BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE PASS-THROUGH APPLICATION OF DOMINION ENERGY FOR AN ADJUSTMENT IN RATES AND CHARGES FOR NATURAL GAS SERVICE IN UTAH	))))))))	**DOCKET NO. 17-057-20** **DPU Exhibit 1.0 DIR** **Direct Testimony** **Douglas D. Wheelwright**

FOR THE DIVISION OF PUBLIC UTILITIES
DEPARTMENT OF COMMERCE
STATE OF UTAH

Direct Testimony of

Douglas D. Wheelwright

April 23, 2018

Q: Please state your name, business address and title.

A: My name is Douglas D. Wheelwright; my business address is 160 East 300 South, Salt Lake City, Utah 84114. I am a Technical Consultant with the Division of Public Utilities (Division).

Q: On whose behalf are you testifying?

A: The Division.

Q: Please describe your position and duties with the Division.

A: As a technical consultant, I examine public utility financial data and review filings for compliance with existing programs as well as applications for rate increases. I research, analyze, document, and establish regulatory positions on a variety of regulatory matters. I review operations reports and evaluate the compliance with the laws and regulations. I provide written and sworn testimony in hearings before the Utah Public Service Commission (Commission) and assist in the case preparation and analysis of testimony.

Q: Please identify the Division's witnesses for this docket.

A: In addition to my testimony, the Division is providing testimony from Mr. Eric Orton and is sponsoring the testimony of Mr. Howard Lubow, Mr. Frank DiPalma and Mr. Kenneth Ditzel from Overland Consulting. Each of the Overland witnesses will provide a different perspective of the peak hour issue and the transportation requirements.

Q: Can you provide some background relating to the peak hour contracts that are the focus of this proceeding?

A: Yes. Information relating to the peak hour transportation contracts has been included in several other Dockets including Integrated Resource Planning (IRP),[1] the 191 Pass-Through[2] and Peak Hour Cost Allocation to Transportation Customers.[3] As part of the approval for

[1] Docket No. 17-057-12.
[2] Docket No. 17-057-07 and 17-057-20.
[3] Docket No. 17-057-09.

interim rates in this docket, the parties signed a stipulation agreement to address concerns with the peak–hour service contracts.

Since the concept of a peak hour was originally presented, the Division representatives have participated in numerous meetings and discussions with Company representatives and have submitted numerous data requests to gain a better understanding of the purported need for this type of service. In the Peak Hour Cost Allocation Docket, the Division hired Overland Consulting to review this issue and provide analysis and perspective. The Division did not attempt to include or repeat all of the testimony from the Peak Hour Cost Allocation Docket in this Docket, however some of the same issues will likely be addressed in both Dockets. In order to gain a better understanding of the peak hour issue, the Division encourages the Commission and other parties to review the testimony and exhibits in both Dockets.

Q: Please briefly summarize the work and investigation that has been performed in this case.

A: The Division has reviewed the filed testimony of Dominion witness Mr. David Landward, Mr. Michael Platt, and Mr. William Schwarzenbach III, along with the attachments and exhibits. In addition, the Division and its consultants have submitted numerous data requests to the Company and conducted interviews with company representatives concerning the transportation contracts and peak day and peak hour planning. The Company has provided additional information in response to the formal data requests and during the interview process to help with the Division's review and analysis.

Q: What is the Division's position and recommendation?

A: Based on significant concerns with the accuracy of DEU's underlying tools for defining its design models, the Division remains unpersuaded that the contracts are in the public interest. They appear to be an expensive, unnecessary purchase to forestall a problem that may not exist and for which other solutions might be found.

Q: Do you have any general concerns with the application and the information that has been provided?

A: I have a concern with DEU Exhibit 3.4 in Mr. Schwarzenbach's testimony. This exhibit appears to support the need for peak hour service by showing the number of times that the daily flow rates have exceeded the daily nomination amount or RDC. While this exhibit is intended to support the need for peak hour service, the footnote on this exhibit states "volumes depicted are approximate and are for illustrative purposes only." Since discussions related to this issue have been going on for some time, it is unclear to the Division why approximate or illustrative information has been provided instead of actual values.

