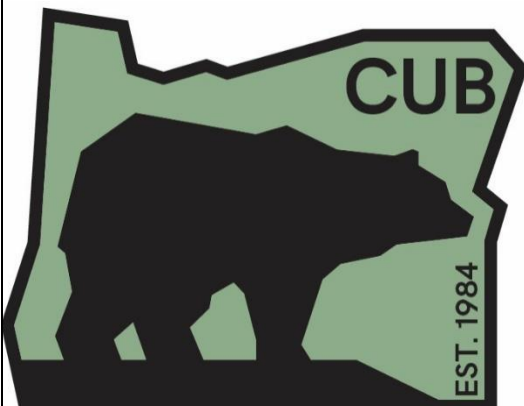


**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UM 1953**

In the Matter of )  
 )  
PORTLAND GENERAL ELECTRIC )  
COMPANY, )  
 )  
Investigation into Proposed Green Tariff. )  
\_\_\_\_\_ )

**PHASE II OPENING TESTIMONY  
OF THE  
OREGON CITIZENS' UTILITY BOARD**

July 26, 2019



**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UM 1953**

In the Matter of	)	
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PORTLAND GENERAL ELECTRIC	)	PHASE II OPENING TESTIMONY
COMPANY,	)	OF THE OREGON CITIZENS'
	)	UTILITY BOARD
Investigation into Proposed Green Tariff.	)	
_____	)	

1 I. INTRODUCTION

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

3 A. My name is Bob Jenks. I am the Executive Director of by Oregon Citizens' Utility  
4 Board (CUB). My business address is 610 SW Broadway, Ste. 400 Portland,  
5 Oregon 97205.

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

7 A. My witness qualification statement is found in exhibit CUB/201.

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

9 A. CUB's testimony will not address all of the issues cited by the Commission when  
10 it ordered a second phase to this docket.<sup>1</sup> CUB will focus on the calculation of the  
11 energy and capacity credits which should be calculated on a floating basis. CUB's  
12 testimony also includes a general renew of the nine conditions delineated in Order  
13 No 16-251 with some additional recommendations.

<sup>1</sup> OPUC Order No. 19-075.

## II. CREDIT CALUCLATION

1 **Q. Please describe PGE's Proposal for calculating an Energy and a Capacity**  
2 **Credit?**

3 **A.** PGE proposes providing the green tariff subscriber an energy credit and a capacity  
4 credit to compensate the subscriber for making the resource's energy and capacity  
5 available to PGE's cost-of-service portfolio. The Company proposed to calculate  
6 the energy credit using the AURORA model in accordance with the methodologies  
7 in its most recently acknowledged Integrated Resource Plan (IRP), updated with  
8 current assumptions and levelized over the term of subscription.<sup>2</sup> Staff supports  
9 this calculation to determine a fixed (levelized) credit.<sup>3</sup> However, if a variable  
10 credit is used in the Green Tariff program, Staff recommends that PGE's power  
11 cost model, MONET, be used on an annual basis by being run with and without the  
12 output of the green resource.<sup>4</sup>

13

14 For the capacity credit, PGE is now proposing to calculate the capacity contribution  
15 through the RECAP model and valued using real levelized fixed cost of a simple  
16 cycle resource using the methodology discussed in Section 6 of PGE's IRP update  
17 filed in Docket No. LC 66.<sup>5</sup>

18 **Q. Does CUB have concerns with this approach?**

19 **A.** Yes. It is important to recognize that there is a real resource attached to the green  
20 tariff. The green tariff subscriber is not leaving the system but, rather, having a

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<sup>2</sup> UM 1953 – PGE/400/Sims – Tinker /7.

<sup>3</sup> UM 1953 -- Staff/200/Gibbens/15-16.

<sup>4</sup> UM 1953 -- Staff/200/Gibbens/16.

<sup>5</sup> UM 1953 – PGE/400/Sims – Tinker /9.

