

BEFORE THE PUBLIC UTILITY COMMISSION

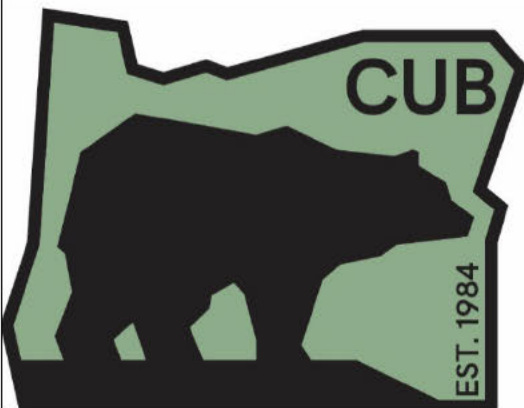
OF OREGON

UE370, UE 372

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY,)
)
Renewable Resource Automatic Adjustment)
Clause (Schedule 122) (Wheatridge Renewable)
Energy Farm) (UE 370), and)
)
Renewable Resource Automatic Adjustment)
Clause (Schedule 122) (BPSC Energy Storage)
Microgrid and ARC Energy Storage)(UE 372).)
)

OPENING TESTIMONY
OF THE
OREGON CITIZENS' UTILITY BOARD

March 30, 2020



(Redacted Version)

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON
UE 370, UE 372**

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|---|---|--------------------------|
| In the Matter of |) | |
| |) | |
| PORTLAND GENERAL ELECTRIC |) | |
| COMPANY, |) | |
| |) | |
| Renewable Resource Automatic Adjustment |) | |
| Clause (Schedule 122) (Wheatridge Renewable |) | OPENING TESTIMONY OF THE |
| Energy Farm) (UE 370), and |) | OREGON CITIZENS' UTILITY |
| |) | BOARD |
| Renewable Resource Automatic Adjustment |) | |
| Clause (Schedule 122) (BPSC Energy Storage |) | |
| Microgrid and ARC Energy Storage) (UE 372). |) | |
| |) | |

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

2 A. My name is William Gehrke. I am an Economist employed by Oregon Citizens'
3 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. CUB's testimony responds to Portland General Electric Company's (PGE or the
9 Company) proposal to recover costs associated with the Wheatridge Energy
10 Facility. The Company is also seeking cost recovery for batteries located at the
11 Beaverton Public Safety Center (BPSC) and the Anderson Readiness Center
12 (ARC).

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

2 **A.** CUB's testimony is organized as follows:

- 3 1. Wheatridge Wind Power Purchase Agreement (PPA) and Company Owned Tranche
- 4 2. Wheatridge Renewable Energy Credit (REC) Monetization
- 5 3. Microgrid Projects

6 **I. Wheatridge Wind PPA and Company Owned Tranche**

7 **Q. What is the Company seeking cost recovery for in UE 370?**

8 **A.** The Company is seeking cost recovery of the fixed costs, operation and
9 maintenance (O&M) costs, income taxes, property taxes, and other fees and costs
10 associated with the wind-related portions of the Wheatridge Renewable Energy
11 Facility (Wheatridge).¹ PGE is not seeking cost recovery of the storage and solar
12 components of the Wheatridge facility, because it not scheduled to be in service
13 until Q4 of 2021.

14 **Q. How did PGE make the decision to move forward with Wheatridge?**

15 **A.** According to the Company, it determined subsequent to the 2016 IRP process
16 that taking early action on physical Renewable Portfolio Standard (RPS)
17 compliance to secure federal production tax credits (PTCs) was in the best
18 interests of customers.² PGE believes the development of Wheatridge is consistent
19 with its 2016 IRP Revised Renewable Action Plan that was acknowledged in
20 Commission Order No. 18-044.³ Following that Order, PGE issued its final Request
21 for Proposals (RFP) on May 22, 2018.⁴ Bates White served as the Independent

¹ UE 370 – PGE/100/Armstrong – Batzler/3.

² UE 370 – PGE/100/Armstrong – Batzler/5.

³ *Id.*

⁴ UE 370 – PGE/100/Armstrong – Batzler/7.

1 Evaluator (IE) to oversee the RFP.⁵ After the RFP, the Company decided to move
2 forward with the Wheatridge project. [REDACTED]

3 [REDACTED]

4 **Q. What information has CUB reviewed regarding the Company's decision to**
5 **select Wheatridge?**

6 **A.** Among other materials, CUB reviewed the Bates White IE Report⁶ and the
7 Company's RFP final shortlist.

8 **Q. Did CUB review the Company's RFP shortlist?**

9 **A.** Yes. CUB reviewed the Commission-approved RFP shortlist.

10 **Q. Did a project appear to perform better on the RFP scoring?**

11 **A.** [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]⁸

17 **Q. Which bid did the Company select?**

18 **A.** The Company selected the bid associated with the Wheatridge project.

