

**BEFORE THE  
PUBLIC UTILITY COMMISSION OF OREGON  
UG 462**

In the Matter of )  
 )  
NORTHWEST NATURAL GAS )  
CORPORATION, dba NW NATURAL, )  
 )  
Renewable Natural Gas Adjustment )  
Mechanism - Dakota City. )

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

**May 25, 2023**

**[REDACTED]**

**TABLE OF CONTENTS**

I. Introduction and Summary ..... 1  
II. Prudence ..... 2  
III. Investment Tax Credits ..... 6  
IV. Rate Spread..... 10

**Exhibit List**

Exhibit AWEC/101 - Qualification Statement of Bradley G. Mullins

Exhibit AWEC/102 - NW Natural Responses to Data Requests

Confidential Exhibit AWEC/103 - 2021 Renewable Natural Gas Request for Proposal Results

**I. INTRODUCTION AND SUMMARY**

**Q. PLEASE STATE YOUR NAME AND OCCUPATION.**

A. My name is Bradley G. Mullins. I am a consultant with 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 Northwest Natural Gas Company, dba NW Natural (“NW Natural”).

**Q. WHAT IS THE DAKOTA CITY PROJECT?**

A. The Dakota City Project (“Dakota Project”) is a renewable natural gas (“RNG”) processing facility in Dakota City, Nebraska. The Dakota Project will convert methane captured from the facility into RNG. At full capacity, the Dakota Project is expected to produce ████████ MMBtu of RNG per year, representing approximately 0.1% of NW Natural’s system throughput, or approximately 0.14 percent of NW Natural’s Oregon sales.<sup>1</sup> The Dakota Project will be used for Climate Protection Plan (“CPP”) compliance.

**Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

A. I respond to the Direct Testimony of NW Natural witness Chittum, who discusses the Dakota Project and the costs NW Natural is seeking to recover in this proceeding.<sup>2</sup> I also respond to

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<sup>1</sup> NW Natural/100, Chittum, p 11 lines 10-11.

<sup>2</sup> NW Natural/100

1 the Direct Testimony of NW Natural witnesses Bourdo and Walker, who discusses the revenue  
2 requirement and rate spread for the Dakota Project.<sup>3</sup>

3 **Q. WHAT ARE YOUR PRINCIPAL RECOMMENDATIONS AND CONCLUSIONS?**

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

- 5 1. *Find that the Dakota Project is prudent;*
- 6 2. *Evaluate whether it is reasonable for NW Natural to share some of the risk of*  
7 *production and non-performance of RNG production assets;*
- 8 3. *Require NW Natural to structure the Dakota Project transaction so that ratepayers*  
9 *are not subject to the punitive 1971 normalization requirements for the Investment*  
10 *Tax Credit (“ITC”);*
- 11 4. *Hold ratepayers harmless if any ITCs are allocated to Biocarbn Cross River Biogas*  
12 *Dakota City LLC (“BioCross”); and,*
- 13 5. *Modify the rate-spread for the Dakota Project to reflect each rate classes’*  
14 *contribution to CPP compliance obligations.*

15 **II. PRUDENCE**

16 **Q. DO YOU RECOMMEND THAT THE COMMISSION FIND THE DAKOTA PROJECT**  
17 **TO BE PRUDENT?**

18 A. Yes. As recently demonstrated in Docket LC 79, NW Natural’s 2022 Integrated Resource  
19 Plan, RNG is currently one of the primary options for complying with the CPP. AWEC  
20 supports the development of RNG and other projects which help decarbonize the natural gas  
21 system.

22 The information AWEC has reviewed supports a finding that the Dakota Project was a  
23 prudent investment in light of the CPP’s stringent and increasing compliance obligations.  
24 Notwithstanding, AWEC does have some concerns with the performance of this specific  
25 resource. Further, when a utility decides to invest in an RNG project, rather than purchase

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<sup>3</sup> NW Natural/200

1 RNG through an offtake agreement, it may be appropriate in some cases for a utility to share in  
2 the risks associated with that project. Indeed, it is only reasonable to use ratepayer financing to  
3 invest in an RNG facility if it can be demonstrated that ratepayers will benefit from doing so.  
4 In this case, AWEC is concerned with the high cost of RNG from the Dakota Project and the  
5 changes to the production estimates that have been made since the project was first evaluated.  
6 Notwithstanding, AWEC still considers the Dakota Project to be a prudent investment in the  
7 overall context of CPP compliance.

8 **Q. WHAT IS THE COST OF RNG FROM THE DAKOTA PROJECT IN THIS FILING?**

9 A. Based on NW Natural’s confidential workpapers provided in this docket, the Dakota Project is  
10 forecast to produce RNG at a cost of \$[REDACTED]/MMBtu in the first year of operation. Over the  
11 10-years studied in the revenue requirement model, the levelized cost of RNG was  
12 \$[REDACTED]/MMBtu.

