

ORDER NO.

12 297

ENTERED

SEP 02 2014

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

UM 1679

In the Matter of

PORTLAND GENERAL ELECTRIC  
COMPANY

Detailed Depreciation Study of Electric  
Utility Properties.

ORDER

DISPOSITION: STIPULATION ADOPTED

**I. INTRODUCTION**

On December 5, 2013, Portland General Electric Company (PGE) filed the results of a detailed depreciation study of its utility properties (as of December 31, 2013). Based on the December 31, 2012, plant balances, PGE proposed changes in depreciation parameters that would have resulted in an annual depreciation decrease of about \$2.2 million, not including PGE's new Tucannon River Wind Farm and Port Westward II generating facilities. PGE filed separate proposed depreciation parameters to be used for those two generating facilities.

In its filing, PGE requested that the Commission approve the results of the study so that the new depreciation rates could be implemented in PGE's (then) upcoming general rate case (docket UE 283, filed February 13, 2014). PGE's filing was assigned to this docket.

A prehearing conference was held on January 28, 2014, and a schedule adopted. Parties appearing at the prehearing conference were PGE, the Oregon Public Utility Commission Staff (Staff), and the Citizens' Utility Board of Oregon (CUB).

On June 3, 2014, Staff filed a motion requesting that the schedule in this matter be suspended, pending the filing of a stipulation among all parties with joint supporting testimony. On June 30, 2014, the parties filed their stipulation and supporting testimony. However, their filing was not perfected until July 25, 2014, when the parties filed their last supporting witness affidavit.

In the stipulation, the net annual difference in depreciation expense when comparing the final settlement position to the depreciation study as-filed is a reduction of approximately

\$11.5 million for existing assets (\$11.3 million in rate case) and a reduction of \$8.2 million for the new plants (on an annualized basis). The stipulation resolves all issues in this docket.

## II. THE STIPULATION

The stipulation, signed by PGE, Staff, and CUB, is attached as Appendix A and received into evidence.

The terms of the stipulation are technical in nature. The parties agree that certain changes shown in the exhibit attached to the stipulation should be made for the identified lives, curves, net salvage value, and rates. Except for those changes, the parameters should remain as filed by PGE.

The parties agree that PGE should use the Average Service Life (ASL) depreciation procedure for all new generating plants placed in service after December 31, 2012. PGE will continue to use the straight-line Equal Life Group (ELG) method for all existing assets and accounts.

Under the terms of the stipulation, PGE will make a compliance filing by submitting the depreciation technical update filing to the Commission no later than one year after a new generating facility comes on line. PGE's filing will consist of an attestation by its chief financial officer that the company is using the ASL method for the new generating plant(s) and will include sample accounting entries that demonstrate its use.

The parties stipulate that the revised depreciation parameters set forth in their exhibit are reasonable and should be adopted, to be implemented on the effective date of PGE's impending rate case (docket UE 283).

The parties also agree that PGE shall file another detailed depreciation study of its utility property not later than December 31, 2018. The depreciation parameters detailed in this stipulation will be used until the effective date of the next depreciation study.

## III. TESTIMONY IN SUPPORT OF STIPULATION

### A. Introduction

Each of the parties sponsored a witness to support the stipulation. Their testimony is received into evidence.

As explained in the testimony, in its filing PGE requested that the Commission prescribe the depreciation rates derived from, and included with, the Iowa curve and life combinations and that the rates be fixed until the effective date of the next depreciation study. The depreciation rates proposed by PGE would have resulted in an annual depreciation expense decrease of about \$2.2 million, based on a comparison of 2012 depreciation expense using filed

depreciation study rates to 2012 depreciation expense using previously approved depreciation parameters.

Staff and CUB independently reviewed PGE's depreciation study. Staff developed a set of proposed Iowa curves, average service lives, and net salvage rates for each of the plant accounts. Staff performed an independent review of PGE's depreciation statistics and recommended depreciation parameters for numerous depreciation groups, and proposed two types of adjustments. The first type concerns Iowa curves and projected average service lives. The second type concerns net salvage rates.

## **B. Iowa Curves and Average Service Lives**

Staff and PGE each used the actuarial retirement rate methodology to analyze historical retirement date to help determine Iowa curves and average service lives for each depreciation group. Where Staff's position was "reasonably close" to PGE's, PGE accepted Staff's position.<sup>1</sup> When PGE did not agree with Staff's initial recommendation, Staff and PGE discussed their differences to establish the most appropriate life parameters for each account. In their testimony, the witnesses describe their resolution of two such issues in some detail.

Staff's Iowa survivor curve-projection life selection was based on PGE's raw data and data from other electric companies nationwide. Staff recommended several changes to PGE's proposed curve-life combination for depreciable property groups.

## **C. Net Salvage Rates**

### **1. Generation Assets**

In determining net salvage rates for its generation facilities, PGE relied primarily on site specific decommissioning studies, historical retirement date, and input from in-house engineering personnel. PGE's net salvage rates for the hydro generation accounts resulted from site specific decommissioning studies performed at each of the hydro facilities in 2009. Staff objected to the results of PGE's studies because the net salvage estimates were outside the range of most estimates used by other utilities. PGE countered with the argument that a site specific estimate was more reliable than statistics of net salvage rates approved for other utilities. As a compromise, the parties agreed to discount the expected inflation estimate to reflect the uncertainty of when the facilities would be shut down.

The net salvage rates for the other production assets, such as Accessory Electric Equipment and Miscellaneous Power Plant Equipment, Staff recommended net salvage range for these accounts was 0 percent to -6 percent with the 0 percent net salvage relating to the wind facilities. The parties agreed that the net salvage component for these type of assets should be the same regardless of the type of generating facility, therefore, a

---

<sup>1</sup> Staff-CUB-PGE/100 at 7.

compromise of -6 percent for all assets in Account 345 and 345.01 and a net salvage percent of -2 percent for all assets in Account 346 and 346.01.

## 2. *Transmission Assets*

For transmission tower assets, PGE proposed a net salvage rate of -25 percent, based on the average of net salvage rates used by other utilities. PGE believed that industry experience was more pertinent, since very few retirements have been recorded upon which to base a statistical estimate. Staff recommended a net salvage rate of 0 percent, based on judgment due to the lack of historical data. The parties agreed on a net salvage rate of -10 percent for this depreciation study. Net salvage experience and industry trends will be analyzed in the next depreciation study to determine if an adjustment is necessary.

For transmission poles and fixtures, PGE agreed to use Staff's proposed net salvage rate for this study, based on the average of other utilities and the lack of recent activity. For transmission overhead conductor and devices, PGE proposed a reduction in the currently approved net salvage rate to -35 percent because there has been very little activity in the past 12 years. Staff recommended a net salvage rate of -27 percent. The parties agreed to a compromise position of -30 percent for this study.

## 3. *Distribution Assets*

For distribution poles, towers and fixtures, PGE recommended a net salvage rate of -65 percent, based on its historical analyses of the period 1971-2013 and its general knowledge of the effort required to remove distribution poles. Staff recommended a net salvage rate of -50 percent, based on the recent trend for less net salvage. The parties agreed on a net salvage rate of -60 percent for this study.

For distribution overhead conductors and devices, PGE recommended a net salvage rate of -75 percent, based on historical data for the period 1971-2013. Staff recommended a net salvage rate of -57 percent, reflecting statistical results in recent years. The parties agreed to a net salvage rate of -70 percent, putting a greater emphasis on the overall net salvage statistics.

For distribution underground conduit, PGE recommended a net salvage rate of -15 percent, while Staff proposed a net salvage rate of -11 percent. The parties agreed to a net salvage rate of -13 percent, reflecting the most recent 5 year period.

For the meters subaccount, PGE recommended a net salvage rate of -10 percent, while Staff recommended -8 percent. The parties agreed to use Staff's proposed rate to reflect new technology.

For street lighting, PGE recommended a net salvage rate of -60 percent, based on historical net salvage data, the current prescribed net salvage percent, and expectations of future costs.

Staff recommended a net salvage rate of -27 percent, based on the recent 5 year trend. The parties agreed to a net salvage rate of -35 percent, reflecting recent trends and the estimates of other comparable utilities.

