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September 23, 2013

**VIA ELECTRONIC FILING AND FIRST CLASS MAIL**

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

Attn: Filing Center

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

Northwest Natural Gas Company, dba NW Natural (“NW Natural” or “Company”), files herewith its Reply Testimony in the above-captioned docket. Enclosed are an original and five copies.

A copy of this filing has been served on all parties to this proceeding as indicated on the enclosed Certificate of Service

Please call me with any questions.

Sincerely,

*/s/ Mark R. Thompson*

Mark R. Thompson

Enclosure

cc: Service List



## CERTIFICATE OF SERVICE

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

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DATED at Portland, Oregon, this 23rd day of September 2013.

/s/ Kelley C. Miller  
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NW NATURAL

**BEFORE THE  
PUBLIC UTILITY COMMISSION OF OREGON**

**UM 1654**

**NW Natural**

**Reply Testimony of Keith White**

**INTERSTATE STORAGE AND OPTIMIZATION  
EXHIBIT 300**

September 23, 2013

1 I. INTRODUCTION AND SUMMARY

2 Q. Please state your name.

3 A. My name is Keith White. I am Vice President of Business Development and Energy  
4 Supply at NW Natural (the "Company"), and the Company's Chief Strategic Officer.

5 Q. Are you the same Keith While who filed direct testimony in this case?

6 A. Yes. My testimony was filed as NWN/100.

7 Q. What is the purpose of your reply testimony?

8 A. The purpose of my testimony is to respond to the testimony of the Citizens' Utility Board  
9 (CUB), filed by Bob Jenks and Jamie McGovern.

10 Q. Please summarize your testimony.

11 A. In my direct testimony (NWN/100 White) dated July 15, 2013 ("Opening Testimony") I  
12 described the history of the Company's interstate and intrastate storage service  
13 business ("Storage Services") and its optimization of various utility resources and  
14 capacity at Mist through a third-party partner ("Optimization Activities"). I described the  
15 sharing arrangements for revenues associated with these activities that were negotiated  
16 among the parties and adopted by the Commission, and I explained the significant  
17 benefits from these activities realized by our utility customers.

18 In its Reply Testimony (Staff/100 Colville), Staff recognizes the benefits flowing to  
19 customers from NW Natural's Storage Services and Optimization Activities, and  
20 supports continuation of the current sharing arrangements. However, in its Response  
21 Testimony (CUB/100 Jenks-McGovern), CUB proposes radical changes. In particular,  
22 CUB argues that the sharing for Storage Services must be reevaluated based on the  
23 type of cost-of-service model that is applied to standard utility services. Similarly, CUB

1 argues that Optimization Activities should be regarded as typical local distribution  
2 company (LDC) activities and accorded more traditional rate-of-return treatment.

3 As I will explain below, CUB's proposals disregard the fact that NW Natural's  
4 Storage Services and Optimization Activities are substantially different from typical LDC  
5 activities. The Company's activities differ with respect to the nature of the activities  
6 themselves as well as the economics of decisions about whether and how they are  
7 provided.

8 CUB's proposals to treat Storage Services and Optimization Activities similarly to  
9 typical LDC activities would have significant and negative consequences. Indeed, if  
10 adopted, CUB's proposals would threaten the continued viability of these activities that,  
11 up to now, have provided very significant benefits to utility customers and shareholders  
12 alike.

## 13 II. STORAGE SERVICES

14 **Q. Please summarize NW Natural's provision of its Interstate Storage Services and**  
15 **the benefits that are provided to utility customers from these activities.**

16 A. In March 2000, NW Natural sought and received approval from the Commission to offer  
17 interstate (and later intrastate) storage services to wholesale customers and to share the  
18 net margins from such services on a 20/80 basis. (Consistent with my Opening  
19 Testimony and CUB's Response Testimony, when referring to sharing between  
20 customers and NW Natural, I will refer to the customer allocation first, as in  
21 customer/NW Natural). The sharing percentages ordered were intended to compensate  
22 NW Natural's utility customers for the services' use of certain rate-based assets  
23 (compression station and LDC pipeline capacity) that are paid for in utility customers'  
24 rates. In reliance on this understanding, NW Natural's shareholders invested

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1 approximately \$65 million between 2001 and 2007 to build out capacity at NW Natural's  
2 Mist storage facility to provide these services.

3 Customers' share of the net margins from the Company's Storage Services have  
4 totaled \$17 million since 2001<sup>1</sup>. Importantly, customers have not paid any incremental  
5 costs to allow NW Natural to provide these Storage Services. Instead, the incremental  
6 costs have been paid for by NW Natural's shareholders. Thus, all revenues that utility  
7 customers receive under the revenue sharing arrangement effectively offset costs that  
8 utility customers would have paid in any event. In addition to the revenue sharing  
9 benefit, utility customers have significantly benefited from the ability to "recall" the  
10 storage capacity that was paid for by NW Natural's shareholders, on an "as-needed"  
11 basis, rather than through having to build out new reservoir and compression capacity all  
12 at once, and growing into the excess capacity over time. Moreover, utility customers pay  
13 for such recalled storage capacity on a "depreciated basis," meaning that utility  
14 customers receive a cost advantage because the Company's shareholders have  
15 already borne the depreciation expense on the build out of the storage capacity up until  
16 the time the capacity is recalled to serve utility customers. NWN/301 White/3, shows  
17 that utility customers have realized about \$21 million dollars in savings as a result of this  
18 recall ability. Thus, in total, customers have received at least \$38 million in benefits from  
19 NW Natural's Storage Services.

20 **Q. What is CUB's position with respect to the appropriate sharing allocation for the**  
21 **Company's Storage Services?**

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1 See NWN/301 White/3

1 A. CUB states that it can agree to a continuation of the sharing of revenues on a 20/80  
2 basis only “temporarily,”<sup>2</sup> and advocates that the Commission reevaluate the sharing  
3 through application of a traditional “cost-of-service” model. Specifically, CUB argues that  
4 the Company “should be required to model its interstate/intrastate storage services in its  
5 cost-of-service model (marginal cost analysis) to identify the share of system costs that  
6 should be allocated to storage if it were treated like all other services that share in the  
7 common investment.”<sup>3</sup> CUB proposes that the cost-of-service study be used to revisit  
8 the sharing arrangement in the Company’s next rate case.<sup>4</sup>

9 **Q. Do you agree with CUB that a cost-of-service model should be used to inform the**  
10 **appropriate sharing arrangement for the Company’s Storage Services revenues?**

11 A. No. There are four reasons why it would be inappropriate to rely on a cost-of-  
12 service/cost allocation model to inform the sharing arrangement for the Company’s  
13 Storage Services revenues. **First**, the application of a cost-of-service model as  
14 proposed by CUB represents a radical departure from the framework that was adopted  
15 by the Commission and relied upon by NW Natural when it invested in the incremental  
16 storage capacity to support its Storage Services. It would be unfair to fundamentally  
17 alter the sharing methodology after the Company’s significant investment has already  
18 been made in reliance on the methodology. **Second**, a cost-of-service model would  
19 distort the economic incentives relevant to future investments in Mist storage and would  
20 misalign customers’ and shareholders’ interests. **Third**, the use of a cost-of-service  
21 model to allocate Storage Services revenues does not make sense in light of the nature  
22 of the investments made and the facilities through which the Storage Services are

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2 See CUB/100 Jenks-McGovern/12

3 Id.

4 Id.

1 provided. **And fourth**, CUB claims that the study is required as a matter of  
2 transparency; However, the information requested will do little to provide constructive  
3 information as to the appropriate sharing. And, NW Natural already provides all relevant  
4 cost and revenue information on the Company's Storage Services activities in its annual  
5 reports to the Commission.

6 **Q. Why do you say that CUB's proposal represents a radical departure from the**  
7 **sharing approach upon which NW Natural relied in making its shareholder**  
8 **investment to provide Storage Services?**

9 A. As I discuss above, prior to making a decision to expand the Mist storage facilities to  
10 provide Storage Services, NW Natural worked with the stakeholders to develop, and  
11 later gain approval of, a revenue sharing arrangement that would fairly account for the  
12 costs and benefits of these activities for both utility customers and for shareholders. The  
13 resulting sharing allocations and recall rights were based upon an appreciation of the  
14 fact that (1) shareholders would bear all incremental costs of expanding the system that  
15 had been constructed to provide service to utility customers; (2) storage operations  
16 would rely, in part, on assets that were being paid for in utility customers' rates; and (3)  
17 utility customers' compensation for the Storage Services' use of the utility assets would  
18 be made through a share of the net revenues (after accounting for incremental costs)  
19 and the rights to recall capacity on a depreciated basis. With this understanding, the  
20 Company invested a very significant amount of shareholder dollars to provide Storage  
21 Services.

22 CUB's proposal significantly alters the approach by seeking to potentially re-  
23 allocate to shareholders some portion of the costs that up until now it has been agreed  
24 that utility customers would bear. In this sense, CUB's approach represents a "bait and

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1 switch” whereby shareholders made significant investments to expand Mist storage  
2 capacity under one set of understandings about the costs and benefits, only to  
3 (potentially) have the rug pulled out under them after the investments have been sunk.

