



Portland General Electric Company
121 SW Salmon Street • Portland, Oregon 97204
PortlandGeneral.com

March 31, 2014

Public Utility Commission of Oregon
Attn: Filing Center
3930 Fairview Industrial Drive SE
P.O. Box 1088
Salem, OR 97308-1088

RE: Advice No. 14-06, Renewable Resources Automatic Adjustment Clause

Portland General Electric (PGE) submits this filing pursuant to Oregon Revised Statutes (ORS) 757.210 and 469A.120 and Oregon Administrative Rules (OARs) 860-022-0025 and 860-022-0030, for filing proposed tariff sheets associated with Tariff P.U.C. No. 18. In addition to the electronic filing, enclosed are the original and three courtesy copies, with a requested effective date of **January 1, 2015:**

Tenth Revision of Sheet No. 122-1
Tenth Revision of Sheet No. 122-2

Enclosed for filing are an original and five copies of the following Testimony and Exhibits of:

- Franco Albi and Rebecca Brown (PGE / 100-102)

This filing is made pursuant to the requirements of Schedule 122 to update the Renewable Resources Automatic Adjustment Clause. The purpose of updating the rate schedule is to recover costs of qualifying Company-owned and / or contracted new renewable energy resource projects not otherwise included in rates. The proposed Schedule 122 prices are designed to recover the deferred net revenue requirements of the Tucannon River Wind Farm (Tucannon) which is expected to be on-line as early as mid-December 2014. Although the proposed revised tariff sheets have an effective date of January 1, 2015, PGE is open to delaying the effective date to as late as June 1, 2015 as mentioned in the testimony referenced above. In this manner, the Schedule 122 prices can be based upon an actual deferral amount rather than the estimated deferral amount.

To satisfy the requirements of Oregon Administrative Rules (OAR) 860-022-0025(2) and 860-022-0030(1), PGE provides the following responses: The proposed change in Schedule 122 results in a \$2.0 million annual increase in charges to customers or a 0.1% increase for the approximately 847,000 applicable customers as of January 1, 2015. A Schedule 7 Residential customer consuming 840 kWh monthly will see a \$0.11 or 0.1% increase in their monthly bill.

To satisfy the requirements of ORS 757.259(6), PGE provides the following responses: PGE's 2013 annual cycle revenues were approximately \$1,617 million. The sum of PGE's current deferrals including the proposed Schedule 122 is approximately \$31.7 million or approximately 2.0% of 2013 revenues. A list of the currently amortizing deferrals is provided in the work papers. Also provided in the work papers are the development of the proposed Schedule 122 prices and detailed bill comparisons.

Please direct any questions regarding this filing to Christopher Liddle at (503) 464-7458 or Marc Cody at (503) 464-7434.

Please direct all formal correspondence and requests to the following email address pge.opuc.filings@pgn.com

Sincerely,



Jay Tinker
Director, Regulatory Policy & Affairs

Enclosures

cc: Service List UE 283

**SCHEDULE 122
RENEWABLE RESOURCES AUTOMATIC ADJUSTMENT CLAUSE**

PURPOSE

This Schedule recovers the revenue requirements of qualifying Company-owned or contracted new renewable energy resource projects (including associated transmission) not otherwise included in rates. Additional new renewable projects may be incorporated into this schedule as they are placed in service. This adjustment schedule is implemented as an automatic adjustment clause as provided for under ORS 757.210 and Section 13 of the Oregon Renewable Energy Act (OREA).

AVAILABLE

In all territory served by the Company.

APPLICABLE

To all bills for Electricity Service except Schedules 76, 485, 489, 490, 491, 492, 495 and 576. This schedule is not applicable to direct access customers after December 31, 2010.