#### **D. ASL/VG versus ELG**

PGE has been using the Equal Life Group (ELG) Procedure to calculate depreciation rates since 1978. Staff recommended using Average Service Life (ASL, i.e. VG, Vintage Group) procedure to calculate depreciation rates. Staff's recommendation is consistent with the following statement set forth by NARUC, "in comparison with the VG procedure, the ELG procedure results in annual accruals that are higher during the early years of a vintage's life, thereby causing an increase in depreciation expense and revenue requirements during these years"<sup>2</sup> Staff also considered NARUC's discussion that "the use of the ELG procedure has not been approved by the Federal Energy Regulatory Commission (FERC) for use in the gas, oil, and electric industries." PGE argued, "attempting to switch from the ELG procedure to the Vintage Group/Broad Group procedure will result in an unnecessary reduction of \$32.2 million in annual depreciation expense. Not only does the switch in procedure cause a major swing in annual depreciation expense, but future depreciation expense will also be unnecessarily higher."<sup>3</sup>

Depreciation has a significant effect on the revenue requirement of a utility, and depreciation expense represents a large percentage of total operating expenses, therefore, for settlement purpose, Staff proposed a "hybrid procedure" that is the combination of ELG and VG procedures to calculate depreciation rates. In the stipulation, the parties agree that for existing plant facilities as of December 31, 2012, PGE will continue to use the ELG procedure to calculate depreciation rates. The parties agreed to use the ASL/VG procedure for all new generating facilities that are built after December 12, 2012. The parties further agreed to submit a "Technical Update" or compliance filing to the Commission within one year after each new facility is placed in-service, showing plant dollars placed in-service, accounts, and parameters used as agreed to in the settlement.

#### **E. Conclusion**

The witnesses recommend that the Commission approve their stipulation. They further recommend that the commission order PGE to implement the depreciation, amortization and net salvage rates proposed in the stipulation as of the effective date of the general rate case order in docket UE 283. For the portion of 2014 prior to the effective date of the general rate case order, the company shall use current depreciation, amortization and net salvage rates.

---

<sup>2</sup> Public Utility Depreciation Practices, National Association of Regulatory Utility Commissioners at 176.

<sup>3</sup> Staff-CUB-PGE/100 at 13-14, citing PGE data response 006.

**IV. RESOLUTION**

As noted above, the terms of the stipulation are technical in nature. In their testimony, the witnesses explain the technical terms of the stipulation and providing supporting exhibits. Their testimony confirms that the review and analysis of PGE's filing was thorough and the resulting settlement is reasonable. The stipulation should be adopted.

**V. ORDER**

IT IS ORDERED that

1. The stipulation between Portland General Electric Company, the Oregon Public Utility Commission Staff, and the Citizens' Utility Board of Oregon is adopted;
2. Portland General Electric Company shall implement the depreciation, amortization and net salvage rates proposed in the stipulation as of the effective date of the general rate case order in docket UE 283.

Made, entered, and effective SEP 02 2014

COMMISSIONER ACKERMAN WAS  
UNAVAILABLE FOR SIGNATURE

**Susan K. Ackerman**  
Chair



*John Savage*  
**John Savage**  
Commissioner

*Stephen M. Bloom*

**Stephen M. Bloom**  
Commissioner

A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001-0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2). A party may appeal this order by filing a petition for review with the Court of Appeals in compliance with ORS 183.480 through 183.484.

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

UM 1679

In the Matter of

PORTLAND GENERAL ELECTRIC  
COMPANY

Detailed Depreciation Study of Electric  
Utility Properties.

**STIPULATION**

This Stipulation ("Stipulation") is between Portland General Electric Company ("PGE"), Staff of the Public Utility Commission of Oregon ("Staff"), and the Citizens' Utility Board of Oregon ("CUB") (collectively, the "Stipulating Parties").

On December 5, 2013, PGE filed with Oregon Public Utility Commission ("Commission") the results of a detailed depreciation study of its utility properties as of December 31, 2012, which included proposed depreciation lives, curves, and net salvage rates (collectively the "parameters") and depreciation rates for PGE's generation, transmission, distribution, general plant, and intangible assets. Based on the December 31, 2012, plant balances, the change in depreciation parameters proposed by PGE would have resulted in an annual depreciation decrease of approximately \$2.2 million, not including PGE's new Tucannon River Wind Farm and Port Westward II generating facilities. In addition, PGE filed proposed depreciation parameters to be used for the Tucannon River Wind Farm and Port Westward II generation facilities.

On February 13, 2014, PGE filed an application for a general rate revision, Docket UE 283, to be effective January 1, 2015. The depreciation rates that will be used in Docket UE 283 are the rates set in this docket.

On May 22, 2014, PGE, Staff and CUB participated in a Settlement Conference at the Commission's office in Salem, Oregon. The discussions resulted in a compromise settlement of the Parties. Exhibit "102, Table1" to this stipulation, attached hereto, sets forth the detailed account-by-account depreciation parameters and rates that parties agree should be adopted by the Commission.

PGE, Staff and CUB request that the Commission issue orders in this docket implementing the terms of this Stipulation. As a compromise position on the issues in controversy, the Parties have agreed to depreciation parameters and rates that would result in a decrease of approximately \$11.5 million on an annual basis from that originally proposed in this docket based on plant data at December 31, 2012. Applying the stipulated depreciation parameters, including those applicable to new generation facilities, to PGE's 2015 test year in docket UE 283 results in the revenue requirement changes summarized in Exhibit "102, Table1".

#### TERMS OF STIPULATION

1. This Stipulation resolves all issues regarding PGE's application seeking a change in depreciation rates applicable to its plant.
2. The Parties agree that the changes shown in Exhibit "103, Table2" to this Stipulation should be made for the identified lives, curves, net salvage value, and rates. With the exception of the parameters set forth in Exhibit "103, Table2" to this Stipulation, the parameters should remain as filed in PGE's Study.
3. Exhibit "102, Table1" to the Stipulation is a complete list of all PGE depreciation parameters for all plant accounts by location.
4. As part of this settlement the Parties agree that PGE should use the Average Service Life depreciation procedure for all new generating plants placed in service after



December 31, 2012. Regarding the new generating plants that will come on line between 2013 and 2016 that are currently in development the list for these new plants is shown on Exhibit "102, Table1, Note 1." PGE will continue to use the straight-line, Equal Life Group method for all existing assets and accounts. This approach and resulting depreciation parameters and rates are included in the parameters listed in Exhibit "103, Table2".

5. PGE will make a compliance filing by submitting the depreciation technical update filing to OPUC no later than one year after a new generating facility comes on-line that will consist of an attestation by the CFO that PGE is using the Average Service Life for the new generating plant(s) as well as sample accounting entries that demonstrate its use.

6. The revised depreciation parameters described above and set forth in Exhibit "102, Table1" are reasonable and should be adopted.

7. The revised depreciation rates shall be implemented on the effective date of PGE's pending general rate request in Docket UE 283.

8. No later than the end of 2018, PGE shall file with the Commission another detailed depreciation study of its utility property. The depreciation parameters detailed in Stipulation Exhibit 102, Table1 will be utilized until the effective date of the next depreciation study.

9. The Stipulating Parties recommend and request that the Commission approve the adjustments described herein as appropriate and reasonable resolutions of all issues in this docket.

10. The Stipulating Parties agree that this Stipulation is in the public interest and will result in rates that are fair, just and reasonable and, if approved, will meet the standard in ORS 756.040.

11. The Stipulating Parties agree that this Stipulation represents a compromise in the positions of the parties. Without the written consent of all parties, evidence of conduct or statements, including but not limited to term sheets or other documents created solely for use in settlement conferences in this docket, are confidential and not admissible in the instant or any subsequent proceeding, unless independently discoverable or offered for other purposes allowed under ORS 40.190.

12. The Stipulating Parties have negotiated this Comprehensive Settlement as an integrated document. If the Commission rejects all or any material part of this Stipulation, or adds any material condition to any final order that is not consistent with this Stipulation, each Stipulating Party reserves its right to: (i) withdraw from the Stipulation, upon written notice to the Commission and other Parties within five (5) business days of service of the final order that rejects this Stipulation, in whole or material part, or adds such material condition; (ii) pursuant to OAR 860-001-0350(9), to present evidence and argument on the record in support of the Stipulation, including the right to cross-examine witnesses, introduce evidence as deemed appropriate to respond fully to issues presented, and raise issues that are incorporated in the settlement embodied in this Stipulation; and (iii) pursuant to ORS 756.561 and OAR 860-001-0720, to seek rehearing or reconsideration or to appeal the Commission order under ORS 756.610. Nothing in this paragraph provides any Party the right to withdraw from this Stipulation as a result of the Commission's resolution of issues that this Stipulation does not resolve.