13 **Q. HOW DOES THIS COST COMPARE TO THE COST OF RNG NW NATURAL**  
14 **ASSUMED IN ITS 2022 IRP?**

15 A. In its 2022 IRP, NW Natural assumed it could acquire Tranche 1 RNG at a cost of \$14.00/dth.  
16 Thus, Dakota City is [REDACTED] than the cost assumed in the 2022 IRP on both a first-  
17 year and levelized basis.

18 **Q. WHAT WAS THE COST OF RNG THAT NW NATURAL FORECAST WHEN IT**  
19 **DECIDED TO PURSUE THE DAKOTA PROJECT?**

20 A. In response to Staff Data Request 14, NW Natural provided its analysis used to justify the  
21 Dakota Project. Based on that analysis, NW Natural calculated a first year “incremental”

1 revenue requirement of \$ [REDACTED]/MMbtu.<sup>4</sup> Further, NW Natural used a similar approach to  
2 calculate an “incremental” levelized cost of RNG of \$ [REDACTED]/MMbtu.<sup>5</sup>

3 **Q. WHAT DID THE “INCREMENTAL” REVENUE REQUIREMENT REPRESENT?**

4 A. The incremental revenue requirement amounts represented the difference between the cost of  
5 RNG from the Dakota Project and an avoided cost calculation.<sup>6</sup> NW Natural’s avoided cost  
6 calculation includes a \$ [REDACTED] adder for environmental compliance costs.<sup>7</sup> AWEC is unclear if  
7 NW Natural’s avoided costs calculation also included a \$ [REDACTED] avoided cost of gas.<sup>8</sup>

8 **Q. WAS NW NATURAL’S “INCREMENTAL” REVENUE REQUIREMENT A VALID**  
9 **WAY TO EVALUATE THE DAKOTA PROJECT?**

10 A. In my opinion, no. There is no avoided cost associated with the Dakota Project. The RNG  
11 from the Dakota Project is not delivered to sales customers, so no gas purchase costs are  
12 avoided. Further, the RNG costs are the environmental compliance costs and do not result in  
13 any other environmental costs which are otherwise avoided. Stated differently, ratepayers are  
14 not receiving a \$ [REDACTED] benefit in rates due to environmental compliance cost savings. Therefore,  
15 deducting these “avoided costs” from the costs of Dakota Project was not appropriate.

16 **Q. WHAT WAS THE ACTUAL COST OF DAKOTA PROJECT RNG IN NW**  
17 **NATURAL’S ANALYSIS IF THE AVOIDED COST WERE NOT CONSIDERED?**

18 A. If the so called “avoided costs” are removed, the cost of the Dakota Project in the first year was  
19 \$ [REDACTED]/MMBtu, and the 15-year levelized price was \$ [REDACTED]. These are not necessarily

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4 See Confidential UG 462 OPUC DR 14 Attachment 1, Tab “Base Case Results,” Cell “I4”.

5 See Confidential UG 462 OPUC DR 14 Attachment 1, Tab “Base Case Results,” Cell “Q4”.

6 See Confidential UG 462 OPUC DR 14 Attachment 1, Tab “Base Case Results,” Column “G”.

7 See Confidential UG 462 OPUC DR 14 Attachment 1, Tab “Avoided Costs Summary,” Cell “F36”.

8 See Confidential UG 462 OPUC DR 14 Attachment 1, Tab “Avoided Costs Summary,” Cell “H36”.

1 unreasonable values, although it appears that the [REDACTED]  
2 [REDACTED]

3 **Q. WHY ARE THE COSTS PRESENTED IN THIS PROCEEDING DIFFERENT FROM**  
4 **THE INITIAL PROJECTIONS?**

5 A. [REDACTED]

6 [REDACTED]. The Dakota Project is forecast to produce [REDACTED] MMBtu  
7 per year once it reaches full output. In contrast, in NW Natural's initial economic analysis, the  
8 Dakota Project was forecast to produce [REDACTED] MMBth per year after reaching full output.  
9 That is a [REDACTED] in production, which correspondingly impacts the cost of RNG from  
10 the Dakota Project. These changes in production levels demonstrate one of the risks associated  
11 with investing in RNG production facilities rather than offtake agreements.

12 **Q. WAS THE DAKOTA PROJECT SUBJECT TO COMPETITIVE BIDDING?**

13 A. NW Natural conducted an RFP in 2021 contemporaneous to its decision to proceed with the  
14 Dakota Project. The results of that RFP were provided in response to Staff Data Request 11,  
15 Confidential Attachment 1. I have attached that document as **Confidential Exhibit**  
16 **AWEC/103.**

17 **Q. HOW DOES THE DAKOTA PROJECT COMPARE TO THE 2021 RFP RESULTS?**

18 A. Based on NW Natural's 2021 RFP, [REDACTED] than the currently  
19 forecast \$[REDACTED]/MMBtu levelized cost for the Dakota Project. For example [REDACTED]

20 [REDACTED]  
21 [REDACTED]  
22 [REDACTED]

23 [REDACTED] And of these RNG projects, NW Natural pursued

1 three RNG offtake agreements, (Anew LLC (formerly Element Markets Renewable Energy  
2 LLC) NYC and BP Products North America Inc., and Archaea).<sup>9</sup> Given the CPP’s increasing  
3 compliance obligations, NW Natural is required to pursue more than one RNG acquisition at a  
4 time, and continuing the development of the Dakota Project following the change in production  
5 levels was most likely a reasonable decision, although further information on NW Natural’s  
6 decision-making process in this regard would be useful.