ADJUSTMENT RATE

The Adjustment Rate, applicable for service on and after the effective date of this schedule are:

<u>Schedule</u>			
7	0.012	¢ per kWh	
15	0.010	¢ per kWh	
32	0.011	¢ per kWh	
38	0.011	¢ per kWh	
47	0.013	¢ per kWh	
49	0.013	¢ per kWh	
75			
Secondary	0.010	¢ per kWh	
Primary	0.010	¢ per kWh	
Subtransmission	0.010	¢ per kWh	
83	0.011	¢ per kWh	
85			
Secondary	0.011	¢ per kWh	
Primary	0.011	¢ per kWh	

(I)

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SCHEDULE 122 (Continued)

ADJUSTMENT RATE (Continued)

Schedule

89

Secondary 0.010 ¢ per kWh

Primary 0.010 ¢ per kWh

Subtransmission 0.010 ¢ per kWh

90 0.010 ¢ per kWh

91 0.010 ¢ per kWh

92 0.010 ¢ per kWh

95 0.010 ¢ per kWh

(I)

(I)

ANNUAL REVENUE REQUIREMENTS

The Annual Revenue Requirements of a qualifying project will include the fixed costs of the renewable resource and associated transmission (including return on and return of the capital costs), operation and maintenance costs, income taxes, property taxes, and other fees and costs that are applicable to the renewable resource or associated transmission. Until the dispatch benefits are included in the Annual Power Cost Update Schedule 125, the net revenue requirements of each project (fixed costs less market value of the energy produced by the renewable resource plus any power costs such as fuel, integration and wheeling costs) will be deferred and incorporated the following January 1 into the Schedule 122 rates. This balancing account will accrue interest at the Commission-authorized rate for deferred accounts. Each year by April 1, the Company will file an update to the revenue requirements of resources included in this schedule to recognize projected changes for the following calendar year.

DEFERRAL MECHANISM

For each calendar year that the Company anticipates that a new renewable resource will commence operation, the Company may file a deferral request the earlier of the resource online date or April 1. The deferral amount will be for the fixed revenue requirements of the resource less net dispatch benefits. For purposes of determining dispatch benefits, the forward curves used to set rates for the year under the Annual Power Cost Update will be used. The deferral will be amortized over the next calendar year in Schedule 122 unless otherwise approved by the Oregon Public Utility Commission (OPUC). The amortization of the deferred amount will not be subject to the provisions of ORS 757.259(5).

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I. Introduction

1 **Q. Please state your names and positions with Portland General Electric (PGE).**

2 A. My name is Franco Albi. I am a Project Manager for PGE.

3 My name is Rebecca Brown. I am a senior analyst for PGE.

4 Our qualifications appear in Section IV of this testimony.

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

6 A. The purpose of our testimony is to request recovery of the incremental revenue requirement
7 for Tucannon River Wind Farm (Tucannon), a qualifying renewable resource project,
8 through PGE's Schedule 122, pursuant to Oregon Revised Statutes (ORS) 757.210 and
9 469A.120(4). The Renewable Adjustment Clause (RAC) allows for the deferral and
10 collection of the revenue requirement associated with the portions of Tucannon that become
11 operational prior to the full plant in service date.

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

13 A. After this introductory section, we provide a description of Tucannon and present the 2014
14 incremental revenue requirement. The final section contains our qualifications.

15 **Q. Does this filing interrelate with PGE's 2015 test year general rate case, Docket UE 283?**

16 A. Yes. The 2015 test year general rate case filing includes the incremental annualized fixed
17 and variable costs associated with Tucannon as well as energy benefits. We proposed
18 including Tucannon in rates once it is fully operational. At the time we filed the rate case,
19 our expected initial operation of Tucannon was the first half of 2015. Based on progress to
20 date, we now expect Tucannon to be in service between December 2014 and
21 March 31, 2015.

22 **Q. What period of time does this deferral cover?**

1 A. For purposes of this filing, we have assumed Tucannon is in-service beginning December
2 15, 2014, with the deferral period being December 15, 2014 through December 31, 2014.

