

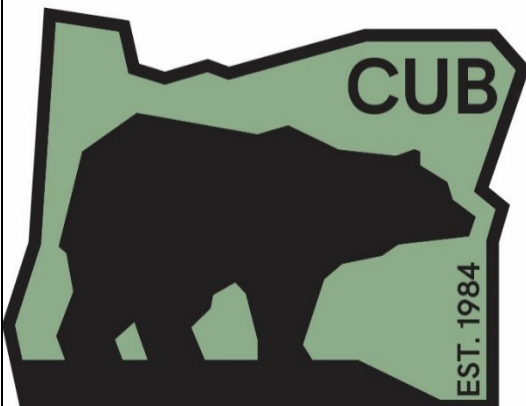
**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UE 416**

In the Matter of )  
)  
PORTLAND GENERAL ELECTRIC )  
COMPANY, )  
)  
Request for a General Rate Revision; and )  
2024 Annual Power Cost Update. )  
\_\_\_\_\_)

**APCU OPENING TESTIMONY  
OF THE  
OREGON CITIZENS' UTILITY BOARD**

May 24, 2023



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**OF OREGON**  
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Request for a General Rate Revision; and ) UTILITY BOARD  
2024 Annual Power Cost Update. )  
\_\_\_\_\_ )

1 **Q. Please state your name, occupation, and business address.**

2 A. My name is William Gehrke. I am a Senior Economist employed by Oregon  
3 Citizens' Utility Board (CUB). My business address is 610 SW Broadway, Ste. 400  
4 Portland, Oregon 97205.

5 **Q. Please describe your educational background and work experience.**

6 A. My witness qualification statement is found in exhibit CUB/101.

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

8 A. My testimony responds to issues and arguments raised by Portland General Electric  
9 (PGE or the Company) in this proceeding. This testimony raises issues related to  
10 PGE's calculation of forecasted 2024 net variable power costs (NVPC).

11 **Q. How is your testimony organized?**

12 A. My testimony is organized as follows:

- 13 II. Biglow Capacity Factor Calculation  
14 III. Carty Effective Forced Outage Rate (EFOR)  
15 IV. Modeling Changes

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**II. Biglow Capacity Factor Calculation**

**Q. Please summarize your testimony on this topic.**

**A.** CUB recommends changes to the modeling of Biglow in NVPC in response to an incident at the facility in 2022.

**Q. What is the Biglow Wind Farm?**

**A.** The Biglow Wind Farm is a 450 MW capacity wind generating facility located in Sherman County, Oregon. The facility is owned by Portland General Electric. The facility was built from 2007 to 2010 in three phases.

**Q. How does PGE model wind facilities in this proceeding?**

**A.** NVPC rates are calculated using a production cost model called MONET. At a high level, MONET models power costs by economically dispatching power plants and economically transacting around market purchases and sales subject to MONET inputs. PGE's hourly load forecast and forward electric and natural gas curves are inputs into the MONET model. The characteristics, including the projected capacity factors, of renewable facilities such as the Biglow Wind Facility are inputs into the model.

**Q. What are annual capacity factors?**

**A.** Annual capacity factors are the ratio of the total actual energy produced to the energy that would be produced if the plant had operated continuously at the maximum rating. For wind facilities in MONET, the numerator of the ratio is

**(Start Highly Confidential)** [REDACTED] **(End Highly**

1 **Confidential)** divided by the denominator, **(Start Highly Confidential)** [REDACTED]  
2 [REDACTED] **(End Highly Confidential)**.<sup>1</sup>

3 **Q. How are annual capacity factors for wind generation used in MONET?**

4 **A.** The annual capacity factors for wind generation **(Start Highly Confidential)** [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 **(End Highly Confidential)**<sup>2</sup>

8 **Q. How are forced outage rates modeled for Biglow?**

9 **A.** **(Start Highly Confidential)** [REDACTED]  
10 [REDACTED]  
11 [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED]  
15 [REDACTED]  
16 **(End Highly Confidential)**<sup>3</sup>

17 **Q. What happened at Biglow in 2022?**

18 **A.** **(Start Highly Confidential)** [REDACTED]  
19 [REDACTED]  
20 [REDACTED]<sup>4</sup> [REDACTED]<sup>5</sup> [REDACTED]

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<sup>1</sup> UE 416 – CUB/102/Gehrke/1.