Exhibit 2.4 in Mr. Platt's testimony provides an illustration of what could happen to the pressures within the distribution system under extreme conditions. In response to DR 1.18 the Company indicated that this model assumes that "no volumes above the RDC are used or available, and no other sources were used to meet demand." In other words, the model is assuming that no gas is available from storage in Clay Basin or the Aquifers and that every option for market purchases or additional volume from Kern River is unavailable. While it is interesting and important to see how quickly the system would lose pressure, the probability of this occurring is extremely remote. If these conditions were to occur, it is unlikely that the peak hour contracts would be sufficient to maintain the system for any length of time.

Q: If we have not had a peak weather event for some time, why is the peak hour now a concern and why has the Company purchased the Kern River and the DEQP peak hour contracts?

A: If the Company were to experience a peak day event, transportation contracts on upstream interstate natural gas pipelines or alternate plans must be in place in order to meet the peak day requirement. The peak hour contracts have been purchased to provide additional firm transportation during the peak usage hours of the peak usage day. In prior years, Dominion Energy Questar Pipeline (DEQP) has allowed the Company to draw the additional gas during

peak hours without a formal contract agreement but will no longer provide this service on a firm basis.

Q: Has the volume of upstream transportation contracts increased over time as the natural gas usage from sales customers has increased?

A: No. In Docket No. 17-057-09, the Company provided Exhibit 1.8R to show the growth in firm sales volume compared to the growth in firm transportation contracts. The information from Exhibit 1.8R has been included below.

Table 1

(A) Heating Season	(B) Actual Firm Sales (Dth)	(C) Design Peak Firm Sales (Dth)	(D) Firm Upstream Transport (Dth)
1997/98	635,083	958,798	824,859
1998/99	772,309	977,251	864,859
1999/00	592,807	999,650	848,859
2000/01		1,024,602	828,959
2001/02	779,359	1,046,073	913,559
2002/03	662,201	1,086,287	970,559
2003/04	725,763	1,068,527	1,004,859
2004/05	720,777	1,076,542	1,095,442
2005/06	818,191	1,106,256	1,004,442
2006/7	952,121	1,144,307	1,004,442
2007/8	874,365	1,163,302	954,442
2008/9	846,142	1,195,606	954,442
2009/10	899,353	1,256,979	954,442
2010/11	989,785	1,271,746	956,327
2011/12	763,290	1,280,770	942,654
2012/13	984,588	1,285,693	977,654
2013/14	911,101	1,267,049	977,654
2014/15	996,189	1,285,857	977,654
2015/16	880,378	1,305,701	977,514
2016/17	974,095	1,316,588	1,045,139
Percentage Increase	**53%**	**37%**	**27%**

From 1997 to 2016, actual firm sales increased by 53% while firm upstream transportation increased by only 27%. The last line of the table shows that the design peak volume and the upstream firm transportation volume have not increased at the same rate as the increase in firm sales volume. I have highlighted 2004 and 2016 to show how the Company had more upstream firm transportation capacity in place for the 2004/05 heating season than it did for the 2016/17 heating season. From 2004 to 2016, firm sales increased by 35% while firm transportation decreased by 4.6%. Based on this comparison it would appear that the Company should have purchased additional firm transportation capacity instead of peak hour contracts. This information also supports the position outlined by Overland Consulting that there are flaws in the calculations for the design peak, among other issues they addressed and the recommendation to purchase additional firm transportation capacity.[4]

Q: In previous testimony relating to the peak hour contracts you have been concerned with the way the Company has modeled the Lake Side generation facility. Do you still have concerns with the information that has been provided?

A: Yes. It is the Division's understanding that the unsteady state model used to estimate the amount of transportation service calculates the hourly volume and usage patterns for GS customers as well as some transportation customers. This same logic and usage pattern has not been used to estimate the volume and historical usage patterns for the Lake Side electric generation facility. Instead of including an estimate of the usage during cold weather conditions and following the historical usage pattern, the Company assumes that this facility will [redacted]. In response to DR 1.26, the Company has acknowledged that [redacted] for the Lake Side facility and has acknowledged that [redacted] This one customer represents [redacted][5] of the total transportation volume in the coldest winter months and an incorrect forecast for this single large use customer could have

[4] Docket No. 17-057-09, Testimony of Howard E. Lubow, page 10, line 258.
[5] Three year average of the Lake Side volume for December, January & February.

a significant impact on the accuracy of the forecast. An inaccurate estimate [redacted] could have an impact on the [redacted] for a peak hour contract.