3 We are also requesting that amortization to begin June 1, 2015 to allow PGE to set customer
4 prices based on actuals.

5 **Q. Please summarize PGE's requested revenue requirement in this filing.**

6 A. PGE is requesting approximately \$2.0 million of incremental revenue requirement for
7 Tucannon.

8 **Q. What Rate of Return (ROR) is PGE using for this filing?**

9 A. PGE is using the currently authorized ROR of approximately 7.62%, which is comprised of
10 a Return on Equity of 9.75% and Cost of Debt of 5.49% (Commission Order No. 13-459).

II. Tucannon River Wind Farm

A. Project Description

1 **Q. Please describe the project.**

2 A. Tucannon is located in Columbia County, south of the Tucannon River in eastern
3 Washington. The project has a nameplate capacity of 266.8 MW, which consists of 116
4 Siemens SWT-2.3-108 turbines installed on 80 meter (approximately 262.5 feet) tubular
5 steel towers and the associated turbines foundations. Exhibit 101 provides a virtual bird's
6 eye view of Tucannon.

7 **Q. Why did PGE decide to build this project?**

8 A. PGE's 2009 Integrated Resource Plan (IRP) action plan identified the need for 122 MWa of
9 renewable energy in order to meet Oregon Renewable Portfolio Standard (RPS)
10 requirements. In the November, 2011 IRP Update, the renewable requirement was adjusted
11 to 101 MWa. PGE then conducted a Request for Proposal (RFP) that resulted in the
12 selection of Tucannon as the least cost, list risk bid, submitted by Puget Sound Energy
13 (PSE).

14 PGE will be the owner/operator of Tucannon once it is fully built. The contracting
15 structure includes an Asset Purchase Agreement with PSE, a Balance of Plant Engineering
16 Procurement and Construction Contract (EPC) with Renewable Energy Systems Americas
17 (RES), and a Turbine Supply Agreement and Service and Maintenance Agreement with
18 Siemens Energy (SEI or Siemens).

19 **Q. How was RES chosen as the construction contractor?**

20 A. The bid submitted by PSE requires RES to be the balance of plant construction contractor.
21 PGE negotiated and entered into an EPC Agreement with RES in June 2013.

22 **Q. Who is supplying the turbines for Tucannon?**

1 A. SEI is supplying the turbines. PGE evaluated bids from both Siemens and Vestas in
2 negotiations for turbine supply. Siemens was chosen after PGE conducted a comprehensive
3 evaluation of both Siemens and Vestas technologies, costs and risks. The selection of
4 Siemens wind turbine generators provided the best value for the project.

5 **Q. Is there any warranty with Siemens for the turbines?**

6 A. Yes. There is a 2-year warranty for the turbines.

7 **Q. Are there any other warranties in place?**

8 A. Yes. There are warranty provisions in the EPC Agreement that ensure that the work will be
9 free from defect and the facility performs its intended function. RES and SEI are required to
10 complete project milestones by certain dates and are subject to liquidated damages for
11 failure to meet guaranteed dates. The RES warranty period commences on the Substantial
12 Completion Date and continues for two years. In addition, RES is required to maintain
13 insurance coverage including commercial general liability, automobile and professional
14 liability insurance.

15 **Q. Does PGE have a long-term service and maintenance agreement with Siemens?**

16 A. Yes. For a period of five years, Siemens will service and maintain equipment including
17 maintenance, inspections and anything required by the Operations Manual. SEI will hire and
18 direct all employees providing the services. SEI will collect data and remotely monitor the
19 turbines 24-hours per day and respond to unscheduled outages.

20 **Q. Please describe the transmission arrangements for Tucannon.**

21 A. PGE has acquired 267 MW of transmission service on BPA's transmission system through
22 assignment of several Precedent Transmission Service Agreements (PTSAs) from PSE.
23 These PTSAs give PGE the rights to 267 MWs of transmission service once the project is
24 complete. The nature of the service will be contingent on the construction and completion

1 of BPA's Central Ferry Lower Monumental 500kV transmission line. If the line is not
2 completed by December 2014, PGE will receive Conditional Firm Service from BPA until
3 such time that the line is completed. As part of the project acquisition, PSE has agreed to
4 make PGE whole if PGE is curtailed during this conditional firm transmission bridge phase,
5 which expires in December 2017. The total cost for the PTSAs was \$20.5 million.