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

8 A. AWEC recommends that NW Natural provide further information regarding the change in  
9 production levels and production risk in Rebuttal Testimony. Given the significant changes,  
10 and depending on the information provided, it may be appropriate for the Commission to  
11 impose conditions requiring NW Natural to share in the production risk to the extent the actual  
12 performance of the Dakota Project significantly exceeds the cost of an alternative source of  
13 RNG.

14 **III. INVESTMENT TAX CREDITS**

15 **Q. WILL THE DAKOTA PROJECT QUALIFY FOR THE INVESTMENT TAX CREDIT?**

16 A. Yes. Under the Inflation Reduction Act of 2022, the IRC § 48 Investment Tax Credit (“ITC”)  
17 was extended to include qualified biogas property beginning construction prior to December  
18 31, 2024.

19 **Q. HOW WILL THE BENEFITS OF THE ITC FLOW THROUGH TO RATEPAYERS?**

20 A. In its confidential response to AWEC Data Request 02, NW Natural has stated [REDACTED]  
21 [REDACTED] NW

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<sup>9</sup> NW Natural/100, Chittum, p. 47 lines 13-15.



1 Natural notes, however, that the modeling approach used to evaluate the ITC [REDACTED]

2 [REDACTED]

3 **Q. WHAT IS THE AMOUNT OF THE ITC AT ISSUE?**

4 A. NW Natural estimates that the ITC will be \$ [REDACTED] relative to a total capital cost of  
5 \$ [REDACTED]. Thus, the ITC is a significant contributor to the cost of the Dakota Project.

6 **Q. HOW DO THE ITC NORMALIZATION RULES WORK?**

7 A. While the 1971 Tax Code that implemented the ITC normalization rules has long been  
8 repealed, the current tax code still refers back to the former section 46(f) that was in place in  
9 1971 as the basis for normalizing ITCs. Under the 1971 normalization method, utilities must  
10 choose between: 1) providing the ITC benefit as a reduction to rate base, which is ratably  
11 increased over the life of the project; or 2) a cost of service reduction to tax expense ratably  
12 over the life of the investment. Under the first option, ratepayers receive the rate base benefit  
13 of the ITC upfront, but then must pay back the ITC over time as an additional tax expense.  
14 Under the second option, ratepayers do not receive any rate base benefit, but receive a  
15 reduction to tax expense over time, without recognizing the time value of money associated  
16 with an up-front tax credit. Under either normalization method—the cost of service method or  
17 the rate base method—ratepayers do not receiving the full benefit of the ITC.

18 **Q. WHAT METHOD HAS NW NATURAL HISTORICALLY ELECTED?**

19 A. As noted in response to AWEC Data Request 1, NW Natural has historically elected the cost of  
20 service method for normalizing ITCs. If the cost of service method is applied, however,  
21 ratepayers will loose out on the rate base benefits associated with the ITC over the period that  
22 it is being amortized. NW Natural will receive a large upfront ITC tax benefit, and ratepayers

1 will not receive any time value of money consideration associated with the timing difference  
2 between when the ITC is realized and when it is amortized in rates.

3 **Q. IT IS NECESSARY TO NORMALIZE THE ITCS FOR THE DAKOTA PROJECT?**

4 A. Given the structure of the Dakota Project transaction, it is unclear whether the Dakota Project  
5 will be subject to normalization requirements. This is an evolving area, and given that the  
6 Dakota Project is not being used to provide gas distribution services to NW Natural ratepayers,  
7 it is unclear whether the normalization rules will apply. The criteria to use a normalization  
8 method of accounting is described in IRS regulation § 1.46-3(g), generally follows:

9 1) The property used by a taxpayer predominantly in a trade or business that is a  
10 public utility activity described in former section 46(c)(3)(B) (i), (ii), or (iii).

11 2) The rates for sale from such property are established or approved by a state, or  
12 political subdivision thereof.

13 3) The rates are determined on a rate-of-return basis.

14 There are several reasons why normalization may not apply to the Dakota Project.

15 First, the production of RNG is not necessarily a public utility activity. Public utility activities  
16 for a natural gas utility are generally limited to natural gas distribution services, and do not  
17 include natural gas production. Second, while the costs are furnished at regulated rates and a  
18 rate of return calculation is used to value the associate ITCs, the assets of the Dakota Project  
19 are owned by a separate non-regulated entity and not included in NW Natural's regulatory  
20 accounts. For these reasons, there is a strong case that normalization requirements will not  
21 apply.