In response to DR 4.07 the Company provided the actual hourly usage for the Lake Side facility on November 11, 2016, which is shown below.

Chart 1

[redacted]

On November 11, 2016, the usage peaked at approximately [redacted] Even though the peaks occur at different times of the day, the hourly swings for Lake Side are [redacted] 17% peak hour swing identified as a concern by the Company.

Q: Is the actual usage pattern for Lake Side consistent with the language and requirement of the contract?

A: No. In response to DPU DR 1.26 and 1.30, the Company indicated that "Lake Side is required to deliver its gas into the DEUWI system as it uses the gas" and gas must be burned on a "Steady-State" basis or burned evenly throughout the day. Since the Lake Side facility does not utilize the gas evenly throughout the day, additional volumes consumed must be provided by either DEQP or Kern River when the uneven usage does not match the ratable delivery amounts. In response to DR 4.05 the Company indicated that "DEUWI's Gas

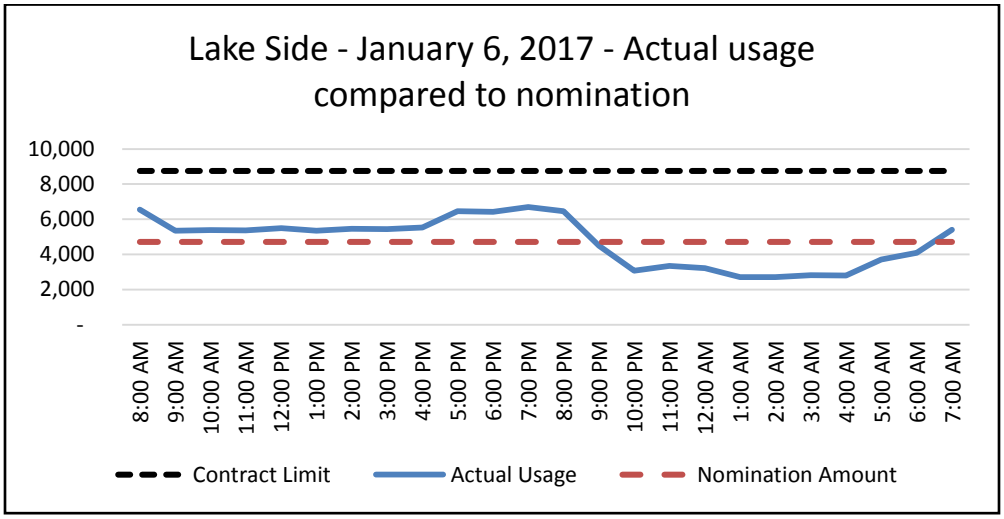
Control coordinates closely with the upstream pipelines (DEQP and Kern River) to allow for operationally available hourly usage rates that may deviate from the scheduled quantity." This inconsistency places strains on the system that may not be properly addressed by acquiring a peak hour service targeted to GS customers. Addressing the specific Lake Side inconsistency may substantially resolve the need for peak hour service.

Q: The Company has indicated that Lake Side is not a concern since the peak of the Lake Side demand curve occurs at a different time during the day than the peak for GS customers. Do you agree with the Company?

A: Based on the information that has been provided, I agree that the peak demand time for Lake Side is different than the peak demand for GS customers. I do not agree that the impact of Lake Side should be ignored because the peak hours are different or because it is served under a special contract. DEU should be looking at, and planning for the requirements of the total distribution system. [redacted]

January 6, 2017 has been identified in Mr. Landward's testimony as an extremely cold day with distribution challenges. In response to DR 1.06 and 1.07, the Company provided the nomination amount and actual usage for the Lake Side facility on that day. Chart 2 below shows that on this critical day, the actual usage is greater than the nomination amount during the peak hours of concern to GS customers.