13. This Stipulation will be offered into the record in this proceeding as evidence pursuant to OAR 860-01-0350(7). The Stipulating Parties agree to support this Stipulation throughout this proceeding and in any appeal, provide witnesses to support this Stipulation (if

specifically required by the Commission), and recommend that the Commission issue an order adopting the settlements contained herein. The Stipulating Parties also agree to cooperate in drafting and submitting an explanatory brief and written testimony per OAR 860-001-0350(7), unless such requirement is waived. By entering into this Stipulation, no Stipulating Party shall be deemed to have approved, admitted or consented to the facts, principles, methods or theories employed by any other Party in arriving at the terms of this Stipulation. Except as provided in this Stipulation, no Stipulating Party shall be deemed to have agreed that any provision of this Stipulation is appropriate for resolving issues in any other proceeding.

14. This Stipulation may be signed in any number of counterparts, each of which will be an original for all purposes, but all of which taken together will constitute one and the same agreement.

DATED this 2<sup>nd</sup> day of June, 2014.

  
\_\_\_\_\_  
PORTLAND GENERAL ELECTRIC  
COMPANY

\_\_\_\_\_  
STAFF OF THE PUBLIC UTILITY  
COMMISSION OF OREGON

\_\_\_\_\_  
CITIZENS' UTILITY BOARD  
OF OREGON


adopting the settlements contained herein. The Stipulating Parties also agree to cooperate in drafting and submitting an explanatory brief and written testimony per OAR 860-001-0350(7), unless such requirement is waived. By entering into this Stipulation, no Stipulating Party shall be deemed to have approved, admitted or consented to the facts, principles, methods or theories employed by any other Party in arriving at the terms of this Stipulation. Except as provided in this Stipulation, no Stipulating Party shall be deemed to have agreed that any provision of this Stipulation is appropriate for resolving issues in any other proceeding.

14. This Stipulation may be signed in any number of counterparts, each of which will be an original for all purposes, but all of which taken together will constitute one and the same agreement.

DATED this 27<sup>th</sup> day of June, 2014.

---

PORTLAND GENERAL ELECTRIC  
COMPANY

  
STAFF OF THE PUBLIC UTILITY  
COMMISSION OF OREGON  
(Attorney)

---

CITIZENS' UTILITY BOARD  
OF OREGON

deemed to have approved, admitted or consented to the facts, principles, methods or theories employed by any other Party in arriving at the terms of this Stipulation. Except as provided in this Stipulation, no Stipulating Party shall be deemed to have agreed that any provision of this Stipulation is appropriate for resolving issues in any other proceeding.

14. This Stipulation may be signed in any number of counterparts, each of which will be an original for all purposes, but all of which taken together will constitute one and the same agreement.

DATED this 27<sup>th</sup> day of June, 2014.

---

PORTLAND GENERAL ELECTRIC  
COMPANY

---

STAFF OF THE PUBLIC UTILITY  
COMMISSION OF OREGON



---

CITIZENS' UTILITY BOARD  
OF OREGON

PORTLAND GENERAL ELECTRIC  
TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2012

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AT DECEMBER 31, 2012 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (9)=(6)/(7)	
						AMOUNT (7)	RATE (8)=(7)/(4)		
<b>STEAM PRODUCTION PLANT</b>									
BOARDMAN									
311.00	STRUCTURES AND IMPROVEMENTS	90 - S1.5 *	(1)	103,163,606.77	76,864,082	27,331,161	3,287,441 **	3.19	8.0
312.00	BOILER PLANT EQUIPMENT	65 - R3 *	(1)	227,278,716.19	143,601,262	85,950,241	10,459,682 **	4.60	8.0
312.00	BOARDMAN DECOMMISSIONING ACCRUAL			0.00	27,346,614	17,406,389	2,175,804 **	-	8.0
312.01	RAIL CARS	26 - S0 *	0	9,758,265.28	7,667,449	2,090,816	261,352 **	2.68	8.0
314.00	TURBOGENERATOR UNITS	60 - S0.5 *	(1)	90,135,378.46	56,819,219	34,217,513	4,164,520 **	4.62	8.0
315.00	ACCESSORY ELECTRIC EQUIPMENT	60 - R2.5 *	(1)	23,582,186.18	17,351,696	6,466,312	778,811 **	3.30	8.0
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	55 - R1 *	(1)	5,803,273.23	3,970,515	1,890,791	229,095 **	3.95	8.0
	TOTAL BOARDMAN			459,721,426.11	333,620,837	175,353,223	21,356,704	4.65	8.0
COLSTRIP									
311.00	STRUCTURES AND IMPROVEMENTS	90 - S1.5 *	(5)	115,308,214.32	94,985,340	26,088,285	958,829	0.83	27.2
312.00	BOILER PLANT EQUIPMENT	65 - R3 *	(5)	216,919,862.50	169,669,621	57,895,235	2,175,748	1.00	26.6
314.00	TURBOGENERATOR UNITS	60 - S0.5 *	(5)	75,365,578.58	40,157,331	38,976,526	1,644,217	2.18	23.7
315.00	ACCESSORY ELECTRIC EQUIPMENT	60 - R2.5 *	(5)	23,556,967.88	18,545,900	6,188,916	256,139	1.09	24.2
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	55 - R1 *	(5)	6,346,149.23	4,741,026	1,922,431	84,395	1.33	22.8
	TOTAL COLSTRIP			437,496,772.51	328,299,217	131,072,393	5,119,328	1.17	25.6
<b>TOTAL STEAM PRODUCTION PLANT</b>				<b>897,218,198.62</b>	<b>661,920,054</b>	<b>306,425,616</b>	<b>26,476,032</b>	<b>2.95</b>	<b>11.6</b>
<b>HYDRAULIC PRODUCTION PLANT</b>									
331.00 STRUCTURES AND IMPROVEMENTS									
	FARADAY	100 - R2.5 *	(50)	6,479,397.20	1,212,225	8,506,871	224,988	3.47	37.8
	NORTH FORK	100 - R2.5 *	(115)	8,280,817.28	1,580,450	16,180,307	420,381	5.09	38.5
	OAK GROVE	100 - R2.5 *	(50)	3,398,112.29	1,458,859	3,638,309	99,796	2.94	36.5
	OAK GROVE - TIMOTHY LAKE	100 - R2.5 *	(50)	2,252,149.83	810,067	2,568,158	66,267	2.94	38.8
	PELTON	100 - R2.5 *	(110)	5,645,635.78	1,872,777	9,983,058	263,270	4.66	37.9
	RIVER MILL	100 - R2.5 *	(80)	2,753,573.44	888,480	4,067,952	115,450	4.19	35.2
	ROUND BUTTE	100 - R2.5 *	(75)	9,696,059.00	2,341,042	14,627,061	385,957	3.98	37.9
	SULLIVAN	100 - R2.5 *	(30)	9,437,850.41	1,478,588	10,790,618	499,841	5.30	21.6
	TOTAL STRUCTURES AND IMPROVEMENTS			47,923,595.23	11,642,487	70,362,334	2,075,950	4.33	33.9
332.00 RESERVOIRS, DAMS AND WATERWAYS									
	FARADAY	100 - R3 *	(50)	24,223,754.94	11,961,626	24,374,007	625,247	2.58	39.0
	NORTH FORK	100 - R3 *	(115)	22,104,599.29	15,651,253	31,873,636	849,138	3.84	37.5
	OAK GROVE	100 - R3 *	(50)	14,728,506.43	14,428,936	7,663,824	193,663	1.31	39.6
	OAK GROVE - TIMOTHY LAKE	100 - R3 *	(50)	4,740,064.79	5,207,421	1,902,676	52,698	1.11	36.1
	PELTON	100 - R3 *	(110)	10,223,106.37	8,252,401	13,216,122	362,037	3.54	36.5
	RIVER MILL	100 - R3 *	(80)	52,789,060.05	8,988,578	86,031,730	2,145,074	4.06	40.1
	ROUND BUTTE	100 - R3 *	(75)	103,758,407.21	25,289,701	156,287,512	3,895,851	3.75	40.1
	SULLIVAN	100 - R3 *	(30)	23,381,331.65	4,831,799	25,563,932	1,160,692	4.96	22.0
	TOTAL RESERVOIRS, DAMS AND WATERWAYS			255,948,830.73	94,611,715	346,913,439	9,284,398	3.63	37.4

ORDER NO. 14 297

PORTLAND GENERAL ELECTRIC  
TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2012