22 **Q. ARE THERE OTHER ALTERNATIVES THAT DO NOT REQUIRE**  
23 **NORMALIZATION?**

24 A. Yes. Under new IRC § 6418, certain tax credits, including the ITC, are now transferrable and  
25 salable. The ability to sell ITCs has major impacts on normalization because, as NW Natural

1 confirmed in response to AWEC Data Request 2, revenue from a tax credit which is sold is not  
2 considered a tax expense and, therefore, not necessarily subject to normalization. The IRS has  
3 concluded that tax equity arrangements typically do not implicate normalization  
4 requirements.<sup>10</sup> There is no clear requirement that proceeds from a sale of ITCs be normalized,  
5 although formal guidance on this issue has not been issued.

6 **Q. IS THERE A MARKET FOR SUCH TAX CREDITS?**

7 A. Yes. However, such tax credits will likely be sold at a discount of 90 – 92 % of their value.

8 **Q. DOES THE PARTNERSHIP AGREEMENT ALLOCATE 100% OF THE ITCs TO NW**  
9 **NATURAL?**

10 A. NW Natural modeled 100% of the Dakota Project's ITCs as being allocated to ratepayers.

11 This is appropriate since NW Natural is contributing all of the investment. However, I have  
12 not reviewed the specific highly confidential partnership terms regarding the allocation of such  
13 tax credits. [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED] In my opinion that would be an unreasonable outcome.

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

19 A. I recommend that this Dakota Project transaction be structured to provide ratepayers with  
20 100% of the ITCs generated from the Dakota Project without being subject to the 1971  
21 normalization requirements. If necessary, I recommend NW Natural seek a private letter ruling  
22 from the IRS requesting guidance on this issue, with formal input from stakeholders on the

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<sup>10</sup> See PLR-101794-19.

1 specific questions submitted to the IRS. Further, I recommend that ratepayers be protected and  
2 held harmless if any ITCs are allocated to the BioCross partners.

#### 3 **IV. RATE SPREAD**

4 **Q. WHAT RATE SPREAD DOES AWEC PROPOSE FOR SCHEDULE 198?**

5 A. AWEC recommends that Schedule 198 revenues be allocated to major rate classes based on the  
6 actual CCP compliance obligations generated by each rate class. Specifically, AWEC  
7 recommends the rate spread be performed based on the difference between actual throughput  
8 and the CPP cap, calculated based on average throughput over the CPP base line period of  
9 2017 through 2019. This is consistent with how the CPP compliance obligations are  
10 determined, and therefore, an appropriate method to allocate CPP compliance costs.

11 **Q. WHAT RATE SPREAD HAS NW NATURAL PROPOSED?**

12 A. NW Natural proposes an equal cents per therm method to spread the Dakota Project costs,  
13 which is consistent with the method the Commission recently approved for the Lexington RNG  
14 Project in UE 435.

15 **Q. DID THE COMMISSION INDICATE THAT IT WOULD CONSIDER OTHER**  
16 **ALTERNATIVES IN THE FUTURE?**

17 A. Yes. In its Order in UE 435, the Commission stated the following:

18 For the time being, we will rely on a default presumption that those projects will  
19 be allocated to all non-storage customers on an equal cents per therm basis under  
20 the CPP if and when included in the AAC. We will revisit the rate spread for any  
21 future RNG projects in future proceedings as the conversation around CPP  
22 compliance and cost causation thereunder develops, or as unique project  
23 attributes warrant different cost allocation approaches.<sup>11</sup>

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<sup>11</sup> UE 435, Order 22-388 at 86.

1 **Q. IS AN EQUAL CENTS PER THERM ALLOCATION CONSISTENT WITH HOW**  
2 **THE CPP WORKS?**

3 A. No. Allocating costs based on total throughput (i.e. equal cents per them) is inconsistent with  
4 how the CPP is intended to work. CPP compliance is driven by the established declining  
5 emission caps, not only by total throughput. Gas distribution companies are only required to  
6 acquire compliance instruments, such as RNG, renewable hydrogen or Community Climate  
7 Investments (“CCIs”), if emissions exceed the declining caps established by the Oregon  
8 Department of Environmental Quality. Thus, it is the difference between actual throughput  
9 and the declining capped throughput that is driving CPP compliance. Total throughput for any  
10 particular rate class, on the other hand, does not necessarily result in additional CPP  
11 compliance costs. Total throughput for a rate class may be declining, for example, and  
12 reducing CPP compliance costs relative to the capped emissions levels. An allocation that  
13 focuses on individual rate classes contribution towards exceedance of the CPP cap is, therefore,  
14 a better method to ensure that CPP-related costs are being properly assigned to the rate  
15 schedules driving those costs.

16 **Q. HOW ARE THE CPP EMISSIONS CAPS SET?**

17 A. The compliance targets are established in base period 2017-2019 with annual reductions of 4%  
18 occurring each year beginning in 2023. Measuring throughput over the base period, plus the  
19 required emissions percentage, therefore, is representative of the cap against which CPP  
20 compliance obligations are measured.