19 **Q. What is CUB's position on the wind component of the Wheatridge facility?**

20 **A.** [REDACTED] CUB
21 finds that PGE's decision to select the Wheatridge Project was reasonable, given the

⁵*Id.*

⁶ UE 370 – CUB/102 (Confidential).

⁷ UE 370 – CUB/ 103 (Confidential).

⁸ UE 370 – CUB/104 (Confidential) and UE 370/CUB/105 (Confidential).

1 facts of the case that CUB has reviewed at this time. However, CUB reserves the
2 right to continue to review information throughout the pendency of this proceeding,
3 including the testimony of other parties, which may impact CUB's position on this
4 issue. In short, CUB has not made a final determination on the prudence of PGE's
5 decision to move forward with Wheatridge.

6 **II. Wheatridge REC Monetization**

7
8 **Q. Please summarize the Company's recommendation for REC Monetization**

9 **A.** The Company is seeking to sell the Wheatridge RECs to cost of service customers
10 under PGE's Schedule 7 and Schedule 32 who participate in PGE's renewable
11 portfolio option programs.⁹ According to PGE, this is the most beneficial proposal
12 for its customers.¹⁰ The sale would be conducted from the [REDACTED]
13 [REDACTED]. PGE intends on
14 pricing the Wheatridge RECs at [REDACTED].¹¹

15 **Q. How did the Company arrive at its proposed price for the REC?**

16 **A.** [REDACTED]
17 [REDACTED]¹² [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]¹³

22 ///

⁹ UE 370 – PGE/100/Armstrong – Batzler/18.

¹⁰ *Id.*

¹¹ UE 370 – PGE / 100 / Armstrong – Batzler / 21.

¹² UE 370 – CUB/ 106 (Confidential).

¹³ UE 370 – CUB/ 107

1 **Q. Did the Company compare the REC price to other data sources?**

2 A. Yes. The Company's proposed price is similar to the price of [REDACTED]
3 [REDACTED].¹⁴ Since its initial
4 filing in the case, the Company has compared the additional quotes provided from
5 their broker. This additional information has been attached as CUB Exhibit
6 XXX.¹⁵ The Company has a broker who has seen wholesale market REC quotes [REDACTED]
7 [REDACTED] per MWh.

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

9 A. CUB proposes that the REC's be priced at [REDACTED]
10 [REDACTED]. This is a 10 percent discount on the price proposed by PGE.
11 CUB is recommending this reduction in the price to account for the large volume of
12 the Wheatridge RECs being sold in this transaction. Based on discovery, the
13 average quote for RECs from the Company's broker is between [REDACTED]
14 [REDACTED]. The Wheatridge facility is estimated to produce [REDACTED].
15 As explained in the Company's opening testimony, if the REC were sold on the
16 market, selling such a large volume of RECs would put downward pressure on the
17 average sales price. Therefore, CUB believes it is appropriate to reduce the price of
18 the RECs by 10 percent to provide a lower unit price for PGE's Green Future
19 customers [REDACTED]

20 [REDACTED]

21 **Q. What is the impact of this change on the value of the RECs?**

¹⁴ UE 370/ CUB 108 (Confidential).

¹⁵ UE 370/ CUB 109 (Confidential).

1 A. This value associated with this would provide an estimated year-one value of [REDACTED]
2 [REDACTED] for cost of service ratepayers that would purchase the RECs under the
3 Company's proposal. If the Company's proposal of pricing the REC at [REDACTED] per
4 REC were to be followed, it would provide an annual value of [REDACTED] to
5 ratepayers.

6 III. Microgrid Projects

7 **Q. What energy storage projects is PGE seeking cost recovery under the**
8 **Renewable Resource Automatic Adjustment Clause?**

9 A. The Company is seeking cost recovery of two energy storage projects. The first
10 project is at the Beaverton Public Safety Center (BPSC), which is located in
11 Beaverton, Oregon. The BPSC is a new Beaverton municipal building, which will
12 house the city's policy and emergency management departments. The Company
13 has installed a 250 kW/4-hour system at the BPSC.¹⁶

14
15 The second project is the Anderson Readiness Center (ARC), which is located in
16 Salem, Oregon. This facility hosts the Oregon Army and Air National Guard along
17 with the Oregon State Police. The Company installed a 500kW/2-hours system at
18 the ARC.¹⁷

19 **Q. Why is the Company installing batteries on its system?**

20 A. The Company installed energy storage projects in order to comply with Oregon's
21 2015 HB 2193, which mandates that PGE procure up to 5MWh of energy storage

¹⁶ UE 372 – PGE/100/Murtaugh – Cristea/6 at line 13.