1 new resource developed to meet all or part of their load. This differentiates the  
2 green tariff program from direct access, which allows customers to leave the  
3 system and be served by market resources. Green tariff customers remain  
4 customers of the utility, they pay the normal cost-of-service tariff for the utility  
5 resources, *and* they pay a premium for the new resource that is developed to serve  
6 them. The credits should reflect the value that non-participating customers receive  
7 due to the green tariff customer developing their own resource and subsequently  
8 bringing that resource to the system.

9  
10 CUB is concerned with using real levelized values based on the contract life of the  
11 PPA or life of the utility developed asset. Doing so would place significant  
12 estimation risk on non-participating customers. Through the preliminary voluntary  
13 renewable energy tariff (VRET) proceeding, the Commission established nine  
14 conditions to determine whether a green tariff was in the public interest.<sup>6</sup> One of  
15 these conditions was that the regulated utility must demonstrate that all direct and  
16 indirect costs and risks are borne by the participating voluntary renewable energy  
17 customers, shareholders of the utility, or third-party developers and suppliers – not  
18 the existing cost-of-service customers. CUB is concerned that with a fixed credit  
19 approach the remaining cost-of-service customers bear too much of the risk.

20 **Q. What risk does the Company's program place on non-green tariff customers?**

21 **A.** A fixed levelized credit places a great deal of risk on the non-green tariff  
22 customers. First, an IRP cannot accurately forecast energy and capacity costs for

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<sup>6</sup> See OPUC Order No. 16-251 at Appx. A, Page 7.

1 20 years, and, under PGE's methodology, the non-green tariff customers take that  
2 risk. Second, CUB is concerned that the non-participating customers are taking a  
3 risk as to whether a simple-cycle combustion turbine (the generic capacity resource  
4 in an IRP) represents the least cost capacity. CUB is also concerned using a fixed  
5 levelized credit requires non-participating customers to take the price risk on  
6 marketing the power from the green resource.

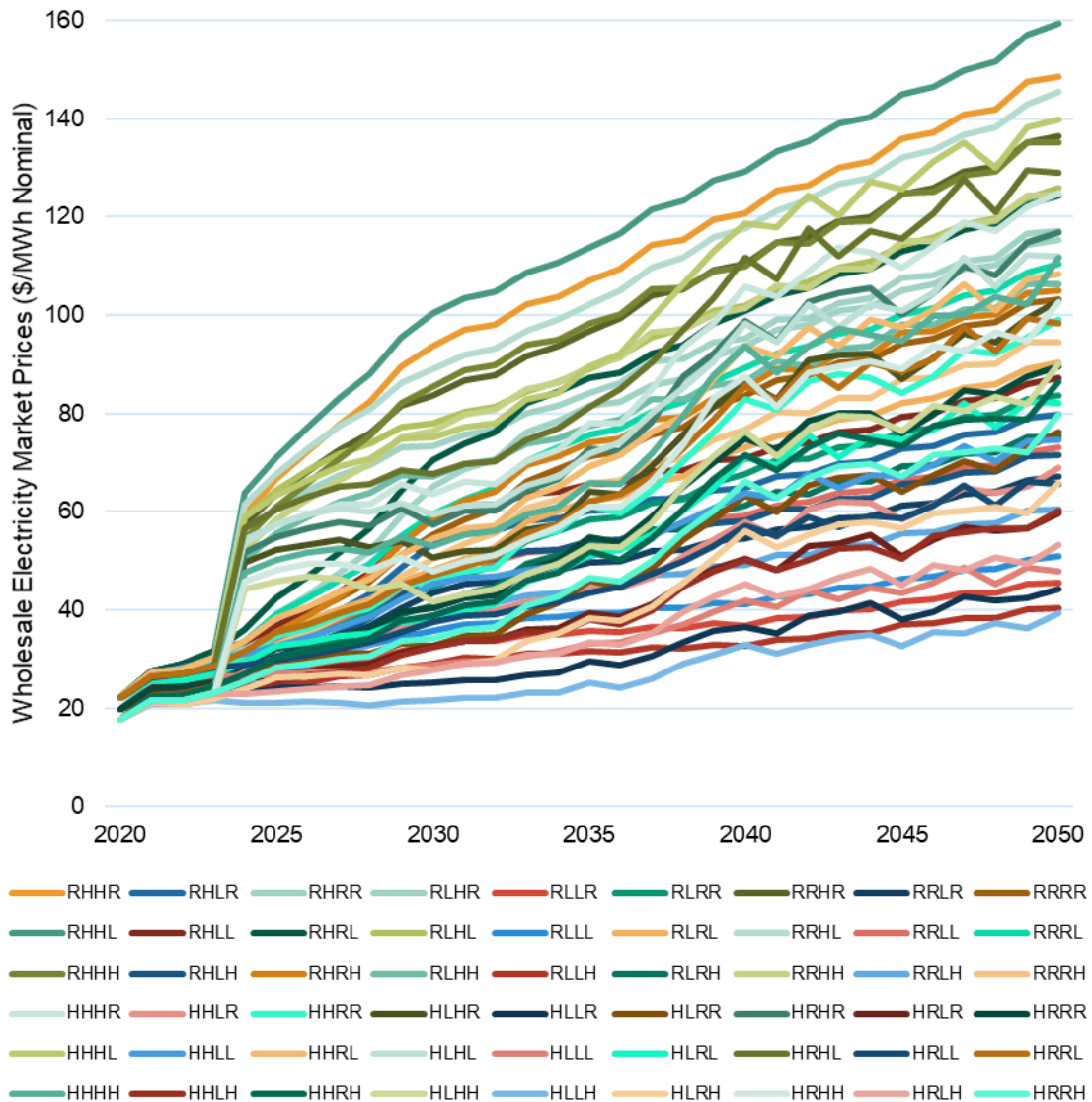
7 **Q. Please explain your concern about the IRP forecast.**