4 **Q. Given that you believe that compensation arrangements were relied upon by the**  
5 **Company in making its investments and therefore should not be changed, do you**  
6 **agree that it might be appropriate for the Commission to apply a cost-of-service**  
7 **model to determine the sharing allocation for future expansions?**

8 A. For the reasons described below, NW Nature does not believe that it would make sense  
9 to use a cost-of-service model to allocate costs and revenues of interstate and intrastate  
10 storage services, even on a going forward basis. However, if the Commission were to  
11 conclude that a cost-of-service model is appropriate, any such model should be applied  
12 to future investments only. Under no circumstances should the Company’s good faith  
13 and justified reliance on the current framework—as the basis for its \$65 million dollar  
14 investment—be undermined.

15 **Q. Why do you say the cost-of-service model proposed by CUB would distort the**  
16 **economic incentives around future investments in Mist storage capacity and**  
17 **misalign customers’ and shareholders’ interests?.**

18 A. Because under a cost-of-service model the allocation of costs and benefits between  
19 utility customers and shareholders may become skewed and may no longer align with  
20 the economic parameters the Company uses when considering future investments.  
21 Specifically, a cost-of-service model could lead to an absurd scenario where incremental  
22 Mist storage capacity investments appear profitable for the interstate storage business  
23 and shareholders even when such investments would not be beneficial to utility  
24 customers.

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1 **Q. Please explain.**

2 A. When the Company evaluates whether to make a new investment in storage capacity, it  
3 does so based on the assumption that the new investment will generate a certain  
4 amount of revenue. Under the current sharing arrangement, such investments make  
5 sense only when the forecasted incremental revenues are greater than the incremental  
6 costs of the investment. If however the costs to the shareholders were based upon  
7 some allocation of costs of the embedded system—which we assume would be the  
8 result of CUB’s proposed cost-of-service study—then the investment could be  
9 “profitable” for shareholders, but provide little or no benefit to utility customers.

10 I have provided an exhibit showing two illustrative examples of how this could  
11 happen, in NWN/302 White. For simplicity, both examples are expressed in terms of  
12 representative Net Present Values. They show the effect on shareholders and utility  
13 customers under a) the current sharing agreement, versus b) a cost-of-service allocation  
14 of embedded costs as suggested for consideration by CUB in their response testimony.

15 Scenario A represents a case where the forecasted marginal revenue from an  
16 investment in Mist expansion exceeds the marginal cost to expand. Under the current  
17 sharing arrangement, the economics are such that the project would be sufficiently  
18 profitable to justify an expansion in the view of NW Natural’s interstate storage business,  
19 and utility customers would be better off from the resulting sharing and would not have to  
20 bear any of the costs of the expansion. In contrast, if a cost-of-service model were used  
21 to allocate embedded costs, the relative effects on shareholders and utility customers  
22 from an expansion would change, and the expansion would be considerably more  
23 profitable for shareholders, and utility customers would be worse off. This is because

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1 marginal costs are greater than embedded costs and, when averaged in, raise the new  
2 average embedded costs to be allocated.

3 Scenario B shows an example where marginal revenues are less than marginal  
4 costs. Under the current sharing arrangement, the Company would not expand because  
5 it would not be profitable. In contrast, under an embedded cost allocation model, the  
6 economic signal to the Company on behalf of its shareholders would be to expand. This  
7 is because a significant portion of the higher marginal costs would be reallocated to  
8 utility customers, and not the Company's shareholders.

9 This illustrative example highlights the problem of using a cost-of-service model  
10 in allocating average embedded system costs between distinct customer groups and  
11 Company profit centers (here, the interstate storage business and utility customers).  
12 The current sharing agreement *avoids* this problem by allocating marginal costs, with  
13 marginal revenues, to the interstate storage business and actually *protects* utility  
14 customers from incremental costs created by Interstate Storage.

15 Thus, CUB's proposal to use a cost-of-service allocation could result in cross  
16 subsidization (to the detriment of utility customer) and inject a misalignment between the  
17 interests of shareholders and utility customers. Such a change would be very  
18 unfortunate. NW Natural has a strong interest in maintaining an arrangement that is  
19 beneficial to shareholders and utility customers alike. Thus, any revenue sharing  
20 construct that would create a misalignment is unacceptable and should be rejected.

21 Q. **Why do you say that the use of a cost-of-service model to allocate Storage**  
22 **Services revenues does not make sense in light of the nature of the investments**  
23 **and the facilities through which the service is provided?**

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1 A. Specifically, I am referring to the physical investments, the purposes for which they were  
2 built, and the decisions that were made with respect to how they are most beneficially  
3 used. Mist storage (including the reservoirs, compression, etc.) was originally developed  
4 in order to serve utility customers. Similarly, the pipeline that delivers gas from Mist to  
5 the Portland load center - the South Mist Pipeline plus the South Mist Pipeline Extension  
6 - was also built solely to serve utility customers. (For ease of reference, I will refer to the  
7 South Mist Pipeline, and the extension as "SMP"). As shown in NWN/303 White/1, that  
8 pipeline represents by far the most significant utility rate-based storage-related  
9 investment and is over 90 miles long, running from Miller Station to Mollala. The  
10 Company only uses excess capacity on SMP for Storage Services because it is  
11 *available* at no incremental cost to utility customers or shareholders. However, by itself,  
12 SMP does not represent the most economical means of delivering gas from Mist storage  
13 *into the interstate market.*

14 On the contrary, the most economical way to deliver gas from Mist storage to the  
15 interstate market would be over a much shorter pipeline route running north from the  
16 Mist storage facilities directly to the interstate pipeline. Indeed, such a new pipeline  
17 would run only 16 miles long and would cost a mere fraction of the cost to build SMP.  
18 NWN/304 White Confidential is a map showing both the existing SMP, and the route for  
19 a different pipeline that could be built to provide the most efficient route from Mist  
20 storage facilities to the interstate pipeline.

21 **Q. How are these facts related to the cost-of-service model that CUB proposes?**

22 A. To answer this question, I will first address the transmission assets involved, and then  
23 address the Mist storage and compression assets.

1           As I state above, the most significant Mist storage-related investment that  
2           correlates directly with the benefits provided to utility customers from NW Natural's  
3           Storage Service activities is the investment made by the utility in SMP. Thus, if the  
4           Commission were to order a cost-of-service study to inform allocations of revenues from  
5           Storage Services, the parties would quickly find themselves grappling with the question  
6           as to how to allocate SMP costs among utility customers and customers of interstate and  
7           intrastate storage. Under a long run incremental cost (LRIC) cost-of-service model, the  
8           model adopted by the Oregon Commission, the relevant question would be: *Over the*  
9           *long-term, what incremental demands for pipeline capacity are caused by the Storage*  
10          *Services business?* The answer would be that there are *no* such costs caused by the  
11          Storage Service business because the interstate storage customers have no long term  
12          claim on SMP capacity—given that all of their rights are subject to recall by utility  
13          customers. Thus there would be no basis to assign any SMP costs to Storage Services  
14          under an LRIC cost of service model.

15           If for some reason the study were to exclude from consideration the existence of  
16          core customers' recall rights, then the relevant inquiry would be: *What would be the cost*  
17          *of developing a new pipeline to take Mist storage capacity to the interstate market?* The  
18          answer would be the 16-mile route shown in NWN/304 White. As such, the incremental  
19          cost to construct a short pipeline expansion of 16 miles to the Kelso-Beaver Pipeline  
20          would constitute only a small fraction of the SMP cost. Of course if these SMP costs are  
21          allocated to the Storage Services business, then there would be no basis for the  
22          shareholders to continue to bear the costs of recall, which are substantial.

23           Thus, under an LRIC cost-of-service model a very small amount of transmission  
24          costs would be allocated to Storage Services, and allocating these costs to

1 shareholders would remove any justification for continuing the recall by utility customers  
2 of the capacity for which shareholders have paid. For these reasons, I believe that a  
3 cost-of-service model - where pipeline costs are allocated to Storage Services - would  
4 show that the current sharing arrangement provides benefits to utility customers that far  
5 exceed the costs. Alternatively, if a cost-of-service model instead showed a significant  
6 reallocation of SMP costs, it would likely be in the best interests of the interstate storage  
7 business to simply abandon the use of SMP and instead develop a dedicated Storage  
8 Services pipeline to conduct interstate storage operations through new (albeit  
9 redundant) resources. Compared to the current arrangement, in which both utility  
10 customers and shareholders benefit together, this outcome would be an unfortunate  
11 wasted opportunity.

12 **Q. Now that you have addressed transmission, please discuss the effect of CUB's**  
13 **cost-of-service proposal specifically as it relates to the storage and compression**  
14 **assets at Mist field.**

15 A. Although, as I state above, the most significant component of a cost-of-service study  
16 would be the allocation of transmission costs related to Storage Services, the study  
17 would also need to address the allocation of costs of the storage capacity at Mist. It is  
18 my belief that the results of such a study would show that there is relative parity between  
19 the costs being borne by shareholders and utility customers under the current sharing  
20 arrangement.

21 **Q. Please explain.**

22 A. NWN/303 White/2 shows that on a per unit basis, the costs currently allocated between  
23 utility customers and Storage Services are roughly equivalent. Specifically, NWN/303  
24 White/2 shows the investment in interstate working gas capacity and deliverability

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1 capacity and the investment in utility customer working gas capacity and deliverability  
2 capacity. On a per unit basis, deliverability capacity is slightly more costly for utility  
3 customers and working gas capacity is slightly more costly for the interstate storage  
4 business. It is clear that, whichever basis is used, the allocation of costs between utility  
5 customers and the Storage Services business is quite balanced.