1 **Q. HOW HAS ACTUAL THROUGHPUT COMPARED TO BASELINE THROUGHPUT?**

2 A. NW Natural provided historical throughput by rate schedule in response to AWEC Data  
3 Request 6. This is summarized, along with a comparison to the CPP baseline, in Table 1,  
4 below.

**Table 1**  
Class Throughput relative to CPP Base Period

Schedule	Average 2017 - 2019	2024 Target at 8% Reduction	Actual 2022	Contribution to CPP Compliance	AWEC Allocation
Schedule 2	394,997,434	364,029,635	424,855,615	60,825,980	43.46%
Schedule 3	181,530,363	167,298,382	195,083,784	27,785,401	19.85%
Schedule 27	1,156,384	1,065,724	871,410	(194,314)	0.00%
Schedule 31	42,855,822	39,495,926	26,534,453	(12,961,473)	0.00%
Schedule 32	477,804,222	440,344,371	487,971,830	47,627,458	34.03%
Special Contracts	75,853,675	69,906,747	73,625,884	3,719,137	2.66%
<b>Total</b>	1,174,197,901	1,082,140,785	1,208,942,975	126,802,190	100.00%

5 The average throughput for each rate schedule in the CCP base period is detailed in the  
6 first column titled “Average 2017 – 2019”. In the second column, the CPP compliance cap for  
7 2024 is calculated based upon an approximate 8% reduction to the base period throughput as  
8 required by the CPP. The CPP compliance cap is then compared to actual throughput in 2022.  
9 As shown above, NW Natural’s loads have increased since the CPP 2017-2019 base period.  
10 The difference between the actual throughput and the CPP compliance throughput represents  
11 each classes contribution towards NW Natural’s CPP compliance obligations.

12 **Q. DO YOU RECOMMEND USING THE APPROACH IN TABLE 1 TO ALLOCATE**  
13 **DAKOTA PROJECT COSTS?**

14 A. Yes. I recommend the rate spread for Schedule 198 be modified to be based on the calculation  
15 identified in Table 1 above. Such an approach is more consistent with how the CPP  
16 compliance requirements are calculated.

1 **Q. WHY DO YOU RECOMMEND USING ACTUAL THROUGHPUT IN YOUR RATE**  
2 **SPREAD CALCULATION?**

3 A. CPP compliance is not based on normalized volumes; it is based on actual volumes. Use of  
4 non-weather normalized volumes will ensure that rate schedules, which are sensitive to the  
5 weather pay more in years when their loads are higher and less in years when their loads are  
6 lower. Under my approach there would be a true-up based on actual load requirements in the  
7 deferral portion of the renewable adjustment clause.

8 **Q. DO YOU ALSO RECOMMEND USING THE ACTUAL THROUGHPUT VALUES AS**  
9 **THE CLASS BILLING DETERMINANTS?**

10 A. Yes. NW Natural used the billing determinants from UE 435 to calculate its proposed rates for  
11 the Dakota Project. Those throughput levels, however, are outdated and no longer  
12 representative of NW Natural's requirements. NW Natural's actual throughput has increased  
13 materially since rates were set in UE 435.

14 **Q. WHY IS IT NOT CONSISTENT WITH THE CPP TO SPREAD THE DAKOTA**  
15 **PROJECT ON AN EQUAL CENTS PER THERM BASIS?**

16 A. As explained above, the CPP is driven by the established declining emission caps, not only by  
17 total throughput. An allocation that focuses on individual rate classes contribution towards  
18 exceedance of the CPP cap is, therefore, a better method to reflect cost causation and ensure  
19 that CPP-related costs are being properly assigned to the rate schedules driving those costs.  
20 Further, in NW Natural's last rate case, Docket No. 435, NW Natural's uncontested cost of  
21 service study demonstrated that large volume sales and transportation customers are already  
22 paying more than their relative cost of service, and residential customers are paying less than  
23 their relative cost of service. Because Schedule 198 is a stand alone tariff, and not included as  
24 part of the company's overall revenue requirement, an equal cents per therm allocation ignores

1 the cost of service results and makes the cost allocation between the classes worse. Some large  
2 volume customers are paying rates that are over two times their cost of service compared to  
3 residential customers paying around 90% of their cost of service. Ignoring these inequities is  
4 not fair, just and reasonable. Accordingly, in future general rate cases, I recommend that CPP  
5 costs be considered in conjunction with the overall rate spread.

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

7 A. Yes.



BEFORE THE  
PUBLIC UTILITY COMMISSION OF OREGON

**UG 462**

**AWEC**

**Opening Testimony of Bradley G.  
Mullins**

**AWEC  
EXHIBIT 101**

MW Analytics is the professional practice of Bradley Mullins, a consultant and expert witness that represents utility customers in regulatory proceedings before state utility commissions throughout the western United States. Since starting MW Analytics in 2013, Mr. Mullins has sponsored expert witness testimony in over 100 regulatory proceedings on a variety of subject matters, including revenue requirements, regulatory accounting, rate development, and new resource additions. MW Analytics also assists clients through informal regulatory, legislative and energy policy matters. In addition to providing regulatory services, MW Analytics also provides advisory and other energy consulting services.