8 **A.** IRPs are a snapshot in time. While we have good forecasting tools, there is little  
9 doubt that the IRPs forecast of 20 years of energy and capacity will be wrong. Any  
10 forecast is subject to error, as it relies on assumptions and inputs that are subject to  
11 change. CUB is concerned that non-participating customers, including residential  
12 customers who are not eligible for a green tariff, are the ones who take on this risk.

13  
14 PGE's 2019 IRP was recently filed. Below are the forward price curves produced  
15 by the AURORA model associated with fifty-four different futures that were  
16 modeled in the IRP--including different gas prices, different hydro conditions, and  
17 different carbon regulations. This is the same model PGE proposes to use to set the  
18 energy credit. While only one of these futures becomes the reference case, the  
19 spread between different futures identifies the impact of inaccurate forecasts. The  
20 different price curves are closer together in the earlier years and diverge overtime,  
21 with the spread increasing each year. Picking one of these futures and locking in a  
22 levelized transfer payment for 20 years places a great deal of risk on non-

1 participating customers who could be asked to significantly overpay for the value  
2 of the capacity.

3 *Annual average wholesale electricity price futures for the Oregon West zone<sup>7</sup>*

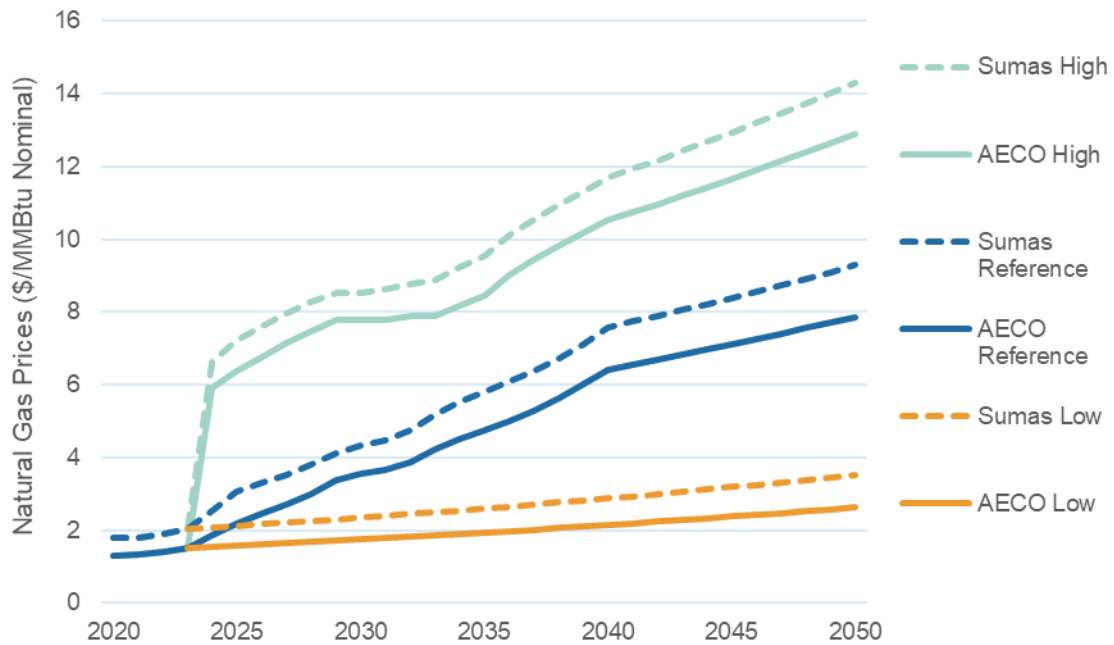


4  
5 While the graph above applies to electric price forecasts, which influences the value of  
6 the energy credit, a similar circumstance exists for natural gas prices, which influence the  
7 value of the capacity associated with a single-cycle combustion turbine. CUB is

<sup>7</sup> Portland General Electric • 2019 Integrated Resource Plan, 356 of 678

1 concerned with the risk to non-participating customers from choosing a gas future and  
 2 using it to lock in the value of capacity payments for 20 years.

3 AECO and Sumas hub prices across Gas Price Futures<sup>8</sup>



4  
 5 CUB recognizes that cost-of-service customers take this forward price risk when the  