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AT DECEMBER 31, 2012 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (9)=(6)/(7)	
						AMOUNT (7)	RATE (8)=(7)/(4)		
333.00	WATER WHEELS, TURBINES AND GENERATORS								
	FARADAY	90 - S1 *	(50)	6,608,291.00	2,914,660	6,997,777	189,402	2.87	36.9
	NORTH FORK	90 - S1 *	(110)	6,887,358.20	4,808,993	9,854,459	279,711	4.06	34.5
	OAK GROVE	90 - S1 *	(50)	6,438,763.32	2,695,592	6,962,553	188,665	2.93	36.9
	PELTON	90 - S1 *	(100)	3,964,266.18	4,137,997	3,790,535	115,856	2.92	32.7
	RIVER MILL	90 - S1 *	(80)	5,666,409.59	2,183,139	8,016,398	215,831	3.81	37.1
	ROUND BUTTE	90 - S1 *	(70)	13,170,715.97	7,767,838	14,622,379	392,371	2.98	37.3
	SULLIVAN	90 - S1 *	(30)	9,206,560.54	3,018,905	8,949,624	415,581	4.51	21.5
	TOTAL WATER WHEELS, TURBINES AND GENERATORS			51,942,364.80	27,527,125	58,993,725	1,797,437	3.46	32.8
334.00	ACCESSORY ELECTRIC EQUIPMENT								
	FARADAY	60 - R2.5 *	(30)	2,300,700.84	1,009,001	1,981,911	62,329	2.71	31.8
	NORTH FORK	60 - R2.5 *	(75)	949,835.89	505,575	1,156,637	39,264	4.13	29.5
	OAK GROVE	60 - R2.5 *	(30)	2,372,228.34	748,450	2,335,447	71,867	3.03	32.5
	PELTON	60 - R2.5 *	(75)	2,231,610.73	690,153	3,215,166	99,259	4.45	32.4
	RIVER MILL	60 - R2.5 *	(45)	2,528,354.14	843,022	2,823,092	86,091	3.41	32.8
	ROUND BUTTE	60 - R2.5 *	(35)	1,909,870.89	736,560	1,841,765	54,801	2.87	33.6
	SULLIVAN	60 - R2.5 *	(25)	4,270,652.93	674,739	4,663,577	221,169	5.18	21.1
	TOTAL ACCESSORY ELECTRIC EQUIPMENT			16,563,253.76	5,207,500	18,017,595	634,780	3.83	28.4
335.00	MISCELLANEOUS PLANT EQUIPMENT								
	FARADAY	55 - R0.5 *	(15)	227,707.67	86,861	175,003	7,484	3.29	23.4
	NORTH FORK	55 - R0.5 *	(50)	453,549.96	248,429	431,896	16,764	3.70	25.8
	OAK GROVE	55 - R0.5 *	(5)	90,217.98	41,306	53,423	2,055	2.28	26.0
	OAK GROVE - TIMOTHY LAKE	55 - R0.5 *	(5)	2,761.24	1,393	1,506	63	2.28	23.9
	PELTON	55 - R0.5 *	(40)	180,729.78	126,495	126,527	5,606	3.10	22.6
	RIVER MILL	55 - R0.5 *	(30)	20,116.12	4,868	21,283	774	3.85	27.5
	ROUND BUTTE	55 - R0.5 *	(30)	769,105.69	275,231	724,606	28,737	3.74	25.2
	SULLIVAN	55 - R0.5 *	(25)	109,225.68	18,312	118,221	6,437	5.89	18.4
	TOTAL MISCELLANEOUS PLANT EQUIPMENT			1,853,414.12	802,894	1,652,465	67,920	3.66	24.3
336.00	ROADS, RAILROADS, AND BRIDGES								
	FARADAY	80 - R1.5 *	(15)	1,976,298.06	567,848	1,704,895	49,998	2.53	34.1
	NORTH FORK	80 - R1.5 *	(50)	1,662,876.54	527,674	1,966,641	61,300	3.69	32.1
	OAK GROVE	80 - R1.5 *	(5)	2,215,114.33	2,153,069	172,801	5,323	0.24	32.5
	OAK GROVE - TIMOTHY LAKE	80 - R1.5 *	(5)	107,015.18	18,308	94,058	2,810	2.63	33.5
	PELTON	80 - R1.5 *	(40)	2,151,532.89	694,407	2,317,740	68,183	3.17	34.0
	RIVER MILL	80 - R1.5 *	(30)	458,019.14	114,105	481,320	14,109	3.08	34.1
	ROUND BUTTE	80 - R1.5 *	(30)	1,192,102.68	393,917	1,155,817	36,749	3.08	31.5
	TOTAL ROADS, RAILROADS, AND BRIDGES			9,762,958.92	4,469,327	7,893,272	238,472	2.44	33.1
	TOTAL HYDRAULIC PRODUCTION PLANT			383,994,417.56	144,261,048	503,832,830	14,098,957	3.67	35.7

ORDER NO.

14 297

PORTLAND GENERAL ELECTRIC  
 TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2012

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AT DECEMBER 31, 2012 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (9)=(6)/(7)	
						AMOUNT (7)	RATE (8)=(7)/(4)		
<b>OTHER PRODUCTION PLANT</b>									
341.00	STRUCTURES AND IMPROVEMENTS								
	BEAVER - CT	70 - R2 *	(8)	31,384,599.71	27,842,665	6,052,703	369,866	1.18	16.4
	COYOTE SPRINGS - CT	70 - R2 *	(8)	10,792,758.11	6,593,674	5,062,505	203,418	1.88	24.9
	PORT WESTWARD - CT	70 - R2 *	(10)	40,951,570.86	4,719,732	40,326,996	1,246,251	3.04	32.4
	TOTAL STRUCTURES AND IMPROVEMENTS			83,128,928.68	39,156,071	51,442,204	1,819,535	2.19	28.3
341.01	STRUCTURES AND IMPROVEMENTS - WIND	40 - R4	(9)	32,813,735.10	4,812,435	30,954,537	910,651	2.78	34.0
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES								
	BEAVER - CT	50 - R3 *	(8)	51,221,330.42	48,220,046	7,098,991	475,497	0.93	14.9
	BEAVER UNIT 8 - CT	50 - R3 *	(8)	1,301.12	765	640	38	2.92	16.8
	COYOTE SPRINGS - CT	50 - R3 *	(8)	35,792,019.04	21,039,639	17,615,742	743,942	2.08	23.7
	PORT WESTWARD - CT	50 - R3 *	(10)	9,462,372.34	4,494,496	5,914,114	182,391	1.93	32.4
	KB PIPELINE	50 - R3 *	(8)	19,373,076.01	15,258,576	5,664,346	347,713	1.79	16.3
	TOTAL FUEL HOLDERS, PRODUCERS AND ACCESSORIES			115,850,098.93	89,013,522	36,293,833	1,749,581	1.51	20.7
344.00	GENERATORS								
	BEAVER - CT	45 - R1 *	(8)	92,274,545.94	57,013,831	42,642,679	2,863,947	3.10	14.9
	BEAVER UNIT 8 - CT	45 - R1 *	(8)	3,829,309.44	2,091,118	2,044,536	135,042	3.53	15.1
	COYOTE SPRINGS - CT	45 - R1 *	(8)	123,550,931.60	49,065,311	84,369,695	4,270,941	3.46	19.8
	PORT WESTWARD - CT	45 - R1 *	(10)	188,072,933.42	31,102,803	175,777,424	7,200,621	3.83	24.4
	TOTAL GENERATORS			407,727,720.40	139,273,063	304,834,334	14,470,551	3.55	21.1
344.01	GENERATORS - WIND	30 - R3	(9)	860,382,974.39	127,377,520	810,439,922	35,197,604	4.09	23.0
345.00	ACCESSORY ELECTRIC EQUIPMENT								
	DISPATCH GENERATION	40 - R2.5	(6)	7,166,364.41	1,356,275	6,240,072	218,737	3.05	28.5
	BEAVER - CT	40 - R2.5 *	(6)	12,901,411.46	11,380,180	2,295,316	168,732	1.31	13.6
	BEAVER UNIT 8 - CT	40 - R2.5 *	(6)	75,508.20	17,759	62,280	3,845	5.09	16.2
	COYOTE SPRINGS - CT	40 - R2.5 *	(6)	11,549,937.95	7,022,985	5,219,949	263,497	2.28	19.8
	PORT WESTWARD - CT	40 - R2.5 *	(6)	8,909,074.88	1,965,498	7,478,122	275,599	3.09	27.1
	TOTAL ACCESSORY ELECTRIC EQUIPMENT			40,602,296.90	21,742,697	21,295,739	930,410	2.29	22.9
345.01	ACCESSORY ELECTRIC EQUIPMENT - WIND	30 - R2.5	(6)	24,958,049.06	2,866,156	23,589,376	1,063,450	4.26	22.2
346.00	MISCELLANEOUS PLANT EQUIPMENT								
	BEAVER - CT	55 - R2 *	(2)	4,303,163.78	3,422,973	966,254	61,121	1.42	15.8
	COYOTE SPRINGS - CT	55 - R2 *	(2)	2,060,507.64	1,207,375	894,343	38,090	1.85	23.5
	PORT WESTWARD - CT	55 - R2 *	(2)	2,876,766.10	404,039	2,530,263	83,999	2.92	30.1
	KB PIPELINE	55 - R2 *	(2)	78,841.79	64,122	16,297	1,024	1.30	15.9
	TOTAL MISCELLANEOUS PLANT EQUIPMENT			9,319,279.31	5,098,509	4,407,157	184,234	1.98	23.9
346.01	MISCELLANEOUS PLANT EQUIPMENT - WIND	35 - R2.5	(2)	847,553.98	132,834	731,671	29,059	3.43	25.2
	<b>TOTAL OTHER PRODUCTION PLANT</b>			<b>1,575,630,636.75</b>	<b>429,472,806</b>	<b>1,283,988,773</b>	<b>56,355,075</b>	<b>3.58</b>	<b>22.8</b>
	<b>TOTAL PRODUCTION</b>			<b>2,866,843,252.93</b>	<b>1,235,653,908</b>	<b>2,094,247,219</b>	<b>96,930,064</b>		

ORDER NO.