### Education

- Master of Accounting, Tax Emphasis, University of Utah
- Bachelor of Finance, University of Utah
- Bachelor of Accounting, University of Utah

### Relevant Prior Experience

PacifiCorp, Portland, OR: Net Power Cost Consultant 2010 – 2013

- Analyst involved in power cost modeling and forecasting
- Responsible for preparing power cost forecasts, supporting testimony for regulatory filings, preparing annual power cost deferral filings, and developing qualifying facility avoided cost calculations

Deloitte, San Jose, CA: Tax Senior 2007 – 2009

- Staff accountant responsible for preparing corporate tax returns for multinational corporate clients and partnership returns for hedge fund clients
- Joined to national tax practice specializing research and development tax credit studies

### Recent Regulatory Appearances

Docket	Party	Topics
<i>In re Portland General Electric Company Request for a General Rate Revision, Or. PUC UE 416.</i>	Alliance of Western Energy Consumers	Power Costs / Revenue Requirement
<i>In re the Application of Intermountain Gas Company for Authority to Increase Its Rates and Charges for Natural Gas Service in the State of Idaho, Id.PUC Case No. INT-G-22-07.</i>	Alliance of Western Energy Consumers	Revenue Requirement
<i>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 the fourth amendment to its 2021 Joint Integrated Resource Plan, PUC Nv. Docket No. 22-11032.</i>	Caesars Enterprise Services, LLC; MGM Resorts International; Nevada Resorts Association	Resource Planning
<i>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 the Third Amendment to its 2021 Joint Integrated Resource Plan., PUC Nv. Docket No. 22-09006.</i>	Caesars Enterprise Services, LLC; MGM Resorts International;	Transportation Electrification

<b>Docket</b>	<b>Party</b>	<b>Topics</b>
	Nevada Resorts Association	
<i>In re Portland General Electric Company, Advice No. 22-18 New Schedule 151 Wildfire Mitigation Cost Recovery, Or.PUC Docket No. UE 412.</i>	Alliance of Western Energy Consumers	Regulatory Accounting
<i>In re PacifiCorp, Automatic Adjustment Clause for Wildfire Protection Plan Costs, Or.PUC Docket No. UE 407.</i>	Alliance of Western Energy Consumers	Regulatory Accounting
<i>In re Portland General Electric Company, Application for Authority to Amortize Deferred Amounts Related to 2020 and 2021 Wildfire and Ice Storm Emergency Events, Or.PUC Docket No. UE 408.</i>	Alliance of Western Energy Consumers	Regulatory Accounting
<i>In re PacifiCorp 2021 Power Cost Adjustment Mechanism, Or.PUC Docket No. UE 404.</i>	Alliance of Western Energy Consumers	Power Cost Deferral
<i>In re Portland General Electric Company, 2021 Annual Power Cost Variance Mechanism, Or. PUC UE 406</i>	Alliance of Western Energy Consumers	Power Cost Deferral
<i>In re Portland General Electric Company, Application Regarding Amortization of Boardman Deferral, Or.PUC Docket No. UE 410.</i>	Alliance of Western Energy Consumers	Regulatory Accounting
<i>In re the application of Sierra Pacific 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, PUC Nv. Docket No. 22-06014.</i>	Smart Energy Alliance and Caesars Enterprise Services, LLC	Revenue Requirement
<i>In re the Application of Dominion Energy Utah to Increase Distribution Rates and Charges and Make Tariff Modifications Ut.PSC Docket No. 22-057-03.</i>	Nucor Steel-Utah	Cost of Service, Rate Spread and Rate Design
<i>In re Joint Application of Nevada Power Company d/b/a NV Energy (“NPC”) and Sierra Pacific Power Company d/b/a NV Energy (“SPPC”) for approval to merge into a single corporate entity, to transfer Certificates of Public Convenience and Necessity (“CPC”) 685 Sub 20, 688, and 688 Sub 6 from SPPC to NPC, and to consolidate generation assets, PUC Nv. Docket No. 22-03028.</i>	Wynn Las Vegas, LLC and Smart Energy Alliance	Merger
<i>In re Puget Sound Energy Requests for a General Rate Revision, Wa.UTC Docket. UE-220026 (cons.).</i>	Alliance of Western Energy Consumers	Revenue Requirement
<i>In re Northwest Natural Gas Company, dba, NW Natural, Updated Depreciation Study Pursuant to OAR 860-027-0350, Or.PUC Docket No. UM 2214</i>	Alliance of Western Energy Consumers	Power Cost Modeling
<i>In re Portland General Electric Company, 2023 Annual Update Tariff, Schedule 125, Or.PUC Docket No. UE 402.</i>	Alliance of Western Energy Consumers	Revenue Requirement / Cost of Service
<i>In re PacifiCorp d.b.a Pacific Power, Request for a General Rate Revision, Or.PUC Docket No. UE 399.</i>	Alliance of Western Energy Consumers	Revenue Requirement
<i>In re the Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of the cost recovery of the regulatory assets relating to the development and implementation of their Joint Natural Disaster Protection Plan., PUC NV. Docket No. 22-03006.</i>	Alliance of Western Energy Consumers	Single-Issue Rate Filing
<i>In re PacifiCorp d.b.a. Pacific Power, 2023 Transition Adjustment Mechanism, Or.PUC Docket No. UE 400.</i>	Alliance of Western Energy Consumers	Power Cost Modeling