 6 utility adds a resource or signs a PPA to serve all customers. If the renewable  
 7 resource being acquired for the green tariff customer were instead being acquired  
 8 for the system, customers would take the risk that the value of the energy and  
 9 capacity was different than the IRP forecast. The difference here is that these green  
 10 tariff resources are not being built for the system. They are not being built to  
 11 respond to a need for new resources to serve load identified in the IRP. They have  
 12 not been found to be the least cost/least risk way to meet customers' resource needs.  
 13 Customers need reliable power from PGE. When there is a resource need to serve

<sup>8</sup> Portland General Electric • 2019 Integrated Resource Plan, page 75 of 678

1 load reliably, customers take on the risk of that resource decision. We do so because  
2 we need the resource. But in a circumstance where the power is not be acquired to  
3 meet the needs of the system and is not going through the normal IRP/RFP review,  
4 customers should not take that risk.

5 **Q. Please explain your concern about using a single cycle combustion turbine to**  
6 **value capacity?**

7 **A.** In PGE's last IRP, there was a great deal of discussion about capacity resources,  
8 including whether capacity was available in the bilateral market from existing  
9 regional hydro facilities, and whether shorter term capacity additions had  
10 flexibility value. Currently, PGE has launched its Smart Grid test bed to determine  
11 whether demand response can be done at a scale that would provide a dispatchable  
12 capacity resources. In the current IRP, PGE is examining batteries as a capacity  
13 resource. CUB believes that rather than stating that the capacity value will apply  
14 when the utility is resource insufficient and be modeled using a single-cycle gas  
15 plant, it should be technology-neutral and based on the least cost capacity resource  
16 that is available after the resource is developed and the utility is resource  
17 insufficient.