6 **Q. How do you respond to the “ride share” analogy CUB uses to argue that the  
7 Storage Service business is not covering its costs?**

8 A. The analogy is a poor one. CUB posits: “If I was driving to Eugene from Portland and a  
9 friend asked if I could take him to Springfield, but he would cover the incremental cost of  
10 going from Eugene to Springfield, it would not be fair to say that he fully funded the trip  
11 to Springfield.”<sup>5</sup> CUB implies that, like the friend, NW Natural’s storage business is not  
12 paying its way when it bears all of the incremental costs associated with interstate  
13 storage. This analogy fails however, because CUB overlooks the significant and  
14 additional benefits that are actually provided to utility customers from the interstate  
15 storage business.

16 **Q. Please explain.**

17 A. In CUB’s analogy, the costs of the incremental part of the trip (from Eugene to  
18 Springfield) are equated with the incremental investments made by shareholders to  
19 develop the interstate storage business. Up to this point, the analogy holds up.  
20 However, in CUB’s analogy, the ride-sharing friend contributes nothing toward the trip  
21 from Portland to Eugene. It is at this point that the analogy breaks down. Unlike the  
22 ride-sharing friend, NW Natural’s Storage Services pays all incremental costs **plus** 20%

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5 CUB/100 Jenks-McGovern/8.

1 of net revenues **plus** capacity recall on an as-needed basis. These additional benefits  
2 are considerable, but are disregarded in CUB's analogy.

3 **Q. Why do you say that CUB's proposal to apply a cost-of-service study to Storage**  
4 **Services revenues will do little to promote transparency?**

5 A. CUB's proposal will do little to promote transparency because, as I discuss above, a  
6 cost-of-service study will not constructively illuminate the nature of the investments in the  
7 facilities used to provide Storage Services. Thus, although NW Natural can understand  
8 CUB's desire for transparency, a cost-of-service study will not accomplish that goal in  
9 any meaningful way.

10 Furthermore, all of the information relevant to Storage Services costs is already  
11 provided to the Commission on an annual basis to review coincident with the  
12 Company's filing to apply the June credits to utility customer bills. NWN/303 White/1  
13 shows the Company's investment in the utility assets that are used to provide Storage  
14 Services (SMP and Mist storage and compressors, etc.), as well as the incremental  
15 costs borne by shareholders. In addition, detail on the benefits of Mist Storage realized  
16 by utility customers is provided in NWN/301 White. If the Commission believes that  
17 additional information would aid transparency, the Company would be happy to provide  
18 such information. However, a cost-of-service study would not be a helpful or on-point  
19 source of new information.

### 20 III. OPTIMIZATION

21 **Q. Please summarize the history of NW Natural's Optimization Activities and**  
22 **allocation of the associated benefits.**

23 A. When NW Natural first started to develop its Storage Services business, we learned that  
24 the value of these assets could be maximized by entering into certain wholesale trading

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1 activities. We determined that we could not justify the costs and risks of performing  
2 these activities as a part of our local gas distribution company operations, and therefore  
3 sought to do so through a third-party optimizer, and under a regulatory arrangement that  
4 would be a good match for the opportunity. Soon after implementing optimization  
5 activities related to our Storage Services, the Company expanded its optimization efforts  
6 to include upstream pipeline capacity and portfolio optimization, and liquids extraction.

7 As is the case for Storage Services, utility customers bear no incremental cost or  
8 risk related to these Optimization Activities. Net revenues from the optimization of  
9 resources in utility customer rates, such as utility storage, and pipeline capacity are  
10 allocated 67/33, while net revenues from the optimization of Mist storage capacity  
11 funded by shareholders are allocated 20/80.

12 **Q. What is CUB's proposal for the allocation of revenues from Optimization**  
13 **Activities?**

14 A. CUB has proposed three changes to how revenues from Optimization Activities are  
15 treated. **First**, CUB requests that the Commission immediately reduce the percentage  
16 of profits allocated to shareholders for those Optimization Activities that use assets that  
17 are included in utility customer rates from 33 percent to 20 percent, and then to 10  
18 percent with the conclusion of NW Natural's next general rate case.<sup>6</sup> **Second**, CUB  
19 argues that sharing from Mist optimization should be reallocated as if the only resource  
20 being optimized is utility customers' gas inventory.<sup>7</sup> **Finally**, CUB argues that the  
21 shareholders' allocation of revenues from Optimization Activities should be counted as  
22 utility earnings in the Company's annual earnings test.<sup>8</sup>

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6 CUB/100 Jenks-McGovern/26 and 32

7 CUB/100 Jenks-McGovern/15

8 CUB/100 Jenks-McGovern/29

1 **Q. What would be the effect of these changes?**

2 A. Taken together, CUB's recommendations would wipe out any meaningful level of  
3 revenues the Company would receive from its Optimization Activities, effectively  
4 removing any incentive the Company has to continue and improve upon these activities.  
5 The effect of CUB's proposed changes to the existing sharing percentages is  
6 demonstrated in Exhibit NWN/305 White. This exhibit shows the effect of CUB's  
7 proposal to transition to an 80/20 sharing, and ultimately to a 90/10 sharing, combined  
8 with CUB's proposal to subject the Company's portion of these revenues to the utility's  
9 earnings test.

10 **Q. What is your response to CUB's proposal?**

11 A. CUB's proposals are based upon a mischaracterization of NW Natural's Optimization  
12 Activities and should be rejected.

13 **Q. Please explain.**

14 A. In the Company's Opening Testimony Mr. Friedman and I<sup>9</sup> explained the costs and risks  
15 involved in NW Natural's Optimization Activities, and the fact that these activities go far  
16 beyond the first level of optimization that we perform in-house as part of our traditional  
17 LDC obligations. With these facts in mind, I provided two points of reference for the  
18 Commission to keep in mind when setting the appropriate sharing percentages for  
19 revenues flowing from Optimization Activities. **First**, I pointed to the 80/20 sharing  
20 incentive earned by the Company for revenues from pipeline capacity releases, as well  
21 as the 90/10 or 80/20 sharing available for WACOG savings in Oregon. These  
22 incentives are provided to the Company for optimization we perform in our traditional  
23 LDC role, and thus should be regarded as the minimum incentive that should be

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9 NWN/100 White/12-14; NWN/200 Friedman/5-6

1 provided to the Company for our more complex and speculative Optimization Activities.  
2 **Second**, I referred to the incentives provided to other gas LDCs nationally for performing  
3 similar activities, and I pointed out that there are two prevalent structures— either 75/25  
4 sharing (25 percent to the utility’s shareholders) or a progressive block sharing structure  
5 with the tail, or peak block being 50 percent to shareholders. From these I concluded  
6 that the incentive provided to NW Natural (33 percent) for Optimization Activities is well  
7 within the range of appropriate incentives.

8 In its Response Testimony, CUB failed entirely to respond to these reference  
9 points and instead relies on inapt analogies to suggest that the Optimization Activities in  
10 question are traditional LDC activities that involve no special effort and for which  
11 incentives do not apply. In particular, CUB analogizes our Optimization Activities to  
12 electric utility sales of excess power as well as other activities such as Yellow Pages  
13 advertising by telecommunications utilities. Based on these analogies, CUB concludes  
14 that NW Natural’s Optimization Activities should be given “traditional rate-of-return  
15 regulation” with little or no profits to be allocated to shareholders. In so doing, CUB  
16 ignores the fundamental distinctions between these electric utility activities, including the  
17 real risks and costs of NW Natural’s Optimization Activities.

18 In fact, NW Natural’s Optimization Activities go far beyond those expected of a  
19 traditional gas LDC, involving a significant allocation of time, energy and focus, and  
20 additional risks. As such, if CUB’s proposal were adopted and incentives significantly  
21 reduced or eliminated altogether, the Company could no longer justify the costs and  
22 risks of these activities, and would cease its Optimization Activities altogether - to the  
23 detriment of utility customers and shareholders alike.

1 **Q. Please summarize CUB's argument that NW Natural's Optimization Activities**  
2 **should be treated like certain other utility activities, where revenues all flow to the**  
3 **benefit of utility customers.**

4 A. CUB argues that, in general, utilities are expected to manage utility assets for the benefit  
5 of retail ratepayers and that sharing of profits with shareholders should be neither  
6 required nor expected.<sup>10</sup> By way of reference, CUB points to the fact that profits from  
7 electric utilities' sales of excess power are credited to their customers' accounts on a  
8 forecast basis, as well as profits from certain arbitrage activities engaged in by PGE and  
9 PacifiCorp. CUB then points out that these activities are all treated under traditional rate  
10 of return regulation, whereby their revenues would be forecast into rates with the utility  
11 receiving benefits only when and if revenues happen to exceed forecasted levels. CUB  
12 notes that for non-forecastable items, such as PacifiCorp's sale of its Centralia coal  
13 plant, the Commission has allowed utilities to retain only 5% of the value.

14 **Q. Do you agree with CUB's analogies?**

15 A. No. NW Natural's Optimization Activities are not analogous to the electric utility or other  
16 activities CUB posits. And, traditional rate of return regulation should not be applied to  
17 them.

