

**RENEWABLE NORTHWEST PROJECT**

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**UE 266**

**REPLY TESTIMONY OF  
CAMERON YOURKOWSKI, JIMMY LINDSAY, AND DINA DUBSON**

**In the Matter of  
PORTLAND GENERAL ELECTRIC COMPANY'S  
Net Variable Power Costs and Annual Power Cost Update  
May 21, 2013**

1 **INTRODUCTION**

2 **Q. Please state your names, occupations, and business address.**

3 A. Our names are Cameron Yourkowski (Senior Policy Manager), Jimmy Lindsay  
4 (Regulatory Analysis Manager), and Dina Dubson (Staff Counsel). We are  
5 employed by Renewable Northwest Project with a business address of 421 SW  
6 6th Avenue, Suite 1125, Portland, Oregon 97204.

7 **Q. Mr. Yourkowski, please describe your educational and work experience.**

8 A. I hold a Bachelor's degree in Economics from the University of Montana and I  
9 have completed all of the course work towards a Master's degree in Economics  
10 at Portland State University. I have worked at RNP for the last six years focusing  
11 on transmission and integration policy matters.

12 **Q. Mr. Lindsay, please describe your educational and work experience.**

13 A. I hold a Bachelor's degree in Physics and History from Bowdoin College. I  
14 received a Fulbright Scholarship to study distributed generation with the  
15 Department of Energy Technology at The Royal Institute of Technology in  
16 Stockholm, Sweden. I have a pending MSc in Sustainable Energy Engineering  
17 from The Royal Institute of Technology. Since January 2011, I have worked at  
18 RNP as a utility analyst and regulatory manager.

19 **Q. Ms. Dubson, please describe your educational and work experience.**

20 A. I hold a Bachelor's degree from Tufts University and a Juris Doctor from  
21 University of Oregon. I began my law practice focused on energy regulatory and  
22 transactional matters at Stoel Rives LLP in 2008, where I first began to represent  
23 RNP as outside counsel. Since May 2012, I have been employed as an in-house

1 lawyer for RNP, primarily representing RNP in proceedings before Bonneville  
2 Power Administration.

3 **Q. What is the primary purpose of your testimony?**

4 A. Our testimony highlights Portland General Electric's ("PGE's") opportunity to  
5 elect discounted wind integration services from Bonneville Power Administration  
6 ("BPA") in exchange for committing to subhourly scheduling of its wind  
7 generators. Although the opportunity has passed for the first half of the  
8 upcoming BPA rate period (through September 2014), PGE still has the  
9 opportunity to elect a discounted rate for the second half of the BPA rate period  
10 (beginning in October 2014). We recommend that the Commission allow rate  
11 recovery only for BPA's lowest cost variable energy balancing service ("VERBS")  
12 rates currently available. We expect that short-term rate benefits and the long-  
13 term cost savings opportunities associated with moving to subhourly scheduling  
14 will be the best choice for customers over the long term. PGE has been a leader  
15 this area, and the Commission can help motivate PGE to continue to move  
16 forward.

17 **Q. Please summarize your testimony on wind integration options available to**  
18 **PGE.**

19 A. Our testimony presents three main points:

20 (1) For the first half of the two-year BPA rate period (October 2013  
21 through September 2014), PGE has elected the more expensive BPA VERBS  
22 rate associated with hourly scheduling. In this docket, PGE has offered only a  
23 general assertion that the available rate savings would have been offset by

1 higher system costs, and PGE's estimate of the available rate savings from  
2 electing subhourly scheduling is lower than our estimate by nearly \$2 million.

3 (2) For the second half of the two-year BPA rate period (October 2014  
4 through September 2015), PGE again will have the opportunity to elect to pay  
5 significantly discounted VERBS rates in exchange for committing to one of  
6 several subhourly wind scheduling alternatives. PGE also will have the  
7 opportunity to choose to self-supply all or a portion of their VERBS for the second  
8 half of the rate period. The deadline for PGE to make this mid-rate-period  
9 election is no later than April 4, 2014. PGE should analyze the short- and long-  
10 term costs and benefits of this opportunity and justify its election before that date.

11 (3) As PGE's options for integrating its wind fleet mature and multiply, the  
12 Commission should establish an ongoing expectation that PGE will demonstrate  
13 that it has selected integration alternatives that minimize costs in the short-term,  
14 but also contribute to regional advances in balancing markets that may offer PGE  
15 significantly lower integration costs in the longer term.