18 **Q. Please explain your concern about the price risk on marketing the power from**  
19 **the green resource.**

20 **A.** Renewable power is produced when the sun is shining and when the wind is  
21 blowing. This may or may not correspond to the needs of customers. PGE  
22 proposes that non-participating customers should only pay energy credits when



1 PGE is energy-short according to its IRP methodology.<sup>9</sup> CUB is concerned that if  
2 the IRP finds that PGE is energy short in any hour in a year, then non-participating  
3 customers would be required to pay an energy credit. This offers little protection to  
4 non-participating customers.

5  
6 The production of energy from a renewable project may or may not correspond to  
7 the needs of the utility system. Renewables often produce energy in hours not  
8 needed to serve load, and utilities subsequently sell this power into the market.

9 Under PGE's proposal, when the energy produced by the green resource is not  
10 needed by the system, PGE will market it and non-participating customers will take  
11 the risk of whether the market price is above or below the forward price curve  
12 identified in the IRP. Instead of using the IRP to identify a fixed energy credit,  
13 CUB is proposing that MONET be used to determine the credits on an annual basis  
14 by running MONET with the resource and without the resource and comparing the  
15 two. CUB further proposes that the credit be eliminated from any hours where the  
16 output of the resource has no effect except to add additional power that is sold into  
17 the market. This would eliminate the price risk associated with marketing that  
18 power.

19 **Q. What is CUB's proposal for energy and capacity credits?**

20 **A.** CUB believes that a fixed credit puts too much risk on non-participating customers  
21 and therefore a floating credit is necessary to protect customers from this risk. For

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<sup>9</sup> UM 1953 – PGE//Sims-Tinker/36

1 the energy credit, CUB generally supports the proposal made by Staff in Phase 1 of  
2 this docket:

3 If the Commission were to approve a floating credit, the easiest  
4 and most straightforward approach is to perform a “with and  
5 without” MONET model run on an annual basis to calculate the  
6 energy credit. This directly quantifies the cost differences achieved  
7 through the green tariff program for all COS customers<sup>10</sup>.

8 CUB agrees that this is the easiest and most straightforward approach, though CUB  
9 would limit the credit to hours where PGE’s non-participating customers could  
10 utilize the energy. Using MONET will allow this to be incorporated into the AUT  
11 process, allowing parties to review it without a separate proceeding and will align  
12 the calculation of the annual credit with the calculation of the direct access  
13 transition charge.

14  
15 For the capacity credit, CUB believes PGE’s proposal to use its RECAP model to  
16 identify the contribution to capacity of the resource when the utility is resource  
17 insufficient is reasonable. However, CUB believes the value of this capacity should  
18 be determined using the least cost capacity resource and that this value should be  
19 updated regularly as part of the AUT or through another mechanism. Whether the  
20 contribution to capacity and the value of that capacity should both be updated is  
21 something CUB is still considering. While updating both would reduce the risk to  
22 non-participating customers, it is problematic because the vintage of the asset  
23 affects its contribution to capacity. Each new resource of a similar type has a

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<sup>10</sup> UM 1953 - Staff/200 Gibbens/16

1 declining contribution to capacity.<sup>11</sup> The first utility scale wind facility on PGE’s  
2 system makes a larger contribution to capacity than the fifteenth.

3  
4 **Q. What is CUB’s position on whether a credit show be allowed to go negative?**

5 **A.** In Phase 1, CUB supported capping the energy and capacity credit so they could not  
6 exceed the cost associated with the customer’s green power supply and delivery.

7 The Commission agreed with this position but suggested this cap might not be  
8 necessary if the credit was “updated in a predictable way periodically.”<sup>12</sup> Because  
9 CUB is proposing credits that are updated regularly, and is basing the capacity  
10 credit on the actual contribution to capacity caused by the resource, CUB believes  
11 that the risk of harm to other customers from removing the cap is greatly reduced.

