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March 5, 2014

VIA ELECTRONIC FILING AND U.S. MAIL

Public Utility Commission of Oregon
3930 Fairview Industrial Drive SE
Post Office Box 1088
Salem, Oregon 97308-1088

Attn: Filing Center

Re: **OPUC Docket UM 1654** – Investigation of Interstate Storage and Optimization Sharing

Northwest Natural Gas Company, dba NW Natural ("NW Natural" or "Company"), files herewith responses to Bench Request issued on February 21, 2014 in the above-referenced docket. Enclosed are an original and five copies.

Please call me if you have any questions or require any further information.

Sincerely,

/s/ Mark R. Thompson

Mark R. Thompson
Manager, Rates and Regulation

enclosures

cc: UM 1654 Service List

NW Natural

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing NW NATURAL'S RESPONSES TO BENCH REQUEST, upon all parties of record in the UM 1654 proceeding by electronic mail.

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DATED at Portland, Oregon, this 5th day of March, 2014.

/s/ Kelley C. Miller
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BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

In the Matter of	**)**	
	)	
NORTHWEST NATURAL GAS COMPANY,	**)**	**NW Natural Responses**
dba NW NATURAL	**)**	**to Bench Request**
	)	
Investigation of Interstate Storage and Optimization	**)**	

NW Natural provides below its responses to each of the Commission's bench requests issued on February 21, 2014.

1. Liquids Extraction

a. NW Natural purchases gas out of Alberta, and participates in liquids extraction by employing a processing company to perform the extraction. What other local gas distribution companies (LDCs) purchase natural gas out of Alberta? Which of these LDCs employ companies to extract and sell natural gas liquids? Do any of these LDCs undertake these activities in-house to negotiate with and employ extraction companies and sell natural gas liquids? For these LDCs, what is the net margin allocation between ratepayers, shareholders, and third-party marketing companies? For any of these LDCs, is this function treated as a normal business activity?

NW NATURAL'S RESPONSE:

LDCs that Purchase Gas from Alberta

NW Natural referred to a NOVA Gas Transmission Ltd. – Facility Detail report, which is essentially an index of shippers, to determine the LDCs that purchase gas from Alberta. Based on that report, NW Natural identified the following natural gas LDCs that transport gas to the Alberta/B.C. border. Please note that this list excludes LDCs that purchase gas in Alberta that are located in the mid-continent and eastern portions of the U.S. and Canada. It also excludes combination electric/gas utilities.

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- Cascade Natural Gas
- FortisBC Energy Inc.
- Southern California Gas Company
- NW Natural

Other Utilities' Liquids Extraction Activities

[redacted]

NW Natural has limited information about which LDCs employ companies to extract and sell natural gas liquids, and the details of those arrangements. In general, this information is not made public, and the details of such arrangements are confidential. NW Natural describes below the information that it has.

NW Natural believes that many LDCs take advantage of revenues that can be achieved from extracting and selling liquids associated with their gas purchases and deliveries as those purchases are moved through processing plants that are located along the path to the LDCs' service territories. With respect to purchases from Alberta, NW Natural generally understands that the other above-listed companies move gas through the Cochrane processing plant, located on the western leg of the TransCanada Alberta (NOVA) system, and that they likely obtain revenues related to liquids extraction.

NW Natural is aware that Cascade Natural Gas employs a third party to handle certain optimization activities, including pipeline capacity releases. NW Natural understands that Cascade believes the third party does perform some liquids extraction activities, although the details of those activities are not negotiated or managed by Cascade. NW Natural understands that under the third-party arrangement, Cascade receives a fixed payment, and the third party retains revenues to the extent those revenues (including revenues from liquids extraction) exceed the fixed payment to Cascade. NW Natural understands that Cascade includes its payments received from the third party as an offset to its cost of gas in its purchased gas filings. As described above, these revenues received by Cascade are not variable with respect to the amount of optimization or revenues generated by the third party for their own account.