16 **Q. Are there issues of concern that you will not be able to address in your**  
17 **testimony today?**

18 A. Yes. Parties in the last PGE power cost case (UE 250) raised concerns about a  
19 revised methodology for calculating the cost of day ahead forecast error related  
20 to wind resources. We cannot address those or other concerns here because  
21 PGE's methodology has not yet been presented for examination in this docket.  
22 We reserve the right to address the issue, if time permits, in our rebuttal  
23 testimony on June 25.

1 **(1) PGE's April 2013 BPA Election**

2 **Q. What is BPA's subhourly scheduling pilot program?**

3 A. As part of its resolution of the BP-12 rate case, BPA instituted a pilot program  
4 that offered wind generators a 33% VERBS rate discount in exchange for  
5 participating in committed 30/30 scheduling. The 30/30 scheduling option  
6 requires wind generators to consistently schedule on a 30-minute basis with a  
7 30-minute persistence level of scheduling accuracy. This "30/30" notation follows  
8 BPA's general practice for labeling its VERBS options. The **second** of the two  
9 numbers represents the frequency with which wind schedules must be filed,  
10 meaning that the 30/**30** rate option requires a schedule to be filed every **30**  
11 minutes. The **first** number represents the minimum quality of the forecast on  
12 which the filed schedule must be based. For the **30/30** rate option, the  
13 scheduled amount of wind generation must be based on a forecast that is at least  
14 as accurate as a forecast that matches what the wind was generating **30** minutes  
15 before the start of the scheduling period.

16 **Q. What rate incentive did BPA offer in exchange for committed 30/30**  
17 **scheduling?**

18 A. The standard hourly scheduling (30/60) rate was set for the BP-12 rate period at  
19 \$1.23/kW-month, while the half-hourly scheduling (30/30) rate was set at  
20 \$0.81/kW-month. The purpose of the rate incentive was to reflect the lower  
21 integration costs to BPA, pass those savings on to BPA's participating customers  
22 (such as PGE), and encourage generators to move toward a shorter scheduling  
23 paradigm.

1 **Q. Did PGE elect to participate in BPA's subhourly scheduling pilot for the**  
2 **period from October 2011 through September 2013?**

3 A. Yes. We commend PGE for being BPA's first and largest customer to elect the  
4 shorter scheduling rate option for the period from October 2011 through  
5 September 2013. The region can move forward to a lower integration cost  
6 paradigm only if utilities and other generators take steps forward to experiment  
7 with new market mechanisms.

8 **Q. Which BPA VERBS rate option did PGE elect for the next BPA rate period?**

9 A. With its April 2013 VERBS election for the BP-14 rate period, PGE declined to  
10 continue with the discounted VERBS rate for committed subhourly scheduling;  
11 instead, PGE elected BPA's 30/60 scheduling option. Exhibit RNP/101 (PGE's  
12 Response to RNP Data Request No. 002). Under this rate option, PGE would no  
13 longer commit to half-hourly scheduling, but instead would schedule its wind  
14 generation according to the traditional hourly scheduling practice, with a 30-  
15 minute persistence level of accuracy.

16 **Q. What is your estimate of the amount of BPA VERBS rate savings that PGE**  
17 **lost by electing hourly (30/60) scheduling?**

18 A. PGE's election to revert to hourly scheduling caused the VERBS rate that PGE's  
19 customers will pay to increase from \$0.87/kW-month (the new 30/30 rate set in  
20 the BP-14 rate case) to \$1.20/kW-month (the new 30/60 rate set in the BP-14  
21 rate case) during the period from October 2013 through September 2014. Based  
22 on approximately 476 MW of PGE wind generation balanced by BPA (Biglow I –  
23 126 MW; Biglow II – 150 MW; Biglow III – 175 MW; Vansycle – 25 MW), we

1 estimate that electing the higher cost VERBS rate option left \$1,884,960 per year  
2 in VERBS rate savings on the table (476,000 kW \* 12 months \* \$0.33/kW-  
3 month).