18 **Q. Why do you say that NW Natural's Optimization Activities are not analogous to the**  
19 **electric utility activities that CUB posits?**

20 A. First, they are not analogous because the excess power sales and other activities of the  
21 electric utilities that CUB points to have long been regarded as basic electric utility  
22 activities, and the risks involved in those activities are incorporated into the returns on  
23 equity that are set for those electric utilities. In particular, the sale of excess power CUB

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10 CUB/100 Jenks-McGovern/20

1 points to represents one of the most basic functions of an electric utility that owns its  
2 own generation facilities.

3 As discussed in Mr. Friedman's Opening and Reply Testimony, the Company  
4 does engage in a first level of optimization that it can perform itself. And utility  
5 customers realize very significant savings as a result of these basic LDC optimization  
6 activities. On the other hand, the Optimization Services performed by the Company's  
7 third-party optimizer pursuant to the Asset Management Agreement, are more  
8 speculative in nature and require a level of skill and expertise NW Natural does not and  
9 would not be expected to possess to perform typical LDC activities.

10 **Q. Are there other reasons why CUB's analogies are inappropriate?**

11 A. Yes. In all examples concerning the electric utilities, the asset being optimized is one on  
12 which the utility is already earning a rate of return. It therefore makes sense that the  
13 utility would be expected to maximize the value of the rate-based asset for the benefit of  
14 customers who pay the rate of return on the asset. On the other hand, the vast majority  
15 of the margin from NW Natural's Optimization Activities are for resources, such as  
16 physical supply and pipeline transportation contracts, on which NW Natural cannot and  
17 has not otherwise earned a return. It is therefore inappropriate for CUB to argue that  
18 NW Natural has the same obligations to optimize resources upon which it earns nothing  
19 as does an electric utility for resources upon which it earns its rate of return.

20 **Q. Even if the Commission agrees that NW Natural's Optimization Activities are**  
21 **distinguishable from the electric utility activities CUB posits, isn't it nevertheless**  
22 **appropriate to apply traditional rate of return regulation to the profits?**

23 A. No, not at all. Given the costs and risks attendant to these activities, NW Natural would  
24 have no incentive to engage in them absent an appropriate sharing allocation.

18 – REPLY TESTIMONY OF KEITH WHITE

1

2 **Q. But CUB argues that there is no real regulatory risk attendant to Optimization**  
3 **Activities. What is your response?**

4 A. In my Opening Testimony, I indicated that the primary risk that we must account for is  
5 FERC risk. CUB asserts that this risk is overstated and that there is little evidence to  
6 support that it exists. CUB states:

7

8 "But after more than 13 years of optimization activities, and no significant FERC  
9 compliance issues, this is no longer a start-up project with a lot of risky  
10 unknowns. This is a sustainable and predictable activity that has not had trouble  
11 with FERC."<sup>11</sup>

12 CUB's assertion is not accurate. Over the past several years, ambiguities in FERC rules  
13 and policies have led a variety of petitioners to request that FERC amend its rules to  
14 provide more clarity as to what optimization activities are and are not permitted. As a  
15 result, FERC has provided additional guidance but by no means eliminated the risks NW  
16 Natural faces. NWN/306 White shows that it is, in fact, quite the contrary. NWN/306  
17 White lists the fines that have been levied on energy marketers and utilities over the last  
18 six years for market activities involving optimization. As can be seen from the list,  
19 substantial risks remain for parties engaged in these activities despite the years that  
20 have gone by.

21 **Q. What about CUB's proposal that Optimization Activities earnings be included in**  
22 **the annual earnings test?**

23 A. CUB attempts to downplay this part of its proposal as a simple accounting change;  
24 however, it is anything but. On the contrary, including Optimization Activities revenues  
25 in utility earnings for the purpose of the earnings review - which is precisely what CUB

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<sup>11</sup> CUB/100, Jenks-McGovern/26, lines 1-4.

1           contemplates<sup>12</sup> - could essentially eliminate the Company's incentive to participate in  
2           these activities in the first place-- **regardless of the sharing allocation adopted.**

3           Under the Stipulation filed in UM 1635, Staff, CUB and NW Natural have all  
4           agreed that in the future, the amount of NW Natural's environmental remediation costs  
5           associated with its historic manufactured gas plants that will be recovered in rates will  
6           decline as the Company's earnings increase. Specifically, as a result of the earnings  
7           review agreed to in that stipulation, the Company would be required to return to  
8           customers 10 percent of its earnings that are within 75 basis points of its authorized  
9           ROE, and 80 percent of any earnings above its authorized ROE.<sup>13</sup> Thus, under the  
10          stipulation, and if the Company's share of earnings from its Optimization Activities  
11          revenues were required to be included in the Company's results of operations, the  
12          Company would be forced to give such revenues back to utility customers - a result at  
13          obvious odds with the very purpose of the incentive in the first place. In short, CUB's  
14          proposal to begin including the Optimization Activities earnings in utility earnings for the  
15          purpose of the earnings test appears to be a backdoor way of attempting to seize the  
16          Optimization "incentive" earned by shareholders. As described above, the combined  
17          effect of CUB's proposals is shown in NWN/305 White.

18   **Q.    What do you conclude about CUB's sharing proposal for Optimization Activities?**

19   A.    In my Opening Testimony, I described a reasonable range for the sharing of revenues  
20          from our Optimization Activities from 80/20 to 50/50 based on two reference points:

- 21          •   80/20, which represents the sharing allocation available to the Company for normal  
22             gas supply WACOG savings and pipeline capacity release; and

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12 See CUB/100, Jenks-McGovern/29, lines 5-10.

13 See Prudence and Earnings Test Stipulation, filed in UM 1635 on July 11, 2012.

- 1 • 50/50 (for the tail block), which represents the upper end of incentives available to  
2 other gas LDCs engaging optimization in other state jurisdictions.<sup>14</sup>

3 The current 67/33 sharing is within the reasonable range, while CUB's proposal to  
4 eventually move to 90/10 sharing is outside the reasonable range entirely. Moreover, as  
5 discussed above, CUB's proposed movement towards 90/10 sharing will not provide a  
6 meaningful incentive for the Company to engage in activities that go beyond what is  
7 normally expected of an LDC. Ironically, CUB's proposal of 90/10 is less than the 80/20  
8 currently available to the Company for pipeline capacity releases, which do not have  
9 near the same complexity, costs, and risks as the Company's Optimization Activities.

10 In short, if CUB's proposal were adopted, the Company could no longer justify  
11 the costs and risks borne by its shareholders and would halt its Optimization Activities  
12 altogether.

#### 13 IV. ALLOCATION OF MIST STORAGE CAPACITY

14 **Q. In its testimony, CUB argues that all revenues from Mist Optimization should be**  
15 **allocated on the same basis as the portion that is currently allocated to capacity**  
16 **that is in customers' rates. How do you respond to CUB's argument?**

17 A. CUB's position is based on its erroneous claim that the Company is optimizing working  
18 gas *inventory* rather than *storage capacity*. And, more fundamentally, CUB's position  
19 ignores that a major portion of the optimization activities are only possible because of  
20 the investment shareholders have made at their expense. CUB's position is erroneous  
21 and should be rejected.

22 **Q. Please explain.**

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14 See NWN/100 White/20



1 A. Mr. Friedman’s Reply Testimony explains why, from a technical perspective, it is  
2 incorrect to suggest that we optimize working gas inventory rather than storage capacity,  
3 and why therefore the current allocation based on storage capacity makes sense.

4 Additionally, I would note that in attempting to buttress its argument, CUB  
5 incorrectly asserts that the Company does not optimize storage capacity for its Gill  
6 Ranch Storage project (“Gill Ranch”). CUB offers this point to support its view that NW  
7 Natural *must be* utilizing physical gas at Mist to accomplish its optimization activities,  
8 and that customers’ physical gas must be the source for all optimization activities. I  
9 would point out that the Company **does** optimize Gill Ranch storage capacity through a  
10 separate contract with Tenaska. CUB may be unaware of this fact given that net  
11 margins from Gill Ranch optimization are not included in the Company’s Oregon filings  
12 or customer sharing because Gill Ranch is located in California and subject to CPUC as  
13 opposed to OPUC regulation.

14 Finally, I would note that CUB’s proposal to shift sharing for Mist Optimization  
15 Activities from Schedule 185 to Schedule 186 would result in a misallocation of credits  
16 between the appropriate customer groups. As explained in my UG 221 Reply  
17 Testimony, Schedule 185 credits go to firm sales utility customers who have the cost of  
18 Mist storage included in their rates. Schedule 186 credits go to a larger pool of utility  
19 customers – firm and interruptible sales customers – who have upstream gas supply  
20 costs included their rates, but not necessarily Mist storage costs (e.g. interruptible  
21 customers do not).<sup>15</sup> Shifting the customer credits for Mist optimization between  
22 Schedules 185 and 186 would not affect the sharing allocation between utility customers  
23 and shareholders. Utility customers receive 67% under Schedule 185 for the proportion

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15 See NWN/2700 White/4-5

1 of Mist storage capacity included in their retail rates, but shifting the customer credits  
2 between Schedule 185 and 186 would inappropriately reallocate revenue sharing  
3 benefits between customer groups.