Chart 2



On January 6, 2017, the actual hourly usage was greater than the ratable nomination amount for most of the day. In response to DR 4.06, the Company states;

> Historically, either or both of the upstream pipelines DEQP and Kern River may provide additional gas to handle hourly burn rates greater than the expected uniform or even burn rate based on the scheduled quantity.

In this situation, additional gas was provided to Lake Side from 8 am to 9 pm above the nomination amount, which could contribute to the operational shortage on that day and could potentially impact GS customers. The response to DR 1.30 states that "if Lake Side needed its own Peak Hour Services, it would need [redacted]. The actual usage by this customer is significantly different in terms of the actual hourly burn rate when compared to the total contract amounts and even burn rate used to generate the Company's forecast.

Q: The Company has indicated that Lake Side usage is not a concern since the Company has a flow control valve and could curtail usage if necessary. Do you agree?

A: No, and there has been some confusion related to the purpose of the flow control valve at this facility. The Company has indicated that if operationally necessary, it has the ability to

curtail the flow of gas to the Lake Side facility however it has never done so. In response to DR 1.29, the Company stated;

> The Company utilizes data from the flow control valves at the DEU and Kern River interconnects daily to ensure that total daily flows from each source match nominated quantities from each source. To date, Lakeside has not taken gas at non-uniform flow rates above the nomination beyond a quantity that has been operationally available or to the point that the flow rate has compromised the integrity of DEU's system. Therefore, the Company has not utilized the flow control valves to stop flow to Lakeside.

This statement as well as the response to DR 4.10 would indicate that control valve at Lake Side is used on a daily basis by the Company, at least for monitoring. It is the Division's understanding that the purpose and need for peak hour service is due to the upstream limits and the availability of gas in excess of the ratable nomination amount. If we apply the same logic and justification that is used for Lake Side, GS customers have not taken gas on non-uniform flow rates above the nomination beyond a quantity that has been operationally available. Under that definition there is no need for peak hour service for GS customers.

Q: Do you have information to show how the set point has been used with the Lake Side flow?

A: The Company provided set point values and Lake Side flow information for November 11, 2016 in response to DPU DR 4.10. Chart 3 shows how the FL26 setpoint was adjusted during the day to account for the flow from DEQP and from Kern River.

[redacted]

[redacted]

[redacted]

[redacted]

Q: The Company has no-notice transportation service in place to deal with daily fluctuations in the nomination amounts. If the Company has peak hour contracts, do you believe it still needs the no-notice transportation contract?

A: The Company currently has no-notice transportation service in place for 203,542 Dth. It is not clear to the Division why both contracts are necessary or if the amount of no-notice transportation is still appropriate with peak hour service. The peak hour contract works to provide firm delivery of additional gas volume during certain hours of the day when the flow rate exceeds the ratable daily nomination amount. No-notice allows for adjustment of the gas volumes so that deliveries can be adjusted outside the normal nomination cycles. If the No-notice cannot provide additional volumes above the RDC on a firm basis, (under nomination) it would seem that the benefit of no-notice would be to provide for the movement of only the excess gas (over nomination) on a daily basis outside of the nomination cycles. No-notice service may be able to provide additional gas to the system in excess of the RDC. Since the

no-notice appears to be useful only if there is excess gas to the system, the contract amount for no notice service may need to be reevaluated.

Q: Has the Company provided the calculation to determine the amount of no-notice service that is required?

A: No. In response to DR 9.01, the Company stated that the current contract was last amended on May 20, 1994. It seems strange to the Division that with all of the growth that has occurred on the Dominion system and the represented importance of no-notice service, that this contract has not been adjusted for 24 years.

Q: What conclusions have you reached concerning the peak hour contract and the allocation of a portion of the contract cost to transportation customers?

A: Based on significant concerns with the accuracy of DEU's underlying tools for defining its design models, the Division remains unpersuaded that the contracts are in the public interest. They appear to be an expensive, unnecessary purchase to forestall a problem that may not exist and for which other solutions might be found.

Q: Does this conclude your testimony?

A: Yes.