

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON**

UG 435

In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
_____)

**OPENING TESTIMONY OF
BRADLEY G. MULLINS
ON BEHALF OF
ALLIANCE OF WESTERN ENERGY CONSUMERS**

[Redacted]

APRIL 22, 2022

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EXHIBIT LIST

AWEC/101 – Qualification Statement of Bradley G. Mullins

AWEC/102 – Revenue Requirement Summary

AWEC/103 – Responses to Data Requests

AWEC/104 – Capital Forecast Analysis

AWEC/105 – Non-Labor O&M Analysis

AWEC/106 – Schedule 197 – Pension Balancing Account Revenue Analysis

AWEC/107 – Schedule 183 – Environmental Cost Recovery Revenue Analysis

I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is Bradley G. Mullins. I am a Consultant for MW Analytics, an independent consulting firm representing utility customers before state public utility commissions in the Northwest and Intermountain West. My witness qualification statement can be found in Exhibit AWEC/101.

Q. PLEASE IDENTIFY THE PARTY ON WHOSE BEHALF YOU ARE TESTIFYING.

A. I am testifying on behalf of the Alliance of Western Energy Consumers ("AWEC"). AWEC is a non-profit trade association whose members are large energy users in the Western United States, including customers receiving gas sales and transportation services from NW Natural Corporation ("NW Natural").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I discuss my initial review of NW Natural's proposed \$78,030,413 revenue requirement increase, which if approved, would result in a 17.5% margin rate increase. In my testimony, I discuss my proposed adjustments to NW Natural's filed case. I also discuss and respond to NW Natural's proposed rate spread, the Renewable Tracking Mechanism ("RTM") and costs associated with the Lexington Renewable Natural Gas ("RNG") production facility.

Q. WHAT WAS THE SCOPE OF YOUR REVIEW?

A. I reviewed NW Natural's filed testimony, workpapers and revenue requirement and rate design models. I submitted multiple rounds of data requests and reviewed NW Natural's responses to those requests. I also reviewed NW Natural's 's response to data requests submitted by Commission Staff and the Oregon Citizens' Utility Board.

Q. PLEASE SUMMARIZE YOUR PRINCIPAL RECOMMENDATIONS AND CONCLUSIONS.

A. Based on my review, I recommend the Public Utility Commission of Oregon (“Commission”):

- Approve a margin revenue requirement increase of \$10,968,870, or 2.5%, based on the revenue requirement adjustments discussed below;
- Approve revenues of \$1,144,617 for the Lexington RNG facility through a base rate surcharge allocated to sales customers on an equal percent of margin basis;
- Reject the proposed Schedule 198 RNG Automatic Adjustment Clause;
- Decline to approve amortization of the Williams Pipeline Outage Deferral, the Horizon 1 O&M Deferral and TSA Security Directive 2 Deferral; and,
- Adopt a rate spread that, after considering all supplemental rate schedules, allocates a zero percent increase to industrial rate schedules with a parity ratio exceeding 150% of their respective long-run incremental cost.

II. REVENUE REQUIREMENT

Q. PLEASE SUMMARIZE NW NATURAL’S REVENUE REQUIREMENT.

A. NW Natural calculated its revenues based upon its results of operations over the period January 1, 2021 through December 31, 2022 (the “Base Year”). Since NW Natural filed in late 2021, only nine months of data was available for the Base Year, so NW Natural forecasted the last three months, October through December, of the Base Year. NW Natural subsequently applied forecasting adjustments to the Base Year results to develop pro forma results representative of the period November 1, 2022 through October 31, 2023 (the “Forecast Year”). Based on this calculation, NW Natural proposed a \$73,464,854 or 16.5% margin revenue requirement increase in its initial filing. On February 28, 2022, NW Natural identified an error in its initial filing and revised its calculation to a \$78,030,413 or 17.5% revenue requirement increase. The

effects of this errata, however, are not certain as NW Natural stated that it is not necessarily seeking revenues beyond those identified in its initial filing.¹

Q. WHAT LEVEL OF REVENUE REQUIREMENT DO YOU RECOMMEND?

A. Based on my analysis, which is summarized in Exhibit AWEC/102, I recommend a margin revenue requirement increase of \$10,968,870, or 2.5%. The specific adjustments underlying my analysis are summarized in **Table 1**, below

Table 1
AWEC Proposed Margin Revenue Requirement Increase, Oregon-Allocated (\$000)

NW Natural Initial Proposal	78,030
<i>% Margin</i>	<i>17.5%</i>
Impact of Adjustments	
A1 Cost of Capital	(3,764)
A2 Errata Adjustment	(4,782)
A3 Rate Base Period	(18,946)
A4 Depreciation Period	(14,521)
A5 Remove Gas Costs and Revenues	(1,745)
A6 Non-Labor O&M	(6,332)
A7 D&O Insurance	(371)
A8 Allison Spa	(15)
A9 Stock Compensation	(2,261)
A10 Executive Incentives	(2,844)
A11 Directors Fees & Expense	(2,096)
A12 Stock & Bond Costs	(54)
A13 Refreshments	(152)
A14 COVID-19 Contra Revenues	(594)
A15 Rate Case Expense	(19)
A16 R&D Expense	(746)
A17 Horizon 1 Start-up O&M	(6,433)
A18 Sch. 197 Over Collection	(546)
A19 Sch. 183 Over Collection	(2,428)
A20 Interest Coordination	1,588
Total Adjustments	(67,062)
Adjusted Revenue Requirement	10,969
<i>Adjusted % Margin</i>	<i>2.5%</i>

¹ See AWEC/103 at 19 (NW Natural's response to Staff Data Request ("DR") 474).

1 **a. Cost of Capital**

2 **Q. WHAT IS THE REVENUE REQUIREMENT IMPACT OF THE COST OF CAPITAL**
3 **RECOMMENDATION OF AWEC-CUB WITNESS GORMAN?**

4 A. In the Opening Testimony of Witness Gorman, AWEC and CUB recommend a 6.74% cost of
5 capital, consisting of a 9.2% cost of equity, a 4.27% cost of debt, and a 50% equity / 50% debt
6 capital structure. The impact of this recommendation, based on NW Natural's February 28,
7 2022 errata filing is a \$3,764,492 reduction to margin revenue requirement. Based on NW
8 Natural's initial filing, however, the impact of this recommendation is a \$3,655,287 reduction
9 to margin revenue requirement.

10 **b. Errata Adjustment**

11 **Q. PLEASE PROVIDE AN OVERVIEW OF THE ADJUSTMENT TITLED ERRATA**
12 **ADJUSTMENT.**

13 A. My analysis uses NW Natural's February 28, 2022 errata filing as the starting point. The
14 adjustment titled Errata Adjustment adjusts revenue requirement down to the level that NW
15 Natural requested in its initial filing. The impact of the adjustment was calculated, however,
16 based on the cost of capital AWEC and CUB recommended, which resulted in a \$4,781,797
17 reduction to revenue requirement. Depending on the final revenue requirement results,
18 AWEC will consider the effects on the Errata Adjustment.

19 **c. Rate Base Period**

20 **Q. WHAT RATE BASE HAS NW NATURAL PROPOSED?**

21 A. NW Natural's revenue requirement is based on Forecast Year rate base of \$1,780,963,000,
22 which is approximately \$281,736,000 higher than its base year results. The growth in rate base
23 NW Natural has proposed is therefore a major contributor to the revenue requirement requested
24 in this docket. NW Natural's rate base calculation and valuation proposal was provided in

1 Exhibit NW Natural/1312 and the attached workpaper. Based upon that exhibit, NW Natural
2 developed a forecast rate base, calculated on an average-of-monthly-averages (“AMA”) basis,
3 over the Forecast Year, the 12-months ending October 2023. To perform this calculation, NW
4 Natural started with known plant balances in service as of September 30, 2021. NW Natural
5 then incorporated a monthly forecast of plant additions and plant retirements to develop its
6 forward-looking rate base forecast, incorporating the impacts of incremental depreciation
7 reserves and other similar rate base items accruing in each monthly period. Note that, while
8 NW Natural uses a Base Year of January 1, 2021 through December 31, 2021, three months of
9 the Base Year rate base was based on forecast capital additions.

10 **Q. IS NW NATURAL’S RATE BASE PROPOSAL CONSISTENT WITH PAST**
11 **COMMISSION PRACTICE?**

12 A. No. The Commission has, in the past, relied on the “used and useful” standard for evaluating
13 rate base in a rate case. Under ORS 757.355 only plant found to be used and useful may be
14 considered in Oregon rates. Through its forecast, however, NW Natural has included forecast
15 plant additions expected to be placed into service beyond the rate effective date in this
16 proceeding. NW Natural’s rate base proposal would therefore result in NW Natural recovering
17 costs, beginning on the November 1, 2022 rate effective date, for plant additions in the
18 Forecast Period. Accordingly, NW Natural’s rate base proposal is not consistent with the
19 requirement of ORS 757.355 because it would result in NW Natural recovering costs of
20 investments in plant that are not used and useful.

21 **Q. ARE THE FORECAST PLANT ADDITIONS KNOWN AND MEASURABLE?**

22 A. Since NW Natural’s rate base proposal incorporates plant additions well beyond the hearing
23 date and into the rate effective period, there is no evidentiary ability to consider those

1 additions. There is no ability to consider, for example, whether the actual cost associated with
2 a project included in the forecast represent a prudent expenditure.

3 A fundamental tenant of utility regulation is the establishment of cost-based rates
4 measured against a “known and measurable” standard. The commonsense evaluation of a
5 utility’s costs relies on the presumption that the underlying cost items are objective, established
6 based on evidence in the case. To evaluate plant additions, while adopting a forward-looking
7 perspective, however, presents a challenge because the future is unknown and uncertain. Even
8 taking a utility’s best intentions for granted, it is impossible to know whether adopting rates in
9 the abstract, based on a forecast, will or will not, correspond to the utilities actual costs. To
10 resolve this challenge, rates are established on the concept of a “test year,” or in this case the
11 Base Year, to form an evidentiary baseline for a utility’s rate base. Since the test year is an
12 inherently backward-looking concept, adjustments may be necessary to establish a rate base
13 reflective of the utility’s forward-looking costs. In an adjudicative setting, these adjustments
14 must be considered against an objective evidentiary standard and cannot be arbitrary. The
15 known and measurable standard, therefore, is an objective standard that applies to all test-year
16 adjustments. To satisfy the known and measurable standard, a change in costs or revenues
17 must be known, with a high degree of probability. Further, there also needs to be a way to
18 measure or estimate the cost with reasonable precision. Simply stating that capital costs will
19 accrue in a future period is not sufficient if the amount cannot be quantified with reasonable
20 accuracy.

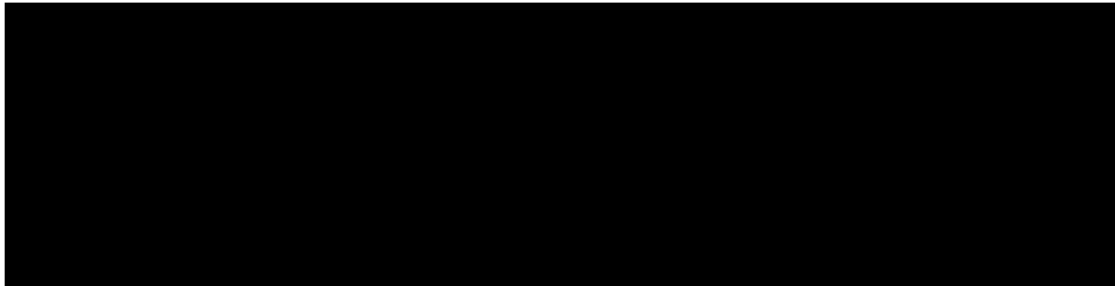
21 **Q. HAS NW NATURAL’S CAPITAL FORECAST BEEN ACCURATE?**

22 A. No. As noted above, NW Natural’s rate base was based on a forecast starting in October 2021.

23 Thus, the reliability of NW Natural’s forecast can be established by comparing the forecast to

1 actual results, informing whether it is reasonable to rely on NW Natural's forecast as a known
2 and measurable adjustment to the Base Year. In response to AWEC Data Request 65,
3 Attachment 1, NW Natural provided the specific capital projects included in its capital
4 forecast. Further, in response to AWEC Data Request 107, Confidential Attachment 1, NW
5 Natural provided actual capital additions by project through February 2022. A comparison of
6 those response indicates that NW Natural's capital forecast has not been accurate, and
7 therefore, it is not reasonable to rely on it for rate setting purposes. A summary of the capital
8 additions included in the two responses is provided in **Confidential Table 2**, below.

Confidential Table 2
NW Natural Capital Forecast Error Per AWEC Data Request
October 2021 to February 2022



9 **Q. WHAT IS DRIVING THESE VARIANCES?**

10 A. In **Confidential Exhibit AWEC/104**, I present an analysis of the drivers of these variances. In
11 AWEC Data Request 107, NW Natural was requested to provide all transfers to plant as of the
12 most recent month available. Based on text response to that request, however, it was unclear if
13 certain blanket projects were excluded from the response. The extent of the omitted blanket
14 projects, however, is unknown, since the response did include some blanket projects.

15 Notwithstanding, it is apparent that, even with the blanket capital projects excluded,
16 NW Natural has still overstated its forecast by a large margin. On Page 2 of **Confidential**
17 **Exhibit AWEC/104**, I detail the variance for the discrete projects only, excluding the blanket

1 projects from both the forecast and actual data. As can be observed, NW Natural's forecast
2 included \$73,078,468 of capital related to discrete projects over the 5-month period.
3 Notwithstanding, NW Natural's actual capital spending on discrete projects was only
4 \$ [REDACTED] over the period. Thus, excluding the blanket projects, NW Natural over-forecast
5 the capital expenditures on discrete projects by \$ [REDACTED], or [REDACTED] %.

6 Further, NW Natural's response to AWEC Data Request 107 included many new
7 project numbers for discrete projects that were not identified in NW Natural's initial filing.
8 These projects are identified as "UNKNOWN" in **Exhibit Confidential AWEC/104**. If these
9 new projects are excluded, NW Natural only spent \$ [REDACTED] on the specific projects that it
10 identified in its initial filing. Thus, NW Natural over-forecast capital expenditures on the
11 specific projects identified in its initial filing by \$ [REDACTED], or [REDACTED] %.

12 **Q. CAN YOU PROVIDE SOME SPECIFIC EXAMPLES?**

13 A. Yes. Over the five-month period analyzed, NW Natural forecast \$4,373,799 in capital
14 expenditures for Project 202110, the White Salmon Reinforcement. The majority of this
15 project was expected to be placed into service in October 2021. Notwithstanding, AWEC Data
16 Request 107 identified [REDACTED] capital expenditures for this project.

17 For Project 201937, E07 Coburg Rd ILI 10", NW Natural forecast transfers to plant of
18 \$4,678,777, with the majority placed into service in October 2021. There were [REDACTED] transfers
19 to plant for this project identified in response to AWEC Data Request 107.

20 For Project 202233, Mist 300-400 Upgrade, NW Natural forecast transfers to plant of
21 \$3,894,690, with the majority placed into service in October 2021. There were [REDACTED] transfers
22 to plant for this project identified in response to AWEC Data Request 107.

1 For Project 202183, E15 - S. Eugene Trans, NW Natural forecast transfers to plant of
2 \$2,086,270, with the majority placed into service in October 2021. There were [REDACTED] transfers
3 to plant for this project identified in response to AWEC Data Request 107.

4 The list goes on. While there were some projects that did go into service with capital
5 levels comparable to the amount included in the forecast—such as the Central Resource Center
6 and the Astoria/Warrenton Resource Center—those seemed to be the exceptions. The cause of
7 the forecast error is not clear since, most of this information was available at the time NW
8 Natural made its filing.

9 **Q. HOW DO YOU RECOMMEND CONSIDERING RATE BASE IN THIS**
10 **PROCEEDING?**

11 A. Given the variances above, I recommend establishing rate base based on known and
12 measurable plant additions as of the hearing date in this docket. Specifically, I recommend a
13 July 31, 2022 rate base valuation date. This timing will provide parties with sufficient ability
14 to evaluate plant additions that will be in service by the hearing date, and issue cross
15 examination on the specific projects, and potentially address any discrepancies in briefing.
16 This change resulted in a \$65,954,038 reduction to rate base.

17 **Q. HOW DO YOU RECOMMEND ADDRESSING NW NATURAL'S CAPITAL**
18 **FORECAST?**

19 A. I have substituted the forecast capital additions through February 2021 with the actual capital
20 additions provided in response to AWEC Data Request 107. Further, on a going forward basis,
21 over the period March 2022 through July 2022, I made a corresponding 47.7% reduction to
22 capital additions to consider the over-forecasting observed to date in NW Natural's forecast. I
23 will revise this assumption with updated data as NW Natural updates its response to AWEC
24 Data Request 107. This assumption resulted in an additional \$133,644,123 rate base reduction.

1 **Q. HAVE YOU UPDATED DEFERRED TAXES FOR THIS PROPOSAL?**

2 A. I estimated the impact of changing the valuation date to July 31, 2022, based on the above
3 method, without considering deferred tax impacts. The impacts rely on detailed tax accounting
4 data underlying the individual tax accounts, so AWEC was not able to calculate the impacts on
5 deferred taxes with precision. AWEC will revise this calculation as necessary based on actual
6 plant in service in later testimony.

7 **Q. WHAT IS THE IMPACT OF THIS RECOMMENDATION?**

8 A. Excluding the impact on depreciation expenses, which are discussed below, the collective
9 impact of my recommendation is a \$199,598,161 reduction to rate base and a corresponding
10 \$18,946,063 reduction to revenue requirement. Approximately \$6,260,425 of the revenue
11 requirement impact is attributed to adjusting to a July 31, 2022 rate base valuation date, and
12 \$12,685,637 of the revenue requirement impact is attributable to the forecast error identified in
13 response to AWEC Data Request 107, an amount which AWEC will revise when NW natural
14 provides an updated response to that request.

15 **d. Depreciation Expense**

16 **Q. HOW DID NW NATURAL CALCULATE DEPRECIATION EXPENSE INCLUDED IN**
17 **REVENUE REQUIREMENT?**

18 A. Like its rate base forecast, NW Natural calculates depreciation expenses over the 12-months
19 ending October 2023, including the incremental impacts of forecast plant additions and
20 retirements.

21 **Q. HAS NW NATURAL USED THE DEPRECIATION STUDY RATES PROPOSED IN**
22 **DOCKET NO. UM 2114?**

23 A. No. NW Natural had the option to consider those impacts in this filing, and given that they
24 were excluded, I recommend that those impacts not be considered in this docket.

1 **Q. HOW DO YOU RECOMMEND ADJUSTING DEPRECIATION EXPENSES**
2 **CONSIDERING THE JULY 31, 2022 RATE BASE DATE?**

3 A. I recommend that, consistent with AWEC's recommended rate base valuation date, that
4 depreciation expenses be calculated over the 12-month period ending on the rate base valuation
5 date.

6 **Q. WHY DO YOU PROPOSE USING THE 12-MONTHS ENDING ON THE RATE BASE**
7 **VALUATION DATE?**

8 A. In the context of a test period, and the associated adjustments, it is imperative that all items be
9 viewed in a consistent manner. Revenue requirement items, such as plant, accumulated
10 depreciation, deferred taxes and depreciation expense change in complex, interrelated fashion.
11 In using a rate base valuation based on a specified date, including the associated accumulated
12 depreciation, it is necessary to include any additional depreciation expenses other than what
13 was been accrued as of the valuation date. Otherwise it would be necessary to include
14 additional reserves associated with the incremental depreciation expenses extending beyond the
15 rate base valuation date.

16 **Q. WHAT IS THE IMPACT OF THIS RECOMMENDATION?**

17 A. Adjusting to a 12-month depreciation expense corresponding to July 31, 2022, including the
18 impact of the rate base adjustments above, results in a \$13,044,172 reduction to depreciation
19 expenses and a corresponding \$14,521,250 reduction to revenue requirement.

20 **e. Gas Costs and Revenues**

21 **Q. IS THE REVENUE REQUIREMENT NW NATURAL CALCULATED BASED ON**
22 **MARGIN REVENUES?**

23 A. No. In response to AWEC Data Request 9, NW Natural acknowledged that its revenue
24 requirement calculation includes gas costs and gas revenues in the test period.

1 **Q. IS IT APPROPRIATE FOR NW NATURAL TO INCLUDE SUCH COSTS IN**
2 **REVENUE REQUIREMENT?**

3 A. No. NW Natural recovers the costs associated with gas supply in its annual purchased gas
4 adjustment filing. Therefore, considering gas costs and revenues in a general rate case, where
5 only the margin revenues are at issue, is not appropriate.

6 **Q. WHAT WAS THE IMPACT OF EXCLUDING GAS COSTS AND REVENUES FROM**
7 **REVENUE REQUIREMENT?**

8 A. Based on NW Natural's response to AWEC Data Request 9, removing the gas costs and
9 revenues resulted in a \$1,238,400 reduction to net operating income, resulting in a \$1,745,104
10 reduction to revenue requirement.

11 **f. Non-Labor O&M Expense**

12 **Q. WHAT NON-LABOR O&M EXPENSES DOES NW NATURAL INCLUDE IN ITS**
13 **REVENUE REQUIREMENT?**

14 A. NW Natural provided its O&M forecast model in response to Staff Data Request 143. In that
15 model, NW Natural forecast unadjusted total-company non-labor O&M expense in the
16 Forecast Period of \$107,580,541, with \$95,755,244 allocated to Oregon. This compares to
17 Base Year non-labor O&M expense of \$86,287,923 with \$76,874,790 allocated to Oregon,
18 although the Base Year amounts also include three-months of forecast data for October 2021
19 through December 2021. Thus, of the rate increase at issue in this proceeding, at least
20 \$18,880,454 is related to NW Natural's non-labor O&M forecast assumptions.

21 **Q. HOW DID NW NATURAL DEVELOP ITS NON-LABOR O&M FORECAST?**

22 A. Like its rate base forecast, NW Natural started with actual O&M expenses incurred by
23 department over the 9-month period ending September 2021. Since the results for October
24 2021 through December 2021 were not yet available when NW Natural prepared its rate case
25 filing, the last three months of the test period were based on a forecast. The forecast was

1 developed based a blend of specific department level expense forecasts, where possible, and an
2 additional, generic 4% annual escalation over the monthly amounts incurred in October 2020
3 through December 2020.

4 From the Base Year, NW Natural subsequently made several discrete adjustments to
5 reflect known and measurable cost increases for items such as, the Horizon ERP project, lease
6 expenses, and insurance costs. In addition to those known and measurable adjustments,
7 however, NW Natural applied generic escalation to the Base Year amounts using annual
8 factors of 3.9% for 2022 and 2.4% for 2023.

9 **Q. IS ACTUAL DATA NOW AVAILABLE FOR THE PERIOD OCTOBER 2021**
10 **THROUGH DECEMBER 2021?**

11 A. Yes. In AWEC Data Request 40, AWEC requested NW Natural provide an updated version of
12 its O&M model using actual cost data for the entirety of 2021. NW Natural, however,
13 objected to this request, and was not willing to update the information stating that the model
14 was “highly granular with many interdependencies within the detail,” and that it would require
15 NW Natural to “to develop and submit an alternative to a significant component of its rate
16 case.” Thus, while NW Natural acknowledged that its non-labor O&M is a significant
17 component of its rate case, it was not willing to commit the resources to demonstrate that its
18 forecast of such costs in the Base Year was accurate. Given that NW Natural has the burden of
19 proof, its decision not to respond to AWEC’s request indicates that it is not willing to support
20 the accuracy of its own forecast assumptions.

21 **Q. WAS NW NATURAL’S NON-LABOR O&M FORECAST ACCURATE?**

22 A. In response to AWEC Data Request 80, NW Natural provided transaction data supporting its
23 non-labor operating expenses for 2021. **Confidential Exhibit AWEC/105** contains a

1 comparison between the actual 2021 non-labor O&M expenses from AWEC Data Request 80
2 and the Base Year amounts included in NW Natural's O&M model, including the forecast
3 values for October 2021 through December 2021. As can be noted from the exhibit,
4 NW Natural's actual Base Year non-labor O&M expenses were just \$83,328,384 on a total-
5 company basis, in contrast to \$86,287,923 assumed in its O&M model. Thus, NW Natural's
6 O&M forecast for the Base Year was overstated by \$2,959,539, with \$2,653,658 allocated to
7 Oregon.

8 **Q WHAT DISCRETE ADJUSTMENTS DID NW NATURAL APPLY TO THE TEST**
9 **PERIOD RESULTS?**

10 A. Starting with the Base Year results, NW Natural applied nine discrete adjustments to its non-
11 labor O&M expenses for the rate period. The total impact of these adjustments was
12 \$19,798,223 on a total-company basis. These expense items were detailed in response to
13 AWEC Data Request 42. In addition, NW Natural provided further detail surrounding each of
14 the adjustments in Staff Data Request 202.

15 **Q. WHAT AMOUNT OF GENERIC ESCALATION DID NW NATURAL ASSUME?**

16 A. In addition to the discrete cost items, NW Natural's non-labor O&M forecast includes
17 \$3,409,295 of generic escalation on a total-company basis, with \$3,034,667 allocated to
18 Oregon. The escalation rate NW Natural applied was based on its forecast of the consumer
19 price index ("CPI"), an economic indicator used to estimate the impact of inflation on
20 consumer households.

21 **Q. IS IT REASONABLE TO APPLY GENERIC ESCALATION FOR THE CPI?**

22 A. No. The CPI is an economic indicator that tracks the prices for a basket of household goods,
23 which is not representative of the change in operating expenses expected at the utility.

1 Gasoline and food prices, for example, play a major role in establishing the CPI levels.
2 Gasoline and food prices, however, represent only a small fraction of NW Natural's O&M
3 costs. CPI is also influenced by utility rates. Thus, if CPI is also used to forecast an increase
4 in utility rates, the result can be a vicious cycle where increasing utility rates drive a higher
5 CPI, which itself drives higher utility rates. While inflation may impact the cost of raw
6 materials in a manner similar to CPI, those raw material cost impacts do not substantially
7 impact O&M costs. Raw materials costs, such as the cost of a new coated pipe for example,
8 are typically capital related, and therefore not included in non-labor O&M. On the contrary,
9 most of NW Natural's O&M costs consist of purchased services, which do not necessarily
10 follow the inflationary trends analyzed in the CPI indicator.

11 **Q. IS IT REASONABLE FOR NW NATURAL TO APPLY BOTH DISCRETE O&M**
12 **ADJUSTMENTS AND GENERIC ESCALATION?**

13 A. No. It is also duplicative to forecast discrete adjustments to capture increases to O&M, while
14 also applying generic escalation for the same purpose. NW Natural is in control of its non-
15 labor O&M expenditures, and as those expenditures do not necessarily change with inflation,
16 including the magnitude of escalation that NW Natural proposes is not appropriate.

17 **Q. WHAT DO YOU RECOMMEND?**

18 A. I recommend that the non-labor O&M expenses included in revenue requirement be based on
19 the known and measurable, Base Year levels, adjusted for the discrete items NW Natural
20 identified in response to AWEC Data Request 42. Accordingly, I recommend that the non-
21 labor O&M expense amount be adjusted down to the level identified in Exhibit AWEC/105,
22 and that the incremental inflationary escalation be removed from the O&M forecast. The

collective impact of these two adjustments is a \$5,688,325 reduction to operating expenses and a corresponding \$6,332,451 reduction to revenue requirement after revenue sensitive costs.

g. Directors' Insurance

Q. WHAT AMOUNT OF DIRECTORS' AND OFFICERS' INSURANCE HAS NW NATURAL INCLUDED IN REVENUE REQUIREMENT?

A. In response to Staff Data Request 74, NW Natural Identified \$[REDACTED] of directors' and officers' insurance premiums included in the Base Year on a total-company basis, or approximately \$[REDACTED] on an Oregon-allocated basis.

Q. WHAT DO YOU RECOMMEND FOR THE DIRECTORS' AND OFFICERS' INSURANCE?

A. I recommend that the directors' and officers' insurance premiums be split 50/50 between shareholders and ratepayers. This treatment is consistent with past Commission practice and recognizes that the insurance premiums are a benefit to shareholders. As a general principle, it is equitable to assign cost responsibility between shareholders and ratepayers in proportion to the benefit that received by the respective interested parties. In this case, the officers' insurance premiums provide a significant benefit to shareholders, because among other things, they shield the shareholders from the financial impact of shareholder and other similar lawsuits. The cost of these lawsuits would otherwise be paid out of shareholder earnings. Thus, it is appropriate for shareholders to bear a portion of the costs.

Q. WHAT IS THE IMPACT OF THIS RECOMMENDATION?

A. Assigning 50% of the directors' and officers' insurance to shareholders results in a \$333,146 reduction to Oregon operating expense and a corresponding \$370,871 reduction to revenue requirement.