¹⁷ UE 372 – PGE/100/Murtaugh – Cristea/6 at line 14.

1 before 2020. The bill put a limit on energy storage procurement of up to one
2 percent of 2014 peak load (38.7 MWh for PGE).¹⁸

3 **Q. What is the primary purpose of the BPSC and the ARC energy storage**
4 **microgrids?**

5 **A.** The BPSC and the ARC are microgrids. A microgrid is a small-scale electric grid
6 that operates with on-site generation and energy storage. In the event of a
7 widespread system outage, microgrids would isolate its self and operate
8 independently (islanding).

9 **Q. What are the primary benefits of the energy storage microgrids?**

10 **A.** These microgrid projects will provide resiliency benefits to important government
11 facilities in Oregon. The microgrids will provide a source of emergency backup
12 power for these government facilities.

13 **Q. Please expand on this.**

14 **A.** Both energy storage projects serve important government facilities. In the event of
15 the grid interruption, the two microgrids are designed to provide a resiliency
16 benefit.

17

18 The Company estimates the following benefits of the energy storage microgrids:¹⁹

19

| <i>Application</i> | <i>Percent Benefit%</i> |
|--|-------------------------|
| Capacity | 54% |
| Energy & Ancillary Services | 24% |

¹⁸ UE 372 – Portland General Electric/ 100 / Murtaugh – Cristea / 3/ Line 2-4.

¹⁹UM 1856 – Portland General Electric Energy Storage Proposal – Page 61 of 225.

| | |
|--------------------------|-----|
| Power Reliability | 21% |
|--------------------------|-----|

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Q. Are these benefits expected to remain static over the ten-year life of the storage project?

A. No.²⁰ The benefits associated with the two projects are supposed to vary according to the status of the grid. Under normal operating conditions, the battery will be used for energy and ancillary service. During peak load periods, the two batteries will dispatch to meet system capacity needs. During an outage condition, the microgrid will island from the Company’s grid and provide backup power to the site.

Q. Should the Company receive cost recovery under Schedule 122, the Company’s Renewable Resources Automatic Adjustment Clause (RAC)?

A. No. CUB does not recommend that the Company be allowed to recover the cost of the project under the RAC.

The Company is seeking cost recovery for these projects in Schedule 122, which enables costs recovery for “qualifying Company-owned or contracted new renewable energy resource and energy storage projects *associated* with renewable energy resources.”²¹ Schedule 122 was authorized pursuant to SB 838, Oregon’s original RPS bill, and subsequently expanded by SB 1547 to include costs from energy storage projects that are *associated* with qualifying RPS renewable energy facilities. CUB’s position is that these batteries are not associated with the procurement of a new RPS compliant renewable resource for PGE’s ratepayers.

²⁰ UE 370/ CUB 108.
²¹ PGE Schedule 122, Renewable Resources Automatic Adjustment Clause (emphasis added).

1 **Q. Has CUB addressed this issue in other proceedings?**

2 **A.** Yes. In UE 335, PGE’s last general rate case, the Company requested “that the
3 Commission clarify that energy storage used to integrate renewables on a utility’s
4 system qualifies as ‘associated energy storage.’”²² In that proceeding, CUB argued
5 that the reason “associated storage” was included in SB 1547’s broadening of the
6 RAC was the expectation that renewables would be combined with on-site storage
7 to add value to a renewable investment.²³ Similarly, in AR 616, an ongoing
8 Rulemaking Related to Renewable Portfolio Standard Planning Process and
9 Reports, CUB argued that “associated energy storage” should be defined as “on-
10 site storage.”²⁴

11 **Q. Has the Commission ever defined what is meant by SB 1547’s addition of**
12 **“associated energy storage” to the RAC?**

13 **A.** It has not. This is a legal issue that requires a statutory interpretation analysis to
14 discern the legislature’s intent in including “associated energy storage” in the bill.
15 This should be conducted in a contested case proceeding with input from multiple
16 parties and a final Commission Order, rather than a one-sided attempt by the
17 Company to include energy storage projects in the RAC that may or may not be
18 appropriate. Alternatively, the Commission can choose to continue to address the
19 issue in the ongoing AR 616 rulemaking. However, this proceeding is not the
20 correct venue to define that term. To CUB, the inclusion of microgrid energy
21 storage projects that are not connected on-site to RPS compliant resource is
22 inappropriate.

²² UE 335 – PGE/2400/Macfarlane – Goodspeed/11.

²³ UE 335 – CUB’s Reply Brief at 16.

²⁴ AR 616 –CUB Comments at 3 (Mar. 19, 2019).

1 **Q. Do you believe that it is appropriate to make this change on an ad-hoc**
2 **basis?**

3 A. No. CUB was a party to the stipulation in OPUC Docket UM 1330, the proceeding
4 that led to the creation of the RAC. As mentioned, other parties, including the
5 parties to that proceeding, should be able to respond to proposed changes at issue in
6 this proceeding.