4 **Q. Does PGE's estimate of the value of the available VERBS rate savings differ**  
5 **from yours?**

6 A. In a data request in this docket, RNP sought all analysis that PGE had performed  
7 regarding the benefits and costs associated with the hourly scheduling election,  
8 as compared with other scheduling options. See Exhibit RNP/101 (PGE  
9 Response to RNP Data Request No. 002). PGE responded that the system cost  
10 advantage of the 30/30 scheduling option was "less than \$400,000 for the two-  
11 year BPA Rate Period covered by the April 2013 scheduling election," or less  
12 than \$200,000 per year. See Exhibit RNP/101 (PGE Response to RNP Data  
13 Request No. 002). In preparing our testimony, we discovered that PGE's  
14 estimate must have been based on an error in calculating the BPA VERBS rates  
15 per kW-year, rather than per kW-month. Multiplying PGE's estimate  
16 (\$200,000/year) by 12 months to correct this error brings the data response's  
17 estimate closer to \$2.4 million in rate savings; we calculate the annual amount to  
18 be closer to \$1.9 million.

19 **Q. Did PGE assert that increased system costs associated with subhourly**  
20 **scheduling offset the available rate savings?**

21 A. Yes, PGE asserted that "wear-and-tear costs (due to plant cycling), and effects  
22 on system reliability" offset the savings offered by the discounted rate. See  
23 Exhibit RNP/101 (PGE Response to RNP Data Request No. 002). However,

1 PGE did not provide any further detail in its response on the types of effects or  
2 amounts of costs it had experienced. Moreover, as stated above, PGE appears  
3 to have made a significant error in its estimate of the savings offered by the  
4 discounted rate, so we cannot be certain that any such offsetting costs actually  
5 outweighed the approximately \$1.9 million in rate savings that we estimate are  
6 available to PGE.

7 **Q. Is it possible that PGE did experience costs during its participation in the**  
8 **subhourly scheduling pilot?**

9 A. In concept, we do not dispute the possibility that PGE may have experienced  
10 costs due to its participation in the subhourly scheduling pilot (though, again, we  
11 have no evidence that participation resulted in a *net* cost to PGE). Offsetting  
12 costs are reasonable to weigh in comparison with the rate savings and long-term  
13 cost advantages of moving to a shorter scheduling paradigm. However, PGE  
14 has not detailed any such offsetting costs. A generalized assertion of higher  
15 internal costs does not justify paying \$1.9 million more in wind integration rates to  
16 BPA, particularly when PGE's continued participation in a developing subhourly  
17 scheduling market could drive integration costs down over the long term.

18 **Q. Do you expect that the costs that PGE may have experienced will be lower**  
19 **going forward?**

20 A. Yes, we would expect that many costs that PGE may possibly have experienced  
21 would go down. Also, PGE would experience many of those same costs  
22 regardless of whether it elected one of BPA's subhourly VERBS rate options.  
23 We can describe three cost categories where costs would be incurred anyway



1 and/or will go down: (1) subhourly scheduling/pilot program start-up costs, (2)  
2 availability of subhourly market transactions, and (3) plant cycling costs.

3 (1) Start-up costs are possible for any pilot program. PGE was the largest utility  
4 working with BPA to smooth out any hiccups in new subhourly scheduling  
5 procedures, but costs associated with interacting with BPA should come down as  
6 BPA's experience with subhourly scheduling increases. Also, some of PGE's  
7 internal costs to implement subhourly scheduling would be experienced anyway:  
8 the Federal Energy Regulatory Commission has required all public utility  
9 transmission providers, including PGE, to offer 15-minute scheduling by  
10 November 12, 2013 (see *Integration of Variable Energy Resources*, 139 FERC ¶  
11 61,246 (2012) [hereinafter Order 764]; *Order on Rehearing and Clarification and*  
12 *Granting Motion for an Extension of Time*, 141 FERC ¶ 61,232 (2012)).

13 (2) With few Northwest market participants engaged in subhourly transactions,  
14 PGE to date has not had significant trading opportunities on the half-hour.  
15 However, the availability of subhourly transactions is likely to increase rapidly.  
16 By November 12, 2013, all transmission providers must implement 15-minute  
17 scheduling, as required by Order 764. In addition, the California Independent  
18 System Operator expects to begin a 15-minute market and 15-minute scheduling  
19 over its intertie with BPA by spring 2014.<sup>1</sup> Both of these actions are likely to  
20 increase subhourly market participation.