<sup>2</sup> UE 416 – CUB/102/Gehrke/1.

<sup>3</sup> UE 416 – CUB/102/Gehrke/2.

<sup>4</sup> UE 416 – CUB/102/Gehrke/2.

<sup>5</sup> UE 416 – CUB/104.

1 [REDACTED]

2 [REDACTED] (End Highly Confidential)

3 **Q. What was PGE's reaction to the incident at Biglow?**

4 **A. (Start Highly Confidential)** [REDACTED]

5 [REDACTED]

6 [REDACTED] (End Highly

7 Confidential)<sup>6</sup> (Start Highly Confidential) [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED] (End Highly Confidential)<sup>7</sup>

11

12 (Start Highly Confidential) [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED] (End Highly

17 Confidential)<sup>8</sup>

18 **Q. What was the root cause of the referenced outage?**

19 **A. (Start Highly Confidential)** [REDACTED]

20 [REDACTED]

21 [REDACTED]

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<sup>6</sup> UE 416 – CUB/103/Gehrke/9.

<sup>7</sup> UE 416 – CUB/103/Gehrke/13.

<sup>8</sup> UE 416 – CUB/103/Gehrke/16.

1 [REDACTED]

2 [REDACTED] (End Highly

3 Confidential)<sup>9</sup>

4 **Q. This proceeding is about forecasting future NVPC. Why is CUB providing**  
5 **details about an incident that occurred in the past?**

6 **A.** When PGE filed its general rate case, the Company estimated the generation at  
7 Biglow using the five-year rolling average of actual generation at the facility based  
8 on 2017-2021 data. In the April update, PGE updated the inputs for Biglow to  
9 include data from the 2022 calendar year for wind generation. The incident detailed  
10 in this testimony affected Biglow’s performance in calendar year 2022, which  
11 means that it has an impact on the calculation of NVPC in this proceeding.

12 **Q. What is CUB’s recommendation?**

13 **A.** CUB recommends the period (Start Highly Confidential) [REDACTED]  
14 [REDACTED]  
15 [REDACTED] (End Highly Confidential). According  
16 to CUB’s review of this issue, (Start Highly Confidential) [REDACTED]  
17 [REDACTED]  
18 [REDACTED] (End Highly Confidential)

19 **Q. Has PGE made a similar adjustment to wind generation inputs in this case?**

20 **A.** Yes. (Start Highly Confidential) [REDACTED]  
21 [REDACTED]  
22 [REDACTED]

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<sup>9</sup> UE 416 – CUB/103/Gehrke/3.

1 [REDACTED]

2 [REDACTED] (End Highly Confidential)

3 CUB’s proposal applies the same NVPC methodology impact that the Company  
4 has used in other circumstances.

5 **Q. Why is CUB approach reasonable?**

6 **A.** CUB does not agree that including the period associated with the outage is  
7 representative of the future, so it would be inappropriate to include the impact of  
8 the outage as part of the 2024 NVPC forecast. Therefore, CUB recommends that  
9 the time period associated with the outage is excluded from the five-year average.

10 (Start Highly Confidential) [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 (End Highly Confidential)

14 **Q. Does CUB expect this event to occur again in 2024?**

15 **A.** No. (Start Highly Confidential) [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED] (End Highly

20 Confidential)<sup>10</sup>

21

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<sup>10</sup> UE 416 – CUB/103/Gehrke/3.

1 (Start Highly Confidential) [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED] (End Highly Confidential)<sup>11</sup>

7 **Q. What is the difference between CUB’s proposal and PGE’s proposal?**

8 **A.** As can be seen in Table 1 below, CUB’s proposal is substantially similar to  
9 Biglow’s capacity factor from the 2017-2021 time period.  
10

<b>Table 1: Comparison of Annual Capacity Factors for Biglow Phase I</b>		
2017-2021	CUB’s Proposal	PGE’s Proposal
Annual Capacity Factor	Annual Capacity Factor	Annual Capacity Factor
[REDACTED]	[REDACTED]	[REDACTED]

11 **Q. What is the impact of this adjustment?**

12 **A.** This adjustment results in a 1.184-million-dollar reduction to 2024 Net Variable  
13 Power Cost estimated on March 31<sup>st</sup>, 2023.