4 **V. TRANSPARENCY**

5 **Q. How do you respond to CUB's requests for greater transparency for the**  
6 **Company's Mist Interstate Storage and Optimization activities?**

7 A. The Company is supportive of constructive steps to create greater transparency if the  
8 information requested is meaningful, and the process respects the competitively  
9 sensitive confidential nature of the information. Since its inception, the Company has  
10 provided the OPUC with an annual report of its Interstate Storage and Optimization.  
11 This report includes income statement, balance sheet, customer contract detail and  
12 calculation of customer credits under Schedule 185 and 186. The Company is open to  
13 providing a copy of this report to CUB protected by a confidentiality agreement. The  
14 Company also files quarterly Storage Reports with FERC (Form 549D) that provide a  
15 public record of Interstate Storage customers and contract terms.<sup>16</sup>

16 **Q. Has the Company proposed other steps to allow for more transparency?**

17 A. Yes. In my Opening Testimony, I suggested that having a workshop every 3 years or so  
18 could be beneficial. This would allow the parties to dialogue with the Company and  
19 understand in greater depth. In its response testimony, CUB has supported this notion.

20 **Q. Does this conclude your testimony?**

21 A. Yes.  
22

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<sup>16</sup> For example, this link (<http://elibrary.ferc.gov/idmws/search/fercgensearch.asp>) leads to the FERC on-line library, and doing a search there for NW Natural's Form 549D will lead directly to such reports for whichever quarters are of interest.

	Schedule 185 Credits			Total Schedule 185 Credits	Schedule 186 Credits		Total Schedule 186 Credits	Total Schedule 185 & 186 Credits
	In Rate Base	Not in Rate Base			In Rate Base	Not in Rate Base		
	Mist Optimization (Utility Operations)	Mist Optimization (Interstate Storage)	Interstate/Intra- state Storage Services		Assets in Rate Base	Resource Contracts (No Return on Equity)		
2000	**	**	**	**	**	**	**	\$ 195,385
2001	**	**	\$ 762,613	**	**	**	**	1,050,682
2002	**	**	941,799	**	**	**	**	3,243,291
2003	\$ 713,953	\$ 146,548	961,102	\$ 1,821,603	\$ -	\$ 3,529,619	\$ 3,529,619	5,351,222
2004	268,640	55,142	822,874	1,146,656	-	1,262,013	1,262,013	2,408,669
2005	540,517	114,489	1,164,520	1,819,526	-	2,531,050	2,531,050	4,350,576
2006	1,336,924	366,201	1,337,758	3,040,883	-	3,149,708	3,149,708	6,190,591
2007	1,363,667	373,526	2,036,797	3,773,990	-	5,500,951	5,500,951	9,274,941
2008	1,559,147	577,739	1,932,827	4,069,713	-	3,605,328	3,605,328	7,675,041
2009	1,372,436	463,321	1,937,118	3,772,875	-	7,484,251	7,484,251	11,257,126
2010	1,852,251	586,085	1,919,182	4,357,518	-	7,984,732	7,984,732	12,342,250
2011	1,066,406	334,717	1,675,112	3,076,235	-	5,731,496	5,731,496	8,807,731
2012	1,533,053	407,954	1,678,946	3,619,953	-	4,828,956	4,828,956	8,448,909

\*\* For years prior to 2003, detail is not available to categorize optimization related credits between Schedule 185 and 186.

**Benefits of Mist Recall**

	Mist Recall				No Recall; Full Resource Cost				Revenue	Notes
	Capacity Additions		Cumulative Rate Base	Revenue Requirement	Capacity Additions		Cumulative Rate Base	Revenue Requirement	Requirement	
	Reservoir	Compression			Reservoir	Compression			Savings	
a	b	c	d	e	f	g	h	i	j	
2004	20,000	-	\$ 1,062,247	\$ 165,720	110,000	180,000	\$ 15,501,698	\$ 2,612,119	\$ 2,446,399	a, b, c
2005	-	-	\$ 1,062,247	\$ 165,720	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,446,399	
2006	-	-	\$ 1,062,247	\$ 165,720	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,446,399	
2007	-	-	\$ 1,062,247	\$ 165,720	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,446,399	
2008	10,000	-	\$ 1,533,205	\$ 239,555	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,372,564	
2009	10,000	5,000	\$ 2,116,892	\$ 335,380	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,276,739	
2010	-	-	\$ 2,116,892	\$ 335,380	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,276,739	
2011	10,000	10,000	\$ 2,769,717	\$ 445,560	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,166,559	
2012	15,000	15,000	\$ 3,691,760	\$ 597,298	-	-	\$ 15,501,698	\$ 2,612,119	\$ 2,014,821	d
<b>Total</b>	<b>65,000</b>	<b>30,000</b>	<b>\$ 2,616,053</b>		<b>110,000</b>	<b>180,000</b>	<b>\$ 23,509,072</b>	<b>\$ 20,893,019</b>		
							<b>Average Savings</b>	<b>\$ 2,321,447</b>		

- a. Assumes full year impact of rates for each scenario, though rates typically changed on November 1 each year with PGA.
- b. Reichhold reservoir added in 2001, so inflated by cumulative 6% (GNP inflator) to derive 2004 amount.
- c. Rate base amounts are shown as 90% of System total (Oregon share).
- d. Revenue requirement in columns d and h would have been lower due to rate case and lower rate base.

**Benefits from Interstate Storage  
Margin Sharing and Mist Recall**

	Storage Services Schedule 185 Sharing	Revenue Requirement Savings from Recall	Total Customer Benefits
2001	746,910	---	\$746,910
2002	941,799	---	\$941,799
2003	961,102	---	\$961,102
2004	\$ 822,874	\$ 2,446,399	\$ 3,269,273
2005	\$ 1,164,520	\$ 2,446,399	\$ 3,610,919
2006	\$ 1,337,758	\$ 2,446,399	\$ 3,784,157
2007	\$ 2,036,797	\$ 2,446,399	\$ 4,483,196
2008	\$ 1,932,827	\$ 2,372,564	\$ 4,305,391
2009	\$ 1,937,118	\$ 2,276,739	\$ 4,213,857
2010	\$ 1,919,182	\$ 2,276,739	\$ 4,195,921
2011	\$ 1,675,112	\$ 2,166,559	\$ 3,841,671
2012	\$ 1,678,946	\$ 2,014,821	\$ 3,693,767
<b>Total</b>	<b>\$ 17,154,945</b>	<b>\$ 20,893,019</b>	<b>\$38,047,964</b>
 Average			 \$ 4,227,552

**Effect on Decision Economics of Shift from Current Incremental Cost with Sharing to Embedded Cost Allocation**  
**Scenario A: Marginal Revenue > Marginal Cost**

	<b>Current Agreement</b>			<b>Embedded Cost Allocation</b>		
	<b>Incremental Costs; Sharing</b>			<b>No Sharing</b>		
	<b>Interstate Storage</b>	<b>Core Customers</b>	<b>Combined</b>	<b>Interstate Storage</b>	<b>Core Customers</b>	<b>Combined</b>
<b>Withdrawal Capacity (Dth/d)</b>						
Beginning	245,000	275,000	520,000	245,000	275,000	520,000
Expansion	50,000	0	50,000	50,000	0	50,000
<b>Total</b>	<b>295,000</b>	<b>275,000</b>	<b>570,000</b>	<b>295,000</b>	<b>275,000</b>	<b>570,000</b>
<b>Rate Base</b>						
Beginning	\$ 45,315,667	\$ 35,110,719	\$ 80,426,386	\$ 37,893,201	\$ 42,533,185	\$ 80,426,386
Expansion	\$ 10,000,000	\$ -	\$ 10,000,000			\$ 10,000,000
<b>Total</b>	<b>\$ 55,315,667</b>	<b>\$ 35,110,719</b>	<b>\$ 90,426,386</b>	<b>\$ 46,799,621</b>	<b>\$ 43,626,765</b>	<b>\$ 90,426,386</b>
<b>Rate Base per unit of Capacity</b>						
Before Expansion	\$ 184.96	\$ 127.68	\$ 154.67	\$ 154.67	\$ 154.67	\$ 154.67
Expansion	\$ 200.00	\$ -	\$ 200.00			\$ 200.00
<b>After Expansion (average)</b>	<b>\$ 187.51</b>	<b>\$ 127.68</b>	<b>\$ 158.64</b>	<b>\$ 158.64</b>	<b>\$ 158.64</b>	<b>\$ 158.64</b>
<b>Decision Economics (Interstate)</b>						
Marginal Revenue	\$ 12,000,000			\$ 12,000,000		
Marginal Cost	\$ (10,000,000)			\$ (8,906,420)	\$ (1,093,580)	
Sharing	\$ (1,324,374)	\$ 1,324,374		\$ -		
<b>Profitable/(Unprofitable)</b>	<b>\$ 675,626</b>			<b>\$ 3,093,580</b>		

**Effect on Decision Economics of Shift from Current Incremental Cost with Sharing to Embedded Cost Allocation**  
**Scenario B: Marginal Revenue < Marginal Cost**