12  
13 As more renewable are added to the Western Grid, CUB believes that it is unlikely  
14 that credits will exceed this cap on a regular basis:

- 15 • Renewables are sold into the market when market prices exceed  
16 their marginal cost, which with the production tax credit can be  
17 below zero. This means as more renewables are added to the grid  
18 there is downward pressure on market rates and downward  
19 pressure on the energy credit.
- 20  
21 • As more wind and solar are added to PGE’s system, each new  
22 addition has a reduced capacity contribution, putting downward  
23 pressure on the capacity credit.
- 24  
25 • The credit is being determined on a forward-looking weather-  
26 normalized basis. This is consistent with most ratemaking in  
27 Oregon. This means that short term weather excursions or plant  
28 outages that raise the price of energy won’t lead to larger credits  
29 (unless they effect forward looking market or gas prices).

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<sup>11</sup> Portland General Electric • 2019 Integrated Resource Plan, page 346 of 678

<sup>12</sup> OPUC Order No 19-075, page 5

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While CUB is open to considering removing the cap with regularly updated credits, it comes with a concern. Ultimately, this program could grow and become a sizable amount of PGE’s load. It could be used as the basis for a community green tariff for cities and towns that have adopted 100% renewable energy goals.<sup>13</sup> Having green tariffs priced below existing rates because of the payments made by non-participating customers could cause even more load to want to participate. At some level, the program would not be sustainable.

III. REVIEW OF THE NINE CONDITIONS FROM ORDER NO 16-251

**Q. Does CUB have comments on the nine conditions?**

**A.** Yes. CUB believes that some of the nine conditions need to be updated, and/or clarified as it relates to PGE’s proposed green tariff.

**Q. Does CUB have comments or concerns about condition 1?**

**A.** Yes. Condition 1 states:  
Renewable portfolio standard (RPS) definitions that must apply to voluntary renewable energy products are for resource type, location, and bundled renewable energy certificates (RECs)<sup>14</sup>.

CUB believes that there should be one clarification to this condition. While CUB agrees that the RPS definition should apply to renewable products under the green tariff, the green tariff should be allowed to cover additional non-carbon emitting complementary technology – primarily battery storage. A green tariff participant might want battery storage to add reliability to their facility, to improve the

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<sup>13</sup> 100% Renewable Energy Resolution, Multnomah County, 6/1/2017  
<sup>14</sup> OPUC Order No. 19-075 page 2.

1 capacity contribution of the green product, or to reduce the customer's demand  
2 charges under their cost-of-service rates. CUB notes that battery storage should  
3 only be allowed to increase the participant's capacity credit if it is primarily used  
4 to add capacity to the system. If its primary purpose was reliability for the  
5 participant or to reduce the participant's demand charges, then the battery would  
6 not raise the capacity credit. However, CUB believes that a green tariff should be  
7 allowed to include storage.

8 **Q. Does CUB have comments or concerns about condition 2?**

9 **A.** Yes. Condition 2 states:

10 Voluntary renewable energy options should only include bundled REC  
11 products. Any RECs associated with serving participants must be retired  
12 by or on behalf of participants, unless the participants consent to RECs  
13 being retired by the utility or developer.

14 CUB agrees with PGE that this should be modified to eliminate the ability of the  
15 participant to consent to the REC being retired by the utility or the developer. It  
16 is important that any RECs associated with resources developed to supply the  
17 green tariff be retired on behalf of the participant. Otherwise this is no longer a  
18 green tariff.

19  
20 CUB would further modify this condition to state that any load served by  
21 renewable project eligible for a green tariff should be reduced from the utility's  
22 RPS requirements. If the green tariff load counts under the RPS, but the  
23 associated renewable generation does not, then PGE will be adding renewables to  
24 serve load which is already served by renewables. Mathematically, this means  
25 that if green tariff participation was more than 50% of PGE's system, it would

1 have more than 100% of its load served by renewables. The following table  
 2 assumes that PGE’s total load is 20 million MWh/year and shows what would  
 3 happen if the green tariff load is still included in the RPS requirements. If 50 %  
 4 of PGE’s load was served by a green tariff, then the total renewables on PGE’s  
 5 system would be 20 million MWh. PGE would be at 100% renewable. If 60% of  
 6 PGE’s load was served by a green tariff, then the total renewables on the system  
 7 would be greater than the load on PGE’s system.