14 **III. Carty EFOR**

15 **Q. Please summarize your testimony on this topic.**

16 **A.** In response to the incident that will be detailed in this sector, CUB recommends an  
17 alternative calculation of the forced outage rate for PGE’s Carty natural gas plant.

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<sup>11</sup> UE 416 – CUB/103/Gehrke/14.



1 **Q. What is Carty?**

2 **A.** Carty is a combined-cycle combustion natural gas-fueled electric generating power  
3 plant. The power plant is PGE’s newest natural gas power plant, and is located in  
4 Morrow County, Oregon.

5 **Q. What happened at Carty in 2021?**

6 **A.** (Start Highly Confidential) [REDACTED]  
7 [REDACTED]  
8 [REDACTED]  
9 [REDACTED]  
10 [REDACTED]  
11 [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED]  
15 [REDACTED]  
16 [REDACTED] (End Highly  
17 Confidential)<sup>12</sup>

18 **Q. What was the cause of the incident?**

19 **A.** (Start Confidential) [REDACTED]  
20 [REDACTED]

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<sup>12</sup> UE 416 – CUB/105/Gehrke/5-6.

1 [REDACTED]

2 [REDACTED] (End Confidential)<sup>13</sup>

3 **Q. Is 2021 an unusual year for the operation of Carty for its historical**  
4 **equivalent forced outage rate (EFOR)?**

5 **A. (Start Highly Confidential)** [REDACTED]

6 [REDACTED] (End Highly Confidential)

Table 2: Comparison of EFOR for Carty from 2018 to 2022					
Year	2018	2019	2020	2021	2022
EFOR	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

7

8 **Q. What is CUB's proposal?**

9 **A.** CUB proposes to remove the 2021 year of forced outage data from Carty-generated  
10 power and replace that year of data with 2018 actuals. CUB recommends that 2021  
11 forced outage rates for Carty be excluded from the calculation of forced outage rates  
12 for Carty moving forward.

13

14 **Q. Why is CUB's proposal reasonable?**

15 **A.** The Carty outage in 2021 was a unique incident. PGE has taken several steps to  
16 ensure that a similar incident is not going to happen again. PGE has (Start Highly

17 **Confidential)** [REDACTED]

18 [REDACTED]

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<sup>13</sup> UE 416 – CUB/105/Gehrke/3.

1 [REDACTED] (End Highly Confidential)<sup>14</sup>

2 however absent CUB's response, this incidence would negatively impact PGE's  
3 consumers in this proceeding

4 **Q What is the impact of this adjustment?**

5 **A.** This adjustment results in a 3.884 billion dollar reduction to 2024 Net Variable  
6 Power expense from the NET on March 31<sup>st</sup>, 2023

7

### **I . Modeling Changes in Non-Generation Year**

9 **Q Please summarize CUB's position on this item.**

10 **A.** CUB opposes PGE's recommendation to Schedule 25 to allow the  
11 application of NV Cost Accounting Enhancement in non-generation years. Instead of  
12 PGE's recommendation, which would allow for parties to propose modeling  
13 changes voluntarily, CUB recommends that PGE be allowed, for on or after 2025 and  
14 2026 Annual Update Tariffs (AUTs) to propose modeling changes relevant to  
15 PGE's participation in the Western Resource Adequacy Program (WRAP) and the  
16 implementation of the ongoing extended day-ahead market (EDAM)

17 **Q. What is the timeliness of the AUT proposals?**

18 **A.** In an accelerated proceeding. It is understood that a comprehensive schedule  
19 along with numerous modeling changes will make it hard for parties under a  
20 complex workload to enhance it. CUB is also concerned about the modeling  
21 adjustment that should be considered in the T's compressed  
22 timeline. Bringing modeling changes to issues relevant to new ventures for the

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<sup>14</sup> UE 416 – CUB/105/Gehrke/1-2.