7 **Q. Can you provide an example of an energy storage project that would**
8 **qualify for cost recovery under Schedule 122?**

9 A. To CUB, the next tranche of renewables at Wheatridge, if found to be prudently
10 incurred, would potentially qualify for cost recovery under the Company's RAC.
11 The project is scheduled to be placed in service in quarter 4 of 2021 and the
12 Company is not seeking cost recovery for the project at this time. The Company is
13 signing a PPA for 50 MW of solar generation with an associated 30 MW battery.
14 These battery projects are associated (i.e., on-site) with a specific renewable
15 resource.

16 **Q. Should the Company receive cost recovery for its investment in the**
17 **microgrid energy storage projects outside of a general rate case?**

18 A. Yes. The Company is completing these projects in compliance with Oregon HB
19 2193. HB 2193 § 2(3) provides that an electric utility may recover to costs of
20 complying with the law in rates.

21 **Q. What is CUB recommendation regarding cost recovery for the battery**
22 **storage projects?**

1 **A.** CUB requests that the Commission reject the authorization of tariffs, under
2 Schedule 122, for costs associated with the ARC and BPSC energy storage
3 microgrid. In place of cost recovery under Schedule 122, CUB recommends that
4 the Commission authorize a separate recovery of energy storage projects under a
5 separate automatic adjustment clause for costs associated with energy storage
6 projects incurred to meet the requirements of HB 2193.

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

8 **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 or comments in several Oregon Commission dockets. Worked as an Economist for the Florida Department of Revenue. Worked as Utility Analyst at the Florida Public Service Commission, providing advice on rate cases and load forecasting. Attended the Institute of Public Utilities Annual Regulatory Studies program in 2018.

Exhibit 102 is confidential and will be provided to parties who have signed protective order 19-416.

(Redacted Version)

Exhibit 103 is confidential and will be provided to parties who have signed protective order 19-416.

(Redacted Version)

Exhibit 104 is confidential and will be provided to parties who have signed protective order 19-416.

(Redacted Version)

Exhibit 105 is confidential and will be provided to parties who have signed protective order 19-416.

(Redacted Version)

Exhibit 106 is confidential and will be provided to parties who have signed protective order 19-416.

(Redacted Version)

February 19, 2020

TO: William Gehrke
Oregon Citizens' Utility Board

FROM: Jaki Ferchland
Manager, Revenue Requirement

PORTLAND GENERAL ELECTRIC
UE 370
PGE Response to CUB Data Request No. 010
Dated February 5, 2020

Request:

Refer to UE 370 CUB DR 007 Attachment A, please provide a breakdown of the value assigned to the following values:

- a. Locality
- b. Incremental
- c. Volume
- d. Tenor

Response:

PGE does not consider CUB's request to be confidential, therefore we are providing our response and the request unredacted.

PGE did not split out the components included in PGE's response to CUB Data Request 007, Attachment A any further, because to do so would be subjective. PGE recognizes and has ascribed value to the additional beneficial attributes associated with the Wheatridge RECs, as compared to Washington eligible Green-E certified RECs. However, PGE has no reasonable way of splitting this value up between the sum of the parts.

Exhibit 108 is confidential and will be provided to parties who have signed protective order 19-416.

(Redacted Version)

Exhibit 109 is confidential and will be provided to parties who have signed protective order 19-416.

January 31, 2020

TO: Moya Enright
Public Utility Commission of Oregon

FROM: Jaki Ferchland
Manager, Revenue Requirement

PORTLAND GENERAL ELECTRIC
UE 370 / UE 372
PGE Response to OPUC Data Request No. 016
Dated January 17, 2020

Request:

How do the capacity benefits, energy, and ancillary service benefits of each project differ in the following situations:

- a. Normal operating conditions.
- b. Peak load periods.
- c. Outage conditions.

Response:

Both energy storage microgrids are expected to be dispatched similarly and provide the same benefits.

- a. During normal operating conditions, the capacity benefits are expected to be reduced and the energy storage microgrids will be dispatched for other energy use cases such as energy and ancillary service. PGE expects that the benefits related to capacity, energy, and ancillary services will vary over time and the energy storage microgrids to be dispatched accordingly.
- b. During peak load periods, the capacity benefits associated with the energy storage microgrids are expected to increase. This is because during peak load periods the energy storage microgrid system is expected to be dispatched to meet PGE's system-wide capacity need.
- c. During an outage condition, the microgrid site is isolated from PGE's grid. In this condition, the microgrid is solely providing backup power to the site and managing the battery energy storage system and site solar generation to meet the site's power demands. The capacity, energy, and ancillary services benefits are system-wide benefits that do not apply in this situation.