1 **h. Misc. Board Expenses**

2 **Q. HAVE YOU IDENTIFIED ANY OTHER BOARD OF DIRECTORS' EXPENDITURES**
3 **WHICH ARE NOT APPROPRIATELY ALLOCATED TO SHAREHOLDERS?**

4 A. Yes. In response to Staff Data Request 150, NW Natural identified \$13,316 in Board of
5 Directors' expenses related to the Allison Inn and Spa. NW Natural provided further
6 information in response to Staff Data Request 151, noting that the fee was related to a board
7 retreat that was ultimately cancelled. I recommend these costs be removed from revenue
8 requirement. While luxurious retreats might make the job of being a board member more
9 enjoyable, it is not a necessity of the job. These types of fringe benefits, such as a massage or a
10 golf game, do not benefit ratepayers because board of directors can fulfill their responsibilities,
11 without such perks. Removing these costs results in a \$14,824 reduction to revenue
12 requirement.

13 **i. Stock Compensation Expense**

14 **Q. WHAT AMOUNT OF STOCK COMPENSATION EXPENSE HAS NW NATURAL**
15 **INCLUDED IN REVENUE REQUIREMENT?**

16 A. In NW Natural's O&M forecast provided in response to Staff Data Request 143, NW Natural
17 included an adjustment for \$2,030,585 of stock compensation expenses. In response to AWEC
18 Data Request 45, NW Natural described these amounts as "the cost of the Employee Stock
19 Purchase Program (ESPP) and Restricted Stock Units (RSUs) offered to NW Natural
20 employees." Based on NW Natural's workpapers, however, only 32% of this amount was
21 actually provided to employees, while 68% was related to officer incentives.

22 **Q. ARE THESE EXPENSES AN ACTUAL COST TO NW NATURAL?**

23 A. No. When NW Natural issues stock to an employee through a restricted stock, or discount
24 purchase plan, the issuance of stock to employees does not result in a cash outlay to NW

1 Natural. Therefore, these stock expenses do not represent a cost that is includible in rates.

2 The effect of a stock issuance, whether it be to an employee or some other investor, is the

3 dilution of the value of the stock held by NW Natural's existing shareholders. Thus, including

4 NW Natural's proposed stock issuance costs in revenue requirement would result in ratepayers

5 reimbursing shareholders for this dilutive effect, a fundamentally unbalanced proposal. The

6 loss in shareholder value resulting from a stock issuance, whether it be to incentivize an

7 employee or for other purposes, is not a type of cost that is appropriate to recover from

8 ratepayers. NW Natural's equity holders are compensated through NW Natural's return on

9 equity, through which shareholders take on the risk that NW Natural may be required to issue

10 new stock in a manner that dilutes the value of the existing shares. NW Natural does not, for

11 example, record revenues when it takes actions that are accretive to existing shareholders, such

12 as buying back stock.

13 **Q. ARE STOCK INCENTIVES DESIGNED TO BENEFIT RATEPAYERS?**

14 A. No. Such issuances are designed to align the interest of employees with that of shareholders.

15 Accordingly, it is not appropriate for ratepayers to bear the cost of the shareholders' dilution

16 resulting from such issuances. Accordingly, NW Natural's shareholders are likely not

17 concerned with the minor dilution that results from issuing stock to employees. NW Natural

18 could otherwise provide cash incentives to these employees tied to specific goals meant to

19 benefit ratepayers, but shareholders would prefer the issuance of stock, since it does not require

20 cash and makes the employees act in their interest.

21 **Q. WHAT DO YOU RECOMMEND?**

22 A. I recommend removing the stock incentive expenses from revenue requirement, which results

23 in a \$2,260,521 reduction to revenue requirement.

1 **j. Executive Long-term Incentive Plan**

2 **Q. WHAT AMOUNT HAS NW NATURAL INCLUDED IN REVENUE REQUIREMENT**
3 **FOR ITS LONG-TERM INCENTIVE PLAN?**

4 A. NW Natural's O&M budget provided in response to Staff Data Request 143 includes a discrete
5 adjustment referred to as a Long-term Incentive Plan ("LTIP") in the amount of \$2,554,429.

6 **Q. WHAT IS INCLUDED IN THE PROPOSED LTIP AMOUNT?**

7 A. While NW Natural has referred to the plan as an LTIP, most of the amounts (94%) are officers'
8 incentives. Further, in response to AWEC Data Request 44 NW Natural explained that the
9 LTIP is also a stock-based program, stating that the material increase assumed in the rate year
10 was "due to the number of shares planned to be awarded and the share price assumed."

11 **Q. DOES THE LTIP BENEFIT RATEPAYERS?**

12 A. No. The LTIP is designed for the benefit of officers and not necessarily based on objectives
13 meant to benefit ratepayers. Further, since the awards are tied to a share price, the program is
14 designed to encourage actions that increase share price, not designed to benefit ratepayers
15 through revenue reductions or improved services.

16 **Q. WHAT DO YOU RECOMMEND?**

17 A. I recommend that the LTIP be excluded from revenue requirement in this case because it does
18 not benefit rate payers. The impact of this recommendation is a \$2,843,684 reduction to
19 revenue requirement.

20 **k. Director's Fees and Expense**

21 **Q. WHAT AMOUNT OF DIRECTOR'S FEES DOES NW NATURAL INCLUDE IN**
22 **REVENUE REQUIREMENT?**

23 A. In its actual 2021 non-labor O&M expense provided in response to AWEC Data Request 80,
24 NW Natural incurred \$2,356,594 total-company expense and \$2,092,226 in Oregon-allocated

1 expense associated with directors' fees and expense. In the accounting data these transactions
2 were identified under Order 930-04320, "MISC GENERAL EXPENSE-DIRECTORS FEES &
3 EX." These expenses include both the fees paid to the board members along with directors'
4 expenses. The expenses include items such as "Prizes purchased for BOD game night," and
5 parking costs reimbursed by NW Natural.

6 **Q. DO DIRECTORS BENEFIT CUSTOMERS?**

7 A. While directors are a necessary part of the governance structure for NW Natural Holding
8 Company, directors have a fiduciary responsibility towards shareholders, not ratepayers.
9 When the interests of shareholders and ratepayers are aligned it can be said that directors are
10 working for the benefit of ratepayers; otherwise, where there is a conflict, board of directors act
11 in the interest of shareholders. Further, given that NW Natural is now structured as a holding
12 company, with an objective of acquiring new businesses in new markets, the focus of the
13 directors is now less on its gas business and more on NW Natural as a holding company.

14 **Q. WHAT TREATMENT DO YOU RECOMMEND FOR DIRECTORS' FEES AND**
15 **EXPENSE?**

16 A. In recognition of the fact that directors' primarily benefit shareholders and that NW Natural is
17 now structured as a holding company, I recommend that directors' fees and expenses be split
18 90/10, with 90% of the cost being paid by shareholders and 10% of the cost being paid by
19 ratepayers. This approach also recognizes that directors receive a significant amount of
20 remuneration because they provide a significant benefit to shareholders. If ratepayers were the
21 sole interest of the directors, the cost of finding qualified individuals would likely be less.

1 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?**

2 A. Removing 90% of directors' fees and expenses results in a \$1,883,003 reduction to operating
3 expense and a \$2,096,228 reduction to revenue requirement.

4 **I. Stock and Bond Issuance Costs**

5 **Q. WHAT AMOUNT OF STOCK AND BOND ISSUANCE COSTS WERE INCLUDED IN**
6 **O&M EXPENSE?**

7 A. Based on NW Natural's 2021 operating results, approximately \$48,786 of stock and bond
8 holder expenses were included in O&M expense. These transactions may be identified under
9 930-02065, and 930-05000 in the accounting data provided in response to AWEC Data
10 Request 80.

11 **Q. IS IT APPROPRIATE TO INCLUDE SUCH COSTS IN REVENUE REQUIREMENT?**

12 A. No. Stock issuance costs are not appropriately considered an expense. Both GAAP and tax
13 accounting require stock issuance costs to be treated as a reduction in the proceeds of the stock
14 sale. Stock issuance costs are considered the equivalent of selling the stock at a discount, and
15 thus, those costs do not create an expense that is eligible for recovery through rates. Similarly,
16 bond issuance costs are recovered as a cost of debt, and therefore, not appropriately considered
17 in revenues.

18 **Q. WHAT IS THE IMPACT OF REMOVING THESE COSTS?**

19 A. Removing the stock and bond issuance costs results in a \$54,310 reduction to revenue
20 requirement.

1 **m. Refreshments**

2 **Q. WHAT AMOUNT OF COSTS ARE INCLUDED IN REVENUE REQUIREMENT FOR**
3 **REFRESHMENTS?**

4 A. NW Natural's 2021 results includes \$136,929 in Oregon-allocated O&M expense for
5 refreshments. These costs can be identified under cost element number 503300 in NW
6 Natural's response to AWEC Data Request 80.

7 **Q. WHAT DO YOU RECOMMEND FOR THESE AMOUNTS?**

8 A. Recognizing that providing refreshments in the context of business meetings and conferences
9 is not necessarily a requirement of providing utility service—that is NW Natural would be
10 capable of providing services to its ratepayers without such refreshments—I recommend that
11 the refreshment costs be removed from revenue requirement. Further, of the amount that NW
12 natural incurred in 2021, only \$38,332 was actually paid. The remaining \$98,597 was
13 attributable to the COVID savings deferral, in which NW Natural is booking an offsetting
14 contra-revenue amount in O&M expense to account for the deferral of savings. The impact of
15 removing the refreshment costs is a \$152,434 reduction to operating expense.

16 **n. COVID-19 Savings Contra Revenue**

17 **Q. HOW HAS NW NATURAL HANDLED THE SAVINGS ASSOCIATED WITH COVID**
18 **IN ITS CALCULATION OF REVENUE REQUIREMENT?**

19 A. In connection with booking the savings associated with COVID, such as reduced travel
20 expenses, NW Natural has booked contra revenue to operating expense. In other words, since
21 NW Natural was returning the saving to customers, the cost of refunding that savings was
22 booked as an increase to operating expenses in operating results. These entries can be
23 identified in response to AWEC Data Request 80 by filtering on Order 930-01000

1 **Q. WHAT AMOUNT OF COVID-19 CONTRA REVENUES WERE INCLUDED IN 2021**
2 **RESULTS?**

3 A. Including the refreshment amounts identified above, NW Natural booked \$632,310 in contra
4 revenues as an operating expense in 2021 results. Excluding the imputed refreshment costs
5 above, \$533,713 of net contra revenues were included in 2021 results.

6 **Q. WHAT DO YOU RECOMMEND FOR THESE CONTRA REVENUE AMOUNTS?**

7 A. I recommend they be excluded from results. These items are non-recurring and not
8 representative of normalized business operations. Removing them results in a \$594,149
9 reduction to revenue requirement.

10 **o. Rate Case Expense**

11 **Q. WHAT ADJUSTMENT HAS NW NATURAL PROPOSED FOR RATE CASE**
12 **EXPENSES?**

13 A. NW Natural's test period included \$201,850 in rate case expenses. Since those adjustments
14 were related to a Washington rate case, NW Natural removed those amounts, after considering
15 the generic escalation, using the CPI rate, and assumed an ongoing Oregon rate case expense of
16 \$350,000, which it spread over a three year period. The \$350,000 appears to be a budgeted
17 estimate, and not necessarily reflective of the historical actual cost of litigating an Oregon rate
18 cases.

19 **Q. WHAT DO YOU RECOMMEND?**

20 A. I recommend a smaller rate case budget of \$300,000, spread over three years. The impact of
21 this recommendation is a \$18,554 reduction to revenue requirement.

1 **p. Research and Development**

2 **Q. WHAT RESEARCH AND DEVELOPMENT EXPENSES DID YOU IDENTIFY IN 2021**
3 **TEST PERIOD RESULTS?**

4 A. In the actual 2021 Base Year results provided in response to AWEC Data Request 80, research
5 and development expenses of \$1,521,880 were included in general ledger account 507100.

6 **Q. WHAT WERE THESE AMOUNTS FOR?**

7 A. The majority of the amounts appear to be dues and subscriptions to research organizations.
8 Some of the fields, however, did not contain any descriptive fields. For example, there are two
9 entries, with document numbers 1012304730 and 1013164999, both in the amount of \$335,000
10 that were included in the transaction data with no descriptive information.

11 **Q. WHAT DO YOU RECOMMEND FOR THE ENTRIES WITH NO DESCRIPTION?**

12 A. I recommend that the amounts with no descriptions be removed from revenue requirement,
13 since it is NW Natural's obligation and burden to demonstrate that the costs benefit Oregon
14 ratepayers. The impact of this recommendation is a \$745,868 reduction to revenue
15 requirement.

16 **q. Horizon 1 Start-up O&M**

17 **Q. HOW MUCH START-UP O&M DID NW NATURAL INCUR FOR THE HORIZON 1**
18 **PROJECT IN THE BASE YEAR?**

19 A. Based on NW Natural's response to AWEC Data Request 89, NW Natural identified
20 \$6,531,293 of Horizon 1 Start-up O&M, with \$5,778,234 allocated to Oregon.

21 **Q. IS IT APPROPRIATE TO CONSIDER THE HORIZON 1 START-UP COSTS IN**
22 **O&M?**

23 A. No. The start-up costs are non-recurring in nature, and therefore, not necessary to include in
24 revenue requirement on a going forward basis. Further the start-up costs are subject to the
25 deferral approved in Docket UM 2132.

1 **Q. WHAT IS THE IMPACT OF REMOVING THE HORIZON 1 START-UP O&M?**

2 A. Removing the Horizon 1 start-up O&M results in a \$6,432,541 reduction to revenue
3 requirement.

4 **r. Schedule 197 Amortization of Pension Balancing Account**

5 **Q. PLEASE PROVIDE AN OVERVIEW OF SCHEDULE 197?**

6 A. Schedule 197 – Amortization of Pension Balancing account was implemented in Docket No.
7 UG 344. Following the failure of the Pension Balancing Account (“PBA”) mechanism, Parties
8 agreed to amortization the remaining balance, subject to adjustments, in an annual amount of
9 \$7,100,000 over a ten-year period commencing on April 1, 2019.

10 **Q. IS NW NATURAL PROPOSING TO UPDATE THE PENSION BALANCING**
11 **ACCOUNT RATES IN THIS DOCKET?**

12 A. No. While NW Natural’s revenue requirement includes the \$7,100,00 in amortization
13 expenses, it does not propose any changes to the PBA amortization rates. Even though its
14 billing determinants have changed, NW Natural has not updated Schedule 197 rates since the
15 schedule was first implemented.

16 **Q. HOW MUCH WILL NW NATURAL RECOVER THROUGH SCHEDULE 197 BASED**
17 **ON IT’S BILLING DETERMINANTS?**

18 A. In **Exhibit AWEC/106**, I detail the amount of revenues NW Natural will collect in rates
19 under Schedule 197 based on the billing determinants assumed in its filing. As can be seen
20 NW Natural will collect \$7,598,076 in rates through Schedule 197, exceeding authorized
21 collections by \$498,076.

22 **Q. HOW MUCH HAS NW NATURAL COLLECTED THROUGH SCHEDULE 197**
23 **SINCE ITS INCEPTION?**

24 A. NW Natural was requested to provide the amount it had recovered through Schedule 197 in
25 multiple data requests. AWEC requested this information in AWEC Data Request 53 and

1 again in AWEC Data Request 104. NW Natural, however, was not willing to provide the
2 information. In AWEC Data Request 105, however, AWEC requested the monthly volumes
3 for each rate schedule, and from that information, I was able to perform the calculation.

4 As can be seen in **Exhibit AWEC/106**, in the first year of Schedule 197 (April 2019
5 through March 2020) NW Natural recovered \$7,348,267 for the PBA Amortization, or
6 \$248,267 more than the amount authorized. In the second year of Schedule 197 (April 2020
7 through March 2021) NW natural recovered \$7,342,588, or \$342,588 more than authorized.
8 In the third year, it appears that NW Natural is on track for a similar level of over recovery,
9 although the data through March 2022 was not available at the time of filing this testimony.

10 **Q. WHAT DO YOU RECOMMEND?**

11 A. I recommend that the overcollection of Schedule 197 PBA Amortization over the period April
12 2019 through March 2021, in the amount of \$490,856 be refunded to customers. I have
13 applied this as a one-year amortization in my revenue requirement model, which reduces
14 revenue requirement by \$546,439. Further, I recommend that the Schedule 197 rates be
15 reduced on a going forward basis by 7.02% to reflect the impact of the billing determinants
16 proposed in NW Natural's initial filing.

17 **s. Schedule 183 - Rate Adjustment for Environmental Cost Recovery**

18 **Q. PLEASE PROVIDE AN OVERVIEW OF SCHEDULE 183?**

19 A. Schedule 183 - Rate Adjustment for Environmental Cost Recovery account was implemented
20 in Docket Nos UM 1635 and UM 1706 in 2015. Based upon the recovery mechanism
21 approved by the Commission in Order 15-049, NW Natural was allowed to recover \$5,000,000
22 in environmental costs per year through Schedule 183

1 **Q. IS NW NATURAL PROPOSING TO UPDATE SCHEDULE 183 RATES IN THIS**
2 **DOCKET?**

3 A. No. Similar to Schedule 197, NW Natural did not propose updating schedule 183 rates in this
4 docket, even though the underlying billing determinants have changed.

5 **Q. HOW MUCH WILL NW NATURAL RECOVER THROUGH SCHEDULE 183 BASED**
6 **ON IT'S BILLING DETERMINANTS?**

7 A. In **Exhibit AWEC/107**, I detail the amount of revenues NW Natural will collect in in rates
8 under schedule 197 based on the billing determinants assumed in its filing. As can be seen
9 NW Natural will collect 5,730,841 in rates through Schedule 183, which exceeds its authorized
10 collection by \$730,841.

11 **Q. HOW MUCH HAS NW NATURAL COLLECTED THROUGH SCHEDULE 183**
12 **SINCE 2018?**

13 A. Similar to the pension balancing account, NW natural was requested to provide the amount it
14 had recovered through Schedule 183 in multiple data requests, but was not willing to provide
15 the information.

16 As can be seen in **Exhibit AWEC/107**, however, NW Natural recovered \$5,403,877,
17 \$5,860,538, \$5,447,895, and \$5,468,541 in calendar years 2018, 2019, 2020 and 2021,
18 respectively. This amounted to over collection \$403,877, \$860,538, \$447,895, and \$468,541
19 in 2018, 2019, 2020 and 2021, respectively. Collectively, NW Natural over-collected Schedule
20 183 revenues by \$2,180,851 since 2018.

21 **Q. WHAT DO YOU RECOMMEND?**

22 A. Like the PBA Amortization, I recommend refunding the amounts of the Schedule 183 over-
23 collections to customers in the amount of \$2,180,851. I have applied this as a one-year
24 amortization in my revenue requirement model, which reduces revenue requirement by
25 \$2,427,803. Further, I recommend that the Schedule 197 rates be reduced on a going forward

1 basis by 12.75% to reflect the impact of the billing determinants proposed in NW Natural's
2 initial filing.

3 III.LEXINGTON RNG SURCHARGE

4 **Q. PLEASE SUMMARIZE NW NATURAL'S PROPOSAL WITH RESPECT TO THE**
5 **LEXINGTON RNG PROJECT.**

6 A. The Lexington RNG facility was described in Opening Testimony of NW Natural witness
7 Chittum at Exhibit NW Natural/1100. The Lexington RNG facility cost approximately \$8.4
8 million and was acquired for the purpose of fulfilling the renewable gas portfolio targets in
9 Senate Bill ("SB") 98, which was enacted in 2019.² The facility is located at the Tyson Fresh
10 Meats, Inc. facility in Lexington Nebraska. The facility was developed and marketed to NW
11 Natural by two developers, BioCarbN and Cross River Partners (collectively BioCross), as a
12 result of an RFP procurement process. The biogas facility uses an anerobic digester to convert
13 animal waste products from the Tyson facility into unrefined biogas. The biogas, which is a
14 low-quality gas consisting of high proportions of carbon dioxide, hydrogen sulfide and other
15 impurities, is processed into pipeline grade gas through a filtering system owned by a joint
16 venture between NW Natural and the BioCross. Separately, NW Natural has a gas offtake
17 agreement with the joint venture, through which it purchases the processed gas from the
18 Lexington Partnership, including the underlying Renewable Thermal Certificates ("RTCs").
19 Under the offtake agreement, NW Natural acquires RNG based on an escalating schedule
20 starting at \$ [REDACTED]/dth. NW Natural retains the RTCs and subsequently sells the brown gas
21 into the local pipeline.

² NW Natural/1100, Chittum/7:4-7

1 **Q. HOW LARGE IS THE LEXINGTON FACILITY?**

2 A. The facility is expected to produce 190,000 dth of RNG per year, representing 0.27% of NW
3 Natural's Oregon sales, excluding transportation customer throughput.³ Relative to NW
4 Natural's total throughput, inclusive of transportation customers, the Lexington RNG facility
5 will produce RNG equal to just 0.17% of Oregon sales.

6 **a. Lexington Cost Allocation**

7 **Q. WHAT IS THE RATE IMPACT OF THE LEXINGTON RNG FACILITY?**

8 A. The annual revenue requirement that NW Natural calculated for the Lexington RNG Facility
9 was \$1,911,069 or 0.43% of margin rates.⁴ Notwithstanding, NW Natural has proposed to
10 recover a revenue requirement of \$3,291,859 for the Lexington RNG facility, a 0.63% increase
11 to margin rates. Further, NW Natural's cost allocation proposal results in differing impacts for
12 between customer classes. The divergent impacts between the rate schedules may be seen in
13 **Table 3**, below:

³ *Id.* at 7:2-3.

⁴ Exhibit NW Natural/1314, Walker/2.

Table 3
Impact of Lexington RNG Facility Surcharge by Rate Schedule

02R	0.37%
03C	0.50%
03I	0.71%
27R	0.46%
31CSF	0.75%
31CTF	0.79%
31ISF	1.13%
31ITF	1.06%
32CSF	1.09%
32ISF	1.69%
32CTF	1.91%
32ITF	3.75%
32CSI	3.20%
32ISI	3.28%
32CTI	3.92%
32ITI	9.33%
33T	0.00%

As described above, even though the Lexington RNG facility revenue requirement constitutes 0.43% of margin rates, Schedule 32ITI customers would, under NW Natural's allocation proposal, be subject to a 9.33% rate increase for the project. These impacts were surprising since the Lexington RNG facility was acquired under the authority of SB 98, which was never intended to impact transportation customers and was not to result in rate increases in excess of 5% of revenue requirement.

Q. IS NW NATURAL AUTHORIZED TO ACQUIRE RNG UNDER SENATE BILL 98 FOR TRANSPORTATION CUSTOMERS?

A. No. NW Natural is only allowed to acquire RNG for the purpose of meeting the targets established in ORS 757.396(a). Those targets apply to "gas purchased by the large natural gas utility for distribution to retail natural gas customers in Oregon that is renewable natural gas". The statute is explicit, NW Natural may only acquire RNG based upon the specific targets in

1 ORS 757.396(a) and those targets only apply to sales customers. While compliance with the
2 program is optional, to the extent NW Natural does participate in the program, it must follow
3 to parameters established in the statute. Otherwise, there would be no point for those
4 parameters to begin with. Senate Bill 98 did not provide NW Natural with authority to
5 purchase RNG for transportation customers, and NW Natural is not otherwise authorized to
6 purchase gas requirements, renewable or otherwise, for transportation customers. Therefore,
7 allocating costs to transportation customers associated with the Lexington RNG facility, which
8 was acquired solely for SB 98, is not appropriate, especially considering the fact that
9 transportation customers are already paying rates that are significantly above the cost of
10 service.

11 **Q. HOW HAS NW NATURAL PROPOSED TO ALLOCATE THE COST OF THE**
12 **LEXINGTON RNG FACILITY?**

13 A. NW Natural has proposed to allocate the costs of the Lexington RNG facility on an equal
14 cents per therm basis to all customers, including transportation customers. The result of this
15 proposal is that large volume customers, such as Schedule 32ITI customers, are assigned a
16 significantly higher allocation of the costs associated with the Lexington RNG facility. This is
17 particularly concerning to AWEC as these customers are already paying rates that are 190%
18 higher than their long run incremental cost. Thus, NW Natural's proposal is contradictory in
19 that it assigns larger portion of the costs of RNG to transportation customers, while otherwise
20 ignoring cost causation in the context of the base rates increase.

1 **Q. WHY HAS NW NATURAL PROPOSED ALLOCATING THE COST OF LEXINGTON**
2 **ON AN EQUAL CENTS PER THERM BASIS?**

3 A. While SB 98 required RNG to be supplied only to sales customers, NW Natural has proposed
4 deviating from that requirement because NW Natural “believes all customers will benefit from
5 RNG which will be utilized for compliance with the CPP.”⁵

6 **Q. DO YOU AGREE?**

7 A. No. As all parties acknowledged in Docket UI 451, “the sole purpose” of the Lexington RNG
8 facility was “to assist the Company in investing in RNG infrastructure under SB 98.”⁶ The
9 purpose of the project was not intended to address the Climate Protection Plan (“CPP”). The
10 Lexington RNG facility was originally selected in the spring of 2021. The CPP rules were not
11 enacted until later, in December 2021. Therefore, the purpose of acquiring the Lexington RNG
12 facility could not have been for CPP compliance, since the CPP did not exist when the
13 Lexington RNG facility was acquired.

14 Further, the CPP rules are a sweeping regulatory regime that was only recently enacted.
15 Accordingly, it is too early to tell the most cost effective way for individual customer classes to
16 comply with the CPP, including consideration of RNG, energy efficiency, and community
17 climate investments. While RNG may be a cost effective CPP compliance pathway for sales
18 customers, for example, this may not be the most cost effective way for transportation
19 customers, especially considering that NW Natural is not supplying gas to those customers.
20 Other measures, such as energy efficiency, or emerging technologies may be more cost
21 effective for transportation customers.

⁵ NW Natural/1300, Walker/28:19-20

⁶ UI 451 Stipulation Testimony

1 **Q. HAS THE COMMISSION FINALIZED ITS FACT FINDING WITH RESPECT TO**
2 **THE CPP?**

3 A. On April 15, 2022, the Commission Staff issued its Natural Gas Fact Finding Draft Report in
4 Docket No. UM 2178 discussing the methods for, and evaluating the costs of, complying with
5 the CPP. Parties have yet to comment on that draft report. From AWEC's perspective, there
6 are significant concerns with whether RNG is the most cost-effective compliance alternative
7 for large customers, particularly given the proposal to allocate the costs on an equal cents per
8 therm basis. Other alternatives, such as self-directed energy efficiency may offer a more cost-
9 effective method for large customers to satisfy the compliance obligations under the CPP,
10 although AWEC's review of the fact finding report is still underway.

11 **Q. HOW DO YOU RECOMMEND THE LEXINGTON RNG FACILITY COSTS BE**
12 **ALLOCATED IN THIS PROCEEDING?**

13 A. I recommend that the Lexington RNG revenue requirement be included as a base rate
14 surcharge and considered in the overall rate spread approved in this proceeding. Including it as
15 a base rate surcharge will ensure that there is not a mis-match between individual class cost of
16 service, and the cost allocation used for the surcharge. I also recommend that no costs, or
17 benefits, be allocated to transportation customers, consistent with the requirements of SB 98.
18 Finally, I recommend that the cost be spread on an equal percent of margin basis, rather than an
19 equal cents per therm basis. Considering the allocation of Lexington in the context of the CPP
20 is premature because the method for allocating the overall costs and benefits of the CPP has
21 not yet been established.

1 **b. Lexington Revenue Requirement**

2 **Q. WHY IS THE LEXINGTON RNG REVENUE REQUIREMENT DIFFERENT FROM**
3 **THE AMOUNT THAT NW NATURAL PROPOSES TO RECOVER?**

4 A. As noted above, NW Natural calculated a \$1,911,069 revenue requirement,⁷ but has designed
5 rates to recover \$3,291,859. The reasoning behind this difference is not apparent. In Exhibit
6 NW Natural/1314, NW Natural details the revenue requirement for the nine-month period
7 ending on the rate effective date (February 2022 through October 2022), and while the values
8 do not match precisely, it is possible that NW Natural has including the retroactive amounts
9 over that period, potentially with additional interest, in its revenue requirement calculation.

10 **Q. DOES AWEC SUPPORT A DEFERRAL FOR THE COSTS INCURRED OVER THE**
11 **PERIOD FEBRUARY 2022 THROUGH OCTOBER 2022?**

12 A. No. AWEC is not aware of a deferral request outstanding for those costs, and even if there
13 were, it would be premature to assume that NW Natural should be allowed recover those costs.
14 The results from 2022 will not be available for over a year, so it will be impossible to evaluate
15 NW Natural's earnings in the context of such a deferral until then. Further, the actual costs and
16 revenues associated with such a deferral won't be known until they are incurred. The revenues
17 associated with brown gas sales, for example, may be higher or lower than NW Natural
18 assumed in its revenue requirement calculation.