1 Company—the WRAP and the EDAM—the scope of changes for parties to  
2 consider is narrowed, while the Company still retains the ability to make reasoned  
3 changes to its modeling to help create a more accurate forecast.

4 **Q. Can you provide an example of how the compressed schedule affects CUB’s**  
5 **review of annual power costs?**

6 **A.** Yes. In this proceeding, PGE filed its initial forecast for NVPC on  
7 February 15<sup>th</sup>, 2023. PGE filed a second update on March 31, 2023. Workpapers  
8 are provided fifteen days after the forecast is released, which means that PGE did  
9 not file workpapers associated with the second update until April 14<sup>th</sup>, 2023.  
10 Therefore, Parties had 28 workdays to review PGE’s workpapers from the Second  
11 Update to Opening Testimony, which provides a limited window for review and  
12 discovery.

13 **Q. How does this compare to the resources and time that the Company has to**  
14 **prepare this filing?**

15 **A.** The Company has a dedicated Gross Margin and Power Cost Forecasting &  
16 Analysis team. In my time reviewing the AUT Minimum Filing Requirements,

17 **(Start Highly Confidential)** [REDACTED]

18 [REDACTED]

19 [REDACTED] **(End Highly**

20 **Confidential)** This is in stark contrast to the amount of time and resources that  
21 stakeholders have to review the filing.

22 **Q. Does PGE’s commitment to hold a workshop with parties by March 15<sup>th</sup> of**  
23 **each AUT filing assuage CUB’s concern?**

1     **A.** While CUB appreciates the commitment, it does not. The content of these  
2             workshops vary year to year. AUT workshops have at times been helpful primers  
3             on PGE’s upcoming modeling changes. However, in CUB’s experience, it takes a  
4             detailed review of the Company’s workpapers to understand the impact of  
5             modeling changes. CUB has also attended AUT workshops that end up being  
6             workshops on how to understand MONET, rather than on upcoming modeling  
7             changes.

8

9     **Q. What does CUB propose as an alternative?**

10    **A.** CUB proposes that PGE be allowed to update modeling for the EDAM and the  
11             WRAP program for the 2025 and 2026 AUTs. CUB understands that these  
12             programs may require near term changes to how NVPC is modeled.

13    **Q. Is it appropriate to allow modeling changes in non-GRC years due to**  
14             **HB 2021 in 2024 and 2025?**

15    **A.** No. PGE is not subject to HB 2021 emission limits until 2030, which is several  
16             years away. CUB is unaware of any constraints that PGE is facing in the near term  
17             around HB 2021.

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

19    **A.** Yes.

**WITNESS QUALIFICATION STATEMENT**

**NAME:** William Gehrke

**EMPLOYER:** Oregon Citizens' Utility Board

**TITLE:** Economist

**ADDRESS:** 610 SW Broadway, Suite 400  
Portland, OR 97205

**EDUCATION:** MS, Applied Economics  
Florida State University, Tallahassee, FL

BS, Economics  
Florida State University, Tallahassee, FL

**EXPERIENCE:** Provided testimony for the Oregon Citizens' Utility Board in numerous dockets such as UE 335, UE 374, UG 344, UG 347, UG 366, UG 388, UE 374, UG 388, UE 391, UE 394 and UE 406. Worked as an Economist for the Florida Department of Revenue. Worked as Utility Analyst at the Florida Public Service Commission, providing advice on electric rate cases. Attended the Institute of Public Utilities Annual Regulatory Studies program in 2018.

CUB Exhibit 102 is Highly Confidential and has been served upon the Commission and each party designated to receive highly confidential information pursuant to Order 22-138.

CUB Exhibit 103 is Highly Confidential and has been served upon the Commission and each party designated to receive highly confidential information pursuant to Order 22-138.



CUB Exhibit 104 is Highly Confidential and has been served upon the Commission and each party designated to receive highly confidential information pursuant to Order 22-138.

CUB Exhibit 105 is Highly Confidential and has been served upon the Commission and each party designated to receive highly confidential information pursuant to Order 22-138.