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21 <sup>1</sup> See, e.g., CAISO, "FERC Order 764 Compliance: Implementation of 15-minute Scheduling and  
22 Settlement," (Dec. 18, 2012), available at [http://www.aiso.com/Documents/Presentation-Agenda-  
23 FERCOrder764MarketChangesTechnicalWorkshopDec18\\_2012.pdf](http://www.aiso.com/Documents/Presentation-Agenda-FERCOrder764MarketChangesTechnicalWorkshopDec18_2012.pdf); CAISO, "FERC Order 764  
Compliance: 15-Minute Scheduling and Settlement – Revised Straw Proposal," (February 13, 2013)  
available at  
<http://www.aiso.com/Documents/RevisedStrawProposal-FERCOrderNo764Compliance.pdf>.

1 (3) Increased plant cycling costs are likely to diminish due to the increased  
2 availability of subhourly market transactions. In addition, for some part of the  
3 second half of the BPA rate period (October 2014 through September 2015),  
4 discussed below, PGE will have use of the new flexible gas generator (Port  
5 Westward II) that it expects to place in service during 2015.

6 **Q. What should the Commission do, in this docket, to address the higher BPA**  
7 **VERBS rates that PGE seeks to pass on to its customers for 2014?**

8 A. PGE has made, and cannot change, its election for the VERBS rates it will pay to  
9 BPA through September 2014; it will incur costs in the amount of \$1.20/kW-  
10 month during the first three quarters of 2014. This is a dynamic time for the wind  
11 integration market, and it is possible that PGE can demonstrate that its VERBS  
12 rate election was a reasonable choice for its customers for this period. Our  
13 recommendations in this docket focus on PGE's path forward. For Q4 2014,  
14 PGE still has the option to elect a discounted rate or self-supply. We recommend  
15 that, for Q4 2014, the Commission set PGE's rates based on the best available  
16 BPA VERBS rate (\$0.73/kW-month for 30/15 committed), unless PGE can  
17 provide an adequate explanation of why unique costs would exceed the short-  
18 term rate benefit and long-term cost savings opportunities of moving to subhourly  
19 scheduling. We explain this in more detail below.

20 **(2) PGE's April 2014 (Mid-Rate Period) Election Opportunity**

21 **Q. Did PGE's April 2013 election lock in hourly scheduling for the entire two-**  
22 **year BPA rate period?**

23 A. No. Under the terms of a settlement adopted by the BPA Administrator on May

1 15, 2013,<sup>2</sup> 1,550 MW of wind resources have the opportunity to change to  
2 shorter scheduling elections, or self-supply, for the second half of the BPA rate  
3 period (October 2014 through September 2015). This revised election must be  
4 made by April 4, 2014.

5 **Q. Have the subhourly scheduling and rate discount options been settled for**  
6 **the April 2014 election?**

7 A. Yes. The available VERBS rate options are: \$1.48/kW-month for uncommitted  
8 scheduling; \$1.20/kW-month for 30/60 committed; \$0.94/kW-month for 40/15  
9 committed; \$0.87/kW-month for 30/30 committed; and \$0.73/kW-month for 30/15  
10 committed. By committing to the 30/15 option—*i.e.*, 15-minute schedules with  
11 30-minute persistence accuracy—PGE has the opportunity to save 40 percent off  
12 the 30/60 rate option that it has currently elected.

13 **Q. What level of VERBS rate savings do the settlement's options offer PGE for**  
14 **October 2014 through September 2015?**

15 A. The difference between the rate option PGE has currently elected (30/60 at  
16 \$1.20/kW-month) and the cheapest rate option available under the settlement  
17 (30/15 at \$0.73/kW-month) is \$0.47/kW-month. Based on 476 MW of wind, the  
18 annual rate savings opportunity is \$2,684,640. Additional savings are available  
19 because BPA's Persistent Deviation charge and band 2 of Generator Imbalance  
20 Service are also waived for those customers participating in the shortest  
21 scheduling period offered.

22 <sup>2</sup> The BPA Administrator's Record of Decision on Settlement Proposal for Generation Inputs and  
23 Transmission Ancillary and Control Area Services Rates (May 2013), BP-14-A-01, is available at  
<https://www.bpa.gov/secure/RateCase/openfile.aspx?fileName=Final+ROD+on+Gen+Inputs+Settlement.pdf&contentType=application%2fpdf>.