19 **Q. WHAT DO YOU RECOMMEND?**

20 A. I recommend that the revenue requirement for Lexington be based on a single years' revenues
21 of \$1,911,069, subject to the further adjustments discussed below.

⁷ Exhibit NW Natural/1314, Walker/2.

1 **c. Lexington Gas Price Assumptions**

2 **Q. HAVE GAS PRICES INCREASED SINCE NW NATURAL MADE ITS FILING?**

3 A. Yes. Gas prices have increased significantly since NW Natural initiated this case. As gas
4 prices increase, the value of the brown gas sales also increases, reducing the cost of Lexington
5 to rate payers. As of April 18, 2022, NYMEX gas futures for a May 2022 settlement were
6 trading at \$7.30/ dth. In contrast, NW Natural's model had assumed a price of \$[REDACTED]/dth for
7 May 2022.

8 **Q. HOW DO YOU RECOMMEND HANDLING THESE CHANGES IN GAS PRICES?**

9 A. I recommend updating the gas price assumptions in NW Natural's model based on current
10 price curves. I updated NW Natural's model to be based on a \$7.30/dth May 2022 price, while
11 retaining the existing slope of NW Natural's assumed price curve. The impact of this change
12 was a \$713,669 reduction to Lexington revenue requirement.

13 **d. Lexington Return on Rate Base**

14 **Q. DOES NW NATURAL OWN ALL OF THE ASSETS OF THE LEXINGTON RNG?**

15 A. No. Under the joint venture with BioCross, NW Natural does not retain 100% ownership of
16 Lexington renewables. NW Natural only owns [REDACTED]% of Lexington renewables, with the
17 remaining [REDACTED]% owned by BioCross. While NW natural contributed 100% capital into the
18 project, BioCross contributed the project, itself. Thus, the portion of the capital that is not
19 owned by NW Natural effectively represents a development fee to BioCross.

20 **Q. HOW DOES NW NATURAL ACCOUNT FOR THE NON-OWNED PORTION OF**
21 **LEXINGTON RNG IN ITS REVENUE REQUIREMENT CALCULATION?**

22 A. The partnership accounting for the Lexington RNG facility in NW Natural's revenue
23 requirement calculation is complicated, although in simple terms, NW Natural treats the
24 facility as if it owned 100% of the assets, calculating its return, and depreciation expenses as if

1 it was responsible for 100% of those expenses. To account for the non-owned portion of the
2 partnership, NW Natural treats the profit distributions to BioCross as a separate operating
3 expense.

4 **Q. IS IT APPROPRIATE FOR NW NATURAL TO EARN A RETURN ON ASSETS IT**
5 **DOES NOT OWN?**

6 A. No. NW Natural selected this ownership approach. NW Natural could have, for instance, paid
7 the developers their share of the \$8.4 million capital investment as an upfront development fee.
8 Accordingly, it is appropriate for ratepayers to be held harmless relative 100% utility
9 ownership.

10 **Q. WHAT DO YOU RECOMMEND?**

11 A. I recommend that NW Natural calculate the rate recovery in a manner that is indifferent to
12 whether the Lexington RNG facility was 100% utility owned, and treating the capital provided
13 to BioCross as a development fee amortized over the life of the facility. If the Lexington RNG
14 facility were 100% utility owned, ratepayers would still be required to finance the cost of the
15 development fee provided to BioCross. Notwithstanding, the rate of return paid on the upfront
16 fee would be limited to NW Natural's authorized rate of return. Under the current structure, the
17 rate of return paid to BioCross for its share of the assets is potentially unlimited. It would be
18 unreasonable, for example, if ratepayers have already repaid 100% of the capital of the facility
19 while continuing to pay BioCross a return on the investment that NW Natural made on
20 BioCross' behalf. It is not reasonable to require ratepayers to finance exorbitant profits to the
21 developer in connection with the developer's shares, when that capital could have been paid to
22 the developer as an upfront fee and financed by the utility at a lower rate. To account for this, I
23 recommend that the profits recovered to pay for profit distributions to BioCross be limited to

1 the return that NW Natural would otherwise earn on the portion of the facility that it does not
2 own. This treatment results in a \$52,783 reduction to Lexington RNG revenue requirement.

3 **e. Lexington Tax Benefits**

4 **Q. WHAT CONDITION WAS PLACED ON THE TAX BENEFITS OF THE LEXINGTON**
5 **RNG AFFILIATED INTEREST TRANSACTION?**

6 A. As a part of the stipulation in UI 451, Parties agreed to the following tax condition regarding
7 the allocation of tax benefits from the Lexington Renewable LLC:

8 If partnership allocations of income tax losses from Lexington Renewable LLC
9 to NW Natural RNG Holding Company LLC are limited/reduced on an annual
10 basis compared to traditional utility ownership, NWN will notify interested
11 parties in the annual affiliated interest report in Docket RG 8 and present a plan
12 to address the matter. In future ratemaking proceedings parties will be free to
13 propose adjustments holding ratepayers harmless as if the assets were under
14 traditional utility ownership.⁸

15 **Q. ARE THE TAX BENEFITS RECEIVED BY RATEPAYERS BEING RESTRICTED?**

16 A. Not in this filing. Based on NW Natural's workpapers, however, the amount of ADIT that will
17 accrue to ratepayers will be limited in future years, as tax benefits are allocated to BioCross.
18 This was also discussed in response to AWEC Data Request 30.

19 **Q. WHAT DO YOU RECOMMEND?**

20 A. Pursuant to Paragraph 3 of the UI 451 stipulation parties agreed not to oppose or seek any
21 changes to the Lexington's ratemaking treatment for a period of five years.⁹ Since the
22 limitation in tax depreciation may occur in the five-year period, AWEC recommends that the
23 ratemaking approved in this case be designed to hold customers harmless with respect to the
24 complex ownership structure that NW Natural has proposed. Specifically, I recommend that

⁸ In re NW Natural, Requesting Approval of an Affiliated Interest Agreement with Lexington Renewables, LLC
Docket No. UI 451, Comprehensive Stipulation, p 5.

⁹ *Id.* at p 5.

the Commission require NW Natural to impute any amount of ADIT which has been limited as a result of the portion of the Lexington facility owned by BioCross.

f. Lexington Summary

Q. WHAT IS THE NET REVENUE REQUIREMENT THAT YOU RECOMMEND FOR LEXINGTON?

A. Considering the above adjustments, I recommend the Commission authorize NW Natural to recover \$1,144,617 through a base rate charge, allocated to sales customers on an equal percent of margin basis.

IV. RENEWABLE NATURAL GAS RECOVERY MECHANISM

Q. WHAT HAS NW NATURAL PROPOSED FOR THE RENEWABLE TRACKING MECHANISM?

A. NW Natural's proposal for the renewable tracking mechanism was described in NW Natural/1500. Specifically, NW Natural proposes Schedule 198 as an automatic adjustment clause ("AAC") mechanism that will recover the revenue requirement associated with investments in qualified RNG facilities. NW Natural has proposed this mechanism based on the requirement in SB 98, which required the Commission to establish rules to "process for natural gas utilities to fully recover prudently incurred costs associated with the large renewable natural gas program."¹⁰ As proposed, the AAC mechanism will be filed by February 28 each year and will establish rates for new and existing RNG investments on a going-forward basis on October 1 of each year, corresponding to the timing of the Purchased Gas Adjustment ("PGA"). The mechanism would also contain a deferral to recover cost incurred prior to the rate effective date of the AAC.

¹⁰ ORS 757.394(3)(b).

1 **Q. HOW HAS NW NATURAL PROPOSED TO ALLOCATE THE AAC REVENUE**
2 **REQUIREMENT?**

3 A. While the AAC is being proposed pursuant to SB 98, NW natural is proposing to allocate the
4 revenue requirement in the AAC to all customers, including transportation customers, similar
5 to the Lexington RNG project. While NW Natural stated that it will include a proposal for
6 how to allocate the costs in its AAC filings, it “anticipates that such costs would be allocated to
7 all customers on an equal cents per-therm basis.”¹¹

8 **Q. DOES AWEC SUPPORT SCHEDULE 198?**

9 A. No. SB 98 did not require the Commission to establish an AAC for RNG investments. The
10 Commission is required to “adopt ratemaking mechanisms that ensure the recovery of all
11 prudently incurred costs that contribute to the large natural gas utility’s meeting” the SB 98
12 renewable targets. Under ORS 757.396(2)(a), the Commission may use an AAC to accomplish
13 this objective, but an AAC is not mandatory. In this case, the existing regulatory mechanisms,
14 including the general rate case process and the utility’s general ability to request deferrals,
15 already provides NW Natural with the ability to recover all prudently incurred investments
16 made with respect to the RNG program. Therefore, adopting an AAC is not necessary.

17 **Q. WHY IS IT IMPORTANT FOR RATE CHANGES TO BE CONSIDERED IN THE**
18 **CONTEXT OF A GENERAL RATE CASE?**

19 A. Use of single-issue ratemaking for investments in RNG outside of a general rate case may
20 result in NW Natural over recovering the costs of those investments. Single-issue ratemaking
21 occurs when utility rates are adjusted in response to a change in cost or revenue items
22 considered in isolation. By considering an operating expense or rate base item in isolation,

¹¹ NW Natural/1500, Kravitz/13:22-23.

1 single-issue ratemaking ignores other factors that otherwise influence the utility's operating
2 results, some of which could, if properly considered, move revenue requirements in the
3 opposite direction from the single-issue change. Single issue ratemaking in general is
4 beneficial to shareholders and harmful to customers.

5 **Q. IS THE AAC PROCEDURE SUBSTANTIALLY DIFFERENT THAN A GENERAL**
6 **RATE CASE PROCEDURE?**

7 A. No. From a procedural perspective the AAC that NW Natural has proposed does not provide
8 any procedural advantage over the existing general rate case process for recovery of RNG
9 projects. In this case, for example, NW Natural has included the Lexington RNG project in its
10 filing. The AAC would still require a filing well in advance of the rate effective date, along
11 with an evidentiary review process. The use of the existing general rate case process provides
12 NW Natural with an identical ability to recover costs associated with RNG investments. The
13 only difference in NW Natural's proposal is that the AAC gives NW Natural the option, in its
14 sole discretion, to file a holistic rate case, where all costs and revenues are considered, or to
15 seek recovery of just the RNG investments through the single-issue AAC filing. NW Natural
16 controls the timing of its investments and has the opportunity to file a rate case at any time.
17 Therefore, the approach is unbalanced because NW Natural can avoid filing a rate case when
18 its revenues requirement would have otherwise decreased, while still recovering additional
19 revenues through the ACC.

20 **Q. IS IT REASONABLE TO CONSIDER COST ALLOCATION OUTSIDE OF A**
21 **GENERAL RATE CASE?**

22 A. No. In addition to the concerns about single-issue ratemaking, it is equally inappropriate to
23 consider cost allocation outside of a general rate case where a cost of service study is
24 performed. As demonstrated in this rate case, large customer classes are paying rates that are

1 almost double their incremental cost. Thus, considering the cost of RNG investments outside
2 of a general rate case, results in a disproportionate increase to these customers rates, while they
3 are already paying significantly more than their cost of service. AWEC is supportive of
4 following principles of cost causation, but those principles need to be applied consistently, both
5 in base rates and with respect to RNG costs.

6 **Q. IF THE COMMISSION IS INCLINED TO APPROVE THE AAC IN THIS DOCKET,**
7 **HOW DO YOU RECOMMEND THE COSTS BE ALLOCATED?**

8 A. If the AAC is approved, however, AWEC recommends that the cost be allocated constant with
9 SB 98, as discussed with the Lexington RNG project above, and allocated to sales customers
10 on an equal percent of margin basis.

11 **Q. IS A DEFERRAL NECESSARY FOR SCHEDULE 198?**

12 A. No. Senate Bill 98 did not specifically authorize NW Natural to defer investment costs
13 associated with the RNG program. Deferrals have separate requirements under ORS 757.259,
14 which are most appropriately considered independent from an AAC mechanism. Approving a
15 blanket deferral for all RNG projects, for example, is not necessarily possible because the
16 individual projects will present different facts and circumstances that must be evaluated
17 independently. Consider, for example, the many issues and complications that were raised
18 with the Lexington RNG facility; unforeseen complications will likely arise with future RNG
19 projects as well, which may not be amenable to a blanket deferral mechanism. Further,
20 consideration of the specific requirements for a deferral, such as an earnings test, would be
21 impossible to consider in the context of NW Natural's AAC proposal. NW Natural's earnings
22 for a particular year won't be available until May of the year subsequent to the deferral year.

1 **Q. IF A DEFERRAL IS APPROVED, WHAT TYPE OF EARNINGS TEST DO YOU**
2 **RECOMMEND.**

3 A. If a deferral is approved for projects in service prior to the rate effective date of the AAC, I
4 recommend that an earnings test be applied that is equal to 100 basis points less than NW
5 Natural's authorized ROE. That is, NW Natural would not be allowed to recover any deferred
6 investment costs if its ROE was equal to or exceeded its authorized ROE minus 100 basis
7 points. I recommend that deferred costs be reviewed in the year subsequent to the year in
8 which they were incurred. For example, NW Natural's filing on February 28, 2023 would
9 consider deferred costs over the period November 1, 2021 through October 31, 2022.

10 **Q. DO YOU RECOMMEND NW NATURAL BE ALLOWED TO TRUE UP THE COSTS**
11 **OF PROJECTS BETWEEN AAC FILINGS?**

12 A. No. If deferrals are included in the AAC, I recommend that they be limited to the costs
13 associated with projects placed into service prior to the rate effective date of the AAC filing.
14 Truing up the investment costs through a deferral is not necessary to provide NW Natural with
15 recovery of investments in RNG facilities. Doing so also exceeds the scope of a deferral,
16 which is meant to match appropriately the costs borne by and benefits received by ratepayers.
17 Since the costs will have already been include in rates, truing up those costs to the actual
18 investment costs incurred is unnecessary to achieve the objective of matching costs and
19 benefits.

20 **Q. IS THE PROPOSED AAC A REASONABLE MECHANISM FOR ADDRESSING CPP**
21 **COMPLIANCE COSTS?**

22 A. No. The obligations for CPP compliance are different than the requirements for the RNG
23 portfolio standard under SB 98. A mechanism designed for the purpose of SB 98 will not
24 necessarily be the best alternative to address the many issues associated with CPP compliance.

1 Therefore, AWEC recommends that the Commission reject the RNG AAC that NW Natural
2 proposed.

3 Instead, AWEC recommends that, following the fact finding investigation in Docket No
4 2178, the Commission open a docket to evaluate a comprehensive ratemaking mechanism to
5 address CPP compliance costs. While AWEC is still forming its opinions on the fact finding, a
6 principal concern is ensuring that large customers have a compliance pathway, including
7 appropriate incentives to perform energy efficiency and to invest in carbon capture
8 technologies. Such a mechanism would provide large customers, for example, an opportunity
9 to effectively self-supply their compliance obligations by performing energy efficiency or
10 investing in carbon capture, and thereby, avoid paying for CPP compliance costs directly in
11 rates. Such an approach could encourage significant investment in energy efficiency and
12 carbon capture, yet if a recovery mechanism is modeled based on SB 98 compliance, such
13 alternatives may not be available. Therefore, developing a comprehensive CPP compliance
14 mechanism has more merit than developing a mechanism designed for strictly for SB 98
15 compliance.

16 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATION RELATED TO THE AAC.**

17 A. AWEC recommends that the Commission decline to approve the RNG AAC in this docket and
18 that NW Natural continue to recover the costs associated with SB 98 through general rate
19 cases. Notwithstanding, AWEC recommends that, following the conclusion of the
20 Commission's fact finding in Docket No. 2178, that a new docket be initiated to consider a
21 more comprehensive mechanism to address CPP compliance obligations.

V. MISCELLANEOUS DEFERRALS

Q. PLEASE SUMMARIZE THE MISCELLANEOUS DEFERRALS THAT NW NATURAL HAS PROPOSED TO RECOVER IN THIS DOCKET?

A. NW Natural has proposed amortizing three deferrals in this docket: (1) the UM 2139 Williams Pipeline Outage in the amount of \$652,100; (2) the UM 2132 Horizon 1 O&M Deferral in the amount of \$1,038,472; and (3) the UM 2192 TSA Security Directive 2 Deferral in the amount of \$3,331,625.

a. UM 2139 Williams Pipeline Outage

Q. HOW MUCH COSTS HAS NW NATURAL INCURRED WITH RESPECT TO THE WILLIAMS PIPELINE OUTAGE

A. NW Natural identified the costs that it had incurred with respect to the Williams pipeline outage in response to AWEC Data Request 88. In that response NW Natural provided transaction detail supporting \$569,347 in costs incurred over the period December 2020 through March 2021. The difference between the amount NW Natural reported and the amount it is seeking to recover is not apparent. The cost items include transactions ranging from mutual assistance claims accruals, labor expenses, and lodging for employees. It also includes items such as non-employee gifts, described as Community Action Partner Appreciation, and donations of supplies to residents of Hood River.

Q. HAS THE COMMISSION APPROVED THE WILLIAMS PIPELINE DEFERRAL?

A. No.

Q. IS IT APPROPRIATE TO CONSIDER AMORTIZATION OF THE DEFERRAL IN THIS DOCKET?

A. No. AWEC recommends the deferral be rejected, while the costs may have been unexpected, they are not material enough to warrant consideration in a deferral. NW Natural is provided

1 with adequate recovery for events such as this in base rates, and therefore a deferral is not
2 necessary.

3 **b. UM 2132 Horizon 1 O&M Deferral**

4 **Q. HOW MUCH COST HAS NW NATURAL INCURRED WITH RESPECT TO**
5 **HORIZON START-UP COSTS?**

6 A. In response to AWEC Data Request 89, NW Natural identified start-up costs of \$6,099,249
7 incurred through April 2022 along with \$244,119 in carrying charges, yielding a total deferral
8 of \$6,343,370.

9 **Q. HOW DID PARTIES AGREE TO HANDLE THE START UP COSTS IN UM 2132?**

10 A. In UM 2132, parties agreed to permit NW Natural to defer the start-up costs, subject to sharing
11 bands of 20% for costs exceeding \$8,550,000 on an Oregon allocated basis and 50% for costs
12 exceeding \$12,000,000. Parties also agreed that the amortization period would not be less
13 than 5-years. Based on NW Natural's costs to date and its rate of capital spending, it is likely
14 that NW Natural will be subject to sharing for the project. This contradicts NW Natural's
15 testimony that states it expects the project to be below the first sharing band.¹² Parties also
16 agreed that the costs would be subject to a prudence review and earnings test as required under
17 ORS 757.259(5) prior to amortization.

18 **Q. WHAT HAS NW NATURAL PROPOSED WITH RESPECT TO THE DEFERRAL**
19 **AMOUNT?**

20 A. NW Natural has proposed amortization of \$1,038,472 over a 10-year period. This amount of
21 amortization, however, equates to recovery of \$9,710,243 at a 1.24% modified blended
22 treasury rate. Thus, while NW Natural states that the Horizon O&M Deferral will not be
23 subject to sharing, the amount it is seeking to recover appears to exceed the sharing threshold.

¹² NW Natural/1300, Walker/32:6-8

1 **Q. IS REASONABLE TO CONSIDER THE DEFERRAL IN THIS DOCKET?**

2 A. No. The amount that NW Natural is seeking to recover exceeds the amount that it has actually
3 deferred by a significant margin. Further, since the final amount of the deferral is not yet
4 known, it is not appropriate to commence amortization of the deferral in this case. And, it is
5 likely that NW Natural will exceeded the sharing threshold, which will not be known until the
6 amount is finalized. Finally, NW Natural has yet to file its earnings for 2021, so it is not yet
7 possible in this docket to perform an earnings test for the 2021 accruals, as required by the UM
8 2132, Stipulation. Accordingly, AWEC recommends that the Horizon O&M deferral
9 amortization not be included in this case.

10 **c. UM 2192 TSA Security Directive 2**

11 **Q. HOW MUCH HAS NW NATURAL INCURRED WITH RESPECT TO TSA**
12 **SECURITY DIRECTIVE 2?**

13 A. In response to AWEC Data Request 87, NW Natural provided the costs that it has incurred to
14 date with respect to the TSA Security Directive 2. Through February 2022, NW Natural has
15 identified operating expenses of just \$211,146 associated with TSA Security Directive 2.
16 While the operating expenses are small, NW Natural has identified capital of \$16,260,294
17 associated with TSA Security Directive 2. The capital amounts, however, have not yet been
18 transferred to plant and are currently being held in a construction work in progress (“CWIP”)
19 account.

20 **Q. HAS THE TSA SECURITY DIRECTIVE 2 DEFERRAL BEEN APPROVED?**

21 A. No.

1 **Q. IS IT NECESSARY FOR NW NATURAL TO DEFER CAPITAL COSTS**
2 **ASSOCIATED WITH CWIP?**

3 A. No. NW Natural accrues Allowance for Funds Used During Construction (“AFUDC”) on
4 CWIP balances. AFUDC compensates NW Natural for the cost of capital associated with the
5 TSA Security Directive 2 expenditures prior to them being placed into service. Therefore,
6 there are no capital costs to defer prior to a project being placed into service.

7 **Q. WHAT DO YOU RECOMMEND FOR THE TSA SECURITY DIRECTIVE 2**
8 **DEFERRAL?**

9 A. I recommend that the Commission decline to approve the TSA Security Directive 2 Deferral.
10 While NW Natural will be spending material funds to comply with the program, those funds
11 are primarily capital. Based on NW Natural’s response to AWEC Data Request 87, the
12 underlying capital has not yet been placed into service, and otherwise there are only immaterial
13 O&M costs that NW Natural has accrued with respect to the program. Finally, like the other
14 deferrals, NW Natural does not have the operating results necessary to perform an earnings test
15 with respect to the amounts deferred.

16 **VI. RATE SPREAD**

17 **Q. PLEASE SUMMARIZE NW NATURAL’S PROPOSED RATE SPREAD.**

18 A. In its testimony, NW Natural explains that its Long-Run Incremental Cost (“LRIC”) study
19 “indicates that the Large Commercial, Industrial, and Transportation rate schedule classes are
20 paying more than their determined cost of service under present rates.”¹³ NW Natural also
21 explains that its “RS 2 Residential, RS 3 Basic Non-Residential (Commercial), and RS 27 Dry-
22 Out rate schedules are paying less than their determined cost of service.”¹⁴ To address this

¹³ NW Natural/1400, Wyman/3:7-9.

¹⁴ NW Natural/1400, Wynam/3:10-13.

disparity, NW Natural has adopted a method that applies “a rate increment cap that slightly moves each rate schedule that is indicated by the LRIC study to underpay its cost to serve closer to overall rate parity”¹⁵

Q. WHAT WERE THE RESULTS OF NW NATURAL’S COST OF SERVICE STUDY?

A. Table 4 below details the cost of service for each rate schedule in NW Natural’s LRIC study. It also details the impact of NW Natural’s proposed revenues based on their initial filing, not considering the February 28, 2022 errata filing.

Table 4
Class Cost of Service Rate Parity
Before and After NW Natural Proposed Rate Change

	Current Revenues	% of Parity	% Change Required	NWN Prop. Rev.	% Increase	% of Parity
02R	302,743,546	95%	4.9%	355,237,699	17.34%	96%
03C	92,803,627	95%	5.1%	108,895,293	17.34%	96%
03I	2,141,772	119%	-15.8%	2,296,302	7.22%	109%
27R	471,508	85%	17.8%	553,265	17.34%	86%
31CSF	8,261,800	146%	-31.4%	9,327,765	12.90%	141%
31CTF	981,292	163%	-38.6%	1,052,093	7.22%	150%
31ISF	3,237,130	153%	-34.5%	3,470,691	7.22%	140%
31ITF	143,836	220%	-54.5%	154,213	7.22%	202%
32CSF	11,882,484	157%	-36.4%	13,415,600	12.90%	152%
32ISF	2,462,192	220%	-54.6%	2,639,840	7.22%	203%
32CTF	1,024,698	246%	-59.4%	1,098,631	7.22%	227%
32ITF	6,584,741	211%	-52.7%	7,059,833	7.22%	195%
32CSI	2,232,839	116%	-13.7%	2,520,927	12.90%	112%
32ISI	3,307,718	216%	-53.8%	3,546,372	7.22%	199%
32CTI	525,889	249%	-59.9%	563,832	7.22%	229%
32ITI	6,064,679	189%	-47.0%	6,502,249	7.22%	174%
33T	-	100%	0.0%	-	0.00%	100%
	444,869,752			518,334,605	16.51%	

¹⁵ NW Natural, Wyman/4:1-3.

1 As demonstrated in **Table 4**, industrial and transportation rate schedules are paying
2 rates significantly higher than their long run incremental cost of service. Prior to the
3 application of NW Natural's proposed rate increase, most large industrial transportation
4 customers are paying nearly double their cost of service. Rates for Schedules 32ITF and 32ITI,
5 for example, would need to be reduced by 52.7% and 47.0% respectively, to bring those
6 schedules to parity. In contrast, the residential and small commercial customer classes, while
7 paying less than their cost of service, the magnitude is not as significant. Rate Schedules 02R
8 and 03C only need to be increased by 4.9% and 5.1%, respectively, to bring those schedules to
9 parity, prior to application of the rate increase. Those two rate schedules make up
10 approximately 88.9% of NW Natural's revenues. Accordingly, small variations in the parity
11 ratios of these rate schedule have a large impact on other customer classes. Similarly, only
12 small changes to the rates for those schedules are necessary to address the large variations in
13 parity for the other customer classes.

14 **Q. HOW HAS NW NATURAL PROPOSED ADDRESSING THE DISPARITY IN ITS**
15 **RATES?**

16 A. The mechanics of NW Natural's rate spread proposal can be found at NW Natural/1400,
17 Wyman/49:13-50:17. NW Natural applies a cap equal to 105% of the average rate increase to
18 the below parity rate schedules. NW Natural subsequently applies a floor of 50% of the
19 average rate increase for industrial and transportation rate classes, with the remainder applied
20 to commercial rate classes. Importantly, this rate spread is applied before the application of
21 supplemental rate schedules, so the end result of NW Natural's rate spread produces a different
22 result than its proposal. The result of NW Natural's proposal including supplemental
23 schedules may be seen in **Table 5**, below.

Table 5
NW Natural Proposed Rate Spread Including Supplemental Schedules

	Current Revenues	% of Parity	NW Natural Rate Spread	% Increase
02R	302,743,546	95%	57,281,490	18.8%
03C	92,803,627	95.2%	17,702,462	18.9%
03I	2,141,772	118.8%	193,909	8.9%
27R	471,508	84.9%	89,717	18.9%
31CSF	8,261,800	145.7%	1,223,195	14.7%
31CTF	981,292	162.9%	89,748	9.0%
31ISF	3,237,130	152.6%	307,385	9.4%
31ITF	143,836	219.8%	13,558	9.3%
32CSF	11,882,484	157.3%	1,805,198	15.0%
32ISF	2,462,192	220.3%	248,611	10.0%
32CTF	1,024,698	246.0%	105,950	10.2%
32ITF	6,584,741	211.4%	810,707	12.2%
32CSI	2,232,839	115.8%	391,863	17.4%
32ISI	3,307,718	216.4%	389,943	11.7%
32CTI	525,889	249.2%	65,697	12.4%
32ITI	6,064,679	188.5%	1,109,826	18.2%
33T	-	100.0%	-	0.0%
	444,869,752		81,829,258	18.4%

As can be observed, most large volume rate schedules are approximately 200% of their target parity ratio, prior to the rate increase. Yet, these customers are still being allocated rate increases upwards of 18.2%.

Q. DO YOU AGREE WITH NORTHWEST NATURAL'S PROPOSAL?

A. No. AWEC appreciates that NW Natural has acknowledged the disparity in its rates relative to the LRIC study. Given the severity of the disparity in rates, as well as the proposal to apply the mitigation measures before application supplemental schedules, AWEC recommends a more proactive approach to address the imbalance in NW Natural's class cost of service. While a

1 rate cap has been used for rate mitigation in the past, the Commission has typically applied the
2 cap level at 150%, not 105%, of the proposed rate increase.

3 **Q. WHAT DO YOU PROPOSE?**

4 A. AWEC recommends a rate spread based on a cap equal to 110% of the average margin rate
5 increase. Further, AWEC recommends establishing a floor at 0% for industrial sales and
6 transportation rate schedules, with any residual applied to commercial rate schedules. Finally,
7 AWEC recommends that the base rates used in this calculation include all supplemental
8 schedules, including the Lexington RNG surcharge, as well as any other deferrals the
9 Commission approves. Based on these adjustments, AWEC's proposed rate spread is detailed
10 in **Table 6**, below.