BEFORE THE  
PUBLIC UTILITY COMMISSION OF OREGON

**UG 462**

**AWEC**

**Opening Testimony of Bradley G.**

**Mullins**

**AWEC  
EXHIBIT 102**



## Rates & Regulatory Affairs

UG 462

Renewable Gas Adjustment Mechanism - Dakota City

### Data Request Response

**Request No.:** UG 462 AWEC DR 1

Please identify the normalization method that NW Natural has historically elected with respect to investment tax credits (i.e. the rate base method, or cost of service method)?

**Response:**

The new U.S. Inflation Reduction Act of 2022 is causing us all to refresh our understanding of the investment tax credit (ITC) in the regulatory setting and gain a newfound appreciation for the role of historical policy elections. NW Natural Gas Company generated meaningful ITCs in the regulatory setting from the early 1970s through 1986, and a lesser amount of ITCs from unregulated activities in the early 1990s (per review of a sampling of historical annual reports).

With respect to utility property, a sampling of historical policy election statements are as follows:

1985: Investment tax credits on utility property additions which reduce income taxes payable are deferred for financial statement purposes and amortized over the life of the property giving rise to the credit.

1990: Investment tax credits on utility property additions which reduce income taxes payable are deferred for financial statement purposes and amortized over the life of the related property.

1996: Investment tax credits on utility property additions and leveraged leases which reduce income taxes payable are deferred for financial statement purposes and amortized over the life of the related property or lease. Investment and energy tax credits generated by non-regulated subsidiaries are amortized over a period of one to five years.

The accounting treatment in the regulated setting appears to have been consistent from the early 1970s until the last of the ITCs were fully amortized in 2017. The ITC was deferred in the period generated to FERC Account 255, Accumulated deferred investment tax credits. The ITC was then amortized over the life of the related property and the benefit was recorded as a reduction to income tax expense. The regulated benefit of the ITCs was incorporated into the cost of service through income taxes.



**Rates & Regulatory Affairs**

UG 462

Renewable Gas Adjustment Mechanism - Dakota City

**Data Request Response**

**Request No.:** UG 462 AWEC DR 2

Please explain whether NW Natural's investment tax credit election is binding on the Dakota RNG facility.

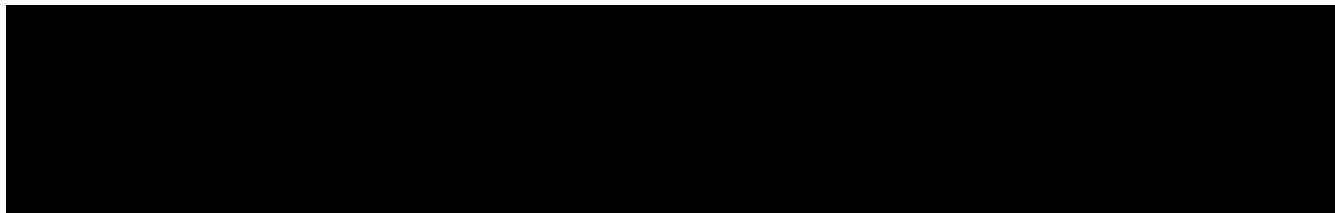
**Response:**

NW Natural's most recent policy election disclosure (2022 Form 10-K) states, "Investment tax credits associated with rate regulated plant additions are deferred for financial statement purposes and amortized over the estimated useful lives of the related plant." This is consistent with the election filed with the IRS in 1972 when Congress created the investment tax credit (ITC) and required utilities to make an election within 90 days.

The Inflation Reduction Act of 2022 (IRA) expands the availability of investment tax credits (ITC) to new types of investments and introduces new ITC recoverability options. Depending on the entity type, an ITC may be a fully refundable credit, may be sold to a third party, or may be used to reduce federal income tax cash liability. Deloitte<sup>1</sup> has recently indicated their view (informed through discussions with FASB) that refundable credits should not be treated as income tax credits, but rather as government grants (generally a basis offset). However, credits that are not refundable should generally be reported as a component of income taxes.