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[redacted]

NW Natural is aware that FortisBC holds contracts both at Cochrane (both firm and interruptible service) for gas being transported to British Columbia, as well as contracts (interruptible service) at one or more of the extraction plants on the Alberta/Saskatchewan border when opportunities present themselves. Negotiation of these extraction contracts along with the sale of gas at the Saskatchewan border are handled internally at FortisBC. NW Natural is not aware of the details of how those revenues are treated with respect to ratemaking.

NW Natural notes that Southern California Gas Company has limited purchases from the Alberta area and that such purchases constitute only a small fraction of their portfolio, roughly 5%.[1] NW Natural is unaware of any information concerning Southern California Gas Company's activities with respect to liquids extraction.

NW Natural also comments here about its understanding of Avista's liquids extraction activities because, although Avista is a combination utility, it does operate only as an LDC in Oregon, and because CUB has made several comparisons between NW Natural and Avista in its testimony in this proceeding.

NW Natural is aware that Avista performs some liquids extraction activities on its gas purchases, and that it normally negotiates and coordinates these services on its own behalf,

[1] *See* Appendix C in http://www.socalgas.com/regulatory/documents/GCIM%20Year%2019%20App.pdf, in which the "Canadian Path" amounts to 51.9 MDth/d out of a Grand Total of 1,020.8 MDth/d as of February 2014.

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using in-house resources. In general, Avista utilizes the processing plants located on the path to its service territory (the Cochrane plant). In limited circumstances, Avista has employed third parties to perform optimization activities on its behalf, through releasing pipeline capacity to those parties. In some instances, the payments Avista receives with respect to those pipeline capacity releases are influenced by the third party's ability to obtain revenues from liquids extraction activities, including in past years, some minor revenues that have been obtained from utilizing processing plants to the east of Alberta, where prices were more favorable than at the Cochrane plant.

NW Natural understands that Avista includes revenues it achieves from liquids extraction activities as a credit to its cost of gas, on a deferred basis. In other words, Avista passes through these revenues after they are achieved, in the following PGA year. As such, these revenues are shared between the Company and customers on either a 90/10 or 80/20 basis, depending on the Company's elections in the PGA process. NW Natural understands from Avista that Avista's Oregon-allocated revenues from liquids have been between around $130,000 and $500,000 over the last several years. The percentage used for the Oregon allocation varies year to year, but was around 19% in 2013.

NW Natural's Liquids Extraction Activities

[redacted]

[redacted]

[2] *See e.g.* Friedman, TR 36-39.

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[redacted]

[redacted]

[redacted]

[redacted]. [redacted]

[redacted]

[3] *See Avista Corp.*, Docket UG-131748, Open Meeting Memorandum (Oct. 30, 2013).

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[redacted]

[redacted]

[redacted]

b. What specific services does Tenaska Marketing Ventures (or previous third-party marketing companies employed by NW Natural) provide to NW Natural related to Alberta natural gas liquids extraction and sales? What are the key features of the contractual arrangement between NW Natural and Tenaska for liquids extraction? What does Tenaska receive for the services provided for liquids extraction services? By year, what have been the effective net revenues from liquids extraction? By year, what has been the net margin/revenue allocation between ratepayers, shareholders, and Tenaska or any other third-party marketing company?

NW NATURAL'S RESPONSE:

[redacted]

[redacted]

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[redacted] [redacted]

[redacted] [redacted]

[redacted] [redacted]

[redacted]

[redacted] [redacted]

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[redacted]

[redacted]

2. Mist Storage Optimization

a. Assume for purposes of this question that NW Natural did not make shareholder investments in Mist in or after 2001.

NW NATURAL'S RESPONSE:

[redacted]

[redacted]

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[redacted]

[redacted]

(1) What optimization activities could the company conduct with Mist storage using only the previously existing facility? For each year since 2001, compare actual yearly Mist optimization results with the results of Mist optimization using only the pre-existing Mist facility.