Table 6
AWEC Proposed Rate Spread at AWEC Rev. Req. Including Lexington RNG Surcharge

	Current Revenues	% of Parity	AWEC Rate Spread	% Increase
02R	302,743,546	95%	9,067,840	3.0%
03C	92,803,627	95.2%	2,779,674	3.0%
03I	2,141,772	118.8%	21,798	1.0%
27R	471,508	84.9%	14,123	3.0%
31CSF	8,261,800	145.7%	84,085	1.0%
31CTF	981,292	162.9%	-	0.0%
31ISF	3,237,130	152.6%	-	0.0%
31ITF	143,836	219.8%	-	0.0%
32CSF	11,882,484	157.3%	120,934	1.0%
32ISF	2,462,192	220.3%	-	0.0%
32CTF	1,024,698	246.0%	-	0.0%
32ITF	6,584,741	211.4%	-	0.0%
32CSI	2,232,839	115.8%	22,725	1.0%
32ISI	3,307,718	216.4%	-	0.0%
32CTI	525,889	249.2%	-	0.0%
32ITI	6,064,679	188.5%	-	0.0%
33T	-	100.0%	-	0.0%
	444,869,752		12,111,180	2.7%

The rate spread detailed above include both the base rate revenue requirement and the Lexington RNG surcharge discussed above. As can be seen above, applying a cap at 1.10% of the average rate increase results in residential customers receiving a rate increase that is only 0.3% higher than the average rate increase. This minor difference to NW Natural's rate spread is sufficient to keep all rate schedules with parity ratios exceeding 150% at a zero percent rate increase in this case.

Q. WHY DO YOU RECOMMEND CONSIDERING THE SUPPLEMENTAL SCHEDULES IN RATE SPREAD?

A. In the context of NW Natural's cost of service, the individual elements that make up the cost of service—such as storage costs, mains, or customer service expenses—are not viewed

1 independently from the overall rate spread. Some of the elements have greater impacts on
2 some customer classes than others. Meter expenses, for example, are allocated more to small
3 customer classes than large customer classes. Singling out a single element of the cost of
4 service, and adopting a separate rate spread for that amount, produce results that are contrary to
5 the principles of cost causation. AWEC does not necessarily oppose considering the
6 supplemental schedules in separate schedules with an allocation that is consistent with cost
7 causation. Notwithstanding, it is inconsistent with the LRIC study results to allocate
8 significant rate increases to a customer class through a supplemental schedule, when the
9 overall LRIC study is showing that the customers rates need to be reduced.

10 Notwithstanding, to the extent parties are opposed to such a recommendation, AWEC
11 would like to consider other mitigating rate design alternatives. Specifically, AWEC would
12 like to consider including storage revenue requirement in a separate schedule. While
13 Transportation customers can purchase storage services through Schedule 80, Transportation
14 customers do not utilize and do not benefit from NW Natural's storage facilities through base
15 rates. Under AWEC's proposal, storage costs would be removed from base rates and
16 recovered from sales customers through a separate schedule that is that is trued up annually in
17 the PGA. AWEC will address this proposal as necessary in Rebuttal Testimony.

18 **Q. DOES THIS CONCLUDE YOUR OPENING TESTIMONY?**

19 **A.** Yes.

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON
UG 435**

In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
_____)

AWEC/101

Qualification Statement of Bradley G. Mullins

**OPENING TESTIMONY OF BRADLEY G. MULLINS
ON BEHALF OF
ALLIANCE OF WESTERN ENERGY CONSUMERS**

April 22, 2022

MW ANALYTICS

Energy & Utility Consulting

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ABOUT

MW Analytics is the professional consulting practice of Brad Mullins, a consultant and expert witness that represents utility customers in regulatory proceedings before state utility commissions throughout the Western United States. Brad has sponsored expert witness testimony in over 80 regulatory proceeding encompassing a variety of subject matters, including revenue requirement, regulatory accounting, rate development, and new resource additions. Brad has also assisted his clients through informal regulatory, legislative and energy policy matters. In addition to providing regulatory services, MW Analytics also provides advisory, energy marketing and other energy consulting services.

PRACTICE AREAS

MW Analytics has experience representing customer interests in litigated and informal regulatory proceedings, including the following subject areas:

- Revenue Requirement
- Power Cost Modeling
- Tax Provisions and Tax Reform
- Capital Additions and Forecasting
- Regulatory Accounting
- Depreciation Studies
- Pole Attachments
- Integrated Resource Planning
- Avoided Cost Calculations
- Utility Plant Retirements

EDUCATION AND WORK EXPERIENCE

Brad has a Master of Accounting degree from the University of Utah. After obtaining his master's degree, Brad worked at Deloitte Tax in San Jose, California, where he was responsible for preparing corporate tax returns for multinational corporate clients and partnership returns for hedge fund clients. Brad was later promoted to a Tax Senior position in a national tax practice specializing research and development tax credit studies. Following Deloitte, Brad worked at PacifiCorp Energy, as an analyst involved in power cost modeling and forecasting. At PacifiCorp Brad was responsible for preparing power cost forecasts and supporting testimony for regulatory filings, preparing annual power cost deferral filings, and developing qualifying facility avoided cost calculations.

REGULATORY APPEARANCES

Brad has sponsored expert witness testimony in the following regulatory proceedings:

Docket	Party	Topics
<u>In re Formal Complaint of Tree Top Inc. Against Cascade Natural Gas Corporation</u> , Wa.UTC Docket No. UG-210745	Tree Top, Inc.	Overrun Entitlement Charges
<u>In re Northwest Natural Gas Company, dba NW Natural, Request for Approval of an Affiliated Interest Agreement with Lexington Renewables, LLC</u> , Or.PUC. Docket No. UI 451.	Alliance of Western Energy Consumers	Affiliated Interest
<u>In re Avista Corporation, Request for a General Rate Revision</u> , Or.PUC Docket No. UG 433	Alliance of Western Energy Consumers	Revenue Requirement / Cost of Service
<u>In re PacifiCorp Power Cost Only Rate Case</u> , Wa.UTC Docket No. UE-210402.	Alliance of Western Energy Consumers	Power Cost Modeling

Docket	Party	Topics
<u>In re PacifiCorp Limited Issue Rate Filing</u> , Wa.UTC Docket No. UE-210532.	Alliance of Western Energy Consumers	Revenue Requirement / Settlement
<u>In re the Application of Rocky Mountain Power for Authority to Increase Its Rates and Charges in Idaho and Approval of Proposed Electric Service Schedules and Regulations</u> , Id.PUC Case No. PAC-E-21-07.	PacifiCorp Idaho Industrial Customers	Revenue Requirement / Settlement
<u>In re Portland General Electric, Request for a General Rate Revision</u> , Or.PUC Docket No. UE 394.	Alliance of Western Energy Consumers	Power Cost Modeling
<u>In re Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of their Economic Recovery Transportation Electrification Plan for the period 2022-2024</u> , PUC Nv. Docket No. 21-09004	Nevada Resort Association	Transportation Electrification
<u>In re PacifiCorp, dba Pacific Power, 2020 Power Cost Adjustment Mechanism</u> , Or.PUC Docket No. UE 392.	Alliance of Western Energy Consumers	Power Cost Deferral
<u>In re the Application of Rocky Mountain Power for Authority to Decrease Current Rates by \$14.9 Million to Refund Deferred Net Power Costs Under Tariff Schedule 95 Energy Cost Adjustment Mechanism and to Decrease Current Rates by \$166 Thousand Under Tariff Schedule 93, REC and SO2 Revenue Adjustment Mechanism</u> , Wy.PSC Docket No. 20000-599-EM-21.	Wyoming Industrial Energy Consumers	Power Cost Deferral
<u>In re Portland General Electric 2021 Annual Update Tariff Schedule 125</u> , Or. PUC Docket No. UE 391.	Alliance of Western Energy Consumers	Power Cost Modeling
<u>In re Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of a regulatory asset account to recover costs relating to the development and implementation of their Joint Natural Disaster Protection Plan</u> , PUC NV. Docket No. 21-03004.	Wynn Las Vegas, LLC; Smart Energy Alliance	Single-Issue Rate Filing
<u>In re PacifiCorp d.b.a. Pacific Power, 2022 Transition Adjustment Mechanism</u> , Or.PUC Docket No. UE 390.	Alliance of Western Energy Consumers	Power Cost Modeling
<u>In re Avista 2020 General Rate Case</u> , Wa.U.T.C. Docket No. UE-200900 (Cons.).	Alliance of Western Energy Consumers	Revenue Requirement
<u>In re NV Energy's Fourth Amendment to Its 2018 Joint Integrated Resource Plan</u> , PUC Nv. Docket No 20-07023.	Wynn Las Vegas, LLC; Smart Energy Alliance	Transmission Planning
<u>In Re Cascade Natural Gas Corporation, 2020 General Rate Case</u> , Wa.U.T.C. Docket No. UG-200568	Alliance of Western Energy Consumers	Revenue Requirement
<u>In re Cascade Natural Gas Corporation, Petition to File Depreciation Study</u> , Or.PUC Docket No. UM 2073	Alliance of Western Energy Consumers	Depreciation Rates
<u>In re the Application of Rocky Mountain Power for Authority to Increase Current Rates By \$7.4 Million to Recover Deferred Net Power Costs Under Tariff Schedule 95 Energy Cost Adjustment Mechanism and to Decrease Current Rates by \$604 Thousand Under Tariff Schedule 93, Rec and So2 Revenue Adjustment Mechanism</u> , Wy.PSC Docket No. 20000-582-EM-20	Wyoming Industrial Energy Consumers	Power Cost Deferral
<u>In re the Complaint of Willamette Falls Paper Company and West Linn Paper Company against Portland General Electric Company</u> , Or.PUC Docket No. UM 2107	Willamette Falls Paper Company	Consumer Direct Access, Tariff Dispute
<u>In re The Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates by Approximately \$7.1 Million Per Year or 1.1 Percent, to Revise the Energy Cost Adjustment Mechanism, and to Discontinue Operations at Cholla Unit 4</u> , Wy.PSC Docket No. 2000-578-ER-20	Wyoming Industrial Energy Consumers	Power Cost Modeling
<u>Avista Corporation 2021 General Rate Case</u> , Or.PUC Docket No. UG 389	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design

Docket	Party	Topics
<u>In re NW Natural Request for a General Rate Revision</u> , Or.PUC Docket No. UG 388.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
<u>In re PacifiCorp, Request to Initiate an Investigation of Multi-Jurisdictional Issues and Approve an Inter-Jurisdictional Cost Allocation Protocol</u> , Or.PUC, UM 1050.	Alliance of Western Energy Consumers	Jurisdictional Allocation
<u>In re Puget Sound Energy 2019 General Rate Case</u> , Wa.UTC Docket No. UE 190529.	Alliance of Western Energy Consumers	Revenue Requirement, Coal Retirement Costs
<u>Avista Corporation 2020 General Rate Case</u> , Wa.UTC Docket No. UE-190334 (Cons.)	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
<u>In re Cascade Natural Gas Corporation Application for Approval of a Safety Cost Recovery Mechanism</u> , Or. PUC Docket No. UM 2026.	Alliance of Western Energy Consumers	Ratemaking Policy
<u>In re Avista Corporation, Request for a General Rate Revision</u> , Or.PUC Docket No. UG 366.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
<u>In re Portland General Electric, 2020 Annual Update Tariff (Schedule 125)</u> , Or.PUC Docket No UE 359.	Alliance of Western Energy Consumers	Power Cost Modeling
<u>In re PacifiCorp 2020 Transition Adjustment Mechanism</u> , Or.PUC Docket No. UE 356.	Alliance of Western Energy Consumers	Power Cost Modeling
<u>In re PacifiCorp 2020 Renewable Adjustment Clause</u> , Or.PUC Docket No. UE 352.	Alliance of Western Energy Consumers	Single-Issue Rate Filing
<u>2020 Joint Power and Transmission Rate Proceeding</u> , Bonneville Power Administration, Case No. BP-20.	Alliance of Western Energy Consumers	Revenue Requirement, Policy
<u>In the Matter of the Application of MSG Las Vegas, LLC for a Proposed Transaction with a Provider of New Electric Resources</u> , PUC Nv. Docket No. 18-10034	Madison Square Garden	Customer Direct Access
<u>Puget Sound Energy 2018 Expedited Rate Filing</u> , Wa.UTC Dockets UE-180899/UG-180900 (Cons.).	Alliance of Western Energy Consumers	Revenue Requirement, Settlement
<u>Georgia Pacific Gypsum LLC's Application to Purchase Energy, Capacity, and/or Ancillary Services from a Provider of New Electric Resources</u> , PUC Nv. Docket No. 18-09015.	Georgia Pacific	Customer Direct Access
<u>Joint Application of Nevada Power Company d/b/a NV Energy for approval of their 2018-2038 Triennial Integrated Resource Plan and 2019-2021 Energy Supply Plan</u> , PUCN Docket No. 18-06003.	Smart Energy Alliance	Resource Planning
<u>In re Cascade Natural Gas Corporation Request for a General Rate Revision</u> , Or.PUC, Docket No. UE 347.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
<u>In re Portland General Electric Company Request for a General Rate Revision</u> , Or.PUC Docket No UE 335.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
<u>In re Northwest Natural Gas Company, dba NW Natural, Request for a General Rate Revision</u> , Or.PUC Docket No. UG 344.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
<u>In re Cascade Natural Gas Corporation Request for a General Rate Revision</u> , Wa.UTC, Docket No. UE-170929.	Northwest Industrial Gas Users	Revenue Requirement, Rate Design
<u>In the Matter of Hydro One Limited, Application for Authorization to Exercise Substantial Influence over the Policies and Actions of Avista Corporation</u> , Or.PUC, Docket No. UM 1897.	Alliance of Western Energy Consumers	Merger
<u>Application of Rocky Mountain Power for Approval of a Significant Energy Resource Decision and Voluntary Request for Approval of Resource Decision</u> , Ut.PSC Docket No. 17-035-40	Utah Industrial Energy Consumers, & Utah Associated Energy Users	New Resource Addition
<u>In re PacifiCorp, dba Rocky Mountain Power, for a CPCN and Binding Ratemaking Treatment for New Wind and Transmission Facilities</u> , Id.PUC Case No. PAC-E-17-07	PacifiCorp Idaho Industrial Customers	New Resource Addition

Docket	Party	Topics
<u>In re PacifiCorp, dba Pacific Power, 2016 Power Cost Adjustment Mechanism, Or.PUC, Docket No. UE 327.</u>	Alliance of Western Energy Consumers	Power Cost Deferral
<u>In re PacifiCorp 2016 Power Cost Adjustment Mechanism, Wa.UTC Docket No. UE-170717</u>	Boise Whitepaper, LLC	Power Cost Deferral
<u>In re Avista Corporation 2018 General Rate Case, Wa.UTC Dockets UE-170485 and UG-170486 (Consolidated).</u>	Industrial Customers of Northwest Utilities, & Northwest Industrial Gas Users	Revenue Requirement, Rate Design
<u>Application of Nevada Power Company d/b/a NV Energy for authority to adjust its annual revenue requirement for general rates charged to all classes of electric customers and for relief properly related thereto, PUCN. Docket No. 17-06003.</u>	Smart Energy Alliance	Revenue Requirement
<u>In re the Application of Rocky Mountain Power for Authority to Decrease Current Rates by \$15.7 Million to Refund Deferred Net Power Costs Under Tariff Schedule 95 Energy Cost Adjustment Mechanism and to Decrease Current Rates By \$528 Thousand Under Tariff Schedule 93, REC and SO2 Revenue Adjustment Mechanism, Wy. PSC, Docket No. 20000-514-EA-17 (Record No. 14696).</u>	Wyoming Industrial Energy Consumers	Power Cost Deferral
<u>In re the 2018 General Rate Case of Puget Sound Energy, Wa.UTC, Docket No. UE-170033 (Cons.).</u>	Industrial Customers of Northwest Utilities, & Northwest Industrial Gas Users	Revenue Requirement, Rate Design
<u>In re PacifiCorp, dba Pacific Power, 2018 Transition Adjustment Mechanism, Or.PUC, Docket No. UE 323.</u>	Industrial Customers of Northwest Utilities	Power Cost Modeling
<u>In re Portland General Electric Company, Request for a General Rate Revision, Or.PUC, Docket No. UE 319.</u>	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
<u>In re Portland General Electric Company, Application for Transportation Electrification Programs, Or.PUC, UM 1811.</u>	Industrial Customers of Northwest Utilities	Electric Vehicle Charging
<u>In re Pacific Power & Light Company, Application for Transportation Electrification Programs, Or.PUC, Docket No. UM 1810.</u>	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
<u>In re the Public Utility Commission of Oregon, Investigation to Examine PacifiCorp, dba Pacific Power's Non-Standard Avoided Cost Pricing, Or.PUC, Docket No. UM 1802.</u>	Industrial Customers of Northwest Utilities	Qualifying Facilities
<u>In re Pacific Power & Light Co., Revisions to Tariff WN U-75, Advice No. 16-05, to modify the Company's existing tariffs governing permanent disconnection and removal procedures, Wa.UTC, Docket No. UE-161204.</u>	Boise Whitepaper, LLC	Customer Direct Access
<u>In re Puget Sound Energy's Revisions to Tariff WN U-60, Adding Schedule 451, Implementing a New Retail Wheeling Service, Wa.UTC, Docket No. UE-161123.</u>	Industrial Customers of Northwest Utilities	Customer Direct Access
<u>2018 Joint Power and Transmission Rate Proceeding, Bonneville Power Administration, Case No. BP-18.</u>	Industrial Customers of Northwest Utilities	Revenue Requirement, Policy
<u>In re Portland General Electric Company Application for Approval of Sale of Harborton Restoration Project Property, Or.PUC, Docket No. UP 334 (Cons.).</u>	Industrial Customers of Northwest Utilities	Environmental Deferral
<u>In re An Investigation of Policies Related to Renewable Distributed Electric Generation, Ar.PSC, Matter No. 16-028-U.</u>	Arkansas Electric Energy Consumers	Net Metering
<u>In re Net Metering and the Implementation of Act 827 of 2015, Ar.PSC, Matter No. 16-027-R.</u>	Arkansas Electric Energy Consumers	Net Metering
<u>In re the Application of Rocky Mountain Power for Approval of the 2016 Energy Balancing Account, Ut.PSC, Docket No. 16-035-01</u>	Utah Associated Energy Users	Power Cost Deferral

Docket	Party	Topics
<u>In re Avista Corporation Request for a General Rate Revision</u> , Wa.UTC, Docket No. UE-160228 (Cons.).	Industrial Customers of Northwest Utilities, & Northwest Industrial Gas Users	Revenue Requirement, Rate Design
<u>In re the Application of Rocky Mountain Power to Decrease Current Rates by \$2.7 Million to Recover Deferred Net Power Costs Pursuant to Tariff Schedule 95 and to Increase Rates by \$50 Thousand Pursuant to Tariff Schedule 93</u> , Wy.PSC, Docket No. 20000-292-EA-16.	Wyoming Industrial Energy Consumers	Power Cost Deferral
<u>In re PacifiCorp, dba Pacific Power, 2017 Transition Adjustment Mechanism</u> , Or.PUC, Docket No. UE 307.	Industrial Customers of Northwest Utilities	Power Cost Modeling
<u>In re Portland General Electric Company, 2017 Annual Power Cost Update Tariff (Schedule 125)</u> , Or.PUC, Docket No. UE 308.	Industrial Customers of Northwest Utilities	Power Cost Modeling
<u>In re Pacific Power & Light Company, General rate increase for electric services</u> , Wa.UTC, Docket No. UE-152253.	Boise Whitepaper, LLC	Revenue Requirement, Rate Design
<u>In The Matter of the Application of Rocky Mountain Power for Authority of a General Rate Increase in Its Retail Electric Utility Service Rates in Wyoming of \$32.4 Million Per Year or 4.5 Percent</u> , Wy.PSC, Docket No. 20000-469-ER-15.	Wyoming Industrial Energy Consumers	Power Cost Modeling
<u>In re Avista Corporation, General Rate Increase for Electric Services</u> , Wa.UTC, Docket No. UE-150204.	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
<u>In re the Application of Rocky Mountain Power to Decrease Rates by \$17.6 Million to Recover Deferred Net Power Costs Pursuant to Tariff Schedule 95 to Decrease Rates by \$4.7 Million Pursuant to Tariff Schedule 93</u> , Wy.PSC, Docket No. 20000-472-EA-15.	Wyoming Industrial Energy Consumers	Power Cost Deferral
<u>Formal complaint of The Walla Walla Country Club against Pacific Power & Light Company for refusal to provide disconnection under Commission-approved terms and fees, as mandated under Company tariff rules</u> , Wa.UTC, Docket No. UE-143932.	Columbia Rural Electric Association	Customer Direct Access / Customer Choice
<u>In re PacifiCorp, dba Pacific Power, 2016 Transition Adjustment Mechanism</u> , Or.PUC, Docket No. UE 296.	Industrial Customers of Northwest Utilities	Power Cost Modeling
<u>In re Portland General Electric Company, Request for a General Rate Revision</u> , Or.PUC, Docket No. UE 294.	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
<u>In re Portland General Electric Company and PacifiCorp dba Pacific Power, Request for Generic Power Cost Adjustment Mechanism Investigation</u> , Or.PUC, Docket No. UM 1662.	Industrial Customers of Northwest Utilities	Power Cost Deferral
<u>In re PacifiCorp, dba Pacific Power, Application for Approval of Deer Creek Mine Transaction</u> , Or.PUC, Docket No. UM 1712.	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
<u>In re Public Utility Commission of Oregon, Investigation to Explore Issues Related to a Renewable Generator's Contribution to Capacity</u> , Or.PUC, Docket No. UM 1719.	Industrial Customers of Northwest Utilities	Resource Planning
<u>In re Portland General Electric Company, Application for Deferral Accounting of Excess Pension Costs and Carrying Costs on Cash Contributions</u> , Or.PUC, Docket No. UM 1623.	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
<u>2016 Joint Power and Transmission Rate Proceeding</u> , Bonneville Power Administration, Case No. BP-16.	Industrial Customers of Northwest Utilities	Revenue Requirement, Policy
<u>In re Puget Sound Energy, Petition to Update Methodologies Used to Allocate Electric Cost of Service and for Electric Rate Design Purposes</u> , Wa.UTC, Docket No. UE-141368.	Industrial Customers of Northwest Utilities	Cost of Service
<u>In re Pacific Power & Light Company, Request for a General Rate Revision Resulting in an Overall Price Change of 8.5 Percent, or \$27.2 Million</u> , Wa.UTC, Docket No. UE-140762.	Boise Whitepaper, LLC	Revenue Requirement, Rate Design

Docket	Party	Topics
<u>In re Puget Sound Energy, Revises the Power Cost Rate in WN U-60, Tariff G, Schedule 95, to reflect a decrease of \$9,554,847 in the Company's overall normalized power supply costs, Wa.UTC, Docket No. UE-141141.</u>	Industrial Customers of Northwest Utilities	Power Cost Modeling
<u>In re the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming Approximately \$36.1 Million Per Year or 5.3 Percent, Wy.PSC, Docket No. 20000-446-ER-14.</u>	Wyoming Industrial Energy Consumers	Power Cost Modeling
<u>In re Avista Corporation, General Rate Increase for Electric Services, RE, Tariff WN U-28, Which Proposes an Overall Net Electric Billed Increase of 5.5 Percent Effective January 1, 2015, Wa.UTC, Docket No. UE-140188.</u>	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design, Power Costs
<u>In re PacifiCorp, dba Pacific Power, Application for Deferred Accounting and Prudence Determination Associated with the Energy Imbalance Market, Or.PUC, Docket No. UM 1689.</u>	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
<u>In re PacifiCorp, dba Pacific Power, 2015 Transition Adjustment Mechanism, Or.PUC, Docket No. UE 287.</u>	Industrial Customers of Northwest Utilities	Power Cost Modeling
<u>In re Portland General Electric Company, Request for a General Rate Revision, Or.PUC, Docket No. UE 283.</u>	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
<u>In re Portland General Electric Company's Net Variable Power Costs (NVPC) and Annual Power Cost Update (APCU), Or.PUC, Docket No. UE 286.</u>	Industrial Customers of Northwest Utilities	Power Cost Modeling
<u>In re Portland General Electric Company 2014 Schedule 145 Boardman Power Plant Operating Adjustment, Or.PUC, Docket No. UE 281.</u>	Industrial Customers of Northwest Utilities	Coal Retirement
<u>In re PacifiCorp, dba Pacific Power, Transition Adjustment, Five-Year Cost of Service Opt-Out (adopting testimony of Donald W. Schoenbeck), Or.PUC, Docket No. UE 267.</u>	Industrial Customers of Northwest Utilities	Customer Direct Access

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON
UG 435**

In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
_____)

AWEC/102

Revenue Requirement Summary

**OPENING TESTIMONY OF BRADLEY G. MULLINS
ON BEHALF OF
ALLIANCE OF WESTERN ENERGY CONSUMERS**

April 22, 2022

Natural Gas Revenue Requirement Summary (\$000)

Line	Adj. No.	Description	Revenue Requirement			Impact of AWEC Adjustments			
			Net Oper. Income	Rate Base	Rev. Req. Def. / (Suf.)	Pre-Tax Net Oper. Income	Net Oper. Income	Rate Base	Rev. Req. Def. / (Suf.)
1		Feb 28, 2022 Eratta	\$67,508	\$1,780,963	78,030				
<i>Adjustments:</i>									
2	A1	Cost of Capital	\$67,508	\$1,780,963	74,266	-	-	-	(3,764)
3	A2	Errata Adjustment	\$67,177	\$1,729,298	69,484	(\$420)	(\$332)	(\$51,664)	(4,782)
4	A3	Rate Base Period	\$67,177	\$1,529,700	50,538	-	-	(199,598)	(18,946)
5	A4	Depreciation Period	\$77,482	\$1,529,700	36,017	13,044	10,305	-	(14,521)
6	A5	Remove Gas Costs and Revenues	\$78,720	\$1,529,700	34,272	1,568	\$1,238	-	(1,745)
7	A6	Non-Labor O&M	\$83,214	\$1,529,700	27,939	5,688	4,494	-	(6,332)
8	A7	D&O Insurance	\$83,477	\$1,529,700	27,568	333	263	-	(371)
9	A8	Allison Spa	\$83,487	\$1,529,700	27,554	13	11	-	(15)
10	A9	Stock Compensation	\$85,092	\$1,529,700	25,293	2,031	1,604	-	(2,261)
11	A10	Executive Incentives	\$87,110	\$1,529,700	22,449	2,554	2,018	-	(2,844)
12	A11	Directors Fees & Expense	\$88,597	\$1,529,700	20,353	1,883	1,488	-	(2,096)
13	A12	Stock & Bond Costs	\$88,636	\$1,529,700	20,299	49	39	-	(54)
14	A13	Refreshments	\$88,744	\$1,529,700	20,146	137	108	-	(152)
15	A14	COVID-19 Contra Revenues	\$89,165	\$1,529,700	19,552	534	422	-	(594)
16	A15	Rate Case Expense	\$89,179	\$1,529,700	19,534	17	13	-	(19)
17	A16	R&D Expense	\$89,708	\$1,529,700	18,788	670	529	-	(746)
18	A17	Horizon 1 Start-up O&M	\$94,273	\$1,529,700	12,355	5,778	4,565	-	(6,433)
19	A18	Sch. 197 Over Collection	\$94,661	\$1,529,700	11,809	491	388	-	(546)
20	A19	Sch. 183 Over Collection	\$96,383	\$1,529,700	9,381	2,181	1,723	-	(2,428)
21	A20	Interest Coordination	\$95,257	\$1,529,700	10,969		(1,127)		1,588
22		Adjusted Results	\$95,257	\$1,529,700	10,969	36,551	27,748	(251,263)	(67,062)

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON
UG 435**

In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
_____)

AWEC/103

REDACTED

Responses to Data Requests

OPENING TESTIMONY OF BRADLEY G. MULLINS

ON BEHALF OF

ALLIANCE OF WESTERN ENERGY CONSUMERS

April 22, 2022



Rates & Regulatory Affairs

UG 435

Request for a General Rate Revision

Data Request Response

Request No.: UG 435 AWEC DR 9

9. Reference "UG 435 - Exh. 1300 - WP1 - Revenue Requirements Model": Please provide an update version of the referenced workpaper including an adjustment that removes all non-margin revenue requirement items, such as gas costs and supplemental rate schedules.

Response:

Please see attachment "UG 435 AWEC DR 9 Attachment 1 a modified version of the "UG 435 - Exh. 1300 - WP1 - Revenue Requirements Model" with removal of non-margin revenue requirement items (i.e., gas costs). The other supplemental rate schedules 182, 196, and 197 that are built into base rates will be included within margin, but the offsetting amortizations are either in O&M or federal income tax expense.

With the removal of gas costs, the updated incremental revenue requirement is lower by \$1.7 million from the Company's initial filing. This variance is due to certain expenses that are tied to Company revenues, such as the Department of Energy (DOE) fees and Corporate Activity Tax (CAT) expenses. The UG 435 – Exh. 1300 – WP1 – Revenue Requirements Model is designed to include gas costs to accurately gross up revenue, needed for a full revenue requirement.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 28

Reference "UG 435 - Exh. 1314 - WP1 - Lexington RNG COS – CONFIDENTIAL,": Please provide copies of all partnership/LLC agreements and contractual agreements associated with the Tyson Lexington Project.