	<b>Current Agreement</b>			<b>Embedded Cost Allocation</b>		
	<b>Incremental Costs; Sharing</b>			<b>No Sharing</b>		
	<b>Interstate Storage</b>	<b>Core Customers</b>	<b>Combined</b>	<b>Interstate Storage</b>	<b>Core Customers</b>	<b>Combined</b>
<b>Withdrawal Capacity (Dth/d)</b>						
Beginning	245,000	275,000	520,000	245,000	275,000	520,000
Expansion	50,000	0	50,000	50,000	0	50,000
<b>Total</b>	<b>295,000</b>	<b>275,000</b>	<b>570,000</b>	<b>295,000</b>	<b>275,000</b>	<b>570,000</b>
<b>Rate Base</b>						
Beginning	\$ 45,315,667	\$ 35,110,719	\$ 80,426,386	\$ 37,893,201	\$ 42,533,185	\$ 80,426,386
Expansion	\$ 15,000,000	\$ -	\$ 15,000,000			\$ 15,000,000
<b>Total</b>	<b>\$ 60,315,667</b>	<b>\$ 35,110,719</b>	<b>\$ 95,426,386</b>	<b>\$ 49,387,340</b>	<b>\$ 46,039,046</b>	<b>\$ 95,426,386</b>
<b>Rate Base per unit of Capacity</b>						
Before Expansion	\$ 184.96	\$ 127.68	\$ 154.67	\$ 154.67	\$ 154.67	\$ 154.67
Expansion	\$ 300.00	\$ -	\$ 300.00			\$ 300.00
<b>After Expansion (average)</b>	<b>\$ 204.46</b>	<b>\$ 127.68</b>	<b>\$ 167.41</b>	<b>\$ 167.41</b>	<b>\$ 167.41</b>	<b>\$ 167.41</b>
<b>Decision Economics (Interstate)</b>						
Marginal Revenue	\$ 12,000,000			\$ 12,000,000		
Marginal Cost	\$ (15,000,000)			\$ (11,494,139)	\$ (3,505,861)	
Sharing	\$ (1,986,561)	\$ 1,986,561		\$ -		
<b>Profitable/(Unprofitable)</b>	<b>\$ (4,986,561)</b>			<b>\$ 505,861</b>		

**Mist Storage and Related Transmission: Rate Base Mix**

	Core Customers		Interstate Storage		Total	
	Rate Base	%	Rate Base	%	Rate Base	%
Mist Storage facilities (reservoirs, compression, etc.)	\$ 45,315,667	32.6%	\$ 35,110,719	85%	\$ 80,426,386	45%
North Mist Transmission (NMF)	\$ 682,016	0.5%	\$ 1,093,609	3% <sup>(1)</sup>	\$ 1,775,625	1%
South Mist Transmission (SMF, SMP, SMPE)	\$ 93,126,586	66.9%	\$ 4,883,933	12% <sup>(2)</sup>	\$ 98,010,519	54%
<b>Total</b>	<b>\$ 139,124,269</b>	<b>100.0%</b>	<b>\$ 41,088,261</b>	<b>100%</b>	<b>\$ 180,212,530</b>	<b>100%</b>

<sup>(1)</sup> Deer Island gate compressor and de-odorizer

<sup>(2)</sup> Molalla gate compressor



**Mist Storage Facilities: Comparative Cost Per Unit of Capacity**

	<u>Core Customers</u>	<u>Interstate Storage</u>	<u>Total</u>
Rate Base	\$ 45,315,667	\$ 35,110,719	\$ 80,426,386
Capacity			
Deliverability (Dth/day)	275,000	245,000	520,000
Working Gas (Dth)	9,974,350	6,120,000	16,094,350
Total			
Cost per unit of Capacity			
Deliverability (Dth/day)	\$ 164.78	\$ 143.31	\$ 154.67
Working Gas (Dth)	\$ 4.54	\$ 5.74	\$ 5.00

**EXHIBIT 304**

**REDACTED**

Effective "Incentive" of CUB Proposal

<u>SRRM Band</u>	<u>SRRM Sharing % (Shared/Retained)</u>	<u>% of Optimization Revenues Retained</u>	
		<u>80/20 Proposal</u>	<u>90/10 Proposal</u>
>10% ROE (above 50 bps)	95/5	1.0%	0.5%
9.5% - 10% ROE ( 0-50 bps above)	80/20	4.0%	2.0%
8.75% - 9.5% (0-75 bps below)	10/90	18.0%	9.0%
<8.75% (below 75 bps)	0/100	20.0%	10.0%

# FERC Enforcement – Natural Gas Settlement Summary 2007-2009

03-07-07	Bangor Gas	\$1 Million	Self Report (SR) - Shipper Must Have Title (SMHT)
05-09-07	Calpine Energy Services	\$4.5 Million	SR-SMHT
10-25-07	BP Energy Company	\$7 Million	SR-SMHT-Flipping(F) - Buy/Sell(B/S)
10-25-07	MGTC, Inc. (Anadarko)	\$300,000	SR-SMHT
03-11-08	Constellation NewEnergy–Gas	\$5 Mil + \$1.9 Mil	SR-SMHT-F-B/S
03-11-08	Entergy New Orleans, Inc.	\$400,000	SR-SMHT
10-24-08	Enbridge Marketing US LP	\$500,000	SR-SMHT
10-24-08	Integrus Energy Services	\$800,000 + \$194,506	SR-SMHT-F
11-06-08	Columbia	\$1,000,000	SOC & Posting
11-26-08	NorthWestern Corporation	\$450,000	SR-SMHT
11-26-08	Cornerstone Energy, Inc.	\$325,000 + \$121,825	SR-SMHT
12-23-08	Sempra Energy Trading, LLC	\$400,000 + \$7959	SR-SMHT
12-23-08	DCP Midstream, LLC	\$360,000	SR-SMHT
01-15-09	Tenaska Marketing Ventures	\$3 Million + \$1.97 Mil	Market Manipulation (MM) - Open Season (OS)Bidding
01-15-09	ONEOK	\$4.5 Mil + \$1.9 Mil	MM - OS Bidding
01-15-09	Jetco, Wizco & Golden Stone	\$585,000	MM - OS Bidding
04-22-09	Puget Sound Energy	\$800,000	F-SMHT
04-22-09	Anadarko	\$1.1 Mil + \$232,000	F
04-22-09	Louisville Gas & Electric	\$350,000	F
06-30-09	Piedmont Natural Gas	\$1.2 Mil	F
06-30-09	Sequent Energy Management	\$5 Mil + \$54,000	F-SMHT-B/S
06-30-09	ProLiance Energy	\$3 Mil + \$196,000	F-SMHT-B/S
06-30-09	Wasatch Oil & Gas	\$320,000	F
07-08-09	Southern Company	\$350,000	SR-SMHT-B/S
08-12-09	Amaranth	\$7.5 Million	MM
08-24-09	Enserco Energy	\$1.4 Mil	SR-F-SMHT
09-21-09	Energy Transfer Partners	\$30 Million	MM

## 2010-12 FERC Natural Gas Enforcement Settlements

1-22-10	Amaranth Advisors/Hunter/ALJ Decision	\$30 Million	MM
3-12-10	Nobel Energy, Inc	\$4 Mil + \$160,486.98	F-SMHT-B/S
09-2710	South Jersey Gas Company	\$950,000 + \$120,500.69	F-SMHT-B/S
09-27-10	RRI Energy, Inc.	\$750,000	F-B/S
1-31-11	National Energy & Trade/Mission Valley	\$500,000	F-SMHT
4-7-11	National Fuel Marketing	\$290,000	MM
4-7-11	Seminole Energy Services	\$300,000 + \$271,315	MM
12-9-11	Atmos Energy Corporation	\$6,364,029 + \$5,635,971	F-SMHT
1-6-12	ConocoPhillips Company	\$545,000 + \$3,174,900	F-SMHT-B/S
8-23-12	Missouri Gas Energy	\$35,000	SMHT-B/S-CR
5-31-13	DTE Gas/Washington 10 Storage	\$15,000 (DTE)	F

**BEFORE THE  
PUBLIC UTILITY COMMISSION OF OREGON**

**UM 1654**

**NW Natural**

**Reply Testimony of Randolph Friedman**

**INTERSTATE STORAGE AND OPTIMIZATION  
EXHIBIT 400**

September 23, 2013

1 I. INTRODUCTION AND SUMMARY

2 Q. What is the purpose of your testimony?

3 A. The purpose of my testimony is to respond to two arguments made by the Citizens'  
4 Utility Board (CUB) in the Response Testimony of Bob Jenks and Jamie McGovern.  
5 Specifically, I will explain why CUB is incorrect in suggesting that the Optimization  
6 Activities that I discussed in my Direct Testimony (NWN/200 Friedman) dated July 16,  
7 2013 ("Opening Testimony") are normal and expected local distribution company (LDC)  
8 activities. I will also explain why CUB is incorrect when it argues that, in optimizing Mist  
9 Storage, NW Natural is strictly optimizing utility customers' gas inventory as opposed to  
10 all available capacity.

11 II. OPTIMIZATION ACTIVITIES

12 Q. Please summarize CUB's position with respect to NW Natural's Optimization  
13 Activities.

14 A. CUB's position is that NW Natural's Optimization Activities are analogous to other  
15 standard electric utility activities that do not normally have an incentive for the Company  
16 associated with them, and which are subjected to typical rate of return regulation. Based  
17 on this position, CUB argues that NW Natural's Optimization activities likewise do not  
18 require an incentive and should be subjected to typical rate of return regulation (although  
19 CUB supports some level of continued incentive).