Green Tariff and RPS (total load 20 MWh)	50% of load served by green tariff	60% of load served by green tariff
<b>Green Tariff Renewables</b>	10 million MWh	12 MWh
<b>RPS renewables</b>	10 million MWh	10 MWh
<b>total renewables</b>	20 million MWh	22 MWh

13 **Q. Does CUB have comments or concerns about condition 3?**

14 **A.** Yes. Condition 3 states:

15 The year that a voluntary renewable energy program eligible  
 16 resource became operational should be no earlier than 2015<sup>15</sup>.

17 CUB agrees with PGE that this should be modified to state that any eligible  
 18 resource must be new or expanded. A renewable project developed in 2015  
 19 should not be eligible for the green tariff.

20 **Q. Does CUB have comments or concerns about condition 4?**

21 **A.** Yes. Condition 4 states that:

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<sup>15</sup> OPUC Order No. 19-075 page 2.

1           The voluntary renewable energy program size is limited to 300  
2           aMW for PGE<sup>16</sup>.

3  
4           PGE is proposing that this cap be raised to 500 aMW. CUB is concerned with  
5           raising the cap before there is actual experience with the tariff, including  
6           calculating and implementing the energy and capacity credits. Raising the cap  
7           will provide an opportunity to review the program to determine whether it should  
8           be modified. CUB recommends maintaining the current cap for the time being  
9           but the Commission should allow PGE to propose modifying the cap at a later  
10          date after there is some operational experience. This later proposal would allow  
11          a meaningful review and potential modification of the program.

12   **Q.    Does CUB have comments or concerns about conditions 5 and 6?**

13   **A.**    Yes. Conditions 5 and 6 relate to direct access:

14                   5. Voluntary renewable energy product design should be  
15                   sufficiently differentiated from existing direct access programs.

16  
17                   6. Voluntary renewable energy product offering terms and  
18                   conditions (including the timing and frequency of offerings), as  
19                   well as transition costs, must mirror those for direct access.  
20                   PGE may propose terms and conditions that differ from current  
21                   direct access provisions but must propose changes to their  
22                   direct access programs to match those changes.

23  
24           CUB is concerned that, while PGE's green tariff satisfies condition 5, the very  
25           details that make it satisfy condition 5, violate condition 6. PGE's green tariff is a  
26           very different product than direct access. Under the green tariff, the customer  
27           stays on cost-of-service rates, pays for an additional renewable resource, and gets

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<sup>16</sup> OPUC Order No. 19-075 page 2.

1 some credit for the value that the resource brings to the system. These two  
2 attributes – staying on the cost-of-service rates and adding an additional physical  
3 resource to the system – distinguishes this program from direct access. Direct  
4 access customers are not bringing a resource to the system – instead they are  
5 largely served by unspecified power (market purchases).<sup>17</sup> Direct access  
6 customers are charged a transition credit because they no longer contribute to  
7 embedded resources that were built to serve their load. Green tariff customers  
8 stay on cost-of-serve rates so continue to pay for those resources. Green tariff  
9 customers receive a capacity credit because they are bringing a real resource to  
10 the system that contributes to capacity. Direct access customers have no  
11 requirement to add capacity to the system.

12  
13 CUB recommends that condition 5 be retained and condition 6 be eliminated.

14 **Q. Does CUB have comments or concerns about condition 7?**

15 **A.** Yes. Condition 7 states:

16 The regulated utility may own a voluntary renewable energy  
17 resource, but may not include any voluntary renewable energy  
18 resource in its general rate base. It may recover a return on and  
19 return of its investment in the voluntary renewable energy resource  
20 from the subscriber; however, the utility must share some of the  
21 return on with the other utility customers for ratepayer-funded  
22 assets used to assist the voluntary renewable offering<sup>18</sup>.

23 CUB believes that it is reasonable to allow a utility to invest and own a green  
24 tariff resource if it is not included in rate base and non-participating customers are

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<sup>17</sup> UE 358 – CUB Exhibit 105

<sup>18</sup> OPUC Order No. 19-075, page 3.