14 297



PORTLAND GENERAL ELECTRIC  
TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2012

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AT DECEMBER 31, 2012 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (9)=(6)/(7)	
						AMOUNT (7)	RATE (8)=(7)/(4)		
<b>TRANSMISSION PLANT</b>									
352.00	STRUCTURES AND IMPROVEMENTS	60 - R2.5	(15)	17,407,069.85	6,797,117	13,221,013	353,866	2.03	37.4
353.00	STATION EQUIPMENT	55 - R2	(15)	241,319,092.06	82,698,466	194,818,490	5,630,960	2.33	34.6
354.00	TOWERS AND FIXTURES	70 - R3	(10)	46,808,291.56	21,550,183	29,938,938	866,584	1.85	34.5
355.00	POLES AND FIXTURES	50 - R1.5	(50)	20,460,355.74	9,396,543	21,293,991	669,961	3.27	31.8
356.00	OVERHEAD CONDUCTORS AND DEVICES	60 - R2.5	(30)	74,129,948.12	57,901,127	38,467,807	918,417	1.24	41.9
359.00	ROADS AND TRAILS	60 - R4	0	<u>339,371.32</u>	<u>148,519</u>	<u>192,653</u>	<u>6,680</u>	<u>1.97</u>	<u>28.9</u>
<b>TOTAL TRANSMISSION PLANT</b>				<b>400,464,129.65</b>	<b>178,489,955</b>	<b>297,933,092</b>	<b>8,446,468</b>	<b>2.11</b>	<b>35.3</b>
<b>DISTRIBUTION PLANT</b>									
361.00	STRUCTURES AND IMPROVEMENTS	70 - R1.5	(25)	36,822,187.13	12,249,928	33,777,806	796,858	2.16	42.4
362.00	STATION EQUIPMENT	54 - S0	(20)	384,524,570.26	120,825,481	340,604,004	11,185,779	2.91	30.4
364.00	POLES, TOWERS AND FIXTURES	48 - R1	(60)	325,204,225.23	233,516,446	286,810,314	10,281,387	3.16	27.9
365.00	OVERHEAD CONDUCTORS AND DEVICES	48 - S0.5	(70)	533,059,150.98	324,305,182	581,895,375	20,060,538	3.76	29.0
366.00	UNDERGROUND CONDUIT	75 - R4	(13)	15,523,586.14	9,517,421	8,024,232	176,763	1.14	45.4
367.00	UNDERGROUND CONDUCTORS AND DEVICES	50 - S1.5	(70)	624,820,668.61	351,739,956	710,455,181	21,951,949	3.51	32.4
368.00	LINE TRANSFORMERS	45 - R3	(20)	306,548,578.44	158,484,717	209,373,577	7,431,903	2.42	28.2
369.01	SERVICES - OVERHEAD	55 - R1.5	(45)	40,361,949.72	37,798,996	20,725,831	658,812	1.63	31.5
369.03	SERVICES - UNDERGROUND	50 - R4	(45)	337,639,570.26	263,527,773	226,049,604	6,287,797	1.86	36.0
370.00	METERS	30 - S1.5	(8)	5,613,935.18	594,883	5,468,167	284,811	5.07	19.2
370.01	METERS - AMI	16 - S2.5	(8)	112,581,575.01	20,648,101	100,940,000	8,356,515	7.42	12.1
370.02	METERS - RETAINED	16 - L0.5	(8)	7,523,316.60	1,781,367	6,343,815	867,815	11.54	7.3
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	30 - R4	0	376,133.46	253,970	122,163	7,254	1.93	16.8
373.01	CIRCUITS - OTHER	46 - S0.5	(30)	21,175,639.91	15,125,414	12,402,918	451,214	2.13	27.5
373.02	FIXTURES, ORNAMENTAL POSTS AND DEVICES	28 - L1	(30)	28,661,421.75	27,473,507	9,786,341	611,172	2.13	16.0
373.07	SENTINEL LIGHTING EQUIPMENT	29 - L0.5	(30)	<u>8,483,865.88</u>	<u>9,442,510</u>	<u>1,586,516</u>	<u>99,584</u>	<u>1.17</u>	<u>15.9</u>
<b>TOTAL DISTRIBUTION PLANT</b>				<b>2,788,920,374.66</b>	<b>1,687,285,662</b>	<b>2,564,366,844</b>	<b>89,610,161</b>	<b>3.21</b>	<b>28.5</b>
<b>GENERAL PLANT</b>									
390.00	STRUCTURES AND IMPROVEMENTS	40 - R0.5	(5)	50,907,101.98	22,999,361	30,453,096	1,475,457	2.90	20.6
390.10	STRUCTURES AND IMPROVEMENTS - LEASE								
	CSS	SQUARE	0	6,709.18	2,976	3,733	622	9.27	6.0
	EASTPORT	SQUARE	0	58,032.12	54,037	3,995	1,019	1.76	3.9
	ERC TUALATIN	SQUARE	0	276,892.45	172,976	103,916	19,174	6.92	5.4
	HILLSBORO	SQUARE	0	59,238.14	53,297	5,941	5,942	10.03	1.0
	SALEM	SQUARE	0	84,421.47	51,711	32,710	13,516	16.01	2.4
	WILSONVILLE	SQUARE	0	155,328.32	101,221	54,107	24,048	15.48	2.2
	WTC	SQUARE	0	<u>19,375,468.37</u>	<u>5,536,920</u>	<u>13,838,548</u>	<u>450,037</u>	<u>2.32</u>	<u>30.7</u>
<b>TOTAL STRUCTURES AND IMPROVEMENTS</b>				<b>20,016,090.05</b>	<b>5,973,138</b>	<b>14,042,950</b>	<b>514,358</b>	<b>2.57</b>	<b>27.3</b>
391.10	OFFICE FURNITURE AND EQUIPMENT								
	FURNITURE AND EQUIPMENT	15 - SQ	0	16,154,320.04	5,067,207	11,087,113	1,777,770	11.00	6.2
391.20	COMPUTERS AND EQUIPMENT	5 - SQ	0	<u>50,495,108.71</u>	<u>21,120,607</u>	<u>29,374,501</u>	<u>10,624,019</u>	<u>21.04</u>	<u>2.8</u>
<b>TOTAL OFFICE FURNITURE AND EQUIPMENT</b>				<b>66,649,428.75</b>	<b>26,187,814</b>	<b>40,461,614</b>	<b>12,401,789</b>	<b>18.61</b>	<b>3.3</b>

ORDER NO. 17 297

PORTLAND GENERAL ELECTRIC  
TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2012