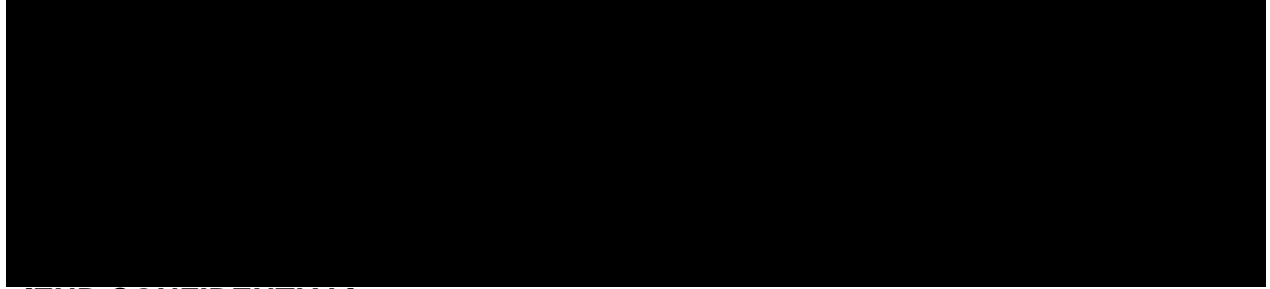
The expected ITC credit from the development of the Dakota City RNG facility will not be a refundable credit. As a result, we anticipate that the ITC will need to be treated as a component of income tax expense.

**[START CONFIDENTIAL]**



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<sup>1</sup> <https://www.taxathand.com/article/26948/United-States/2022/Emerging-ASC-740-issues-Recent-tax-legislation>



[END CONFIDENTIAL]



**Rates & Regulatory Affairs**

UG 462

Renewable Gas Adjustment Mechanism - Dakota City

**Data Request Response**

**Request No.:** UG 462 OPUC DR 1

Please provide the LLC agreement referenced in NW Natural/100 Chittum/Page 33, footnote 21.

**Response:**

For the LLC Agreement, see Confidential UG 462 OPUC DR 1 Attachment 1. In addition, an amendment to the agreement was also executed on December 3, 2022 which has been provided as Confidential UG 462 OPUC DR 1 Attachment 2.





**Rates & Regulatory Affairs**

UG 462

Renewable Gas Adjustment Mechanism - Dakota City

**Data Request Response**

**Request No.:** UG 462 OPUC DR 6

What natural gas hubs are available for selling the brown gas?

**Response:**

The brown gas from the Dakota City project flows onto the MidAmerican common-carrier system. From there, the gas can be sold into the interstate market on the Northern Natural Gas Pipeline. Due to the fundamental interconnected structure of the natural gas system, the gas from the Dakota City project could be sold at nearly any hub in the United States, though doing so would incur transportation charges. We are selling Dakota City gas to Symmetry at the **[BEGIN CONFIDENTIAL]** [REDACTED] **[END CONFIDENTIAL]** pricing hub index price.



**Rates & Regulatory Affairs**

UG 462

Renewable Gas Adjustment Mechanism - Dakota City

**Data Request Response**

**Request No.:** UG 462 OPUC DR 11

Please provide any comparative summaries prepared for the offers discussed on NA Natural/100, Chittum/Page 16, lines 6-13.

**Response:**

Each 2021 RFP proposal was reviewed to verify it meets the general qualifications as stated in the RFP. If the proposal did not meet these qualifications, the evaluation did not continue to the next step. All but one of the 27 responses met the outlined criteria.

For each proposal that met the general qualifications outlined above, NW Natural then separated proposals into those above and below the average bundled price. The proposals at or below the average pricing moved on to the next step in the process. At that point, we considered a “short list” of 17 proposals as detailed in Confidential UG 462 OPUC DR 11 Attachment 1. These projects were then subjected to additional diligence, including meetings with proposers to ask questions and further learn about project status, feedstock source details, project partners, etc.

The incremental cost was calculated for the short-listed RFP proposals. When we evaluated Dakota City, we compared the incremental cost of the short-listed RFP proposals against Dakota City, as well as the other projects that we were currently evaluating (both offtakes and development opportunities) at the time. We constantly maintain a portfolio of available opportunities, to be able to assess how one resource compares to the others available to us. At the point in time we made the investment decision in Dakota City – November 2021 – the resources we knew about and had conducted initial diligence and incremental cost evaluations of are displayed in CONFIDENTIAL UG 462 OPUC DR 11 Attachment 2.



**Rates & Regulatory Affairs**

UG 462

Renewable Gas Adjustment Mechanism - Dakota City

**Data Request Response**

**Request No.:** UG 462 OPUC DR 14

Please provide the initial RNG Workbook prepared when the Dakota City project was determined to be actionable.

**Response:**

Please see Confidential UG 462 OPUC DR 14 Attachment 1.

BEFORE THE  
PUBLIC UTILITY COMMISSION OF OREGON

**UG 462**

**AWEC**

**Opening Testimony of Bradley G.  
Mullins**

**AWEC  
EXHIBIT 103**

**REDACTED**