B. Deferral Revenue Requirement

1 **Q. What is the 2014 impact of Tucannon on PGE's revenue requirement?**

2 A. PGE currently forecasts the 2014 revenue requirement for Tucannon to be approximately
3 \$2.0 million, net of dispatch benefits totaling \$0.6 million. Exhibit 102 summarizes the
4 incremental revenue requirement. Tucannon's average rate base for 2014 is approximately
5 \$21.2 million. Depreciation is \$1.1 million; O&M costs and property taxes are \$0.3 million
6 and \$0.1 million, respectively.

7 **Q. How do you calculate the net dispatch benefits?**

8 A. We use the forward curves and output from PGE's power cost forecasting model, MONET.
9 This is roughly the project's expected output multiplied by the average electric price from
10 the final power cost forward curve used in Docket No. UE 266. This method for valuing the
11 output during the deferral period is specified in Schedule 122.

12 From the value of Tucannon's output, we then subtract the associated regulation,
13 imbalance, integration, reserve, and royalty costs.

14 **Q. How many full-time equivalents (FTEs) will work at Tucannon?**

15 A. There will be a plant supervisor, three service technicians and one wind performance analyst
16 for a total of 5 FTEs.

17 **Q. Are there any tax credits associated with Tucannon?**

18 A. Yes. We include Production Tax Credits (PTCs) of \$0.7 million. These credits are
19 incorporated into PGE Exhibit 102 as 'Federal Tax Credits.'

20 **Q. Does Tucannon qualify for any special property tax treatment?**

21 A. No. Tucannon property taxes for the 2014 revenue requirement are \$0.1 million.

22 **Q. Are there any benefits of building in Washington State?**

1 A. Yes. By participating in Washington's Renewables Sales Tax Exemption, which was
2 subsequently passed by the Washington Legislature after contract execution between PGE
3 and PSE, PGE will realize sales tax savings of approximately \$23 million compared to the
4 tax amount in the bid. Therefore, our current best estimate of actual capital costs is
5 approximately \$23 million lower than the estimate provided in the bid.

III. Qualifications

1 **Q. Mr. Albi, please describe your qualifications.**

2 A. I received Bachelor and Master of Science degrees in Civil Engineering from Portland State
3 University in 1998 and 1999, respectively, and a Master of Business Administration from
4 Marylhurst University in 2014. I am a registered Professional Engineer in Oregon and
5 California. I have been a Project Manager in the Generation Projects group at PGE since
6 January 2013, and am currently the Project Manager for development, construction and
7 commissioning of the Tucannon River Wind Farm. Prior to 2013, I was a Project Engineer
8 in transmission and generation engineering at PGE for six years. Previous to January 2007, I
9 worked for the Bonneville Power Administration for two years and PacifiCorp for two
10 years. Before joining PacifiCorp I worked for Degenkolb Engineers for three years. I have
11 over 13 years of experience in managing power delivery and power supply projects with the
12 Bonneville Power Administration, PacifiCorp and Portland General Electric.