20 Q. What is your response to CUB's position?

21 A. CUB's analogies are not appropriate.

22 NW Natural does perform extensive activities to manage its gas supply costs,  
23 which in some respect do "optimize" the resources for which utility customers pay in their  
24 rates. I will refer to this as "first level" optimization. These activities are part of standard  
25 gas supply operations to deploy utility assets in the most economical fashion. They are

1 – REPLY TESTIMONY OF RANDOLPH FRIEDMAN

1 conducted by NW Natural's own employees; they do not subject our utility customers to  
2 any exceptional risks, and do not involve speculation regarding market prices. The  
3 revenues or savings from these activities are passed through to our utility customers  
4 through our normal LDC ratemaking mechanisms, including our PGA. Thus, these first  
5 level optimization activities are similar to the electric utility activities raised by CUB, in  
6 that they are a part of the core responsibility of the utility, and they are appropriately  
7 accorded typical rate of return treatment.

8 However, our Optimization Activities that are the subject of this docket are  
9 qualitatively different from our first level optimization. Our Optimization Activities involve  
10 utilizing resources in a way that requires coordination within a larger gas market, taking  
11 actions that are speculative in nature, and expertise that goes well beyond the actions  
12 required to deliver gas economically and reliably to our local distribution customers.  
13 Moreover, CUB's attempts to compare our Optimization Activities to the electric utility  
14 activities do not recognize the fundamental differences between electric utilities and local  
15 distribution companies.

16 **Q. Please describe the "first level" optimization that NW Natural performs for itself.**

17 A. There are four primary "first level" optimization activities that NW Natural performs for  
18 itself and that are accorded our typical ratemaking treatment. These are as follows:

- 19 1. ***Mix of Supply Basin Purchases:*** The Company's service territory is located  
20 such that gas purchases are possible from British Columbia, Alberta and the U.S.  
21 Rocky supply basins, with multiple permutations regarding particular purchase  
22 points and quantities. The role of the Company's gas supply staff is to develop,  
23 analyze and implement purchasing strategies that make best use of those  
24 opportunities permutations on behalf of customers, in light of current market

2 – REPLY TESTIMONY OF RANDOLPH FRIEDMAN



1 conditions. A simple example would be the spot purchase activities of the gas  
2 buyers in my department, in which they assess the Company's incremental  
3 requirements, apply operational constraints, and then select the most favorable  
4 transactions on a daily basis.

5 2. **Mix of Contract Terms:** Similarly, on a daily basis we make decisions regarding  
6 the optimal balance of spot gas purchases versus monthly term index-based  
7 deals, as well as between base load purchases and arrangements offering  
8 physical optionality. One example is the gradual transition of our British  
9 Columbia term (i.e., non-spot) supply contracts from year-round to the winter  
10 months only in order to maximize reliability during the heating season while  
11 enhancing spot purchase opportunities the remainder of the year.

12 3. **Storage Utilization:** As a part of our utility optimization activities we make daily,  
13 monthly and seasonal decisions regarding the use of storage. These decisions  
14 include the timing of storage injections as well as the trade-offs between storage  
15 withdrawals and additional spot gas purchases.

16 4. **Pipeline Capacity Release:** The Company also pursues opportunities to  
17 optimize the pipeline capacity in utility customer rates by entering into release  
18 agreements whereby unused capacity can be contracted to third parties, subject  
19 to recall by utility customers. The largest example of such a capacity release is a  
20 "recall agreement" NW Natural entered into with a large electric generator in  
21 1993. Under the terms of this agreement, in which the Company has released  
22 30,000 Dth/day of Northwest Pipeline capacity that is subject to recall by the  
23 Company for limited periods during the heating season. This revenues flowing  
24 from this long-term release is embedded in each year's PGA filing and currently

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1 represents \$4.5 million of revenue that flows 100% back to utility customers. This  
2 arrangement has been in place since 1993.

3 **Q. How are the benefits of these first level optimization activities passed through to**  
4 **customers?**

5 A. Generally, the benefits flow through the PGA process, and are subject to sharing only  
6 because of the PGA's sharing arrangement—with 80% or 90% of the net savings flowing  
7 back to customers depending upon the risk level selection made by the Company for the  
8 particular PGA period. The one exception, as mentioned above, is the PGE capacity  
9 release, the revenues from which continue to flow 100% back to utility customers.

10 **Q. How are these different from the Optimization Activities at issue in this docket?**

11 A. As I explained above, our first level optimization activities are associated with making  
12 sure that we make the most economical decisions regarding our gas supply  
13 arrangements and resources that are used to provide utility service to our customers.  
14 These more basic LDC activities do not involve speculation or the same regulatory risks  
15 as the Optimization Activities described in Mr. White's Opening Testimony.<sup>1</sup>

16 **Q. How does the magnitude of first level optimization benefits compare with the**  
17 **Optimization Activities at issue in this docket?**

18 A. Many of the first level optimization benefits are embedded in the Company's gas supply  
19 portfolio as filed and approved in each year's PGA process. They would constitute a  
20 small part of the overall year-to-year changes in the Weighted Average Cost of Gas  
21 (WACOG) and therefore the benefits would be difficult to assess (but of course they  
22 contribute to the prudence and reasonableness of those WACOG changes). The impact  
23 of first level optimization that occurs ***during the course of each PGA year*** would

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<sup>1</sup> See NWN/100 White/12-14

1 constitute a portion of the PGA deferral amounts that flow 80% or 90% back to  
2 customers; the remaining portion would stem from uncontrollable variances from the  
3 PGA filing such as, general gas market prices, sales volumes and operational issues.  
4 While it is impossible to calculate exactly, a rough comparison of the impact of first level  
5 optimization versus Optimization Activities is shown in NWN/401 Friedman. As you can  
6 see, over the last five years, PGA deferrals have amounted to almost three times the  
7 magnitude of the Schedule 185/186 credits related to Optimization Activities.

8 **Q. But CUB's position is that your Optimization Activities are actually quite similar to**  
9 **electric utility activities that are considered standard utility activities and**  
10 **accorded traditional rate of return treatment. How do you respond?**

11 A. None of CUB's examples of traditional electric utility activities are fair analogies to our  
12 Optimization Activities. I will address each of them in turn:

13 ***Sales for Resale***<sup>2</sup>: CUB's example of electric utilities' sales for resale reflects  
14 some of the fundamental differences between electric and gas utilities, and explains why  
15 one type of activity may be standard for electric utilities but not standard for local gas  
16 distribution companies. Electric utilities are vertically integrated, owning their own  
17 generation which is included in their rate base. This generation is dispatchable and  
18 "perishable"; if the electric utility does not sell its excess generation, it forgoes the time-  
19 based opportunity to generate margin. In contrast, local gas distributors do not own  
20 generation and therefore do not have excess to sell into a market.<sup>3</sup> Our gas supply

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<sup>2</sup> See CUB/100 Jenks-McGovern/21

<sup>3</sup> The only exception to this rule is our Encana gas reserves. However, these are really the equivalent of a long-term financial hedge and are not discretionary in a way that can be optimized. In the case of Mist storage, we follow our inventory dispatch guidelines, which preserve gas in the ground well into the heating season per our planning criteria as reviewed and acknowledged through the Integrated Resource Plan (IRP) process.

## 5 – REPLY TESTIMONY OF RANDOLPH FRIEDMAN

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1 contracts are structured such that we do not have excess take or pay product to be sold  
2 off in wholesale markets. Instead we use the spot market and storage capacity to handle  
3 swings in load.

4 These differences are reflected succinctly in electric and gas company FERC  
5 filings. If you looked at PGE's FERC Form 1, you would find considerable Sales for  
6 Resale revenues reported. Conversely, if you looked at NW Natural's FERC Form 2,  
7 you would find Sales for Resale revenues of zero.

8 ***Price Arbitrage reflected in PacifiCorp's TAM<sup>4</sup>:*** CUB refers to the price  
9 arbitrage reported in PacifiCorp's TAM filing to suggest that such activities are  
10 analogous to NW Natural's Optimization Activities and should therefore receive  
11 traditional rate of return treatment. I am not familiar with PacifiCorp's TAM filing and  
12 cannot specifically comment on whether their arbitrage is similar to that included in our  
13 Optimization Activities. However, I would observe that, as described above, the electric  
14 and gas industries involve very different resource management, and NW Natural and  
15 PacifiCorp are in no way similarly situated with respect to the types of resources that  
16 they manage.

17 PacifiCorp is a large vertically-integrated electric utility with extensive multi-state  
18 generation facilities. NW Natural, in contrast, is a local *distribution* company located  
19 almost entirely in one state, without the resources to trade in a larger market. NW  
20 Natural's market activity does not justify the costs and risks to customers required to  
21 create a trading operation equivalent to that maintained by PacifiCorp, even if there were  
22 an analogous market in which NW Natural participated.

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<sup>4</sup> See CUB/100 Jenks-McGovern/21

1                   **Pipeline Capacity Arbitrage**<sup>5</sup>: CUB's description of PGE's optimization of its  
2 pipeline capacity is very similar to what NW Natural does itself as part of its normal gas  
3 supply optimization activities that I described above, in which savings are shared with  
4 our customers through the PGA. On the other hand, this activity is not analogous to our  
5 third party Optimization Activities.