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AT DECEMBER 31, 2012 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (9)=(6)/(7)	
						AMOUNT (7)	RATE (8)=(7)/(4)		
TRANSPORTATION EQUIPMENT									
392.04	HEAVY DUTY TRUCKS	19 - S2	10	10,310,358.99	7,478,261	1,801,082	127,752	1.24	14.1
392.05	MEDIUM DUTY TRUCKS	15 - S1.5	10	13,096,541.35	7,837,401	3,949,487	460,131	3.51	8.6
392.06	LIGHT DUTY TRUCKS	12 - L2	10	8,585,404.78	5,761,784	1,965,081	327,645	3.82	6.0
392.08	TRAILERS	25 - S0	10	5,035,199.33	2,414,441	2,117,238	149,698	2.97	14.1
392.09	AUTOS	11 - S1.5	10	1,174,746.91	422,708	634,565	106,935	9.10	5.9
392.10	HELICOPTER	20 - S4	10	2,703,076.25	564,801	1,867,967	122,655	4.54	15.2
	TOTAL TRANSPORTATION EQUIPMENT			40,905,327.61	24,479,396	12,335,400	1,294,816	3.17	9.5
393.00	STORES EQUIPMENT	20 - SQ	0	2,851,685.89	1,067,992	1,783,694	154,588	5.42	11.5
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20 - SQ	0	11,124,758.65	4,201,984	6,922,774	840,771	7.56	8.2
395.00	LABORATORY EQUIPMENT	17 - SQ	0	9,949,815.67	2,780,784	7,169,032	918,162	9.23	7.8
POWER OPERATED EQUIPMENT									
396.01	MAN LIFT	14 - S1.5	5	25,760,291.28	13,170,098	11,302,179	1,477,363	5.74	7.7
396.02	DIGGER	15 - S3	5	8,491,374.37	4,659,141	3,407,665	328,124	3.86	10.4
396.03	CRANE	20 - L3	5	4,868,443.43	3,235,875	1,389,147	102,937	2.11	13.5
396.07	CONSTRUCTION EQUIPMENT	20 - L1	5	5,680,187.07	3,479,017	1,917,161	174,793	3.08	11.0
	TOTAL POWER OPERATED EQUIPMENT			44,800,296.15	24,544,130	18,016,152	2,083,217	4.65	8.6
COMMUNICATION EQUIPMENT									
397.01	LINE EQUIPMENT	15 - SQ	0	1,833,384.98	544,039	1,289,346	116,397	6.35	11.1
397.03	RADIO, MICROWAVE AND TERMINAL EQUIPMENT	15 - SQ	0	69,486,640.99	31,953,470	37,533,171	5,863,891	8.44	6.4
397.06	MOBILE RADIO EQUIPMENT	15 - SQ	0	598,856.17	303,999	294,857	25,475	4.25	11.6
397.07	TELEPHONE EQUIPMENT	15 - SQ	0	688,064.05	439,897	248,167	49,235	7.16	5.0
	TOTAL COMMUNICATION EQUIPMENT			72,606,946.19	33,241,405	39,365,541	6,054,998	8.34	6.5
398.00	MISCELLANEOUS EQUIPMENT	20 - SQ	0	129,175.32	93,653	35,522	2,261	1.75	15.7
	TOTAL GENERAL PLANT			319,940,626.26	145,569,658	170,585,775	26,740,417	8.05	6.6
	TOTAL DEPRECIABLE PLANT			6,366,168,383.40	3,146,999,173	5,117,131,930	220,627,100	3.47	23.2
NONDEPRECIABLE / ACCOUNTS NOT STUDIED									
302.00				144,231,675.68	28,535,297				
303.00				212,946,637.54	122,646,130				
310.00				4,160,671.10					
317.00				24,903,797.00	5,327,284				
330.00				6,047,625.51	1,341,061				
332.00	BULL RUN			0.00	683,971				

ORDER NO.

14 297

PORTLAND GENERAL ELECTRIC  
TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2012

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AT DECEMBER 31, 2012 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (9)=(6)/(7)
						AMOUNT (7)	RATE (8)=(7)/(4)	
337.00			4,276.00					
340.00			48,946.01	275,794				
347.00			2,213,947.65					
350.00			11,230,107.76	(6,753)				
360.00			20,358,924.85	(1,115)				
370.03			0.00	(8,218)				
374.00			460,131.00					
389.00			7,195,880.64	(3,616)				
392.01			0.00	241,194				
399.00			64,488.00					
TOTAL NONDEPRECIABLE / NOT STUDIED			433,867,108.74	159,031,030				
TOTAL ELECTRIC PLANT			6,800,035,492.14	3,306,030,202	5,117,131,930	220,627,100		

\* Curve shown is Interim survivor curve. Each facility in the account is assigned an individual probable retirement year.  
\*\* Annual depreciation expense based on method previously approved by the OPUC in Order No. 10-478.

Notes:

1.) Accrual rates for facilities to be placed in service after December 31, 2012 using the ASL/VG procedure are as follows.

	Rate	Survivor Curve	Net Salvage Percent	Remaining Life	Using ELG Procedure	
					Rate	Remaining Life
<b>Port Westward II</b>						
341.00	2.52	70 - R2 *	(7)	42.5	3.22	33.2
342.00	2.57	50 - R3 *	(7)	41.7	2.87	37.3
344.00	2.93	45 - R1 *	(7)	36.5	5.61	19.1
345.00	2.85	40 - R2.5 *	(6)	37.2	3.76	28.2
346.00	2.50	55 - R2 *	(2)	40.8	3.40	30.0
<b>Carty</b>						
341.00	2.52	70 - R2 *	(6)	42.1	3.15	33.6
342.00	2.57	50 - R3 *	(6)	41.3	2.85	37.2
344.00	2.93	45 - R1 *	(6)	36.2	5.30	20.0
346.00	2.52	55 - R2 *	(2)	40.5	3.34	30.5
<b>Tucannon River</b>						
341.01	2.82	40 - R4 *	(12)	39.8	2.99	37.4
344.01	3.74	30 - R3 *	(12)	30.0	4.44	25.2
345.01	3.54	30 - R2.5 *	(6)	29.9	4.81	22.0
346.01	2.94	35 - R2.5 *	(2)	34.7	4.00	25.5
<b>Sunway 1</b>						
344.00	4.85	25 - S2.5 *	(2)	17.2	5.20	16.0
<b>Sunway 2</b>						
344.00	5.53	25 - S2.5 *	(2)	14.1	5.73	13.7
<b>Sunway 3</b>						
344.00	5.44	25 - S2.5 *	(2)	15.8	5.62	15.3

ORDER NO. 17 297

PORTLAND GENERAL ELECTRIC  
COMPARISON OF ESTIMATED SURVIVOR CURVES, NET SALVAGE  
AND CALCULATED ANNUAL DEPRECIATION RATES