Response:

The following highly confidential agreements have been provided as Highly Confidential UG 435 AWEC DR 28 Attachments 1-11.

1. Membership Purchase Interest Agreement
2. Biogas Processing Site License Agreement
3. BioCarbN Guaranty of Sole Member to Membership Purchase Interest Agreement
4. Development and Investment Framework Agreement
5. Management Services Agreement
6. LLC Operating Agreement
7. Interconnection Agreement
8. License, Consent, Ground Lease Subordination and Access Agreement
9. NW Natural RNG Offtake Contract
10. (Engineering, Procurement, Construction (EPC) Agreement
11. Project Management Agreement



Rates & Regulatory Affairs

UG 435

Request for a General Rate Revision

Data Request Response

Request No.: UG 435 AWEC DR 30

Reference "UG 435 - Exh. 1314 - WP1 - Lexington RNG COS – CONFIDENTIAL," Tab "Deferred Tax," Excel Column "N": Please provide an explanation for the values in the referenced column.

Confidential Response:

[REDACTED]

[REDACTED]



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 40

40. Reference NW Natural's response to Staff Data Request 143, Attachment 1: Please provide an updated version of the referenced workpaper with actual cost data for the entirety of 2021 (the referenced workpaper used a forecast for Q4 2021).

Response:

Actual Base Year O&M results are being updated in UG 435 OPUC DR 276. That data request references Standard Data Requests 58a and 58b which provide Total O&M (part a) and Non-Payroll O&M (part b) by FERC account. These were originally answered in UG 435 SDR 58 with Q4 forecast data but are being revised in UG 435 OPUC DR 276 to reflect the full year actuals.

The Company objects to this request for reasons set forth in OAR 860-001-0500. The Company has not updated Staff Data Request 143, Attachment 1 with actual cost data for the entirety of 2021. The model provided in response to Staff Data Request 143, Attachment 1 is highly granular with many interdependencies within the detail. Updating Staff Data Request 143, Attachment 1, with actuals for Q4 2021, would require an extraordinarily time consuming and manual effort (the Company estimates more than 50 hours of work by full-time employees) to review and potentially revise every number in the model for Q4 2021. Doing so also would call into question the need to review and potentially revise all assumptions and inputs that the Company used to forecast Q4 2021 (e.g., inflation rate, employee count, payroll overhead rates, pay increase assumptions, affiliate allocations, rolling historical averages). In essence, the Company would be required to develop and submit an alternative to a significant component of its rate case.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 42

42. Reference NW Natural's response to Staff Data Request 143, Attachment 1, Tab "Dept Non-Payroll Forecast" Excel Column M: Please provide workpapers supporting the values in each row identified as a "Test Period Adjustment" in the referenced column.

Response:

Please refer to the following table for excel rows with test period adjustments as requested. In addition, the Company's response to UG 435 OPUC DR 202 and the attachments reference therein provide workpapers for the non-CPI adjustments.

Excel Row	Topic	Amount	Support
1509	Account Services	\$64,937	Tab "Paymentus" cells N63 thru N74 less the sum of excel rows 1507+1508, columns AV thru BG, on tab "Dept Non-Payroll Forecast"
2686	Contract Services	\$797,534	Tab "LocateSurvey", the sum of rows 4+5 columns P thru AA less the sum of excel rows 2682+2683, columns AV thru BG on tab "Dept Non-Payroll Forecast"
2687	Contract Services	\$94,786	Tab "LocateSurvey", row 6 columns P thru AA less excel row 2684, columns AV thru BG on tab "Dept Non-Payroll Forecast"
2688	Contract Services	\$1,822,841	Tab "LocateSurvey", row 7 columns P thru AA plus tab "HOS survey work" row 49 columns S thru AD less excel row 2685, columns AV thru BG on tab "Dept Non-Payroll Forecast"
2872	250 Taylor	\$692,696	Refer to UG 435 OPUC DR 202 Attachment 1 tab "HQ O&M Exhibit" cell G18 divided by 12 (monthly amount) less the sum of excel rows 2870+2871 columns AV thru BG on tab "Dept Non-Payroll Forecast"
2945	Facilities	\$5,621	Refer to UG 435 OPUC DR 202 Attachment 1 tab "HQ O&M Exhibit" cell G20 divided by 12 (monthly amount) less excel row 2944 columns AV thru BD of tab "Dept Non-Payroll Forecast"
3562	IT	\$15,838,913	Refer to UG 435 OPUC DR 202 Attachment 2 for support.
3984	Insurance	\$580,856	Tab "Insurance", row 29 column P (monthly amount) less excel row 3983 columns AV thru BG on tab "Dept Non-Payroll Forecast"
4243	Rate Case Expense	-\$99,961	Tab "Rate Case Expense", row 46 column F



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 44

44. Reference NW Natural's response to Staff Data Request 143, Attachment 1, "O&M TY FERC Allocation Summary", Cell "S124": Please explain why the LTIP increased from \$91,060 in Tab "O&M BY FERC Allocation Summ" Cell "AH124" to \$2,554,429 in the referenced cell.

Response:

The tab "O&M BY FERC Allocation Summ" is organized such that excel columns D-Q reflect the nine months actual results and excel columns R-AH reflect the three month forecasted results with excel column AJ reflecting the annual total by FERC account. As such, the LTIP amount included in the base year is \$1,002,438 from excel column Q plus \$91,060 from excel column AH for a total amount of \$1,093,498.

The increase in LTIP from the base year amount to the test year amount is due to the number of shares planned to be awarded and the share price assumed.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 45

45. Reference NW Natural's response to Staff Data Request 143, Attachment 1, "O&M TY FERC Allocation Summary", Cell "R129": Please provide an explanation and supporting workpapers for the \$2,030,585 in Stock Expense in the referenced cell.

Response:

Stock expense represents the cost of the Employee Stock Purchase Program (ESPP) and Restricted Stock Units (RSUs) offered to NW Natural employees. Please refer to UG 435 AWEC DR 45 Attachment 1 for supporting workpapers.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 65

65. Reference Northwest Natural's response to AWEC Data Request 20, Attachment 1 in Docket UG 388: Please provide the equivalent workpapers providing project level detail for the additions in Exhibit NW Natural/1312 in this docket.

Response:

Project level detail for additions can be found in UG 435 AWEC DR 65 Attachment 1.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 80

80. Reference NW Natural's response to Staff Data Request 163: Please provide a consolidated file with all the actual non-labor transaction data for 2021.

Response:

The Company's response to UG 435 OPUC DR 163 included Q4 2021 only and it did include all of O&M instead of just the non-labor O&M. In response to this particular data request, please refer to **UG 435 AWEC DR 80 Attachment 1** for a consolidated file with all 2021 non-labor transaction data.

TSA Directive O&M Deferral
Summary of Deferral Costs and Carry Cost

							Total 2021	2022		Total 2021	Grand Total
	7	8	9	10	11	12		1	2		
Capital - in CWIP	8,093.57	132,519.87	1,087,614.66	3,823,265.33	2,969,908.11	4,925,498.71	12,946,900.25	138,526.57	3,174,867.40	3,313,393.97	16,260,294.22
Operating Expense		12,200.58	57,228.45	54,803.72	56,789.73	6,029.12	187,051.60	12,749.43	11,345.16	24,094.59	211,146.19
OR Deferral			27,056.50	177,692.94	100,897.42	628,924.52	934,571.38	346,849.25	149,164.93	496,014.18	1,430,585.56
OR Carry Cost			72.52	667.14	1,485.51	3,612.13	5,837.29	6,464.87	7,941.87	14,406.75	20,244.04
	8,093.57	144,720.45	1,171,972.13	4,056,429.13	3,129,080.77	5,564,064.48	14,074,360.52	504,590.12	3,343,319.36	3,847,909.49	17,922,270.01
Total OR Deferral with Carrying Costs	-	-	27,129.02	178,360.08	102,382.93	632,536.65	940,408.67	353,314.12	157,106.80	510,420.93	1,450,829.60



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 87

87. Reference NW Natural/700: Please provide monthly detail of all deferred amounts associated with TSA Security Directive 2, including separate detail for any operating expenses, capital costs, and carrying charges. Please provide transaction-level detail supporting the operating expense amounts and FERC account detail for any capital costs.

Response:

Please refer to UG 435 AWEC DR 87 Attachment 1 for a summary of all deferral amounts and costs associated with TSA Security Directive 2, and UG 435 AWEC DR 87 Attachment 2 for detail of carrying costs. Currently there are no capital costs in FERC accounts as all costs are in CWIP. When these capital costs are placed in service, they will go to a separate capital deferral account. We have included the CWIP balance as a reference of what will eventually be capitalized and deferred.

December 2020 Hood River & White River area incident
SAP Work Order #3636293

SAP Work Order #3636293				Customers impacted	State Deferral Allocation	
				5,710	4,241	1,469
<u>Summary of Costs:</u>	Total Charged to As of March 2021	Donation charged to	Leave Expense	Amount to Defer	74% OR	26% WA
<u>Mutual Assistance</u>						
Mutual Aid Assistance	332,977.15	4,500		328,477	243,971	84,507
<u>Overtime</u>						
Total Overtime Pay	72,614.39		-	72,614	53,933	18,681
Total Doubletime Pay	224,506.64	-		224,507	166,748	57,758
<u>Travel Related Costs</u>						
Meals related to travel to response	9,837.48	-		9,837	7,307	2,531
Meals related to travel to response	15,168.00	-		15,168	11,266	3,902
Total incremental mileage to travel to response	1,447.91	-		1,448	1,075	373
Hotels to travel to response and customer hotels	113,026.79	48,810		64,216	47,696	16,521
<u>Other</u>						
Wages	74,769.31		74,769	-	-	-
Wages	25,762.61		25,763	-	-	-
Total incremental other contract work	19,237.08	-		19,237	14,288	4,949
Heaters/Blankets	88,973.56	88,974		-	-	-
Repair equipment	4,878.45	-		4,878	3,623	1,255
Customer supplies	16,833.43	16,833		-	-	-
Fuel to travel to response	26.84	-		27	20	7
Repair materials	3,370.34	-		3,370	2,503	867
Refreshments	51.59		52	-	-	-
Meals related to travel to response	2,769.50	-		2,770	2,057	713
Uncoded Pcard charges - Various	(0.00)	(0)		-	-	-
Materials - aggregats	1,052.16			1,052	781	271
Transportation	145.00			145	108	37
Flagging	16,720.91			16,721	12,419	4,302
Rents and Leases	360.00			360	267	93
Tools and Equipment	2,259.55			2,260	1,678	581
Office Supplies	11.98		12	-	-	-
Parking	5.00		5	-	-	-
Employee Awards	86.67		87	-	-	-
Non-Employee gifts	30.00		30	-	-	-
Business Travel	1,419.83	1,420		-	-	-
Professional Service	529.02			529	393	136
Backhoe	3,655.77			3,656	2,715	941
Total costs		1,032,527	160,537	100,717	771,273	572,849
						198,424
					GL 186446	GL 186447
Total Deferral		771,273				
O&M Costs		100,717	Costs deferre	System	OR	
O&M shareholder donations		160,537	Mutual Assistæ	328,477	243,971	
agreed to SAP order		1,032,527	Overtime	297,121	220,681	



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 88

88. Reference NW Natural/1000: Please provide monthly detail of all deferred amounts associated with the Williams pipeline outage, including separate detail for any operating expenses, capital costs, and carrying charges. Please provide transaction-level detail supporting the operating expense amounts, and FERC account detail for any capital costs.

Response:

Please see **UG 435 AWEC DR 88 Attachment 1** for the monthly deferred amounts associated with the Williams pipeline outage including the transaction detail for all associated operating expenses. Only associated operating expenses have been deferred.

Horizon O&M Deferral
Summary of Deferral Cost and Carry Cost

	2021								
	1	2	3	4	5	6	7	8	9
OR Deferral	77,057.37	25,025.95	170,160.10	433,067.78	492,925.13	853,240.25	588,790.52	714,885.50	1,537,131.95
OR Carry Cost	223.63	521.18	1,090.65	2,847.60	5,551.43	9,490.34	13,730.32	17,593.39	24,231.04
	77,281.00	25,547.13	171,250.75	435,915.38	498,476.56	862,730.59	602,520.83	732,478.89	1,561,362.99

Horizon O&M Deferral
Summary of Deferral Cost and Carry Cost

				Total 2021	2022		Total 2021	Grand Total
	10	11	12		1	2		
OR Deferral	789,708.79	(65,192.27)	161,433.87	5,778,234.94	34,922.34	286,092.45	321,014.79	6,099,249.74
OR Carry Cost	31,124.37	33,407.63	33,880.83	173,692.41	34,647.33	35,780.04	70,427.36	244,119.77
	820,833.16	(31,784.64)	195,314.71	5,951,927.36	69,569.66	321,872.49	391,442.16	6,343,369.51



Rates & Regulatory Affairs

UG 435

Request for a General Rate Revision

Data Request Response

Request No.: UG 435 AWEC DR 89

89. Reference NW Natural/1300 at 31:16-32:19: Please provide monthly detail of all deferred amounts associated with the Horizon O&M Deferral, including separate detail for any operating expenses, capital costs, and carrying charges. Please provide transaction-level detail supporting the operating expense amounts, and FERC account detail for any capital costs.

Response:

Please refer to UG 435 AWEC DR 89 Attachment 1 for the detail of all deferral amounts associated with Horizon O&M, and UG 435 AWEC DR 89 Attachment 2 for detail of carrying costs. The deferral balance includes only O&M and associated carrying costs as we are not deferring any capital costs.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 AWEC DR 107

107. Reference NW Natural's response to AWEC Data Request 65, Attachment 1: Please provide actual transfers to plant for each project identified in the referenced response through the latest month available. This is an ongoing request. Please provide updated transfers to plant each month as new accounting data becomes available.

Response:

Refer to Confidential UG 435 AWEC DR 107 Attachment 1 for the summary of capital expenditures by FERC account and project related to AWEC Data Request 65, Attachment 1. Within our current accounting system, SAP, there is a limitation on how information can be extracted. We do not have the ability to query capital additions by project number. NW Natural is currently implementing an upgrade to our SAP system and new implementation of PowerPlan and we anticipate being able to have greater flexibility in reporting in the future. The new system is set to go live in Q3 2022.

In Confidential UG 435 AWEC DR 107 Attachment 1, we have queried by FERC account for all additions by asset number for the period 10/1/2021-02/28/2022. We have manually added the project number or work order (WO) to all assets greater than \$20,000. For those assets that have a WO associated, these coincide with the 'Blanket Project by Applicant' line items within the UG 435 AWEC DR 65 Attachment 1 document.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 OPUC DR 202

Please provide all work papers and data underlying the specific non CPI cost adjustments listed on Davilla, 1200/10-14, specifically,

- a. 250 Taylor Lease Expense
- b. Tenant Improvement Amortization
- c. Covid-19 Normalization
- d. Advertising Adjustment
- e. Contracted Customer Payment Processing Fees
- f. Contracted Locating Services
- g. Contracted Survey Services
- h. Information Technology and Services
- i. Insurance

Response:

- a. See UG 435 OPUC DR 202 Attachment 1
- b. See UG 435 OPUC DR 202 Attachment 1
- c. See UG 435 OPUC DR 143 Attachment 1, excel tab 'COVID'
- d. See UG 435 OPUC DR 143 Attachment 1, excel tab 'Advertising'
- e. See UG 435 OPUC DR 143 Attachment 1, excel tab 'Paymentus'
- f. See UG 435 OPUC DR 143 Attachment 1, excel tab 'LocateSurvey'
- g. See UG 435 OPUC DR 143 Attachment 1, excel tabs 'LocateSurvey' & 'HOS survey work'
- h. See UG 435 OPUC DR 202 Attachment 2
- i. See UG 435 OPUC DR 143 Attachment 1, excel tab 'Insurance'



NW Natural®

Rates & Regulatory Affairs

UG 435

Request for a General Rate Revision

Data Request Response

Request No.: UG 435 OPUC DR 474

474. Regarding NW Natural's February 28, 2022, Errata filing, please provide corrected Excel workpapers for each workpaper pertaining to exhibits NW Natural/1400 – 1404 having one or more changed values associated with changes in the errata filing. Please use file names for files included in the response that indicate the file's association with the errata filing.

Response:

Refer to the following files for corrected workpapers pertaining the exhibits cited in this request.

Exhibit NW Natural/1401: UG 435 OPUC DR 474 Attachment 1. This workpaper derives a new Parity Ratio at Present Rates ("Parity Ratio") for every rate schedule based on the post-Errata revenue requirement of \$78.0 million.

Exhibit NW Natural/1402: UG 435 OPUC DR 474 Attachment 2. Please note that the rate spread methodology presented in this workpaper is based on the originally proposed revenue requirement of \$73.5 million; NW Natural notes that while its revenue requirement in this case has been corrected, the Company understands that the base rates finally adopted by the Commission in this proceeding will not exceed the revenue requirement amount reflected in its initial filing. The new Parity Ratios derived in Attachment 1 do not result in an adjustment to the overall rate design or the caps and floors that apply to Steps 1 through 3 of the methodology presented in Attachment 2. The Parity Ratios do, however, result in a small change in the filed adjusted floor of 0.4387 to 0.4384 which minimally impacts how rates are spread in Steps 4 and 5 of the methodology.

Exhibits NW Natural/1403 and Exhibit NW Natural/1404: UG 435 OPUC DR 474 Attachment 3. Please note that the rates derived in this workpaper are similarly based on the originally proposed revenue requirement of \$73.5 million. NW Natural again notes that while its revenue requirement in this case has been corrected, the Company understands that the base rates finally adopted by the Commission in this proceeding will not exceed the revenue requirement amount reflected in its initial filing.



Rates & Regulatory Affairs
2022 OR GRC
2022 Oregon General Rate Revision
Data Request Response

Request No.: 2022 OR GRC OPUC SDR 74

Regarding Director's and Officer Liability Insurance, please fill in the table below:

Insurance	Base Yr -2 Yrs	Base Yr -1 Yr	Base Year	Test Year
D & O Liability Premium				
D & O Liability Deductible				
First Excess D & O Liability				
First Excess D & O Deductible				
Second Excess D & O Liability				
Second Excess D & O Deductible				
Total Premium (primary, first excess & secondary excess)				

Response:

Please See CONFIDENTIAL UG 435 SDR 74 Attachment 1.

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 OPUC DR 143

143. Please provide the underlying data for the Utility Employee Base Pay (Wages and Salaries) (Oregon Allocated FTEs) Table 1 cited in NW Natural/800/Rogers page 5. Please provide all data in electronic workbook format with all cell formulae and references intact.

Response:

See UG 435 OPUC DR 143 Attachment 1, excel tab SDR 92 Summary, excel cells U14:U17 for the data that matches Table 1. UG 435 OPUC DR 143 Attachment 1 can be used to trace back to the underlying data.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 OPUC DR 150

150. Please provide copies of all vendor invoices and documentation explaining the types of services provided to each board member by the Allison Inn & Spa LLC.

Response:

Please see UG 435 OPUC DR 150 Attachments 1 and 2 for the related accounts payable voucher documents. Please see the Company's response to UG 435 OPUC DR 151 for additional information that is responsive to this request.



Rates & Regulatory Affairs
UG 435
Request for a General Rate Revision
Data Request Response

Request No.: UG 435 OPUC DR 151

151. Please provide a narrative explanation on why NW Natural held a board member retreat at the Allison Inn & Spa LLC., during the COVID-19 pandemic.

Response:

Board of Directors annual off-site planning retreat - Each year the Board of Directors holds an annual off-site strategic planning retreat in September, consisting of meetings of the Board of Directors and its committees, as well as strategic planning sessions. The foregoing charges are associated with the annual retreat planned for September 2021 and is a fee paid to reserve the spaces necessary for the retreat to occur. Reservations were originally made in 2020 and rolled forward to 2021 in light of the pandemic. As the Delta variant surge was occurring at that time and it was determined to be unsafe to gather the Board and senior leadership in one location, the 2021 Board retreat was converted to a virtual format and the deposit with the Allison Inn was rolled forward to 2022 so that the deposit would not be lost.

It is common practice for Board and management teams to go off-site for a board retreat to discuss company strategy in detail. Holding the annual strategic retreat offsite provides several benefits to the functioning of the Board, and a well-functioning Board of Directors is necessary and beneficial to the health of the overall company, and therefore the customers. Offsite meetings eliminate the distractions of the office setting and promote engagement. Holding the meeting offsite over the course of several days can build relationships among the members of the Board, as well as among the Board and the officer team, enhancing understanding and business functioning. A change in setting can also give Board members and officers a change in perspective, both with respect to each other's strengths and weaknesses and about the issues faced by the Company. Offsite venues, including dinners, enable Board members and employees to build team relationships and relate to one another in different ways, which can generate and develop meaningful, creative strategies and approaches for the business. This is especially important when trying to develop new strategies or make strategic decisions for an organization such as a public company.

The Allison Inn is located relatively close to the Company's headquarters in the Willamette Valley and therefore provides a good venue to be removed enough from the Company's headquarters, and yet proximate enough to both be efficient and cost-effective for travel by management and Board members as well as reminding Board members and management of the local communities the Company serves.

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON
UG 435**

In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
_____)

AWEC/104

CONFIDENTIAL
Capital Forecast Analysis

OPENING TESTIMONY OF BRADLEY G. MULLINS

ON BEHALF OF

ALLIANCE OF WESTERN ENERGY CONSUMERS

April 22, 2022

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON
UG 435**

In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
_____)

AWEC/105

Non-Labor O&M Analysis

**OPENING TESTIMONY OF BRADLEY G. MULLINS
ON BEHALF OF
ALLIANCE OF WESTERN ENERGY CONSUMERS**

April 22, 2022

NW Natural Non-Labor O&M Forecast Analysis
UG 435 - 2022 General Rate Case

		NW Natural 2021 Forecast	2021 Actual	Forecast Error	Alloc. Factor	Oregon-Alloc. Error
Natural Gas Storage						
Underground Storage Expense						
Operation						
816	Wells Expense	485,740	552,571	66,831	89.0%	59,446
818	Compressor Station Expense	176,256	185,608	9,352	89.0%	8,319
819	Compressor Station Fuel	0	0	(0)	89.0%	(0)
820	Measuring and Regulator Station Expense	694,435	886,567	192,132	89.0%	171,012
821	Purification Expense	(4,256)	-	4,256	89.0%	3,785
Maintenance						
832	Wells Expense	5,561	5,424	(137)	89.0%	(122)
834	Compressor Expense	1,546,567	1,545,721	(846)	89.0%	(752)
<i>Total Underground Storage Expense</i>		<i>2,904,303</i>	<i>3,175,891</i>	<i>271,588</i>		<i>241,688</i>
Other Storage Expense						
Operation						
840	Supervision and Engineering	379	1,724	1,345	88.9%	1,196
<i>Total Other Storage Expense</i>		<i>379</i>	<i>1,724</i>	<i>1,345</i>		<i>1,196</i>
Liquified Natural Gas Expense						
Operation						
844	Supervision and Engineering	602,287	645,738	43,450	89.0%	38,649
845	LNG Fuel	(101,689)	(82,030)	19,659	89.0%	17,487
Maintenance						
847	Supervision and Engineering	292,130	407,100	114,970	89.0%	102,266
<i>Total Liquified Natural Gas Expense</i>		<i>792,728</i>	<i>970,807</i>	<i>178,080</i>		<i>158,402</i>
Total Natural Gas Storage		3,697,410	4,148,422	451,012		401,286
Transmission Expense						
Operation						
856	Mains Expense	2,467,183	1,970,509	(496,674)	93.9%	(466,412)
Maintenance						
863	Maintenance of Mains	4,544	4,129	(415)	88.9%	(369)
Total Transmission Expense		2,471,727	1,974,637	(497,089)		(466,781)
Distribution Expense						
Operation						
870	Supervision and Engineering	379,860	417,694	37,834	91.5%	34,627
874	Mains and Services Expense	9,694,359	9,161,541	(532,819)	90.4%	(481,662)
875	Measuring and Regulator Station Expense - Ge	146,591	135,530	(11,061)	90.0%	(9,953)
877	Measuring and Regulator Station Expense - Ci	332,381	278,071	(54,310)	91.1%	(49,465)
878	Meter and House Regulator Expense	618,682	791,771	173,090	88.3%	152,816
879	Customer Installation Expense	1,978,250	1,817,091	(161,159)	88.4%	(142,505)
880	Other Expense	57,042	75,033	17,991	90.0%	16,185
881	Rents	235,589	212,959	(22,630)	86.9%	(19,673)
Maintenance						
885	Supervision and Engineering	400,531	260,096	(140,435)	93.7%	(131,626)
887	Mains	788,956	829,450	40,494	97.1%	39,325
889	Measuring and Regulator Station Expense - Ge	461,090	467,893	6,803	90.8%	6,178
891	Measuring and Regulator Station Expense - Ci	44,757	71,336	26,580	92.8%	24,659
892	Services	247,179	323,611	76,432	89.3%	68,220
893	Meters and House Regulators	857,937	757,351	(100,586)	89.3%	(89,785)
894	Other Equipment	31,835	34,793	2,958	95.3%	2,820
Total Distribution Expense		16,275,039	15,634,221	(640,819)		(579,838)

	NW Natural 2021 Forecast	2021 Actual	Forecast Error	Alloc. Factor	Oregon-Alle. Error
Customer Accounts Expense					
Operation					
901 Supervision	13,814	18,761	4,947	88.2%	4,365
902 Meter Reading Expenses	78,888	79,576	688	88.3%	608
903 Customer Records and Collection Expense	8,051,378	7,836,739	(214,640)	88.4%	(189,665)
904 Uncollectible Accounts	-	-	-	88.3%	-
Total Customer Accounts Expense	8,130,266	7,916,315	(213,951)		(189,058)
Customer Service and Informational					
Operation					
907 Supervision	-	-	-	0.0%	-
908 Customer Assistance Expense	647,765	495,213	(152,552)	87.8%	(134,012)
909 Customer Information Expense	2,697,937	2,190,145	(507,792)	88.3%	(448,127)
910 Miscellaneous Customer Service Expense	41,817	8,682	(33,135)	88.1%	(29,203)
Total Customer Service and Informational	3,387,519	2,694,039	(693,480)		(611,342)
Sales Expense					
Operation					
911 Supervision	247	308	61	88.3%	54
912 Demonstration and Selling Expense	1,002,154	892,028	(110,126)	88.4%	(97,314)
913 Advertising	439,722	558,424	118,702	88.2%	104,754
916 Miscellaneous Sales Expense	-	(0)	(0)	0.0%	-
Total Sales Expense	1,442,122	1,450,759	8,637		7,494
Administrative and General Expense					
Operation					
921 Office Supplies and Expense	29,004,287	27,757,175	(1,247,112)	88.3%	(1,101,084)
922 Administrative Expenses Transferred - Credit	-	-	-	88.7%	-
924 Property Insurance Premium	4,176,078	4,184,813	8,735	88.9%	7,766
925 Injuries and Damages	37,312	37,041	(271)	88.9%	(241)
926 Employee Pensions and Benefits	649,149	635,543	(13,606)	93.0%	(12,648)
928 Regulatory Commission Expense	-	-	-	0.0%	-
930 Miscellaneous General Expense	4,369,100	4,688,539	319,439	88.8%	283,604
931 Rents	9,597,213	9,236,783	(360,430)	89.0%	(320,639)
Maintenance					
935 Maintenance of General Plant	3,036,884	2,951,334	(85,550)	89.5%	(76,542)
Total Administrative and General Expense	50,870,024	49,491,229	(1,378,795)		(1,219,785)
Total Non-Labor Operations and Maintenance Expense	86,287,923	83,328,384	(2,959,539)		(2,653,658)
	-	-	(0)		

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON
UG 435**

In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
_____)