13 **Q. Ms. Brown, please describe your qualifications.**

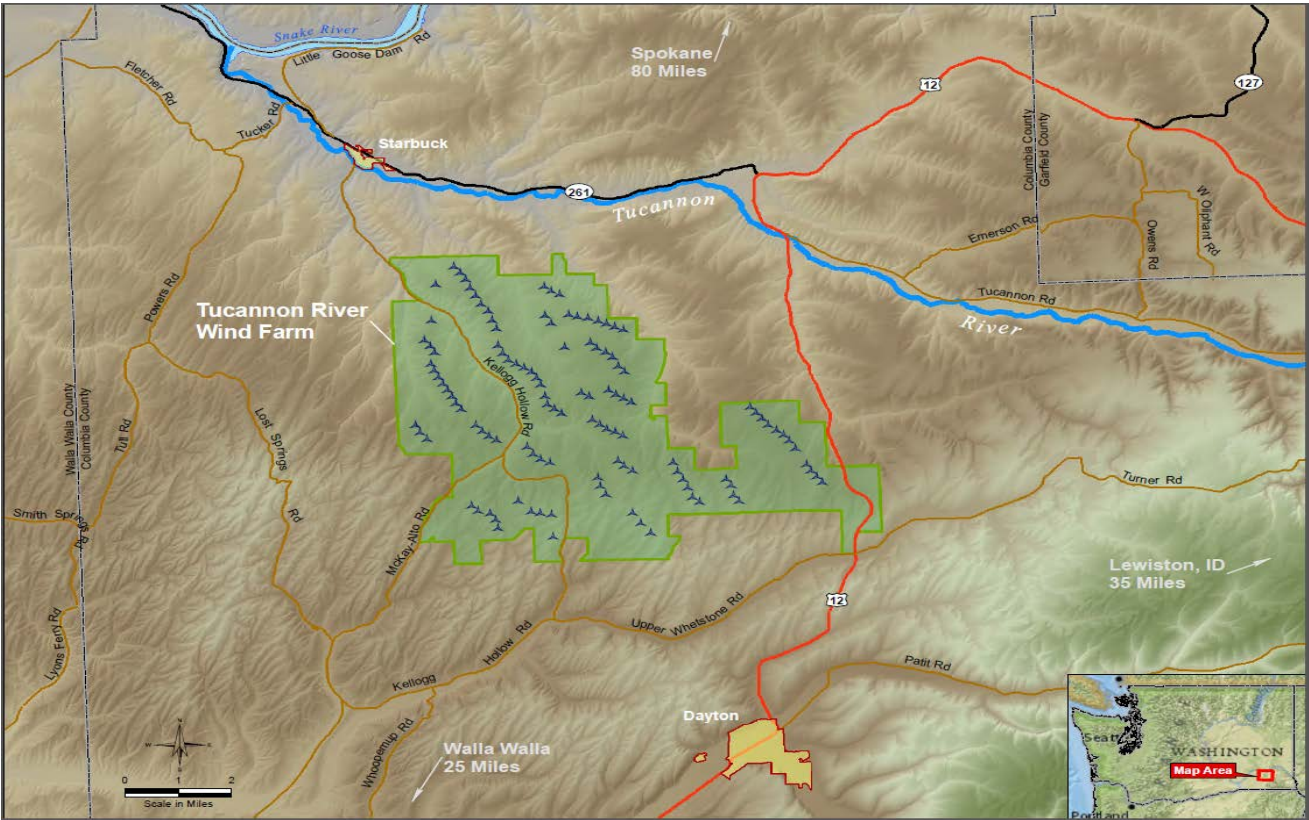
14 A. I received a Bachelor of Science degree in Accounting from the University of Nevada-Reno
15 in 1985 and a Master of Business Administration with an emphasis in Finance from the
16 University of Wyoming in 1987. In 1990, I became a Certified Public Accountant. I have
17 worked at three state commissions (Wyoming, Texas and Oregon) totaling 12 years of
18 regulatory experience. I also worked at PacifiCorp for nearly three years in Corporate
19 Accounting. I have been with PGE for almost seven years and in the Rates and Regulatory
20 Affairs department for a total of four years.

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

22 A. Yes.

List of Exhibits

<u>PGE Exhibit</u>	<u>Description</u>
Exhibit 101	Map of Tucannon
Exhibit 102	Tucannon Revenue Requirement