ACCOUNT (1)	ORIGINAL COST AS OF DECEMBER 31, 2012 (2)	2012 PGE PROPOSED PARAMETERS			2012 STAFF PRESETTLEMENT PARAMETERS			05-22-14 SETTLEMENT PARAMETERS		
		SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)		SURVIVOR CURVE (19)	NET SALVAGE PERCENT (20)		SURVIVOR CURVE (19)	NET SALVAGE PERCENT (20)	
<b>STEAM PRODUCTION PLANT</b>										
311.00	STRUCTURES AND IMPROVEMENTS									
	BOARDMAN	103,163,607	90 - S1.5 *	(1)	90 - S1.5 *	(1)	90 - S1.5 *	(1)	90 - S1.5 *	(1)
	COLSTRIP	115,308,214	90 - S1.5 *	(5)	90 - S1.5 *	(5)	90 - S1.5 *	(5)	90 - S1.5 *	(5)
	TOTAL STRUCTURES AND IM	218,471,821								
312.00	BOILER PLANT EQUIPMENT									
	BOARDMAN	227,278,716	65 - R3 *	(1)	65 - R3 *	(1)	65 - R3 *	(1)	65 - R3 *	(1)
	COLSTRIP	216,919,921	65 - R3 *	(5)	65 - R3 *	(5)	65 - R3 *	(5)	65 - R3 *	(5)
	TOTAL BOILER PLANT EQUIP	444,198,637								
312.01	RAIL CARS	9,758,265	26 - S0	0	26 - S0	0	26 - S0	0	26 - S0	0
314.00	TURBOGENERATOR UNITS									
	BOARDMAN	90,135,378	60 - S0.5 *	(1)	60 - S0.5 *	(1)	60 - S0.5 *	(1)	60 - S0.5 *	(1)
	COLSTRIP	75,365,521	60 - S0.5 *	(5)	60 - S0.5 *	(5)	60 - S0.5 *	(5)	60 - S0.5 *	(5)
	TOTAL TURBOGENERATOR L	165,500,899								
315.00	ACCESSORY ELECTRIC EQUIPMENT									
	BOARDMAN	23,582,186	60 - R2.5 *	(1)	60 - R2.5 *	(1)	60 - R2.5 *	(1)	60 - R2.5 *	(1)
	COLSTRIP	23,556,968	60 - R2.5 *	(5)	60 - R2.5 *	(5)	60 - R2.5 *	(5)	60 - R2.5 *	(5)
	TOTAL ACCESSORY ELECTR	47,139,154								
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT									
	BOARDMAN	5,803,273	55 - R1 *	(1)	55 - R1 *	(1)	55 - R1 *	(1)	55 - R1 *	(1)
	COLSTRIP	6,346,149	55 - R1 *	(5)	55 - R1 *	(5)	55 - R1 *	(5)	55 - R1 *	(5)
	TOTAL MISCELLANEOUS POW	12,149,422								
	<b>TOTAL STEAM PRODUCTION PL</b>	<b>897,218,199</b>								
<b>HYDRAULIC PRODUCTION PLANT</b>										
331.00	STRUCTURES AND IMPROVEMENTS									
	FARADAY	6,479,397	100 - R2.5 *	(60)	100 - R2.5 *	(25)	100 - R2.5 *	(50)	100 - R2.5 *	(50)
	NORTH FORK	8,260,817	100 - R2.5 *	(196)	100 - R2.5 *	(80)	100 - R2.5 *	(115)	100 - R2.5 *	(115)
	OAK GROVE	3,398,112	100 - R2.5 *	(68)	100 - R2.5 *	(28)	100 - R2.5 *	(50)	100 - R2.5 *	(50)
	OAK GROVE - TIMOTHY L	2,252,150	100 - R2.5 *	(68)	100 - R2.5 *	(28)	100 - R2.5 *	(50)	100 - R2.5 *	(50)
	PELTON	5,645,636	100 - R2.5 *	(183)	100 - R2.5 *	(75)	100 - R2.5 *	(110)	100 - R2.5 *	(110)
	RIVER MILL	2,753,573	100 - R2.5 *	(105)	100 - R2.5 *	(43)	100 - R2.5 *	(80)	100 - R2.5 *	(80)
	ROUND BUTTE	9,696,059	100 - R2.5 *	(89)	100 - R2.5 *	(36)	100 - R2.5 *	(75)	100 - R2.5 *	(75)
	SULLIVAN	9,437,850	100 - R2.5 *	(31)	100 - R2.5 *	(13)	100 - R2.5 *	(30)	100 - R2.5 *	(30)
	TOTAL STRUCTURES AND IM	47,923,595	average=	(100)	average=	(41)	average=	(70)	average=	(70)
332.00	RESERVOIRS, DAMS AND WATERWAYS									
	FARADAY	24,223,755	100 - R3 *	(60)	100 - R3 *	(36)	100 - R3 *	(50)	100 - R3 *	(50)
	NORTH FORK	22,104,599	100 - R3 *	(196)	100 - R3 *	(118)	100 - R3 *	(115)	100 - R3 *	(115)
	OAK GROVE	14,728,506	100 - R3 *	(68)	100 - R3 *	(41)	100 - R3 *	(50)	100 - R3 *	(50)
	OAK GROVE - TIMOTHY L	4,740,065	100 - R3 *	(68)	100 - R3 *	(41)	100 - R3 *	(50)	100 - R3 *	(50)
	PELTON	10,223,106	100 - R3 *	(183)	100 - R3 *	(110)	100 - R3 *	(110)	100 - R3 *	(110)
	RIVER MILL	52,789,060	100 - R3 *	(105)	100 - R3 *	(63)	100 - R3 *	(80)	100 - R3 *	(80)
	ROUND BUTTE	103,758,407	100 - R3 *	(89)	100 - R3 *	(53)	100 - R3 *	(75)	100 - R3 *	(75)
	SULLIVAN	23,381,332	100 - R3 *	(31)	100 - R3 *	(19)	100 - R3 *	(30)	100 - R3 *	(30)
	TOTAL RESERVOIRS, DAMS /	255,948,831	average=	(100)	average=	(60)	average=	(70)	average=	(70)
333.00	WATER WHEELS, TURBINES AND GENERATORS									
	FARADAY	6,608,291	90 - S1 *	(60)	90 - S1 *	(13)	90 - S1 *	(50)	90 - S1 *	(50)
	NORTH FORK	8,887,358	90 - S1 *	(196)	90 - S1 *	(41)	90 - S1 *	(110)	90 - S1 *	(110)
	OAK GROVE	6,438,763	90 - S1 *	(68)	90 - S1 *	(14)	90 - S1 *	(50)	90 - S1 *	(50)
	OAK GROVE	6,438,763	90 - S1 *	(183)	90 - S1 *	(39)	90 - S1 *	(100)	90 - S1 *	(100)

PELTON	3,964,266	90	S1	*	(105)	90	S1	*	(22)	90	S1	*	(80)	
RIVER MILL	5,666,410	90	S1	*	(89)	90	S1	*	(19)	90	S1	*	(70)	
ROUND BUTTE	13,170,716	90	S1	*	(31)	90	S1	*	(7)	90	S1	*	(30)	
SULLIVAN	9,206,561				average=				(22)				average=	(70)
TOTAL WATER WHEELS, TUR	51,942,365													
<b>334.00</b>	<b>ACCESSORY ELECTRIC EQUIPMENT</b>													
FARADAY	2,300,701	60	R2.5	*	(80)	60	R2.5	*	(23)	60	R2.5	*	(30)	
NORTH FORK	949,836	60	R2.5	*	(196)	60	R2.5	*	(75)	60	R2.5	*	(75)	
OAK GROVE	2,372,228	60	R2.5	*	(68)	60	R2.5	*	(26)	60	R2.5	*	(30)	
PELTON	2,231,611	60	R2.5	*	(183)	60	R2.5	*	(70)	60	R2.5	*	(75)	
RIVER MILL	2,528,354	60	R2.5	*	(105)	60	R2.5	*	(40)	60	R2.5	*	(45)	
ROUND BUTTE	1,909,871	60	R2.5	*	(89)	60	R2.5	*	(34)	60	R2.5	*	(35)	
SULLIVAN	4,270,653	60	R2.5	*	(31)	60	R2.5	*	(12)	60	R2.5	*	(25)	
TOTAL ACCESSORY ELECTR	16,563,254				average=				(40)				average=	(45)
<b>335.00</b>	<b>MISCELLANEOUS PLANT EQUIPMENT</b>													
FARADAY	227,708	55	R0.5	*	(60)	55	R0.5	*	(3)	55	R0.5	*	(15)	
NORTH FORK	453,550	55	R0.5	*	(196)	55	R0.5	*	(10)	55	R0.5	*	(50)	
OAK GROVE	90,218	55	R0.5	*	(68)	55	R0.5	*	(3)	55	R0.5	*	(5)	
OAK GROVE - TIMOTHY L	2,761	55	R0.5	*	(88)	55	R0.5	*	(3)	55	R0.5	*	(5)	
PELTON	180,730	55	R0.5	*	(183)	55	R0.5	*	(9)	55	R0.5	*	(40)	
RIVER MILL	20,116	55	R0.5	*	(105)	55	R0.5	*	(5)	55	R0.5	*	(30)	
ROUND BUTTE	769,106	55	R0.5	*	(89)	55	R0.5	*	(4)	55	R0.5	*	(30)	
SULLIVAN	109,226	55	R0.5	*	(31)	55	R0.5	*	(2)	55	R0.5	*	(25)	
TOTAL MISCELLANEOUS PLA	1,853,414				average=				(5)				average=	(25)
<b>336.00</b>	<b>ROADS, RAILROADS, AND BRIDGES</b>													
FARADAY	1,976,298	80	R1.5	*	(60)	80	R1.5	*	(1)	80	R1.5	*	(15)	
NORTH FORK	1,662,877	80	R1.5	*	(196)	80	R1.5	*	(4)	80	R1.5	*	(50)	
OAK GROVE	2,215,114	80	R1.5	*	(68)	90	R1.5	*	(1)	80	R1.5	*	(5)	
OAK GROVE - TIMOTHY L	107,015	80	R1.5	*	(88)	80	R1.5	*	(1)	80	R1.5	*	(5)	
PELTON	2,151,533	80	R1.5	*	(183)	80	R1.5	*	(3)	80	R1.5	*	(40)	
RIVER MILL	458,019	80	R1.5	*	(105)	80	R1.5	*	(2)	80	R1.5	*	(30)	
ROUND BUTTE	1,192,103	80	R1.5	*	(89)	80	R1.5	*	(2)	80	R1.5	*	(30)	
TOTAL ROADS, RAILROADS,	9,762,959				average=				(2)				average=	(25)
<b>TOTAL HYDRAULIC PRODUCTIC</b>	<b>383,994,418</b>													
<b>OTHER PRODUCTION PLANT</b>														
<b>341.00</b>	<b>STRUCTURES AND IMPROVEMENTS</b>													
BEAVER - CT	31,384,600	70	R3	*	(8)	70	R2	*	(8)	70	R2	*	(8)	
COYOTE SPRINGS - CT	10,792,758	70	R3	*	(8)	70	R2	*	(8)	70	R2	*	(8)	
PORT WESTWARD - CT	40,951,571	70	R3	*	(10)	70	R2	*	(10)	70	R2	*	(10)	
TOTAL STRUCTURES AND IM	83,128,929													
<b>341.01</b>	<b>STRUCTURES AND IMPROVE</b>	32,813,735	40	R4	*	(9)	40	R4	(9)	40	R4	(9)		
<b>342.00</b>	<b>FUEL HOLDERS, PRODUCERS AND ACCESSORIES</b>													
BEAVER - CT	51,221,330	45	R3	*	(8)	50	R3	*	(8)	50	R3	*	(8)	
BEAVER UNIT 8 - CT	1,301	45	R3	*	(8)	50	R3	*	(8)	50	R3	*	(8)	
COYOTE SPRINGS - CT	35,792,019	45	R3	*	(8)	50	R3	*	(8)	50	R3	*	(8)	
PORT WESTWARD - CT	9,462,372	45	R3	*	(10)	50	R3	*	(10)	50	R3	*	(10)	
KB PIPELINE	19,373,076	45	R3	*	(8)	50	R3	*	(8)	50	R3	*	(8)	
TOTAL FUEL HOLDERS, PROI	115,850,099													
<b>344.00</b>	<b>GENERATORS</b>													
BEAVER - CT	92,274,546	35	R2	*	(8)	45	R1	*	(8)	45	R1	*	(8)	
BEAVER UNIT 8 - CT	3,829,309	35	R2	*	(8)	45	R1	*	(8)	45	R1	*	(8)	
COYOTE SPRINGS - CT	123,550,932	35	R2	*	(8)	45	R1	*	(8)	45	R1	*	(8)	
PORT WESTWARD - CT	188,072,933	35	R2	*	(10)	45	R1	*	(10)	45	R1	*	(10)	
TOTAL GENERATORS	407,727,720													
<b>344.01</b>	<b>GENERATORS - WIND</b>	860,382,974	30	R3	*	(9)	30	R3	(9)	30	R3	(9)		
<b>345.00</b>	<b>ACCESSORY ELECTRIC EQUIPMENT</b>													
DISPATCH GENERATION	7,166,364	40	R2.5	(5)	40	R2.5	(6)	40	R2.5	(6)	40	R2.5	(6)	
BEAVER - CT	12,901,411	40	R2.5	(8)	40	R2.5	(6)	40	R2.5	(6)	40	R2.5	(6)	
BEAVER UNIT 8 - CT	75,508	40	R2.5	(8)	40	R2.5	(6)	40	R2.5	(6)	40	R2.5	(6)	