1 not charged for the depreciation of the capital investment or the return on the  
2 investment. However, CUB does have some concern that a utility investment in a  
3 green resource places some additional risk on non-participants. If the facility  
4 served by the resource is shut down, PGE could own a resource without the  
5 associated load that it served. While this condition protects non-participants from  
6 paying for the resource in such circumstance, CUB is concerned that this could  
7 impact PGE's financial condition and ultimately lead to a credit rating downgrade  
8 and higher capital costs incurred on the part of ratepayers. Transactions that  
9 include a utility-built resource need to undergo enhance scrutiny at the  
10 Commission to ensure that the risks associated with that resource are well  
11 managed and will not affect non-participants.

12  
13 PGE is proposing eliminating the last part of this condition which requires that the  
14 utility share some of the return on investment with cost-of-service customers  
15 because ratepayer funded assets are used to support the renewable project.  
16 Because the participating customer remains on cost-of-service rates and is  
17 contributing to the cost of any ratepayer funded assets that are used to support the  
18 renewable project, CUB agrees with PGE that this part of the condition is not  
19 necessary.

20 **Q. Does CUB have comments or concerns about condition 8?**

21 **A.** Yes. Condition 8 states:

22 All direct and indirect costs and risks are borne by the participating  
23 voluntary renewable energy customers, shareholders of the utility  
24 or third-party developers and suppliers with provisions allowing  
25 independent review and verification by Commission Staff of all

1 utility costs. Costs include but are not limited to ancillary services  
2 and stranded costs of the existing cost of service rate-based  
3 system.<sup>19</sup>

4 CUB believes this is a critically important condition. PGE proposes to eliminate  
5 the last sentence, since ancillary services and existing assets are part of cost-of-  
6 service rates that participating customers continue to pay. CUB finds this change  
7 reasonable. CUB believes that it is important to recognize that “all direct and  
8 indirect costs” is not limited to new, incremental costs. To the degree that  
9 existing staff and resources contribute to the program, those costs need to be  
10 identified charged to participating customers and removed from rates of non-  
11 participants. In addition, CUB believes that to protect non-participants from the  
12 risks associated with this program that a floating credit is required.

13 **Q. Does CUB have comments or concerns about condition 7?**

14 **A.** No.

15 **Q. Does that conclude your testimony?**

16 **A.** Yes

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<sup>19</sup> OPUC Order No. 10-075.

## WITNESS QUALIFICATION STATEMENT

**NAME:** Bob Jenks

**EMPLOYER:** Oregon Citizens' Utility Board of Oregon

**TITLE:** Executive Director

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

**EDUCATION:** Bachelor of Science, Economics  
Willamette University, Salem, OR

**EXPERIENCE:** Provided testimony or comments in a variety of OPUC dockets, including UE 88, UE 92, UM 903, UM 918, UE 102, UP 168, UT 125, UT 141, UE 115, UE 116, UE 137, UE 139, UE 161, UE 165, UE 167, UE 170, UE 172, UE 173, UE 207, UE 208, UE 210, UE 233, UE 246, UE 283, UG 152, UM 995, UM 1050, UM 1071, UM 1147, UM 1121, UM 1206, UM 1209, UM 1355, UM 1635, UM 1633, and UM 1654. Participated in the development of a variety of Least Cost Plans and PUC Settlement Conferences. Provided testimony to Oregon Legislative Committees on consumer issues relating to energy and telecommunications. Lobbied the Oregon Congressional delegation on behalf of CUB and the National Association of State Utility Consumer Advocates.

Between 1982 and 1991, worked for the Oregon State Public Interest Research Group, the Massachusetts Public Interest Research Group, and the Fund for Public Interest Research on a variety of public policy issues.

**MEMBERSHIP:** National Association of State Utility Consumer Advocates  
Board of Directors, OSPIRG Citizen Lobby  
Telecommunications Policy Committee, Consumer Federation of America  
Electricity Policy Committee, Consumer Federation of America  
Board of Directors (Public Interest Representative), NEEA