company's supply portfolio diversity, most other LDCs already have some form of on-system storage to rely on in adverse scenarios. In DEU Exhibit 2.04, 77% of responding LDCs had some form of on-system storage in their supply portfolio (45% of which was an LNG facility). Additionally, in a response to a data request (DEU Data Request No. 1.03), the Office supplied a list of capacity resource portfolios, in which, 80% of companies listed had some form of on-system storage, 42% of which was LNG. A copy of this data request response is attached as DEU Exhibit 3.12R. Of the companies that had on-system storage, 54% used LNG facilities. These companies and their customers are benefitting from having on-system storage at their disposal.

V. OFF-SYSTEM STORAGE

Q. Mr. Holder indicates that Magnum is the "only known large, domal-style salt structure in the western United States suitable for natural gas storage." Does this mean that there is no equivalent option closer to the Company's demand center?

A. Yes. But as Ms. Faust extensively discussed in her Direct and Rebuttal testimonies, this option is nevertheless off-system and has numerous challenges. This demonstrates the futility in conducting another RFP for a strategic facility that needs to be owned and controlled by the LDC to maximize the benefits of reliability. Again, this is no different than the rigorous modeling performed by the Engineering department to properly size the Company's facilities, pipes, and interconnecting facilities.

Q. Mr. Holder believes the location of its facility protects against earthquakes. Do you believe that is the case?

A. Not entirely. I am not aware of an alignment that is immune to the effects of earth movement. Magnum's planned alignment to Goshen will most likely intersect either the East Tintic Mountain fault or the Long Ridge fault (as shown in Figure 1). Reviewing Utah's fault lines[4], there are a number of fault lines located in between the Magnum facility and either of its options for tying into the Company's high pressure system. The fault lines and folds identified in this map are "the most likely sources of large earthquakes in the future." Id. While the Magnum facility may be a facility that can augment supplies from upstream third-party sources in the future, it cannot provide guarantees against earthquakes.

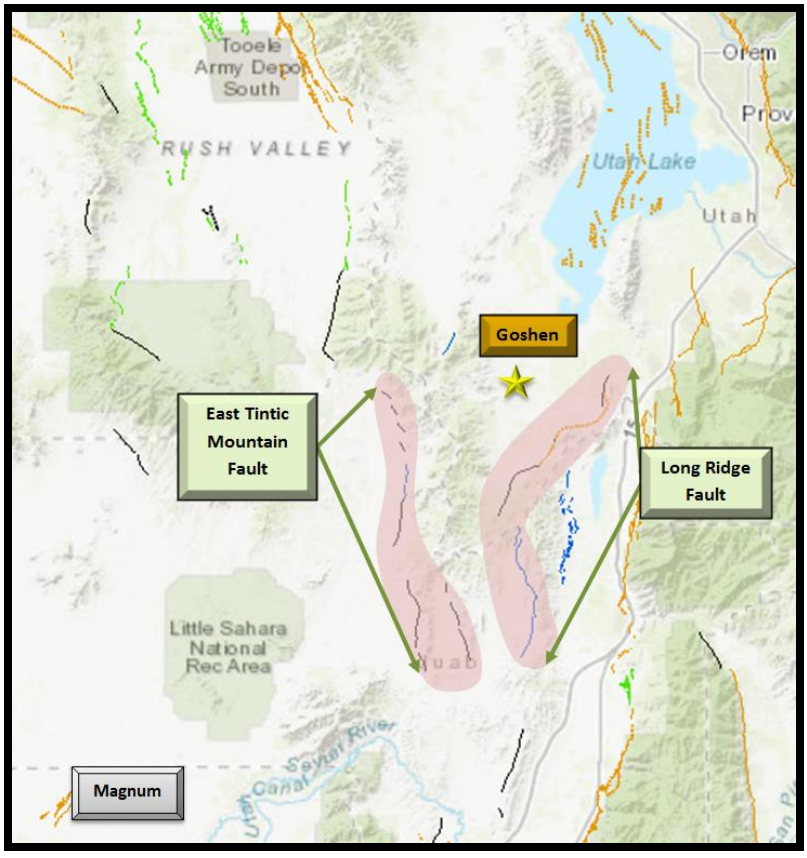

Figure 1: Quaternary Faults in Relation to Magnum

4 The state of Utah publishes the Quaternary Faults and Fold map at https://geology.utah.gov/apps/qfaults/index.html.

Q. Can storage be considered "on-system" when more than 60 miles of pipeline, not owned by the Company, separate the storage from the demand center?

A. Not really. The distance between Magnum's proposed storage facility and the customer's matters in this designation, regardless of what Mr. Holder believes. In addition, the pipeline that will not be owned by the Company and will require equipment (valves, compressors, cathodic protection, and gate station, etc.) along the way that will be maintained and operated by Magnum. This is not remotely similar to a short tap line (approximately 1 mile in length) from the proposed LNG storage facility that connects directly to the DEU's system and is owned and operated by DEU.

Q. Is it possible to install a pipeline with only 60 miles from Magnum's location to [redacted]?

A. No. The straight line distance from the Magnum facility to [redacted] is 58 miles. Such a route, however, is not a viable option, and Magnum would have to account for changes in geography, economics, and other hurdles to construct a pipeline to Payson. This in turn would extend the pipeline from Magnum's facility well beyond 60 miles.

Q. Is it possible to install a pipeline with only 90 miles from Magnum's location to the proposed [redacted] tie-in location?

A. Perhaps. When the Company estimated the distance, educated assumptions about the path that the pipeline would need to be installed in were made. Those assumptions were based on the geography and existing pipeline alignments. Magnum did not account for these factors, as they do not have an engineering design prepared.

Q. Could you please summarize your rebuttal testimony?

A. Yes.

The system analysis provided in support of the proposed LNG facility is thorough and sufficient. While the Office claims it is not sufficient, it has failed to point to a deficiency in what was provided.

The supply reliability option chosen will not be included in collaborative analysis data transfers between the Company and DEQP.

The proposed LNG facility is capable of mitigating the most risks posed to our gas supply of any of the options reviewed.

Most LDCs already have an on-system storage facility that is used to maintain supply reliability.

The off-system option that Magnum is proposing is exactly that, off-system. The facility is exposed to additional risks due to great distance between the demand center and the storage facility.

Q. Does this conclude your testimony?

A. Yes.

State of Utah)
) ss.
County of Salt Lake)

I, Mike Platt, being first duly sworn on oath, state that the answers in the foregoing written testimony are true and correct to the best of my knowledge, information and belief. Except as stated in the testimony, the exhibits attached to the testimony were prepared by me or under my direction and supervision, and they are true and correct to the best of my knowledge, information and belief. Any exhibits not prepared by me or under my direction and supervision are true and correct copies of the documents they purport to be.

Mike Platt

SUBSCRIBED AND SWORN TO this 6th day of September, 2018.

GINGER JOHNSON
Notary Public State of Utah
My Commission Expires on:
August 4, 2019
Comm. Number: 684539

Notary Public