1 **Q. The purpose of this docket is to forecast PGE's costs for calendar year**  
2 **2014. What savings should the Commission forecast that PGE will achieve**  
3 **for 2014?**

4 A. For Q4 2014, PGE could achieve up to \$671,160 in savings ( $\$2,684,640 / 4$ ),  
5 without even considering the additional savings due to waiver of the Persistent  
6 Deviation charge and band 2 of Generator Imbalance Service. Absent a  
7 compelling justification for foregoing those savings, the Commission should  
8 assume that PGE will elect to receive them and set rates accordingly.

9 **Q. What do you recommend that PGE present to the Commission to justify its**  
10 **decision relative to the April 2014 BPA election opportunity, and when?**

11 A. PGE's mid-rate-period election is due to BPA on April 4, 2014, at approximately  
12 the same time as its next power cost filing is due to the Commission (April 1,  
13 2014, assuming no general rate case). Unless a cost-benefit analysis of the  
14 opportunities presented by the April 2014 election is taken up in advance (e.g., in  
15 either this docket, PGE's currently pending general rate case, or PGE's IRP), the  
16 Commission will have to evaluate PGE's April 2014 election after it has been  
17 made. A post-hoc evaluation in the next power cost case may be appropriate,  
18 but the Commission should make clear that recovery of costs greater than the  
19 least expensive BPA VERBS rate option is not assured unless PGE can justify  
20 electing a more expensive rate option.

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**(3) Ongoing Evaluation of New Integration Options**

**Q. As additional options for integrating wind resources materialize, how do you recommend that the Commission approach cost recovery?**

**A.** PGE's options for integrating its wind fleet will mature and multiply in the coming years. The Commission should expect PGE to demonstrate that it has selected alternatives that balance the following: (1) minimizing short-term costs, considering all rate incentives and expected market advances; and (2) contributing to regional advances in balancing markets that have the potential to lower long-term costs, even when higher short-term costs may be present. PGE has shown tremendous leadership in participating in the subhourly scheduling pilot and in promoting a regional Energy Imbalance Market. Continued engagement and experimentation with these new alternatives will lead PGE customers toward lower integration costs in the long term. The Commission should adopt policies and practices that motivate PGE to continue its leadership toward an improved regional environment for integration.

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**RENEWABLE NORTHWEST PROJECT**

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**UE 266**

**EXHIBIT RNP/101**

**PGE Response to RNP Data Request No. 002**

**In the Matter of**

**PORTLAND GENERAL ELECTRIC COMPANY'S**

**Net Variable Power Costs and Annual Power Cost Update**

**May 21, 2013**

May 8, 2013

TO: Megan Decker  
Renewable Northwest Project

FROM: Patrick G. Hager  
Manager, Regulatory Affairs

**PORTLAND GENERAL ELECTRIC  
UE 266  
PGE Response to RNP Data Request No. 002  
Dated April 26, 2013**

**Request:**

**Please provide all analysis that PGE has performed regarding the benefits and costs to its customers associated with electing subhourly scheduling and the associated rate discount for BPA balancing services for the period covered by PGE's April 2013 election, as compared with other scheduling options.**

**Response:**

PGE's April 2013 scheduling election decision was not based solely on the lowest possible bill achievable under BPA's rate structure. PGE also considered its ability to implement necessary systems, agreements, and training under alternative scheduling options. Alternative scheduling options result in different levels of balancing resource cycling, with differing wear and tear costs. PGE considered these costs in making its election. PGE's objective is to provide service to its customers in the most reliable and economic manner possible. PGE's election of 30/60 scheduling represents a balance between direct out-of-pocket costs, wear-and-tear costs (due to plant cycling), and effects on system reliability.

PGE's analysis demonstrated that the total system cost advantage of the 30/30 scheduling paradigm (inclusive of payments to BPA) over the 30/60 scheduling paradigm was less than \$400,000 for the two-year BPA Rate Period covered by the April 2013 scheduling election. This difference was not sufficient to compensate for the lower level of system reliability under the 30/30 schedule. Consequently, PGE elected 30/60 scheduling.



## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I served the foregoing REPLY TESTIMONY OF CAMERON YOURKOWSKI, JIMMY LINDSAY, AND DINA DUBSON upon the following parties on the service list for UE 266, via electronic mail, on May 21, 2013:

RENEWABLE NORTHWEST PROJECT

By: */s/ Megan Walseth Decker*  
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