AWEC/106

Schedule 197 – Pension Balancing Account Revenue Analysis

**OPENING TESTIMONY OF BRADLEY G. MULLINS
ON BEHALF OF
ALLIANCE OF WESTERN ENERGY CONSUMERS**

April 22, 2022

Schedule 197 Revenue Analysis

Rate Schedule	Block	Rate Case Volumes	Sch. 197 Rate	Sch. 197 Rate Case. Rev.
2 R		405,331,797	0.0128700	5,216,620
3 CFS		169,645,064	0.0090300	1,531,895
3 IFS		5,085,467	0.0077000	39,158
27		791,922	0.0098600	7,808
31C Firm Sales	Block 1	11,937,946	0.0071900	85,834
	Block 2	9,663,405	0.0065700	63,489
31C Firm Transpt	Block 1	1,197,319	0.0072200	8,645
	Block 2	1,398,405	0.0066000	9,229
31I Firm Sales	Block 1	3,902,829	0.0050500	19,709
	Block 2	8,292,255	0.0045700	37,896
31I Firm Transpt	Block 1	135,565	0.0057400	778
	Block 2	370,003	0.0051900	1,920
32C Firm Sales	Block 1	34,405,848	0.0042400	145,881
	Block 2	8,996,941	0.0036000	32,389
	Block 3	1,505,090	0.0025400	3,823
	Block 4	421,439	0.0014800	624
	Block 5	-	0.0007300	-
	Block 6	-		-
32I Firm Sales	Block 1	6,124,832	0.0030700	18,803
	Block 2	5,730,496	0.0026100	14,957
	Block 3	1,686,931	0.0018400	3,104
	Block 4	347,849	0.0010800	376
	Block 5	-	0.0005500	-
	Block 6	-		-
32C Firm Transpt	Block 1	2,540,213	0.0030200	7,671
	Block 2	2,049,162	0.0025600	5,246
	Block 3	949,358	0.0018100	1,718
	Block 4	949,827	0.0010600	1,007
	Block 5	17,547	0.0006000	11
	Block 6	-		-
32I Firm Transpt	Block 1	9,361,047	0.0030200	28,270
	Block 2	13,921,392	0.0025600	35,639
	Block 3	9,497,411	0.0018100	17,190
	Block 4	21,833,039	0.0010600	23,143
	Block 5	19,320,860	0.0006000	11,593
	Block 6	8,213,069	0.0003000	2,464
32C Interr Sales	Block 1	4,230,356	0.0028500	12,057
	Block 2	5,471,563	0.0024300	13,296
	Block 3	3,207,435	0.0017100	5,485
	Block 4	7,046,824	0.0010000	7,047
	Block 5	5,054,642	0.0005700	2,881
	Block 6	-		-
32I Interr Sales	Block 1	5,956,730	0.0028500	16,977
	Block 2	8,077,570	0.0024200	19,548
	Block 3	4,456,220	0.0017100	7,620
	Block 4	10,249,052	0.0010000	10,249
	Block 5	7,342,584	0.0005700	4,185
	Block 6	-		-
32C Inter Transpt	Block 1	995,681	0.0025000	2,489
	Block 2	1,519,237	0.0021200	3,221
	Block 3	877,075	0.0015000	1,316
	Block 4	3,005,603	0.0008700	2,615
	Block 5	462,553	0.0005000	231
	Block 6	-		-
32I Inter Transpt	Block 1	5,656,512	0.0025000	14,141
	Block 2	9,633,242	0.0021200	20,422
	Block 3	7,305,771	0.0015000	10,959
	Block 4	22,439,448	0.0008700	19,522
	Block 5	44,236,972	0.0005000	22,118
	Block 6	99,230,818	0.0002500	24,808
Total		1,022,080,218		7,598,076
			Authorized Variance	7,100,000 498,076

Schedule 197 Revenue Analys

Rate Schedule	Block	Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes	
		Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020
2 R		34,814,757	20,609,593	13,208,269	9,824,026	7,983,233	8,612,264	20,727,992	37,927,193	59,698,423	64,647,432	53,728,829	51,348,162
3 CFS		15,091,522	9,604,120	6,982,885	5,936,033	5,120,922	5,313,216	8,852,424	15,503,352	24,135,384	26,911,238	22,486,544	21,149,338
3 IFS		437,870	333,119	248,960	251,744	240,232	332,729	603,370	732,159	566,667	550,407	554,744	518,340
27		107,074	55,872	25,800	8,714	5,710	8,254	43,728	116,148	199,733	225,667	188,093	172,472
31C Firm Sales	Block 1	1,315,372	1,151,002	907,139	736,808	636,048	674,863	1,068,854	1,271,605	1,309,602	1,320,521	1,316,052	1,304,066
	Block 2	977,207	412,807	165,025	113,915	80,862	71,889	294,079	943,536	1,898,173	2,144,650	1,679,304	1,584,539
31C Firm Transpt	Block 1	129,966	103,782	82,126	69,869	69,757	93,277	115,837	118,059	117,614	118,005	116,720	115,739
	Block 2	164,565	50,435	29,052	24,153	23,105	42,318	163,999	231,093	300,240	279,391	271,234	242,412
31I Firm Sales	Block 1	364,013	359,378	338,650	327,553	328,901	346,474	367,801	372,870	375,008	361,055	363,508	360,614
	Block 2	692,331	582,093	585,714	517,655	494,036	621,448	855,721	933,047	899,733	891,967	838,859	764,348
31I Firm Transpt	Block 1	10,000	10,000	9,310	7,884	7,613	9,891	10,000	12,000	12,000	12,000	12,000	12,000
	Block 2	26,696	16,624	12,600	9,603	10,008	12,160	33,329	45,495	70,511	54,478	54,884	51,130
32C Firm Sales	Block 1	3,397,466	2,630,718	2,022,703	1,695,438	1,476,042	1,531,179	2,498,887	3,375,154	3,916,421	4,224,408	3,981,857	3,868,770
	Block 2	889,957	434,003	265,275	236,715	228,326	221,869	393,186	753,565	1,399,204	1,623,850	1,238,531	1,182,923
	Block 3	86,019	33,549	30,566	34,204	46,800	46,386	78,466	72,821	217,866	262,082	164,013	153,533
	Block 4	6,381	-	-	-	-	-	50,437	39,808	129,996	163,326	172,875	101,062
	Block 5	-	-	-	-	-	-	-	52,653	-	10,211	-	3,796
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	470,433	452,838	436,006	450,705	477,786	477,604	526,145	513,423	492,835	522,123	519,085	506,602
	Block 2	438,226	416,680	388,639	430,090	443,212	440,906	518,719	526,416	552,486	550,071	532,137	517,743
	Block 3	124,605	131,052	135,046	170,054	198,530	178,831	184,150	182,255	156,754	231,398	182,352	176,923
	Block 4	26,435	69,960	37,445	54,633	181,440	154,326	78,499	63,931	23,454	105,241	28,725	33,906
	Block 5	-	-	-	-	203,092	506,589	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	279,796	253,705	214,150	181,866	200,451	224,696	269,154	292,295	303,787	308,579	305,228	306,544
	Block 2	234,544	170,786	116,796	89,751	132,337	147,740	242,637	269,593	310,722	309,127	322,056	286,525
	Block 3	82,075	47,331	29,915	9,090	50,642	36,663	117,650	142,639	153,891	162,630	152,614	133,818
	Block 4	44,042	11,195	5,373	-	24,277	8,294	50,272	104,389	153,539	173,043	163,339	159,037
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	1,052,840	995,782	975,864	965,900	926,344	986,117	975,107	983,869	980,774	982,647	982,985	978,087
	Block 2	1,527,904	1,400,429	1,315,765	1,279,302	1,233,791	1,284,828	1,438,844	1,463,322	1,460,555	1,507,665	1,480,311	1,484,096
	Block 3	1,036,886	875,224	800,974	806,324	795,000	799,103	902,345	927,640	904,435	975,808	918,909	984,682
	Block 4	2,081,218	1,627,628	1,485,860	1,459,906	1,374,422	1,513,562	1,835,985	1,913,129	1,890,146	1,917,150	1,946,360	2,040,465
	Block 5	1,827,160	1,630,843	1,463,565	1,461,261	1,421,462	1,384,875	1,814,250	1,846,996	2,026,617	1,995,631	1,962,863	1,987,062
	Block 6	275,793	184,636	125,931	138,154	151,602	193,288	403,939	518,583	706,342	622,215	583,171	643,093
32C Interr Sales	Block 1	488,062	398,026	371,863	325,520	333,737	375,696	445,209	436,237	442,359	440,807	442,981	432,301
	Block 2	670,617	523,832	442,900	389,292	371,205	477,407	659,792	683,747	734,827	709,171	712,473	687,008
	Block 3	367,269	271,606	167,825	152,807	147,283	166,814	383,620	417,888	484,433	447,541	449,336	433,287
	Block 4	398,971	230,503	155,746	155,860	150,249	194,481	414,444	532,800	690,338	648,187	612,262	625,915
	Block 5	-	-	-	-	-	-	-	-	18,053	30,436	10,139	11,433
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	557,536	504,078	506,357	496,457	496,321	488,802	506,539	486,320	532,936	524,925	494,202	505,619
	Block 2	727,096	648,887	596,937	560,174	570,187	550,236	624,515	555,806	669,591	694,973	606,671	665,336
	Block 3	379,130	283,777	236,740	240,871	208,967	246,126	303,110	258,795	327,988	362,337	324,634	385,116
	Block 4	871,335	609,028	446,184	517,519	522,743	389,810	611,313	529,099	546,984	834,576	635,115	779,130
	Block 5	255,322	150,004	58,814	153,701	72,106	51,538	217,708	148,590	243,507	201,019	278,856	286,128
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	76,137	95,975	86,100	85,970	85,970	86,100	85,977	86,146	86,056	85,998	86,294	85,973
	Block 2	151,148	165,641	139,256	133,628	129,974	136,366	174,671	181,911	186,336	187,892	185,977	186,918
	Block 3	100,000	104,133	98,403	96,216	95,461	97,520	100,747	109,760	119,222	112,118	104,795	105,738
	Block 4	369,910	339,006	307,710	299,534	292,874	318,131	383,119	393,311	407,608	400,411	393,866	401,378
	Block 5	292,003	236,727	201,617	186,172	176,791	217,740	331,637	389,599	484,901	461,600	429,616	441,707
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	654,291	599,415	621,569	590,273	630,575	652,731	646,049	634,671	586,895	572,467	602,690	607,302
	Block 2	1,123,288	1,104,156	1,142,302	1,102,144	1,163,191	1,235,974	1,282,027	1,151,615	971,032	961,433	1,053,294	1,102,089
	Block 3	791,663	837,689	730,866	804,255	810,626	837,836	960,838	798,538	662,195	694,256	751,080	738,165
	Block 4	1,973,241	1,833,689	1,673,528	1,774,519	2,100,612	2,143,685	2,138,702	1,710,522	1,705,515	1,849,579	1,871,438	1,942,842
	Block 5	4,771,235	3,855,226	3,610,633	3,323,898	3,996,708	3,674,073	4,527,763	4,178,484	4,062,544	4,395,580	4,238,139	4,450,238
	Block 6	7,345,248	6,441,463	5,893,867	6,780,615	6,680,461	6,441,146	7,992,710	8,158,865	8,603,288	9,026,239	7,103,474	8,457,577
Total		90,376,655	63,888,044	49,934,620	45,460,774	43,602,022	45,057,849	68,306,297	94,091,739	127,929,520	137,805,560	118,635,513	116,503,025

Schedule 197 Revenue Analys

Rate Schedule	Block	Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes	
		Apr 2020	May 2020	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021
2 R		40,250,853	21,604,521	16,270,208	11,484,031	8,515,055	8,877,970	12,879,638	37,143,218	60,411,839	62,188,658	63,074,830	54,861,030
3 CFS		14,954,710	7,499,604	5,946,795	5,029,909	4,213,627	4,314,019	5,502,966	13,732,807	22,754,083	23,856,179	24,298,736	22,006,442
3 IFS		414,782	264,014	230,946	210,535	180,628	295,781	458,189	706,144	556,726	554,594	565,327	546,901
27		126,698	54,803	32,126	13,733	4,918	4,142	13,513	72,415	135,046	131,346	129,406	116,385
31C Firm Sales	Block 1	1,156,894	879,272	700,358	595,964	492,393	504,705	687,369	1,152,434	1,256,776	1,262,349	1,253,286	1,264,410
	Block 2	936,152	241,116	110,782	69,263	47,206	42,110	95,644	755,775	1,740,303	1,794,587	1,755,181	1,684,323
31C Firm Transpt	Block 1	111,466	101,716	85,127	68,698	65,621	73,319	111,815	117,650	117,437	117,620	117,455	117,953
	Block 2	109,031	51,041	24,632	14,902	17,488	17,274	70,064	201,404	255,260	235,744	238,689	213,003
31I Firm Sales	Block 1	351,886	331,486	313,527	311,177	302,022	316,680	332,035	356,154	353,486	357,312	353,869	354,897
	Block 2	686,905	505,452	451,859	503,790	434,991	543,032	688,125	690,262	874,676	873,665	866,361	818,171
31I Firm Transpt	Block 1	12,000	10,000	14,000	10,616	11,499	13,153	13,522	14,000	13,358	14,000	14,000	14,000
	Block 2	24,585	14,553	18,614	14,524	16,931	14,600	29,186	43,612	44,624	40,076	40,865	41,117
32C Firm Sales	Block 1	3,154,751	2,118,907	1,704,813	1,398,122	1,164,470	1,249,711	1,618,325	2,933,666	3,835,229	3,864,404	3,836,745	3,777,300
	Block 2	757,278	263,862	212,243	170,615	166,136	164,019	214,908	584,461	1,242,236	1,366,802	1,360,460	1,327,918
	Block 3	74,836	47,481	20,000	16,688	21,421	36,855	40,034	53,707	191,902	229,002	195,542	221,319
	Block 4	53,800	13,482	649	-	-	3,944	-	441	61,880	27,564	61,791	116,404
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	506,984	489,298	483,315	505,277	483,385	499,816	518,063	531,669	562,663	554,617	548,597	539,851
	Block 2	499,398	421,278	425,891	439,892	394,537	406,747	434,640	497,475	590,525	557,736	534,135	528,260
	Block 3	154,255	119,360	124,513	167,150	159,019	182,318	170,644	181,449	197,385	174,166	142,018	164,093
	Block 4	18,899	31,418	37,532	59,269	39,009	27,689	32,646	46,567	34,250	45,602	29,240	33,244
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	247,490	219,702	195,173	181,821	177,469	200,456	261,759	254,478	251,807	251,646	249,882	260,553
	Block 2	166,230	128,073	94,062	79,604	75,354	101,770	180,938	181,192	237,307	229,123	245,348	272,821
	Block 3	87,600	44,902	33,040	28,834	24,599	27,189	62,572	100,514	106,242	100,663	100,308	108,387
	Block 4	49,285	11,748	12,531	17,890	13,632	10,846	70,155	133,624	112,257	130,015	156,798	153,272
	Block 5	-	-	-	-	-	-	-	17,547	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	917,858	889,783	946,389	894,441	908,882	900,152	918,138	895,627	924,206	917,783	918,450	930,738
	Block 2	1,284,030	1,200,565	1,281,095	1,195,407	1,182,237	1,177,990	1,340,997	1,357,829	1,419,229	1,419,870	1,379,807	1,451,875
	Block 3	829,155	723,728	829,143	744,174	757,768	746,290	872,291	865,366	923,483	942,143	923,898	964,509
	Block 4	1,604,314	1,493,087	1,515,593	1,353,316	1,376,473	1,244,927	1,570,840	1,775,757	1,835,826	1,973,303	1,904,908	2,103,859
	Block 5	1,656,263	1,540,447	1,346,585	1,278,055	1,156,828	1,054,345	1,418,222	1,614,950	1,710,824	1,843,886	1,786,775	1,756,768
	Block 6	372,221	303,883	229,034	226,460	234,333	225,584	383,261	560,868	762,371	755,630	606,269	705,271
32C Interr Sales	Block 1	410,991	364,727	361,804	323,020	319,559	329,554	401,287	424,291	428,142	427,006	424,591	426,056
	Block 2	557,329	468,016	430,543	365,723	365,509	374,052	591,209	684,344	723,842	732,506	672,792	723,910
	Block 3	298,377	214,481	167,210	148,384	150,465	153,328	272,098	438,005	461,269	463,812	416,839	471,306
	Block 4	379,562	273,454	190,336	160,151	150,632	170,629	304,602	661,814	783,921	771,801	597,556	726,523
	Block 5	-	-	-	-	-	-	-	318,396	387,342	360,033	296,847	333,786
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	471,722	490,530	506,454	466,652	462,793	454,102	498,198	482,088	489,408	502,530	484,176	546,545
	Block 2	613,296	600,910	645,052	565,171	560,661	562,903	622,132	591,761	630,252	650,975	601,189	746,983
	Block 3	286,992	283,058	326,075	265,290	288,888	232,430	280,309	325,884	354,975	371,489	323,621	467,931
	Block 4	533,128	572,818	705,493	609,166	654,924	521,524	666,002	557,727	724,337	722,435	689,964	1,251,962
	Block 5	58,070	45,459	323,820	163,750	193,831	-	122,939	268,175	168,987	266,183	136,999	463,716
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	86,100	85,970	86,100	85,263	81,424	83,096	85,970	76,100	76,000	75,970	69,160	83,170
	Block 2	161,895	147,481	137,909	131,503	132,699	135,672	157,234	163,166	169,263	171,884	160,964	181,128
	Block 3	100,000	100,000	100,000	99,898	95,023	94,371	100,000	80,000	85,240	86,019	89,744	87,645
	Block 4	377,085	352,297	324,040	300,738	290,986	303,271	364,139	301,591	316,840	314,283	296,616	298,332
	Block 5	301,272	263,936	212,930	193,644	178,455	176,751	267,646	50,779	93,178	91,701	84,905	84,567
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	597,157	618,154	593,994	590,327	604,912	625,098	629,716	615,389	600,023	582,490	569,293	607,725
	Block 2	1,072,564	1,088,744	1,095,643	1,088,558	1,117,805	1,117,440	1,213,358	1,058,970	1,042,790	990,171	922,130	1,080,211
	Block 3	654,166	722,947	747,950	749,046	755,175	745,709	853,310	712,298	741,782	691,944	667,915	786,845
	Block 4	1,551,686	1,654,219	1,816,817	1,867,031	1,868,217	1,625,202	1,973,629	1,781,983	1,819,818	1,805,458	1,666,820	2,058,159
	Block 5	3,459,086	3,779,766	3,248,338	2,984,921	3,223,163	3,409,915	3,882,604	3,837,875	3,955,102	4,095,184	3,304,612	4,688,280
	Block 6	7,685,869	6,209,518	6,475,622	6,907,648	7,705,879	5,548,578	8,922,449	8,797,295	9,798,282	9,672,952	8,940,959	9,390,178
Total		91,226,954	59,955,066	52,186,705	45,150,041	41,838,930	39,941,057	53,199,329	89,800,993	127,364,030	130,656,911	129,106,668	122,960,030

Schedule 197 Revenue Analys

Rate Schedule	Block	Actual Volumes								
		Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
2 R		39,656,836	20,508,408	14,920,588	8,711,925	7,661,382	8,809,004	18,088,263	32,674,377	53,821,063
3 CFS		16,482,171	8,844,738	6,953,189	4,892,305	4,589,133	5,064,114	7,731,925	12,812,463	21,051,328
3 IFS		469,404	314,341	271,577	220,800	221,918	327,301	518,056	671,898	531,222
27		86,236	33,945	17,395	4,280	774	3,795	26,909	80,471	128,673
31C Firm Sales	Block 1	1,223,170	1,047,486	881,197	572,245	505,150	587,893	920,887	1,151,436	1,247,598
	Block 2	1,091,696	334,427	156,014	45,265	36,856	60,825	227,556	725,326	1,571,463
31C Firm Transpt	Block 1	115,871	106,226	71,247	58,922	60,805	76,393	115,687	117,838	118,000
	Block 2	90,726	31,897	13,542	15,935	16,236	19,216	84,248	152,725	303,454
31I Firm Sales	Block 1	347,461	333,253	321,969	309,651	310,490	324,741	351,025	351,321	340,701
	Block 2	729,976	577,664	584,277	513,381	488,253	628,483	760,548	714,527	835,205
31I Firm Transpt	Block 1	13,530	12,131	11,864	10,680	11,610	13,440	14,000	14,000	13,122
	Block 2	28,817	21,568	13,272	16,925	17,802	20,226	33,316	39,929	56,479
32C Firm Sales	Block 1	3,358,247	2,503,111	2,048,669	1,410,233	1,297,037	1,485,900	2,211,542	3,048,227	3,785,763
	Block 2	857,901	419,219	282,179	184,493	181,947	185,614	298,374	658,093	1,228,224
	Block 3	179,542	47,751	42,801	43,675	30,671	41,292	61,072	80,583	158,164
	Block 4	173,352	(90,256)	-	-	-	-	24,815	9,052	22,746
	Block 5	306,319	(306,319)	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	533,332	503,837	481,867	485,393	504,709	515,621	546,327	534,457	559,600
	Block 2	472,714	427,554	395,355	398,739	421,857	423,888	457,880	442,331	580,629
	Block 3	138,705	133,297	137,637	155,810	145,800	185,472	157,008	114,639	147,652
	Block 4	19,811	18,733	13,626	50,898	48,748	63,643	51,664	8,337	21,113
	Block 5	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	239,857	220,885	176,881	163,636	165,749	187,186	217,311	234,485	248,845
	Block 2	204,103	121,413	89,040	83,257	93,203	100,948	173,800	197,522	267,901
	Block 3	79,785	40,000	34,033	20,000	28,769	40,000	47,926	74,194	105,218
	Block 4	49,891	17,313	15,930	17,403	16,127	27,800	70,903	107,112	186,673
	Block 5	-	-	-	-	-	-	-	-	4,474
	Block 6	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	929,731	926,596	924,688	912,176	919,820	933,710	942,755	943,474	933,843
	Block 2	1,356,291	1,321,398	1,235,770	1,215,517	1,256,789	1,281,119	1,399,573	1,424,791	1,498,923
	Block 3	856,944	821,158	800,306	775,799	809,829	797,749	842,439	891,088	973,310
	Block 4	1,786,742	1,703,965	1,484,575	1,367,809	1,482,099	1,500,462	1,762,311	1,814,144	2,070,710
	Block 5	1,439,395	1,399,670	1,119,691	1,280,460	1,263,907	1,440,256	1,837,778	1,894,398	2,211,258
	Block 6	484,531	452,306	325,301	316,935	315,716	317,022	475,003	531,510	904,357
32C Interr Sales	Block 1	412,756	399,723	333,348	335,176	338,653	367,873	408,536	436,313	431,866
	Block 2	615,792	540,021	405,027	359,664	392,729	439,547	608,595	678,153	740,664
	Block 3	333,535	245,616	162,184	166,944	169,485	179,010	348,415	417,009	534,160
	Block 4	430,640	352,655	237,691	229,846	236,240	256,832	434,121	535,870	903,824
	Block 5	250,375	237,595	167,746	157,583	152,737	169,207	261,360	288,292	453,549
	Block 6	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	486,989	464,415	480,192	457,194	444,739	465,908	484,011	507,189	518,326
	Block 2	624,884	580,283	625,946	574,030	557,437	577,762	624,587	646,809	695,049
	Block 3	330,929	302,639	309,138	316,920	261,396	308,693	315,019	382,881	478,716
	Block 4	912,100	739,604	861,697	719,526	665,478	612,898	756,401	1,006,688	1,071,547
	Block 5	145,970	251,569	67,330	138,557	268,706	(225,818)	172,747	341,790	481,660
	Block 6	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	76,100	75,970	76,100	73,547	75,832	76,100	75,970	66,100	65,970
	Block 2	148,406	129,497	113,954	112,582	111,337	117,595	142,645	137,844	158,346
	Block 3	80,000	80,000	73,458	72,226	70,500	73,546	80,000	80,000	90,817
	Block 4	267,903	251,648	188,472	182,910	182,795	204,757	268,130	273,892	297,922
	Block 5	22,150	15,050	-	-	-	-	16,877	35,762	125,774
	Block 6	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	594,853	592,553	605,831	606,019	623,094	626,420	636,589	588,562	582,088
	Block 2	1,075,494	1,090,233	1,091,108	1,116,308	1,159,003	1,158,212	1,169,357	1,018,665	902,820
	Block 3	774,836	743,160	771,537	761,275	862,977	863,784	855,845	673,849	627,809
	Block 4	1,753,651	1,720,035	1,768,719	1,685,050	1,857,579	1,828,866	1,872,691	1,531,462	1,601,142
	Block 5	3,872,020	3,921,694	3,084,220	3,015,124	3,460,129	3,618,655	4,002,106	3,732,399	4,002,664
	Block 6	8,262,980	7,443,941	6,972,347	7,393,012	7,673,906	7,126,016	7,711,579	9,197,076	9,928,212
Total		95,275,448	63,025,618	52,220,524	42,728,038	42,467,937	44,308,976	61,696,481	85,091,353	120,620,635

Schedule 197 Revenue Analys

Rate Schedule	Block	Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Rev	
		Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020
2 R		448,066	265,245	169,990	126,435	102,744	110,840	266,769	488,123	768,319	832,012	691,490	660,851
3 CFS		136,276	86,725	63,055	53,602	46,242	47,978	79,937	139,995	217,943	243,008	203,053	190,979
3 IFS		3,372	2,565	1,917	1,938	1,850	2,562	4,646	5,638	4,363	4,238	4,272	3,991
27		1,056	551	254	86	56	81	431	1,145	1,969	2,225	1,855	1,701
31C Firm Sales	Block 1	9,458	8,276	6,522	5,298	4,573	4,852	7,685	9,143	9,416	9,495	9,462	9,376
	Block 2	6,420	2,712	1,084	748	531	472	1,932	6,199	12,471	14,090	11,033	10,410
31C Firm Transpt	Block 1	938	749	593	504	504	673	836	852	849	852	843	836
	Block 2	1,086	333	192	159	152	279	1,082	1,525	1,982	1,844	1,790	1,600
31I Firm Sales	Block 1	1,838	1,815	1,710	1,654	1,661	1,750	1,857	1,883	1,894	1,823	1,836	1,821
	Block 2	3,164	2,660	2,677	2,366	2,258	2,840	3,911	4,264	4,112	4,076	3,834	3,493
31I Firm Transpt	Block 1	57	57	53	45	44	57	57	69	69	69	69	69
	Block 2	139	86	65	50	52	63	173	236	366	283	285	265
32C Firm Sales	Block 1	14,405	11,154	8,576	7,189	6,258	6,492	10,595	14,311	16,606	17,911	16,883	16,404
	Block 2	3,204	1,562	955	852	822	799	1,415	2,713	5,037	5,846	4,459	4,259
	Block 3	218	85	78	87	119	118	199	185	553	666	417	390
	Block 4	9	-	-	-	-	-	75	59	192	242	256	150
	Block 5	-	-	-	-	-	-	-	38	-	7	-	3
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	1,444	1,390	1,339	1,384	1,467	1,466	1,615	1,576	1,513	1,603	1,594	1,555
	Block 2	1,144	1,088	1,014	1,123	1,157	1,151	1,354	1,374	1,442	1,436	1,389	1,351
	Block 3	229	241	248	313	365	329	339	335	288	426	336	326
	Block 4	29	76	40	59	196	167	85	69	25	114	31	37
	Block 5	-	-	-	-	112	279	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	845	766	647	549	605	679	813	883	917	932	922	926
	Block 2	600	437	299	230	339	378	621	690	795	791	824	734
	Block 3	149	86	54	16	92	66	213	258	279	294	276	242
	Block 4	47	12	6	-	26	9	53	111	163	183	173	169
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	3,180	3,007	2,947	2,917	2,798	2,978	2,945	2,971	2,962	2,968	2,969	2,954
	Block 2	3,911	3,585	3,368	3,275	3,159	3,289	3,683	3,746	3,739	3,860	3,790	3,799
	Block 3	1,877	1,584	1,450	1,459	1,439	1,446	1,633	1,679	1,637	1,766	1,663	1,782
	Block 4	2,206	1,725	1,575	1,548	1,457	1,604	1,946	2,028	2,004	2,032	2,063	2,163
	Block 5	1,096	979	878	877	853	831	1,089	1,108	1,216	1,197	1,178	1,192
	Block 6	83	55	38	41	45	58	121	156	212	187	175	193
32C Interr Sales	Block 1	1,391	1,134	1,060	928	951	1,071	1,269	1,243	1,261	1,256	1,262	1,232
	Block 2	1,630	1,273	1,076	946	902	1,160	1,603	1,662	1,786	1,723	1,731	1,669
	Block 3	628	464	287	261	252	285	656	715	828	765	768	741
	Block 4	399	231	156	156	150	194	414	533	690	648	612	626
	Block 5	-	-	-	-	-	-	-	-	10	17	6	7
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	1,589	1,437	1,443	1,415	1,415	1,393	1,444	1,386	1,519	1,496	1,408	1,441
	Block 2	1,760	1,570	1,445	1,356	1,380	1,332	1,511	1,345	1,620	1,682	1,468	1,610
	Block 3	648	485	405	412	357	421	518	443	561	620	555	659
	Block 4	871	609	446	518	523	390	611	529	547	835	635	779
	Block 5	146	86	34	88	41	29	124	85	139	115	159	163
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	190	240	215	215	215	215	215	215	215	215	216	215
	Block 2	320	351	295	283	276	289	370	386	395	398	394	396
	Block 3	150	156	148	144	143	146	151	165	179	168	157	159
	Block 4	322	295	268	261	255	277	333	342	355	348	343	349
	Block 5	146	118	101	93	88	109	166	195	242	231	215	221
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	1,636	1,499	1,554	1,476	1,576	1,632	1,615	1,587	1,467	1,431	1,507	1,518
	Block 2	2,381	2,341	2,422	2,337	2,466	2,620	2,718	2,441	2,059	2,038	2,233	2,336
	Block 3	1,187	1,257	1,096	1,206	1,216	1,257	1,441	1,198	993	1,041	1,127	1,107
	Block 4	1,717	1,595	1,456	1,544	1,828	1,865	1,861	1,488	1,484	1,609	1,628	1,690
	Block 5	2,386	1,928	1,805	1,662	1,998	1,837	2,264	2,089	2,031	2,198	2,119	2,225
	Block 6	1,836	1,610	1,473	1,695	1,670	1,610	1,998	2,040	2,151	2,257	1,776	2,114
Total		667,880	418,287	288,811	231,799	199,677	212,720	419,397	713,448	1,083,865	1,177,569	989,537	945,277
		Annual Apr-Mar Authorized Variance											7,348,267 7,100,000 248,267