NW NATURAL'S RESPONSE:

[redacted]

[redacted]

[redacted]

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[redacted]

[redacted]

(2) Alternatively, assume that NW Natural made investments in Mist in or after 2001 only to meet core customer needs. What core customer investments would the company have made, and when would they have been made? What optimization activities could the company conduct with Mist storage using the previously existing facility, with only these hypothetical customer investments in and after 2001? For each year since 2001, compare actual yearly Mist optimization results with the results of Mist optimization using the pre-existing facility with only core customer investments.

NW NATURAL'S RESPONSE:

[redacted]

[redacted]

[redacted]

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[redacted]

b. Answer the following questions regarding Mist storage.

(1) NW Natural states that the physical Mist capacity available to Tenaska did not exceed 3,625,000 Dth in 2012.[4] What is the basis for NW Natural's calculation of the maximum Mist capacity available to Tenaska each year?

<u>NW NATURAL'S RESPONSE:</u>

[redacted]

(2) What would be the maximum Mist capacity available to Tenaska if NW Natural's shareholders had not invested in Mist expansion in and after 2001?

<u>NW NATURAL'S RESPONSE:</u>

There are two effects in this scenario. First, there would be less deliverability because fewer reservoirs and related infrastructure would have been developed. This would have restricted the ability to receive and provide gas from optimization purposes. Offsetting that to some extent is the Reichhold reservoir and its related deliverability, which would have been developed and dedicated 100% to the Core at its onset in 2004, rather than being developed as it was for Interstate Storage Services and gradually recalled as needed by the Core (about 60% recalled at present). The effect on deliverability is shown in attachment "CONFIDENTIAL UM 1654 NWN's Response Q2a 1-2.xlsx" in the columns titled "2a(2)".

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[4] *See* NWN/402, Friedman/I.

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[redacted]

(3) Does Tenaska's ability to leverage trading activity increase with increased available capacity? If yes, why? What would Tenaska's leverage be if NW Natural's shareholders had not invested in Mist storage?

NW NATURAL'S RESPONSE:

We assume that leverage, as mentioned in testimony, relates to the greater level of financial trading that is achievable compared to that represented by the physical position. The leverage ratio mentioned in testimony was a factor of six.[5] We believe any increase or decrease to the available capacity would increase or decrease revenues proportionately, respectively, but there is no reason to think that the leverage **ratio** of six would change appreciably in either case. Of course the potential increase in trading activity is not infinite, there is certainly some theoretical limitation to the physical and financial market trading at the hubs accessible to Tenaska, but those markets have sufficient liquidity to handle any reasonable increase in Mist deliverability.

(4) Does Tenaska's expected average margin in dollars per Dth increase with increased volume of transactions? If yes, why?

NW NATURAL'S RESPONSE:

Having more available capacity does means more trading activity can occur, but assuming the increased volume of transactions would follow the same seasonal pattern, then the expected margin dollars per Dth should be essentially the same. This is a reasonable assumption since the trading all relates back to, or starts with, the deliverability that would be available in March assuming an average winter. [redacted]

[5] NWN/400, Friedman/11, line 3.

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[redacted]

Dated this 5th day of March, 2014.

/s/ Mark R. Thompson

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CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER

Mist Storage Optimization Scenarios

(Gross Revenue before Third Party Optimzer sharing reduction and shareholder/customer sharing on Interstate and Core Capacity split)

	Actual: Core and Interstate				**2a(1): No Expansions [1]**		**2a(2): Core Expansion; No Interstate [2]**			
	Deliverability (Dth/d)		Optimization Revenue		Deliverability (Dth/d)	Optimization Revenue	Deliverability (Dth/d)			Optimization Revenue
	Total	Core	Total	Core			Total	Needed	Excess	
2000	[redacted]				[redacted]		[redacted]			
2001										
2002										
2003										
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