6                   In its projected power costs included in rates, PGE forecasts gas fuel costs, with  
7 assumptions about how much fuel will be purchased from each supply basin. As the  
8 power year progresses, gas prices fluctuate and PGE can optimize its gas commodity  
9 purchases by shifting purchases between different pipeline paths. The optimization  
10 savings are shared between shareholders and ratepayers depending on where PGE's  
11 power costs are relative to the PCAM deadband range. For example, if overall power  
12 costs are within the deadband, shareholders would retain 100% of the optimization  
13 savings. If overall power costs are outside the deadband, then ratepayers would get  
14 90% of the optimization savings and shareholders only 10%.

15                   This activity is directly analogous to the first level optimization NW Natural  
16 performs throughout the gas year. As part of its annual PGA filing, NW Natural  
17 forecasts its gas commodity costs, which assume a certain supply basin mix based on  
18 the previously established PGA methodology. As the gas year unfolds, the Company  
19 will adjust its mix of gas commodity purchases on different pipeline paths to optimize its  
20 actual WACOG. Any such optimization savings are then shared through the PGA  
21 process, either 80/20 or 90/10 depending on which risk mix the Company elected in that  
22 particular year.

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<sup>5</sup> See CUB/100 Jenks-McGovern/22

1           The Optimization Activities that are the subject of this docket, however, are far  
2 more complex, involve more risk, and require a third-party optimizer in order to be  
3 attained.

4           ***PacifiCorp's Sale of its Centralia Plant<sup>6</sup>***: I do not see the relevance of this  
5 example to the Company's Optimization Activities. The sale of utility property - when  
6 called for - represents a core utility responsibility for which incentives are not necessary.  
7 As far as I know, NW Natural receives no incentives when it sells utility property. I do  
8 not know why in this case the Commission felt it appropriate to provide PacifiCorp an  
9 incentive, but to be clear, that incentive was not to engage in the sale in the first place  
10 but rather to ***maximize*** the value of the plant. On the other hand, the sharing allocation  
11 for NW Natural's Optimization activities need to serve as an incentive for the Company  
12 to engage in more speculative activities that it would not otherwise undertake.

13           ***Phone Directories<sup>7</sup>***: I also do not see how phone directories are relevant to NW  
14 Natural's gas supply activities - which are more complex and speculative. I would  
15 assume that selling advertising space in phone directories is a standard practice, as with  
16 newspapers, whereas the Optimization Activities we undertake are not standard for a  
17 local distribution company, and involve expertise and speculation that is not part of  
18 typical local distribution operations. Perhaps CUB's argument would have some  
19 relevance if this docket concerned the selling of advertising space on NW Natural's  
20 invoices or newsletters, but of course that is not the case here.

21           ***///***

22           ***///***

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<sup>6</sup> See CUB/100 Jenks-McGovern/23-24

<sup>7</sup> See CUB/100 Jenks-McGovern/22

1                                   **III.     MIST OPTIMIZATION RELIANCE ON CAPACITY**

2   **Q.     Please summarize CUB’s argument that the Company is optimizing Mist inventory**  
3       **gas in the ground as opposed to Mist capacity.**

4   A.     In my Opening Testimony I explained that in optimizing resources at Mist, the Company  
5       is optimizing capacity. CUB disputes this characterization and argues instead that it is  
6       gas inventory in the ground that is being optimized and not available capacity. CUB then  
7       points out that the only gas in the ground that NW Natural has title to is the gas it has  
8       procured for utility customers, thus concluding that the gas that it alleges is being  
9       optimized must belong to utility customers. From there, CUB concludes that all  
10      optimization revenues from Mist should be treated as optimization of utility customer  
11      assets.<sup>8</sup>

12 **Q.     How do you respond to CUB’s argument?**

13 A.     CUB’s argument is based on a fundamental misunderstanding as to what is being  
14      optimized. As I stated in my Opening Testimony, it is total Mist capacity, and not simply  
15      gas inventory that is being optimized.

16 **Q.     Please explain.**

17 A.     Our Mist optimization is supported by and relies upon all assets associated with Mist -  
18      storage reservoirs, compression and transmission. The sum total of these assets -  
19      which I loosely refer to as Mist capacity - is what we and our third-party partner, Tenaska  
20      Marketing Ventures (TMV), are optimizing. Moreover, the extent to which we and TMV  
21      can engage in the optimization is greatly increased by our shareholder investment in  
22      expanding Mist capacity. That is why CUB’s focus on the purchase and sale of utility  
23      gas misses the mark.

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<sup>8</sup> See CUB/100 Jenks-McGovern/16-19

1 Q. **But doesn't TMV actually sell gas in the course of its Optimization Activities?**

2 A. Yes. However, that fact in no way suggests that the gas alone is what is being  
3 optimized. NW Natural's agreement with TMV does not specify the purchase or sale of  
4 Mist gas. Instead, the transactions are structured as general city gate transactions that  
5 rely on our ability to provide **capacity** at Mist. As I explained in my Opening Testimony,  
6 many of our Mist optimization transactions are structured around an initial backdraft  
7 position and occur without any physical movement of gas. The degree to which TMV is  
8 authorized to trade on our behalf is based on the capacity at Mist, not the particular  
9 volume of customer gas we happen to have in the ground.

10 Q. **How do you respond to CUB's point that TMV does not have firm storage rights at  
11 Mist, and therefore it must be trading gas and not capacity.**

12 A. CUB argument is based on a misunderstanding of the terms of our agreement with TMV  
13 and would imply that there are zero Optimization Activities involving Mist, which is  
14 obviously incorrect. Our understanding is that FERC regulations require a clear  
15 separation between the party holding the asset management arrangement (AMA) and  
16 those parties holding storage contracts with NW Natural. Accordingly, the Company  
17 structured the AMA to reflect that separation. However, that structure does not prevent  
18 us from engaging in upstream transactions that are implicitly supported by our Mist  
19 capacity.

20 Q. **How do you respond to CUB's argument that ultimately it is gas that must  
21 backstop TMV's trading activities on our behalf?**

22 A. This is a matter of leverage. That is, while the gas does serve as a backstop, the trading  
23 activities that it supports represent many times the actual physical gas position. For  
24 example, as described in the Company's response to UM 1654-CUB-DR 16

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1 CONFIDENTIAL (See NWN/402 Friedman/1-2 CONFIDENTIAL) for the 2011-2012 AMA  
2 contract year, the volume of Optimization Activities related to Mist storage constituted  
3 approximately six times the peak quantity of physical gas used to “backstop” those  
4 transactions. This multiplier effect is what takes these activities well beyond the scope  
5 of normal local distribution operations and into the realm of the national gas marketing  
6 companies.

7 **Q. Does this conclude your testimony?**

8 A. Yes.

9 ///

10

## 11 – REPLY TESTIMONY OF RANDOLPH FRIEDMAN

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**NW Natural**  
**UM 1654 - Interstate Storage Sharing Review**  
**Customer Credits from Optimization - Related Activities**

<u>Calendar Year (1)</u>	Commodity Deferrals and Interest (Refunded) / Collected (2)	Optimization Credits (2) (3)	Total
2008	14,111,576	(5,742,214)	8,369,362
2009	(69,167,247)	(9,320,007)	(78,487,254)
2010	(14,851,550)	(10,423,068)	(25,274,618)
2011	(22,920,113)	(7,132,618)	(30,052,731)
2012	(34,297,388)	(6,769,964)	(41,067,352)
	(127,124,722)	(39,387,871)	(166,512,594)

Notes:

- (1)** In order to be consistent in presentation with the calendar activity Interstate Storage and Optimization credits, the Commodity Deferrals are shown on a calendar year basis and not a PGA year basis.
- (2)** Amounts shown do not include the gross-up for revenue sensitive items.
- (3)** Includes Schedule 186 credits and the optimization portion of the Schedule 185 credits.



Rates & Regulatory Affairs

Investigation of  
Interstate Storage and Optimization Sharing  
UM 1654

Data Request Response

**Request No.** UM 1654-CUB-DR 16:

In your history with Tenaska, what percentage of the Mist optimization contracts has been exercised? Please provide the record of these deployments, including date, quantity, and price.

**Response:** 9/4/2013

See the Company's response to CUB DR 10, Attachments 1 through 24 CONFIDENTIAL. These spreadsheets represent a month-by-month compilation of Tenaska's optimization transactions conducted during 2011-2012. The Company is not certain what is meant by the "percentage of the Mist optimization contracts" that "has been exercised". However, from the spreadsheets provided in response to CUB DR 10, one can gain insight regarding the extent to which Mist has been leveraged by Tenaska.

Using CUB DR 10 Attachment 15 as an example, within this Excel file is a spreadsheet labeled "Mist Storage" and in that sheet is a column D labeled "Injection Volume." The sum of the injection volumes in column D yields a total of 22,788,553 Dths. Note that this is also the sum of the withdrawal volumes since every transaction must balance. The physical capacity at Mist that was available to Tenaska did not exceed 3,625,000 Dth during this particular contract year (the peak was reached on 7/31/2012); 22,788,533 divided by 3,625,000 is 6.286. Hence it could be said that Tenaska transacted approximately 6 times the quantity of optimization contracts as compared to its peak physical position at Mist.

**EXHIBIT 402**

**REDACTED**