	2014 Deferral	
	2014 December	Tucannon River Revenues for RROE
Tucannon River - 2014 Deferral		
1 Sales to Customers	\$ 2,007,572	\$ 2,007,572
2 Other Revenues		\$ -
3 Total Operating Revenues	\$ 2,007,572	\$ 2,007,572
4 NVPC	\$ (592,800)	\$ (592,800)
5 O&M / A&G	\$ 270,000	\$ 270,000
6 Uncollectibles Expense	\$ 10,038	\$ 10,038
7 OPUC Fees	\$ 6,274	\$ 6,274
8 Depreciation	\$ 1,106,784	\$ 1,106,784
9 Amortization	\$ -	\$ -
10 Property Tax	\$ 100,386	\$ 100,386
11 Franchise Fees	\$ 50,213	\$ 50,213
12 Utility Income Tax	\$ (560,933)	\$ (560,933)
13 Total Operating Expenses & Taxes	\$ 389,961	\$ 389,961
14 Utility Operating Income	\$ 1,617,611	\$ 1,617,611
15 Rate of Return	0.64%	7.65%
16 Avg. Gross Plant	\$ 255,585,295	\$ 21,298,775
17 Avg. Accum. Deprec. / Amort	\$ (553,392)	\$ (46,116)
18 Avg. Accum. Def Tax	\$ (4,729,601)	\$ (394,133)
19 Misc. Deferred Credits	\$ -	\$ -
20 Deferred Tax Credits	\$ 3,416,857	\$ 284,738
21 Prepays	\$ -	\$ -
22 Working Cash	\$ 14,429	\$ 14,429
23 Avg. Rate Base	\$ 253,733,587	\$ 21,157,692
24 Regulated Net Income	\$ 1,031,437	\$ 1,031,437
25 Return on Equity	0.81%	9.75%
Utility Income Taxes		
26 Book Rev	\$ 2,007,572	\$ 2,007,572
27 Book Exp	\$ 950,894	\$ 950,894
28 Interest Expense	\$ 586,174	\$ 586,174
29 Permanent Ms	\$ -	\$ -
30 Deferred Ms	\$ 11,908,267	\$ 11,908,267
31 Taxable Income	\$ (11,437,763)	\$ (11,437,763)
32 State Tax	\$ (854,806)	\$ (854,806)
33 State Tax Credits		\$ -
34 Net State Taxes	\$ (854,806)	\$ (854,806)
35 Federal Taxable Income	\$ (10,582,957)	\$ (10,582,957)
36 Federal Tax	\$ (3,704,035)	\$ (3,704,035)
37 Federal Tax Credits	\$ (748,466)	\$ (748,466)
38 Deferred Taxes	\$ 4,746,374	\$ 4,746,374
39 Total Income Tax	\$ (560,933)	\$ (560,933)

40 Working Cash Factor	3.700%	3.700%
41 Weighted Cost of Debt	2.771%	2.771%
42 Weighted Cost of Debt (Monthly)	0.231%	0.231%
43 State Tax Rate	7.474%	7.474%
44 Federal Tax Rate	35.000%	35.000%
45 Composite Tax Rate	39.858%	39.858%
46 Effective Cost of Debt	5.541%	5.541%
47 Equity Share of Cap Structure	50.000%	50.000%
48 Debt Share of Cap Structure	50.000%	50.000%
49 ROE Target	9.750%	9.750%
50 WACC	7.646%	7.646%
51 WACC (Monthly)	0.637%	0.637%
52 Gross-up Factor	1.663	1.663
53 Grossed-up Cost of Capital	10.876%	10.876%
54 Bad Debt Rate	0.500%	0.500%
55 OPUC Fee Rate	0.313%	0.313%
56 Franchise Fee Rate	2.501%	2.501%

Income Tax Check

57 Revenue	\$	2,007,572	\$	2,007,572
58 Int. Expense	\$	586,174	\$	586,174
59 Op. Expense	\$	950,894	\$	950,894
60 Book Taxable	\$	470,504	\$	470,504
61 Tot. Sch. M	\$	11,908,267	\$	11,908,267
62 Tax Taxable	\$	(11,437,763)	\$	(11,437,763)
63 Net State Tax	\$	(854,806)	\$	(854,806)
64 Net Federal Tax	\$	(4,452,501)	\$	(4,452,501)
65 Deferred Tax	\$	4,746,374	\$	4,746,374
66 Total Tax	\$	(560,933)	\$	(560,933)
		TRUE		TRUE

UOI Check

67 Avg. Rate Base	\$	21,157,692
68 RROE		7.646%
69 UOI	\$	1,617,611
		TRUE