Schedule 197 Revenue Analys

		enues	Actual Sch. 197 Revenues			Actual Sch. 197 Revenues			Actual Sch. 197 Revenues			Actual Sch. 197 Revenues		
Rate Schedule	Block	Apr 2020	May 2020	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	
2 R		518,028	278,050	209,398	147,799	109,589	114,259	165,761	478,033	777,500	800,368	811,773	706,061	
3 CFS		135,041	67,721	53,700	45,420	38,049	38,956	49,692	124,007	205,469	215,421	219,418	198,718	
3 IFS		3,194	2,033	1,778	1,621	1,391	2,278	3,528	5,437	4,287	4,270	4,353	4,211	
27		1,249	540	317	135	48	41	133	714	1,332	1,295	1,276	1,148	
31C Firm Sales	Block 1	8,318	6,322	5,036	4,285	3,540	3,629	4,942	8,286	9,036	9,076	9,011	9,091	
	Block 2	6,151	1,584	728	455	310	277	628	4,965	11,434	11,790	11,532	11,066	
31C Firm Transpt	Block 1	805	734	615	496	474	529	807	849	848	849	848	852	
	Block 2	720	337	163	98	115	114	462	1,329	1,685	1,556	1,575	1,406	
31I Firm Sales	Block 1	1,777	1,674	1,583	1,571	1,525	1,599	1,677	1,799	1,785	1,804	1,787	1,792	
	Block 2	3,139	2,310	2,065	2,302	1,988	2,482	3,145	3,154	3,997	3,993	3,959	3,739	
31I Firm Transpt	Block 1	69	57	80	61	66	75	78	80	77	80	80	80	
	Block 2	128	76	97	75	88	76	151	226	232	208	212	213	
32C Firm Sales	Block 1	13,376	8,984	7,228	5,928	4,937	5,299	6,862	12,439	16,261	16,385	16,268	16,016	
	Block 2	2,726	950	764	614	598	590	774	2,104	4,472	4,920	4,898	4,781	
	Block 3	190	121	51	42	54	94	102	136	487	582	497	562	
	Block 4	80	20	1	-	-	6	-	1	92	41	91	172	
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Firm Sales	Block 1	1,556	1,502	1,484	1,551	1,484	1,534	1,590	1,632	1,727	1,703	1,684	1,657	
	Block 2	1,303	1,100	1,112	1,148	1,030	1,062	1,134	1,298	1,541	1,456	1,394	1,379	
	Block 3	284	220	229	308	293	335	314	334	363	320	261	302	
	Block 4	20	34	41	64	42	30	35	50	37	49	32	36	
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32C Firm Transpt	Block 1	747	664	589	549	536	605	791	769	760	760	755	787	
	Block 2	426	328	241	204	193	261	463	464	608	587	628	698	
	Block 3	159	81	60	52	45	49	113	182	192	182	182	196	
	Block 4	52	12	13	19	14	11	74	142	119	138	166	162	
	Block 5	-	-	-	-	-	-	-	11	-	-	-	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Firm Transpt	Block 1	2,772	2,687	2,858	2,701	2,745	2,718	2,773	2,705	2,791	2,772	2,774	2,811	
	Block 2	3,287	3,073	3,280	3,060	3,027	3,016	3,433	3,476	3,633	3,635	3,532	3,717	
	Block 3	1,501	1,310	1,501	1,347	1,372	1,351	1,579	1,566	1,672	1,705	1,672	1,746	
	Block 4	1,701	1,583	1,607	1,435	1,459	1,320	1,665	1,882	1,946	2,092	2,019	2,230	
	Block 5	994	924	808	767	694	633	851	969	1,026	1,106	1,072	1,054	
	Block 6	112	91	69	68	70	68	115	168	229	227	182	212	
32C Interr Sales	Block 1	1,171	1,039	1,031	921	911	939	1,144	1,209	1,220	1,217	1,210	1,214	
	Block 2	1,354	1,137	1,046	889	888	909	1,437	1,663	1,759	1,780	1,635	1,759	
	Block 3	510	367	286	254	257	262	465	749	789	793	713	806	
	Block 4	380	273	190	160	151	171	305	662	784	772	598	727	
	Block 5	-	-	-	-	-	-	-	181	221	205	169	190	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Interr Sales	Block 1	1,344	1,398	1,443	1,330	1,319	1,294	1,420	1,374	1,395	1,432	1,380	1,558	
	Block 2	1,484	1,454	1,561	1,368	1,357	1,362	1,506	1,432	1,525	1,575	1,455	1,808	
	Block 3	491	484	558	454	494	397	479	557	607	635	553	800	
	Block 4	533	573	705	609	655	522	666	558	724	722	690	1,252	
	Block 5	33	26	185	93	110	-	70	153	96	152	78	264	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32C Inter Transpt	Block 1	215	215	215	213	204	208	215	190	190	190	173	208	
	Block 2	343	313	292	279	281	288	333	346	359	364	341	384	
	Block 3	150	150	150	150	143	142	150	120	128	129	135	131	
	Block 4	328	306	282	262	253	264	317	262	276	273	258	260	
	Block 5	151	132	106	97	89	88	134	25	47	46	42	42	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Inter Transpt	Block 1	1,493	1,545	1,485	1,476	1,512	1,563	1,574	1,538	1,500	1,456	1,423	1,519	
	Block 2	2,274	2,308	2,323	2,308	2,370	2,369	2,572	2,245	2,211	2,099	1,955	2,290	
	Block 3	981	1,084	1,122	1,124	1,133	1,119	1,280	1,068	1,113	1,038	1,002	1,180	
	Block 4	1,350	1,439	1,581	1,624	1,625	1,414	1,717	1,550	1,583	1,571	1,450	1,791	
	Block 5	1,730	1,890	1,624	1,492	1,612	1,705	1,941	1,919	1,978	2,048	1,652	2,344	
	Block 6	1,921	1,552	1,619	1,727	1,926	1,387	2,231	2,199	2,450	2,418	2,235	2,348	
Total		728,141	402,810	315,297	241,006	193,066	199,698	273,628	679,212	1,076,592	1,110,288	1,123,079	999,771	
													Annual Apr-Mar	7,342,588
													Authorized	7,100,000
													Variance	242,588

Schedule 197 Revenue Analys

Rate Schedule	Block	Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		
		Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
2 R		510,383	263,943	192,028	112,122	98,602	113,372	232,796	420,519	692,677
3 CFS		148,834	79,868	62,787	44,178	41,440	45,729	69,819	115,697	190,093
3 IFS		3,614	2,420	2,091	1,700	1,709	2,520	3,989	5,174	4,090
27		850	335	172	42	8	37	265	793	1,269
31C Firm Sales	Block 1	8,795	7,531	6,336	4,114	3,632	4,227	6,621	8,279	8,970
	Block 2	7,172	2,197	1,025	297	242	400	1,495	4,765	10,325
31C Firm Transpt	Block 1	837	767	514	425	439	552	835	851	852
	Block 2	599	211	89	105	107	127	556	1,008	2,003
31I Firm Sales	Block 1	1,755	1,683	1,626	1,564	1,568	1,640	1,773	1,774	1,721
	Block 2	3,336	2,640	2,670	2,346	2,231	2,872	3,476	3,265	3,817
31I Firm Transpt	Block 1	78	70	68	61	67	77	80	80	75
	Block 2	150	112	69	88	92	105	173	207	293
32C Firm Sales	Block 1	14,239	10,613	8,686	5,979	5,499	6,300	9,377	12,924	16,052
	Block 2	3,088	1,509	1,016	664	655	668	1,074	2,369	4,422
	Block 3	456	121	109	111	78	105	155	205	402
	Block 4	257	(134)	-	-	-	-	37	13	34
	Block 5	224	(224)	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	1,637	1,547	1,479	1,490	1,549	1,583	1,677	1,641	1,718
	Block 2	1,234	1,116	1,032	1,041	1,101	1,106	1,195	1,154	1,515
	Block 3	255	245	253	287	268	341	289	211	272
	Block 4	21	20	15	55	53	69	56	9	23
	Block 5	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	724	667	534	494	501	565	656	708	752
	Block 2	523	311	228	213	239	258	445	506	686
	Block 3	144	72	62	36	52	72	87	134	190
	Block 4	53	18	17	18	17	29	75	114	198
	Block 5	-	-	-	-	-	-	-	-	3
	Block 6	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	2,808	2,798	2,793	2,755	2,778	2,820	2,847	2,849	2,820
	Block 2	3,472	3,383	3,164	3,112	3,217	3,280	3,583	3,647	3,837
	Block 3	1,551	1,486	1,449	1,404	1,466	1,444	1,525	1,613	1,762
	Block 4	1,894	1,806	1,574	1,450	1,571	1,590	1,868	1,923	2,195
	Block 5	864	840	672	768	758	864	1,103	1,137	1,327
	Block 6	145	136	98	95	95	95	143	159	271
32C Interr Sales	Block 1	1,176	1,139	950	955	965	1,048	1,164	1,243	1,231
	Block 2	1,496	1,312	984	874	954	1,068	1,479	1,648	1,800
	Block 3	570	420	277	285	290	306	596	713	913
	Block 4	431	353	238	230	236	257	434	536	904
	Block 5	143	135	96	90	87	96	149	164	259
	Block 6	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	1,388	1,324	1,369	1,303	1,268	1,328	1,379	1,445	1,477
	Block 2	1,512	1,404	1,515	1,389	1,349	1,398	1,512	1,565	1,682
	Block 3	566	518	529	542	447	528	539	655	819
	Block 4	912	740	862	720	665	613	756	1,007	1,072
	Block 5	83	143	38	79	153	(129)	98	195	275
	Block 6	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	190	190	190	184	190	190	190	165	165
	Block 2	315	275	242	239	236	249	302	292	336
	Block 3	120	120	110	108	106	110	120	120	136
	Block 4	233	219	164	159	159	178	233	238	259
	Block 5	11	8	-	-	-	-	8	18	63
	Block 6	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	1,487	1,481	1,515	1,515	1,558	1,566	1,591	1,471	1,455
	Block 2	2,280	2,311	2,313	2,367	2,457	2,455	2,479	2,160	1,914
	Block 3	1,162	1,115	1,157	1,142	1,294	1,296	1,284	1,011	942
	Block 4	1,526	1,496	1,539	1,466	1,616	1,591	1,629	1,332	1,393
	Block 5	1,936	1,961	1,542	1,508	1,730	1,809	2,001	1,866	2,001
	Block 6	2,066	1,861	1,743	1,848	1,918	1,782	1,928	2,299	2,482
Total		739,596	406,634	310,026	204,019	187,713	210,590	367,943	613,875	976,239

**BEFORE THE
PUBLIC UTILITY COMMISSION OF OREGON
UG 435**

)
In the Matter of)
)
NORTHWEST NATURAL GAS)
CORPORATION, dba NW NATURAL,)
)
Request for a General Rate Revision.)
<hr/>)

AWEC/107

Schedule 183 – Environmental Cost Recovery Revenue Analysis

**OPENING TESTIMONY OF BRADLEY G. MULLINS
ON BEHALF OF
ALLIANCE OF WESTERN ENERGY CONSUMERS**

April 22, 2022

Schedule 182 Revenue Analysis

Rate Schedule	Block	Rate Case Volumes	Sch. 182 Rate	Sch. 182 Rate Case. Rev.
2 R		405,331,797	0.0097600	3,956,038
3 CFS		169,645,064	0.0069000	1,170,551
3 IFS		5,085,467	0.0058600	29,801
27		791,922	0.0071000	5,623
31C Firm Sales	Block 1	11,937,946	0.0048000	57,302
	Block 2	9,663,405	0.0043800	42,326
31C Firm Transpt	Block 1	1,197,319	0.0036900	4,418
	Block 2	1,398,405	0.0033400	4,671
31I Firm Sales	Block 1	3,902,829	0.0061800	24,119
	Block 2	8,292,255	0.0056400	46,768
31I Firm Transpt	Block 1	135,565	0.0039700	538
	Block 2	370,003	0.0035900	1,328
32C Firm Sales	Block 1	34,405,848	0.0023100	79,478
	Block 2	8,996,941	0.0019600	17,634
	Block 3	1,505,090	0.0013900	2,092
	Block 4	421,439	0.0008100	341
	Block 5	-	0.0004600	-
	Block 6	-		-
32I Firm Sales	Block 1	6,124,832	0.0022100	13,536
	Block 2	5,730,496	0.0018800	10,773
	Block 3	1,686,931	0.0013200	2,227
	Block 4	347,849	0.0007700	268
	Block 5	-	0.0004400	-
	Block 6	-		-
32C Firm Transpt	Block 1	2,540,213	0.0020600	5,233
	Block 2	2,049,162	0.0017500	3,586
	Block 3	949,358	0.0012400	1,177
	Block 4	949,827	0.0007200	684
	Block 5	17,547	0.0004100	7
	Block 6	-	0.0002100	-
32I Firm Transpt	Block 1	9,361,047	0.0020600	19,284
	Block 2	13,921,392	0.0017500	24,362
	Block 3	9,497,411	0.0012400	11,777
	Block 4	21,833,039	0.0007200	15,720
	Block 5	19,320,860	0.0004100	7,922
	Block 6	8,213,069	0.0002100	1,725
32C Interr Sales	Block 1	4,230,356	0.0022500	9,518
	Block 2	5,471,563	0.0019100	10,451
	Block 3	3,207,435	0.0013500	4,330
	Block 4	7,046,824	0.0007900	5,567
	Block 5	5,054,642	0.0004500	2,275
	Block 6	-		-
32I Interr Sales	Block 1	5,956,730	0.0021100	12,569
	Block 2	8,077,570	0.0018000	14,540
	Block 3	4,456,220	0.0012700	5,659
	Block 4	10,249,052	0.0007400	7,584
	Block 5	7,342,584	0.0004200	3,084
	Block 6	-		-
32C Inter Transpt	Block 1	995,681	0.0019300	1,922
	Block 2	1,519,237	0.0016400	2,492
	Block 3	877,075	0.0011600	1,017
	Block 4	3,005,603	0.0006700	2,014
	Block 5	462,553	0.0003900	180
	Block 6	-	0.0001900	-
32I Inter Transpt	Block 1	5,656,512	0.0019300	10,917
	Block 2	9,633,242	0.0016400	15,799
	Block 3	7,305,771	0.0011600	8,475
	Block 4	22,439,448	0.0006700	15,034
	Block 5	44,236,972	0.0003900	17,252
	Block 6	99,230,818	0.0001900	18,854
Total		1,022,080,218		5,730,841
			Authorized Variance	5,000,000 730,841

Schedule 182 Revenue Analys

Rate Schedule	Block	Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes	
		Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018
2 R		69,409,452	51,091,503	55,090,820	40,195,291	20,918,061	12,508,006	9,455,901	7,497,492	8,901,862	14,263,604	28,600,020	55,572,157
3 CFS		28,648,637	20,833,410	23,009,541	16,872,683	9,667,740	6,686,940	5,652,577	4,844,124	5,394,349	6,849,939	11,393,323	22,328,565
3 IFS		588,791	493,560	532,971	444,194	291,365	229,894	215,937	228,003	368,880	375,866	559,734	515,788
27		213,420	151,870	165,457	118,723	57,826	19,604	9,457	5,118	8,228	26,142	88,473	191,892
31C Firm Sales	Block 1	1,408,970	1,395,481	1,394,139	1,367,420	1,190,317	893,812	727,225	615,733	692,587	922,858	1,213,345	1,322,027
	Block 2	2,584,947	1,660,255	1,958,162	1,267,978	457,450	179,270	119,507	69,744	81,676	156,046	557,955	1,665,161
31C Firm Transpt	Block 1	136,724	152,754	140,439	143,892	118,290	102,255	78,437	82,151	96,530	134,818	147,609	152,079
	Block 2	289,503	317,158	262,612	159,530	53,596	29,911	25,576	28,022	34,190	79,922	235,110	365,164
31I Firm Sales	Block 1	375,719	391,586	383,940	386,132	372,354	347,929	340,053	333,009	360,787	386,049	376,381	379,928
	Block 2	1,025,665	859,401	859,662	762,474	592,420	560,045	584,052	535,127	688,297	953,302	666,352	886,163
31I Firm Transpt	Block 1	10,000	10,000	10,000	10,000	10,000	9,943	7,880	7,641	10,000	8,000	12,000	12,000
	Block 2	45,931	45,134	40,283	26,495	14,114	11,721	9,717	9,839	13,857	16,746	38,345	45,662
32C Firm Sales	Block 1	3,785,198	3,443,146	3,544,895	3,215,577	2,434,206	1,822,096	1,526,561	1,211,044	1,476,269	1,950,406	2,640,799	3,595,236
	Block 2	1,873,865	1,121,123	1,350,305	827,610	369,058	235,788	214,178	151,005	238,557	302,856	528,470	1,267,318
	Block 3	249,093	98,450	132,626	86,114	21,655	24,643	26,250	28,450	26,541	34,844	52,918	165,110
	Block 4	7,783	(2,535)	13,148	-	-	-	-	-	-	-	23,812	40,334
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	454,359	465,819	471,499	456,708	449,047	453,561	457,753	400,245	496,052	484,477	432,752	455,685
	Block 2	582,177	530,417	539,070	524,418	486,642	444,537	471,641	340,103	473,057	451,940	411,346	496,279
	Block 3	194,564	173,930	165,041	144,269	151,675	146,085	158,862	124,514	178,064	148,103	108,825	149,933
	Block 4	88,495	58,769	87,330	61,908	65,805	52,794	83,092	60,108	66,115	45,541	45,978	37,665
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	558,776	548,962	547,137	484,866	343,157	308,835	245,207	264,118	311,997	340,880	574,346	577,808
	Block 2	281,083	302,971	299,353	246,578	117,772	106,647	100,944	123,604	125,470	153,542	293,320	288,694
	Block 3	155,068	138,387	157,589	73,519	10,027	31,115	29,801	53,784	27,487	53,522	149,654	144,563
	Block 4	130,790	127,430	113,618	43,744	-	9,856	4,169	14,792	1,132	5,508	61,820	102,084
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	967,173	974,360	976,914	955,449	946,113	943,692	921,762	930,640	879,577	807,075	1,127,395	1,054,593
	Block 2	1,460,153	1,427,206	1,445,449	1,336,533	1,278,350	1,200,957	1,187,511	1,221,893	1,167,967	1,116,113	1,672,493	1,609,002
	Block 3	950,241	887,888	891,099	814,148	771,918	735,679	735,863	763,066	681,952	703,109	1,075,906	1,066,499
	Block 4	2,005,862	1,842,929	1,924,582	1,689,000	1,581,441	1,451,916	1,339,926	1,437,417	1,265,652	1,417,649	1,953,120	2,091,941
	Block 5	1,959,988	1,877,227	2,002,781	1,884,409	1,719,473	1,467,326	1,468,394	1,460,181	1,338,859	1,321,872	2,285,329	2,327,111
	Block 6	533,131	477,019	518,180	260,527	122,078	56,955	42,221	32,170	72,098	-	532,244	626,174
32C Interr Sales	Block 1	483,146	497,961	502,790	479,069	454,564	411,208	374,165	371,409	415,163	471,607	471,880	483,924
	Block 2	782,508	766,874	779,912	651,889	562,749	465,169	412,387	420,226	479,289	607,733	690,935	769,136
	Block 3	458,974	436,963	491,579	357,491	252,091	182,409	149,487	150,315	172,282	280,014	413,551	475,159
	Block 4	664,461	612,994	706,734	349,409	303,597	165,073	133,712	142,687	173,656	264,447	514,884	737,550
	Block 5	10,455	1,261	-	-	-	-	-	-	-	-	-	6,804
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	535,549	576,691	554,271	530,363	534,182	515,493	501,005	468,058	516,683	518,087	526,895	511,123
	Block 2	654,312	678,231	717,008	658,203	687,412	626,346	610,414	603,492	636,929	642,593	620,523	618,864
	Block 3	346,685	358,327	409,150	330,072	310,853	293,331	256,561	260,139	288,803	313,463	288,168	297,876
	Block 4	796,540	674,691	902,635	700,394	780,491	713,490	627,988	640,208	561,015	544,331	518,751	464,290
	Block 5	351,547	184,533	332,908	317,035	172,785	250,868	59,403	47,173	105,020	109,978	43,681	121,176
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	69,104	69,331	69,132	69,109	69,070	69,100	69,070	69,070	69,100	69,070	86,100	85,978
	Block 2	157,244	156,561	157,438	146,278	129,873	124,253	118,204	119,977	124,207	117,130	196,307	186,006
	Block 3	120,000	118,764	104,159	100,000	100,000	97,091	95,149	93,707	94,794	80,000	120,339	108,951
	Block 4	407,767	389,542	395,913	367,954	328,366	306,468	280,708	289,756	314,114	347,167	389,921	408,574
	Block 5	411,164	392,948	398,469	307,689	233,615	200,710	176,866	181,099	218,265	258,217	368,408	473,587
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	593,808	643,948	646,439	644,889	674,413	638,896	666,089	639,168	639,966	616,349	650,942	637,661
	Block 2	1,065,780	1,164,722	1,213,545	1,198,565	1,227,850	1,186,556	1,258,590	1,215,753	1,188,064	1,185,575	1,135,746	954,592
	Block 3	838,684	818,975	848,874	820,010	906,601	786,279	870,644	859,834	808,998	839,911	775,083	598,492
	Block 4	2,010,377	2,049,505	2,092,477	1,973,423	1,984,907	1,913,838	2,056,622	2,185,362	1,944,453	1,796,578	1,814,899	1,557,724
	Block 5	4,374,494	3,956,625	4,430,971	4,168,084	3,832,209	3,554,015	3,674,184	3,568,407	3,495,146	3,169,511	4,164,663	3,493,502
	Block 6	7,542,268	6,103,416	8,114,832	6,686,193	7,522,721	7,054,189	6,425,256	6,371,394	6,040,350	4,292,783	9,763,942	6,954,841
Total		143,650,423	112,548,475	122,897,877	95,716,308	65,680,298	50,626,595	45,056,957	41,570,370	43,764,384	50,035,272	81,414,791	119,478,425

Schedule 182 Revenue Analys

Rate Schedule	Block	Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volur
		Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	
2 R		64,629,409	63,941,881	65,653,659	34,814,757	20,609,593	13,208,269	9,824,026	7,983,233	8,612,264	20,727,992	37,927,193	59,698,423	
3 CFS		26,532,651	26,474,221	28,128,076	15,091,522	9,604,120	6,982,885	5,936,033	5,120,922	5,313,216	8,852,424	15,503,352	24,135,384	
3 IFS		588,864	613,603	638,309	437,870	333,119	248,960	251,744	240,232	332,729	603,370	732,159	566,667	
27		215,192	205,426	205,244	107,074	55,872	25,800	8,714	5,710	8,254	43,728	116,148	199,733	
31C Firm Sales	Block 1	1,326,935	1,321,256	1,340,997	1,315,372	1,151,002	907,139	736,808	636,048	674,863	1,068,854	1,271,605	1,309,602	
	Block 2	2,109,609	2,050,148	2,320,315	977,207	412,807	165,025	113,915	80,862	71,889	294,079	943,536	1,898,173	
31C Firm Transpt	Block 1	146,339	144,097	100,707	129,966	103,782	82,126	69,869	69,757	93,277	115,837	118,059	117,614	
	Block 2	369,305	400,940	220,607	164,565	50,435	29,052	24,153	23,105	42,318	163,999	231,093	300,240	
31I Firm Sales	Block 1	379,775	379,823	382,648	364,013	359,378	338,650	327,553	328,901	346,474	367,801	372,870	375,008	
	Block 2	926,731	912,952	958,126	692,331	582,093	585,714	517,655	494,036	621,448	855,721	933,047	899,733	
31I Firm Transpt	Block 1	10,000	10,000	10,000	10,000	10,000	9,310	7,884	7,613	9,891	10,000	12,000	12,000	
	Block 2	44,613	49,790	38,232	26,696	16,624	12,600	9,603	10,008	12,160	33,329	45,495	70,511	
32C Firm Sales	Block 1	3,826,639	3,751,605	3,996,780	3,397,466	2,630,718	2,022,703	1,695,438	1,476,042	1,531,179	2,498,887	3,375,154	3,916,421	
	Block 2	1,584,608	1,582,662	1,842,769	889,957	434,003	265,275	236,715	228,326	221,869	393,186	753,565	1,399,204	
	Block 3	247,249	197,846	296,748	86,019	33,549	30,566	34,204	46,800	46,386	78,466	72,821	217,866	
	Block 4	44,361	31,498	61,553	6,381	-	-	-	-	-	50,437	39,808	129,996	
	Block 5	-	-	-	-	-	-	-	-	-	-	52,653	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Firm Sales	Block 1	443,516	444,141	456,148	470,433	452,838	436,006	450,705	477,786	477,604	526,145	513,423	492,835	
	Block 2	486,942	516,865	482,451	438,226	416,680	388,639	430,090	443,212	440,906	518,719	526,416	552,486	
	Block 3	157,644	147,288	150,841	124,605	131,052	135,046	170,054	198,530	178,831	184,150	182,255	156,754	
	Block 4	40,153	23,881	34,635	26,435	69,960	37,445	54,633	181,440	154,326	78,499	63,931	23,454	
	Block 5	-	-	-	-	-	-	-	203,092	506,589	-	-	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32C Firm Transpt	Block 1	577,763	592,569	300,252	279,796	253,705	214,150	181,866	200,451	224,696	269,154	292,295	303,787	
	Block 2	292,603	316,587	312,015	234,544	170,786	116,796	89,751	132,337	147,740	242,637	269,593	310,722	
	Block 3	147,610	157,489	136,168	82,075	47,331	29,915	9,090	50,642	36,663	117,650	142,639	153,891	
	Block 4	145,738	201,139	126,146	44,042	11,195	5,373	-	24,277	8,294	50,272	104,389	153,539	
	Block 5	-	349	-	-	-	-	-	-	-	-	-	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Firm Transpt	Block 1	1,024,139	959,317	1,055,196	1,052,840	995,782	975,864	965,900	926,344	986,117	975,107	983,869	980,774	
	Block 2	1,584,239	1,481,044	1,648,787	1,527,904	1,400,429	1,315,765	1,279,302	1,233,791	1,284,828	1,438,844	1,463,322	1,460,555	
	Block 3	1,067,884	971,164	1,099,664	1,036,886	875,224	800,974	806,324	795,000	799,103	902,345	927,640	904,435	
	Block 4	2,031,766	1,865,289	2,117,412	2,081,218	1,627,628	1,485,860	1,459,906	1,374,422	1,513,562	1,835,985	1,913,129	1,890,146	
	Block 5	1,985,539	2,093,163	2,294,635	1,827,160	1,630,843	1,463,565	1,461,261	1,421,462	1,384,875	1,814,250	1,846,996	2,026,617	
	Block 6	660,453	640,666	516,755	275,793	184,636	125,931	138,154	151,602	193,288	403,939	518,583	706,342	
32C Interr Sales	Block 1	475,888	482,042	431,688	488,062	398,026	371,863	325,520	333,737	375,696	445,209	436,237	442,359	
	Block 2	749,837	745,700	627,879	670,617	523,832	442,900	389,292	371,205	477,407	659,792	683,747	734,827	
	Block 3	492,189	441,770	377,863	367,269	271,606	167,825	152,807	147,283	166,814	383,620	417,888	484,433	
	Block 4	749,098	585,898	431,597	398,971	230,503	155,746	155,860	150,249	194,481	414,444	532,800	690,338	
	Block 5	20,242	-	-	-	-	-	-	-	-	-	-	18,053	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Interr Sales	Block 1	523,122	492,591	521,326	557,536	504,078	506,357	496,457	496,321	488,802	506,539	486,320	532,936	
	Block 2	670,902	560,583	605,985	727,096	648,887	596,937	560,174	570,187	550,236	624,515	555,806	669,591	
	Block 3	353,497	297,022	311,946	379,130	283,777	236,740	240,871	208,967	246,126	303,110	258,795	327,988	
	Block 4	669,204	597,378	589,508	871,335	609,028	446,184	517,519	522,743	389,810	611,313	529,099	546,984	
	Block 5	116,275	137,949	122,945	255,322	150,004	58,814	153,701	72,106	51,538	217,708	148,590	243,507	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32C Inter Transpt	Block 1	86,168	86,681	86,022	76,137	95,975	86,100	85,970	85,970	86,100	85,977	86,146	86,056	
	Block 2	186,948	190,152	183,967	151,148	165,641	139,256	133,628	129,974	136,366	174,671	181,911	186,336	
	Block 3	110,429	119,568	107,154	100,000	104,133	98,403	96,216	95,461	97,520	100,747	109,760	119,222	
	Block 4	408,794	400,639	400,806	369,910	339,006	307,710	299,534	292,874	318,131	383,119	393,311	407,608	
	Block 5	464,636	521,255	440,319	292,003	236,727	201,617	186,172	176,791	217,740	331,637	389,599	484,901	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Inter Transpt	Block 1	589,622	524,908	638,201	654,291	599,415	621,569	590,273	630,575	652,731	646,049	634,671	586,895	
	Block 2	1,007,210	768,127	1,137,008	1,123,288	1,104,156	1,142,302	1,102,144	1,163,191	1,235,974	1,282,027	1,151,615	971,032	
	Block 3	642,866	544,803	783,959	791,663	837,689	730,866	804,255	810,626	837,836	960,838	798,538	662,195	
	Block 4	1,647,988	1,479,013	1,948,247	1,973,241	1,833,689	1,673,528	1,774,519	2,100,612	2,143,685	2,138,702	1,710,522	1,705,515	
	Block 5	3,466,330	3,319,098	4,661,539	4,771,235	3,855,226	3,610,633	3,323,898	3,996,708	3,674,073	4,527,763	4,178,484	4,062,544	
	Block 6	7,118,143	6,945,487	7,554,189	7,345,248	6,441,463	5,893,867	6,780,615	6,680,461	6,441,146	7,992,710	8,158,865	8,603,288	
Total		134,177,656	131,719,362	138,888,021	90,376,655	63,888,044	49,934,620	45,460,774	43,602,022	45,057,849	68,306,297	94,091,739	127,929,520	

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Rate Schedule	Block	nes	Actual Volumes			Actual Volumes			Actual Volumes			Actual Volumes		
		Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	
2 R			64,647,432	53,728,829	51,348,162	40,250,853	21,604,521	16,270,208	11,484,031	8,515,055	8,877,970	12,879,638	37,143,218	60,411,839
3 CFS			26,911,238	22,486,544	21,149,338	14,954,710	7,499,604	5,946,795	5,029,909	4,213,627	4,314,019	5,502,966	13,732,807	22,754,083
3 IFS			550,407	554,744	518,340	414,782	264,014	230,946	210,535	180,628	295,781	458,189	706,144	556,726
27			225,667	188,093	172,472	126,698	54,803	32,126	13,733	4,918	4,142	13,513	72,415	135,046
31C Firm Sales	Block 1		1,320,521	1,316,052	1,304,066	1,156,894	879,272	700,358	595,964	492,393	504,705	687,369	1,152,434	1,256,776
	Block 2		2,144,650	1,679,304	1,584,539	936,152	241,116	110,782	69,263	47,206	42,110	95,644	755,775	1,740,303
31C Firm Transpt	Block 1		118,005	116,720	115,739	111,466	101,716	85,127	68,698	65,621	73,319	111,815	117,650	117,437
	Block 2		279,391	271,234	242,412	109,031	51,041	24,632	14,902	17,488	17,274	70,064	201,404	255,260
31I Firm Sales	Block 1		361,055	363,508	360,614	351,886	331,486	313,527	311,177	302,022	316,680	332,035	356,154	353,486
	Block 2		891,967	838,859	764,348	686,905	505,452	451,859	503,790	434,991	543,032	688,125	690,262	874,676
31I Firm Transpt	Block 1		12,000	12,000	12,000	12,000	10,000	14,000	10,616	11,499	13,153	13,522	14,000	13,358
	Block 2		54,478	54,884	51,130	24,585	14,553	18,614	14,524	16,931	14,600	29,186	43,612	44,624
32C Firm Sales	Block 1		4,224,408	3,981,857	3,868,770	3,154,751	2,118,907	1,704,813	1,398,122	1,164,470	1,249,711	1,618,325	2,933,666	3,835,229
	Block 2		1,623,850	1,238,531	1,182,923	757,278	263,862	212,243	170,615	166,136	164,019	214,908	584,461	1,242,236
	Block 3		262,082	164,013	153,533	74,836	47,481	20,000	16,688	21,421	36,855	40,034	53,707	191,902
	Block 4		163,326	172,875	101,062	53,800	13,482	649	-	-	3,944	-	441	61,880
	Block 5		10,211	-	3,796	-	-	-	-	-	-	-	-	-
	Block 6		-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1		522,123	519,085	506,602	506,984	489,298	483,315	505,277	483,385	499,816	518,063	531,669	562,663
	Block 2		550,071	532,137	517,743	499,398	421,278	425,891	439,892	394,537	406,747	434,640	497,475	590,525
	Block 3		231,398	182,352	176,923	154,255	119,360	124,513	167,150	159,019	182,318	170,644	181,449	197,385
	Block 4		105,241	28,725	33,906	18,899	31,418	37,532	59,269	39,009	27,689	32,646	46,567	34,250
	Block 5		-	-	-	-	-	-	-	-	-	-	-	-
	Block 6		-	-	-	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1		308,579	305,228	306,544	247,490	219,702	195,173	181,821	177,469	200,456	261,759	254,478	251,807
	Block 2		309,127	322,056	286,525	166,230	128,073	94,062	79,604	75,354	101,770	180,938	181,192	237,307
	Block 3		162,630	152,614	133,818	87,600	44,902	33,040	28,834	24,599	27,189	62,572	100,514	106,242
	Block 4		173,043	163,339	159,037	49,285	11,748	12,531	17,890	13,632	10,846	70,155	133,624	112,257
	Block 5		-	-	-	-	-	-	-	-	-	-	17,547	-
	Block 6		-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1		982,647	982,985	978,087	917,858	889,783	946,389	894,441	908,882	900,152	918,138	895,627	924,206
	Block 2		1,507,665	1,480,311	1,484,096	1,284,030	1,200,565	1,281,095	1,195,407	1,182,237	1,177,990	1,340,997	1,357,829	1,419,229
	Block 3		975,808	918,909	984,682	829,155	723,728	829,143	744,174	757,768	746,290	872,291	865,366	923,483
	Block 4		1,917,150	1,946,360	2,040,465	1,604,314	1,493,087	1,515,593	1,353,316	1,376,473	1,244,927	1,570,840	1,775,757	1,835,826
	Block 5		1,995,631	1,962,863	1,987,062	1,656,263	1,540,447	1,346,585	1,278,055	1,156,828	1,054,345	1,418,222	1,614,950	1,710,824
	Block 6		622,215	583,171	643,093	372,221	303,883	229,034	226,460	234,333	225,584	383,261	560,868	762,371
32C Interr Sales	Block 1		440,807	442,981	432,301	410,991	364,727	361,804	323,020	319,559	329,554	401,287	424,291	428,142
	Block 2		709,171	712,473	687,008	557,329	468,016	430,543	365,723	365,509	374,052	591,209	684,344	723,842
	Block 3		447,541	449,336	433,287	298,377	214,481	167,210	148,384	150,465	153,328	272,098	438,005	461,269
	Block 4		648,187	612,262	625,915	379,562	273,454	190,336	160,151	150,632	170,629	304,602	661,814	783,921
	Block 5		30,436	10,139	11,433	-	-	-	-	-	-	-	318,396	387,342
	Block 6		-	-	-	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1		524,925	494,202	505,619	471,722	490,530	506,454	466,652	462,793	454,102	498,198	482,088	489,408
	Block 2		694,973	606,671	665,336	613,296	600,910	645,052	565,171	560,661	562,903	622,132	591,761	630,252
	Block 3		362,337	324,634	385,116	286,992	283,058	326,075	265,290	288,888	232,430	280,309	325,884	354,975
	Block 4		834,576	635,115	779,130	533,128	572,818	705,493	609,166	654,924	521,524	666,002	557,727	724,337
	Block 5		201,019	278,856	286,128	58,070	45,459	323,820	163,750	193,831	-	122,939	268,175	168,987
	Block 6		-	-	-	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1		85,998	86,294	85,973	86,100	85,970	86,100	85,263	81,424	83,096	85,970	76,100	76,000
	Block 2		187,892	185,977	186,918	161,895	147,481	137,909	131,503	132,699	135,672	157,234	163,166	169,263
	Block 3		112,118	104,795	105,738	100,000	100,000	100,000	99,898	95,023	94,371	100,000	80,000	85,240
	Block 4		400,411	393,866	401,378	377,085	352,297	324,040	300,738	290,986	303,271	364,139	301,591	316,840
	Block 5		461,600	429,616	441,707	301,272	263,936	212,930	193,644	178,455	176,751	267,646	50,779	93,178
	Block 6		-	-	-	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1		572,467	602,690	607,302	597,157	618,154	593,994	590,327	604,912	625,098	629,716	615,389	600,023
	Block 2		961,433	1,053,294	1,102,089	1,072,564	1,088,744	1,095,643	1,088,558	1,117,805	1,117,440	1,213,358	1,058,970	1,042,790
	Block 3		694,256	751,080	738,165	654,166	722,947	747,950	749,046	755,175	745,709	853,310	712,298	741,782
	Block 4		1,849,579	1,871,438	1,942,842	1,551,686	1,654,219	1,816,817	1,867,031	1,868,217	1,625,202	1,973,629	1,781,983	1,819,818
	Block 5		4,395,580	4,238,139	4,450,238	3,459,086	3,779,766	3,248,338	2,984,921	3,223,163	3,409,915	3,882,604	3,837,875	3,955,102
	Block 6		9,026,239	7,103,474	8,457,577	7,685,869	6,209,518	6,475,622	6,907,648	7,705,879	5,548,578	8,922,449	8,797,295	9,798,282
Total			137,805,560	118,635,513	116,503,025	91,226,954	59,955,066	52,186,705	45,150,041	41,838,930	39,941,057	53,199,329	89,800,993	127,364,030

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Rate Schedule	Block	Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Actual Volumes		Nov 2021	Dec 2021
		Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021		
2 R		62,188,658	63,074,830	54,861,030	39,656,836	20,508,408	14,920,588	8,711,925	7,661,382	8,809,004	18,088,263	32,674,377	53,821,063
3 CFS		23,856,179	24,298,736	22,006,442	16,482,171	8,844,738	6,953,189	4,892,305	4,589,133	5,064,114	7,731,925	12,812,463	21,051,328
3 IFS		554,594	565,327	546,901	469,404	314,341	271,577	220,800	221,918	327,301	518,056	671,898	531,222
27		131,346	129,406	116,385	86,236	33,945	17,395	4,280	774	3,795	26,909	80,471	128,673
31C Firm Sales	Block 1	1,262,349	1,253,286	1,264,410	1,223,170	1,047,486	881,197	572,245	505,150	587,893	920,887	1,151,436	1,247,598
	Block 2	1,794,587	1,755,181	1,684,323	1,091,696	334,427	156,014	45,265	36,856	60,825	227,556	725,326	1,571,463
31C Firm Transpt	Block 1	117,620	117,455	117,953	115,871	106,226	71,247	58,922	60,805	76,393	115,687	117,838	118,000
	Block 2	235,744	238,689	213,003	90,726	31,897	13,542	15,935	16,236	19,216	84,248	152,725	303,454
31I Firm Sales	Block 1	357,312	353,869	354,897	347,461	333,253	321,969	309,651	310,490	324,741	351,025	351,321	340,701
	Block 2	873,665	866,361	818,171	729,976	577,664	584,277	513,381	488,253	628,483	760,548	714,527	835,205
31I Firm Transpt	Block 1	14,000	14,000	14,000	13,530	12,131	11,864	10,680	11,610	13,440	14,000	14,000	13,122
	Block 2	40,076	40,865	41,117	28,817	21,568	13,272	16,925	17,802	20,226	33,316	39,929	56,479
32C Firm Sales	Block 1	3,864,404	3,836,745	3,777,300	3,358,247	2,503,111	2,048,669	1,410,233	1,297,037	1,485,900	2,211,542	3,048,227	3,785,763
	Block 2	1,366,802	1,360,460	1,327,918	857,901	419,219	282,179	184,493	181,947	185,614	298,374	658,093	1,228,224
	Block 3	229,002	195,542	221,319	179,542	47,751	42,801	43,675	30,671	41,292	61,072	80,583	158,164
	Block 4	27,564	61,791	116,404	173,352	(90,256)	-	-	-	-	24,815	9,052	22,746
	Block 5	-	-	-	306,319	(306,319)	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	554,617	548,597	539,851	533,332	503,837	481,867	485,393	504,709	515,621	546,327	534,457	559,600
	Block 2	557,736	534,135	528,260	472,714	427,554	395,355	398,739	421,857	423,888	457,880	442,331	580,629
	Block 3	174,166	142,018	164,093	138,705	133,297	137,637	155,810	145,800	185,472	157,008	114,639	147,652
	Block 4	45,602	29,240	33,244	19,811	18,733	13,626	50,898	48,748	63,643	51,664	8,337	21,113
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	251,646	249,882	260,553	239,857	220,885	176,881	163,636	165,749	187,186	217,311	234,485	248,845
	Block 2	229,123	245,348	272,821	204,103	121,413	89,040	83,257	93,203	100,948	173,800	197,522	267,901
	Block 3	100,663	100,308	108,387	79,785	40,000	34,033	20,000	28,769	40,000	47,926	74,194	105,218
	Block 4	130,015	156,798	153,272	49,891	17,313	15,930	17,403	16,127	27,800	70,903	107,112	186,673
	Block 5	-	-	-	-	-	-	-	-	-	-	-	4,474
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	917,783	918,450	930,738	929,731	926,596	924,688	912,176	919,820	933,710	942,755	943,474	933,843
	Block 2	1,419,870	1,379,807	1,451,875	1,356,291	1,321,398	1,235,770	1,215,517	1,256,789	1,281,119	1,399,573	1,424,791	1,498,923
	Block 3	942,143	923,898	964,509	856,944	821,158	800,306	775,799	809,829	797,749	842,439	891,088	973,310
	Block 4	1,973,303	1,904,908	2,103,859	1,786,742	1,703,965	1,484,575	1,367,809	1,482,099	1,500,462	1,762,311	1,814,144	2,070,710
	Block 5	1,843,886	1,786,775	1,756,768	1,439,395	1,399,670	1,119,691	1,280,460	1,263,907	1,440,256	1,837,778	1,894,398	2,211,258
	Block 6	755,630	606,269	705,271	484,531	452,306	325,301	316,935	315,716	317,022	475,003	531,510	904,357
32C Interr Sales	Block 1	427,006	424,591	426,056	412,756	399,723	333,348	335,176	338,653	367,873	408,536	436,313	431,866
	Block 2	732,506	672,792	723,910	615,792	540,021	405,027	359,664	392,729	439,547	608,595	678,153	740,664
	Block 3	463,812	416,839	471,306	333,535	245,616	162,184	166,944	169,485	179,010	348,415	417,009	534,160
	Block 4	771,801	597,556	726,523	430,640	352,655	237,691	229,846	236,240	256,832	434,121	535,870	903,824
	Block 5	360,033	296,847	333,786	250,375	237,595	167,746	157,583	152,737	169,207	261,360	288,292	453,549
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	502,530	484,176	546,545	486,989	464,415	480,192	457,194	444,739	465,908	484,011	507,189	518,326
	Block 2	650,975	601,189	746,983	624,884	580,283	625,946	574,030	557,437	577,762	624,587	646,809	695,049
	Block 3	371,489	323,621	467,931	330,929	302,639	309,138	316,920	261,396	308,693	315,019	382,881	478,716
	Block 4	722,435	689,964	1,251,962	912,100	739,604	861,697	719,526	665,478	612,898	756,401	1,006,688	1,071,547
	Block 5	266,183	136,999	463,716	145,970	251,569	67,330	138,557	268,706	(225,818)	172,747	341,790	481,660
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	75,970	69,160	83,170	76,100	75,970	76,100	73,547	75,832	76,100	75,970	66,100	65,970
	Block 2	171,884	160,964	181,128	148,406	129,497	113,954	112,582	111,337	117,595	142,645	137,844	158,346
	Block 3	86,019	89,744	87,645	80,000	80,000	73,458	72,226	70,500	73,546	80,000	80,000	90,817
	Block 4	314,283	296,616	298,332	267,903	251,648	188,472	182,910	182,795	204,757	268,130	273,892	297,922
	Block 5	91,701	84,905	84,567	22,150	15,050	-	-	-	-	16,877	35,762	125,774
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	582,490	569,293	607,725	594,853	592,553	605,831	606,019	623,094	626,420	636,589	588,562	582,088
	Block 2	990,171	922,130	1,080,211	1,075,494	1,090,233	1,091,108	1,116,308	1,159,003	1,158,212	1,169,357	1,018,665	902,820
	Block 3	691,944	667,915	786,845	774,836	743,160	771,537	761,275	862,977	863,784	855,845	673,849	627,809
	Block 4	1,805,458	1,666,820	2,058,159	1,753,651	1,720,035	1,768,719	1,685,050	1,857,579	1,828,866	1,872,691	1,531,462	1,601,142
	Block 5	4,095,184	3,304,612	4,688,280	3,872,020	3,921,694	3,084,220	3,015,124	3,460,129	3,618,655	4,002,106	3,732,399	4,002,664
	Block 6	9,672,952	8,940,959	9,390,178	8,262,980	7,443,941	6,972,347	7,393,012	7,673,906	7,126,016	7,711,579	9,197,076	9,928,212
Total		130,656,911	129,106,668	122,960,030	95,275,448	63,025,618	52,220,524	42,728,038	42,467,937	44,308,976	61,696,481	85,091,353	120,620,635

Schedule 182 Revenue Analysis

Rate Schedule	Block	Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Revenues		Actual Sch. 197 Re	
		Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020
2 R		630,959	524,393	501,158	392,848	210,860	158,797	112,084	83,107	86,649	125,705	362,518	589,620
3 CFS		185,688	155,157	145,930	103,187	51,747	41,033	34,706	29,074	29,767	37,970	94,756	157,003
3 IFS		3,225	3,251	3,037	2,431	1,547	1,353	1,234	1,058	1,733	2,685	4,138	3,262
27		1,602	1,335	1,225	900	389	228	98	35	29	96	514	959
31C Firm Sales	Block 1	6,338	6,317	6,260	5,553	4,221	3,362	2,861	2,363	2,423	3,299	5,532	6,033
	Block 2	9,394	7,355	6,940	4,100	1,056	485	303	207	184	419	3,310	7,623
31C Firm Transpt	Block 1	435	431	427	411	375	314	253	242	271	413	434	433
	Block 2	933	906	810	364	170	82	50	58	58	234	673	853
31I Firm Sales	Block 1	2,231	2,246	2,229	2,175	2,049	1,938	1,923	1,866	1,957	2,052	2,201	2,185
	Block 2	5,031	4,731	4,311	3,874	2,851	2,548	2,841	2,453	3,063	3,881	3,893	4,933
31I Firm Transpt	Block 1	48	48	48	48	40	56	42	46	52	54	56	53
	Block 2	196	197	184	88	52	67	52	61	52	105	157	160
32C Firm Sales	Block 1	9,758	9,198	8,937	7,287	4,895	3,938	3,230	2,690	2,887	3,738	6,777	8,859
	Block 2	3,183	2,428	2,319	1,484	517	416	334	326	321	421	1,146	2,435
	Block 3	364	228	213	104	66	28	23	30	51	56	75	267
	Block 4	132	140	82	44	11	1	-	-	3	-	0	50
	Block 5	5	-	2	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Sales	Block 1	1,154	1,147	1,120	1,120	1,081	1,068	1,117	1,068	1,105	1,145	1,175	1,243
	Block 2	1,034	1,000	973	939	792	801	827	742	765	817	935	1,110
	Block 3	305	241	234	204	158	164	221	210	241	225	240	261
	Block 4	81	22	26	15	24	29	46	30	21	25	36	26
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Firm Transpt	Block 1	636	629	631	510	453	402	375	366	413	539	524	519
	Block 2	541	564	501	291	224	165	139	132	178	317	317	415
	Block 3	202	189	166	109	56	41	36	31	34	78	125	132
	Block 4	125	118	115	35	8	9	13	10	8	51	96	81
	Block 5	-	-	-	-	-	-	-	-	-	-	7	-
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Firm Transpt	Block 1	2,024	2,025	2,015	1,891	1,833	1,950	1,843	1,872	1,854	1,891	1,845	1,904
	Block 2	2,638	2,591	2,597	2,247	2,101	2,242	2,092	2,069	2,061	2,347	2,376	2,484
	Block 3	1,210	1,139	1,221	1,028	897	1,028	923	940	925	1,082	1,073	1,145
	Block 4	1,380	1,401	1,469	1,155	1,075	1,091	974	991	896	1,131	1,279	1,322
	Block 5	818	805	815	679	632	552	524	474	432	581	662	701
	Block 6	131	122	135	78	64	48	48	49	47	80	118	160
32C Interr Sales	Block 1	992	997	973	925	821	814	727	719	741	903	955	963
	Block 2	1,355	1,361	1,312	1,064	894	822	699	698	714	1,129	1,307	1,383
	Block 3	604	607	585	403	290	226	200	203	207	367	591	623
	Block 4	512	484	494	300	216	150	127	119	135	241	523	619
	Block 5	14	5	5	-	-	-	-	-	-	-	143	174
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Interr Sales	Block 1	1,108	1,043	1,067	995	1,035	1,069	985	976	958	1,051	1,017	1,033
	Block 2	1,251	1,092	1,198	1,104	1,082	1,161	1,017	1,009	1,013	1,120	1,065	1,134
	Block 3	460	412	489	364	359	414	337	367	295	356	414	451
	Block 4	618	470	577	395	424	522	451	485	386	493	413	536
	Block 5	84	117	120	24	19	136	69	81	-	52	113	71
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32C Inter Transpt	Block 1	166	167	166	166	166	166	165	157	160	166	147	147
	Block 2	308	305	307	266	242	226	216	218	223	258	268	278
	Block 3	130	122	123	116	116	116	116	110	109	116	93	99
	Block 4	268	264	269	253	236	217	201	195	203	244	202	212
	Block 5	180	168	172	117	103	83	76	70	69	104	20	36
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-
32I Inter Transpt	Block 1	1,105	1,163	1,172	1,153	1,193	1,146	1,139	1,167	1,206	1,215	1,188	1,158
	Block 2	1,577	1,727	1,807	1,759	1,786	1,797	1,785	1,833	1,833	1,990	1,737	1,710
	Block 3	805	871	856	759	839	868	869	876	865	990	826	860
	Block 4	1,239	1,254	1,302	1,040	1,108	1,217	1,251	1,252	1,089	1,322	1,194	1,219
	Block 5	1,714	1,653	1,736	1,349	1,474	1,267	1,164	1,257	1,330	1,514	1,497	1,542
	Block 6	1,715	1,350	1,607	1,460	1,180	1,230	1,312	1,464	1,054	1,695	1,671	1,862
Total		888,007	745,984	712,464	549,211	303,825	237,884	182,115	145,857	151,074	206,764	512,369	812,341
												Annual	5,447,895
												Authorized	5,000,000
												Variance	447,895

Schedule 182 Revenue Analysis

		venues	Actual Sch. 197 Revenues			Actual Sch. 197 Revenues			Actual Sch. 197 Revenues			Actual Sch. 197 Revenues		
Rate Schedule	Block	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	
2 R		606,961	615,610	535,444	387,051	200,162	145,625	85,028	74,775	85,976	176,541	318,902	525,294	
3 CFS		164,608	167,661	151,844	113,727	61,029	47,977	33,757	31,665	34,942	53,350	88,406	145,254	
3 IFS		3,250	3,313	3,205	2,751	1,842	1,591	1,294	1,300	1,918	3,036	3,937	3,113	
27		933	919	826	612	241	124	30	5	27	191	571	914	
31C Firm Sales	Block 1	6,059	6,016	6,069	5,871	5,028	4,230	2,747	2,425	2,822	4,420	5,527	5,988	
	Block 2	7,860	7,688	7,377	4,782	1,465	683	198	161	266	997	3,177	6,883	
31C Firm Transpt	Block 1	434	433	435	428	392	263	217	224	282	427	435	435	
	Block 2	787	797	711	303	107	45	53	54	64	281	510	1,014	
31I Firm Sales	Block 1	2,208	2,187	2,193	2,147	2,060	1,990	1,914	1,919	2,007	2,169	2,171	2,106	
	Block 2	4,927	4,886	4,614	4,117	3,258	3,295	2,895	2,754	3,545	4,289	4,030	4,711	
31I Firm Transpt	Block 1	56	56	56	54	48	47	42	46	53	56	56	52	
	Block 2	144	147	148	103	77	48	61	64	73	120	143	203	
32C Firm Sales	Block 1	8,927	8,863	8,726	7,758	5,782	4,732	3,258	2,996	3,432	5,109	7,041	8,745	
	Block 2	2,679	2,667	2,603	1,681	822	553	362	357	364	585	1,290	2,407	
	Block 3	318	272	308	250	66	59	61	43	57	85	112	220	
	Block 4	22	50	94	140	(73)	-	-	-	-	20	7	18	
	Block 5	-	-	-	141	(141)	-	-	-	-	-	-	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Firm Sales	Block 1	1,226	1,212	1,193	1,179	1,113	1,065	1,073	1,115	1,140	1,207	1,181	1,237	
	Block 2	1,049	1,004	993	889	804	743	750	793	797	861	832	1,092	
	Block 3	230	187	217	183	176	182	206	192	245	207	151	195	
	Block 4	35	23	26	15	14	10	39	38	49	40	6	16	
	Block 5	-	-	-	-	-	-	-	-	-	-	-	-	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32C Firm Transpt	Block 1	518	515	537	494	455	364	337	341	386	448	483	513	
	Block 2	401	429	477	357	212	156	146	163	177	304	346	469	
	Block 3	125	124	134	99	50	42	25	36	50	59	92	130	
	Block 4	94	113	110	36	12	11	13	12	20	51	77	134	
	Block 5	-	-	-	-	-	-	-	-	-	-	-	2	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Firm Transpt	Block 1	1,891	1,892	1,917	1,915	1,909	1,905	1,879	1,895	1,923	1,942	1,944	1,924	
	Block 2	2,485	2,415	2,541	2,374	2,312	2,163	2,127	2,199	2,242	2,449	2,493	2,623	
	Block 3	1,168	1,146	1,196	1,063	1,018	992	962	1,004	989	1,045	1,105	1,207	
	Block 4	1,421	1,372	1,515	1,286	1,227	1,069	985	1,067	1,080	1,269	1,306	1,491	
	Block 5	756	733	720	590	574	459	525	518	591	753	777	907	
	Block 6	159	127	148	102	95	68	67	66	67	100	112	190	
32C Interr Sales	Block 1	961	955	959	929	899	750	754	762	828	919	982	972	
	Block 2	1,399	1,285	1,383	1,176	1,031	774	687	750	840	1,162	1,295	1,415	
	Block 3	626	563	636	450	332	219	225	229	242	470	563	721	
	Block 4	610	472	574	340	279	188	182	187	203	343	423	714	
	Block 5	162	134	150	113	107	75	71	69	76	118	130	204	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Interr Sales	Block 1	1,060	1,022	1,153	1,028	980	1,013	965	938	983	1,021	1,070	1,094	
	Block 2	1,172	1,082	1,345	1,125	1,045	1,127	1,033	1,003	1,040	1,124	1,164	1,251	
	Block 3	472	411	594	420	384	393	402	332	392	400	486	608	
	Block 4	535	511	926	675	547	638	532	492	454	560	745	793	
	Block 5	112	58	195	61	106	28	58	113	(95)	73	144	202	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32C Inter Transpt	Block 1	147	133	161	147	147	147	142	146	147	147	128	127	
	Block 2	282	264	297	243	212	187	185	183	193	234	226	260	
	Block 3	100	104	102	93	93	85	84	82	85	93	93	105	
	Block 4	211	199	200	179	169	126	123	122	137	180	184	200	
	Block 5	36	33	33	9	6	-	-	-	-	7	14	49	
	Block 6	-	-	-	-	-	-	-	-	-	-	-	-	
32I Inter Transpt	Block 1	1,124	1,099	1,173	1,148	1,144	1,169	1,170	1,203	1,209	1,229	1,136	1,123	
	Block 2	1,624	1,512	1,772	1,764	1,788	1,789	1,831	1,901	1,899	1,918	1,671	1,481	
	Block 3	803	775	913	899	862	895	883	1,001	1,002	993	782	728	
	Block 4	1,210	1,117	1,379	1,175	1,152	1,185	1,129	1,245	1,225	1,255	1,026	1,073	
	Block 5	1,597	1,289	1,828	1,510	1,529	1,203	1,176	1,349	1,411	1,561	1,456	1,561	
	Block 6	1,838	1,699	1,784	1,570	1,414	1,325	1,405	1,458	1,354	1,465	1,747	1,886	
Total		837,808	847,571	753,934	557,551	306,363	233,809	154,085	141,794	159,208	277,682	462,684	736,052	
												Annual Authorized Variance	5,468,541 5,000,000 468,541	