	COYOTE SPRINGS - CT	11,549,938
	PORT WESTWARD - CT	8,909,075
	TOTAL ACCESSORY ELECTR	40,602,297
345.01	ACCESSORY ELECTRIC EQU	24,958,049
346.00	MISCELLANEOUS PLANT EQUIPMENT	
	BEAVER - CT	4,303,164
	COYOTE SPRINGS - CT	2,060,508
	PORT WESTWARD - CT	2,876,766
	KB PIPELINE	78,842
	TOTAL MISCELLANEOUS PLA	9,319,279
346.01	MISCELLANEOUS PLANT EQL	847,554
	TOTAL OTHER PRODUCTION PL	1,575,630,637
	TOTAL PRODUCTION	2,856,843,263

TRANSMISSION PLANT

352.00	STRUCTURES AND IMPROVE	17,407,070
353.00	STATION EQUIPMENT	241,319,092
354.00	TOWERS AND FIXTURES	46,808,292
355.00	POLES AND FIXTURES	20,460,356
356.00	OVERHEAD CONDUCTORS A	74,129,949
359.00	ROADS AND TRAILS	339,371
	TOTAL TRANSMISSION PLANT	400,464,130

DISTRIBUTION PLANT

361.00	STRUCTURES AND IMPROVE	36,822,187
362.00	STATION EQUIPMENT	384,524,570
364.00	POLES, TOWERS AND FIXTUI	325,204,225
365.00	OVERHEAD CONDUCTORS A	533,059,151
366.00	UNDERGROUND CONDUIT	15,523,586
367.00	UNDERGROUND CONDUCTO	624,820,669
368.00	LINE TRANSFORMERS	306,548,578
369.01	SERVICES - OVERHEAD	40,361,950
369.03	SERVICES - UNDERGROUND	337,639,570
370.00	METERS	5,613,935
370.01	METERS - AMI	112,581,575
370.02	METERS - RETAINED	7,523,317
371.00	INSTALLATIONS ON CUSTOM	376,133
373.01	CIRCUITS - OTHER	21,175,640
373.02	FIXTURES, ORNAMENTAL PO	28,661,422
373.07	SENTINEL LIGHTING EQUIPM	8,483,866
	TOTAL DISTRIBUTION PLANT	2,788,920,374.56

GENERAL PLANT

390.00	STRUCTURES AND IMPROVE	50,907,102
390.10	STRUCTURES AND IMPROVEMENTS - LEASE	
	CSS	6,709
	EASTPORT	58,032
	ERC TUALATIN	276,892
	HILLSBORO	59,238
	SALEM	84,421
	WILSONVILLE	155,328
	WTC	19,375,468
	TOTAL STRUCTURES AND IM	20,016,090
	OFFICE FURNITURE AND EQUIPMENT	
391.10	FURNITURE AND EQUIPV	16,154,320
391.20	COMPUTERS AND EQUIP	50,495,109

40	R2.5	*	(8)
40	R2.5	*	(10)
30	R2.5	*	(9)
55	R2	*	(8)
55	R2	*	(8)
55	R2	*	(10)
55	R2	*	(8)
35	R2.5	*	(9)
60	R2.5		(15)
52	R2		(15)
70	R3		(25)
48	R1		(80)
60	R2.5		(35)
60	R4		0
65	R2		(25)
54	S0		(20)
43	R1		(65)
46	S0.5		(75)
75	R4		(15)
50	S1.5		(70)
45	R3		(20)
50	S0		(45)
50	R4		(45)
28	S1.5		(10)
15	S2.5		(10)
16	L0.5		(10)
30	R4		0
46	S0.5		(60)
28	L1		(60)
29	L0.5		(60)
40	R0.5		(5)
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
15	SQ		0
5	SQ		0

40	R2.5	*	(6)
40	R2.5	*	(6)
30	R2.5		(6)
55	R2	*	(2)
55	R2	*	(2)
55	R2	*	(2)
55	R2	*	(2)
35	R2.5		(2)
60	R2.5		(15)
55	R2		(15)
70	R3		(10)
50	R1.5		(30)
60	R2.5		(30)
60	R4		0
70	R1.5		(25)
54	S0		(20)
48	R1		(50)
48	S0.5		(60)
75	R4		(13)
50	S1.5		(70)
45	R3		(20)
55	R1.5		(45)
50	R4		(45)
30	S1.5		(8)
18	S2.5		(8)
16	L0.5		(8)
30	R4		0
46	S0.5		(30)
28	L1		(30)
29	L0.5		(30)
40	R0.5		(5)
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
15	SQ		0
5	SQ		0

40	R2.5	*	(6)
40	R2.5	*	(6)
30	R2.5		(6)
55	R2	*	(2)
55	R2	*	(2)
55	R2	*	(2)
55	R2	*	(2)
35	R2.5		(2)
60	R2.5		(15)
55	R2		(15)
70	R3		(10)
50	R1.5		(30)
60	R2.5		(30)
60	R4		0
70	R1.5		(25)
54	S0		(20)
48	R1		(60)
48	S0.5		(70)
75	R4		(13)
50	S1.5		(70)
45	R3		(20)
55	R1.5		(45)
50	R4		(45)
30	S1.5		(8)
16	S2.5		(8)
16	L0.5		(8)
30	R4		0
46	S0.5		(30)
28	L1		(30)
29	L0.5		(30)
40	R0.5		(5)
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
	SQUARE		0
15	SQ		0
5	SQ		0

TOTAL OFFICE FURNITURE A	66,649,429										
TRANSPORTATION EQUIPMENT											
392.04	HEAVY DUTY TRUCKS	10,310,359	19	S2	10	19	S2	10	19	S2	10
392.05	MEDIUM DUTY TRUCKS	13,096,541	15	S1.5	10	15	S1.5	10	15	S1.5	10
392.06	LIGHT DUTY TRUCKS	8,585,405	12	L2	10	12	L2	10	12	L2	10
392.08	TRAILERS	5,035,199	25	S0	10	25	S0	10	25	S0	10
392.09	AUTOS	1,174,747	11	S1.5	10	11	S1.5	10	11	S1.5	10
392.10	HELICOPTER	2,703,076	20	S4	10	20	S4	10	20	S4	10
TOTAL TRANSPORTATION EC	40,905,328										
393.00	STORES EQUIPMENT	2,851,686	20	SQ	0	20	SQ	0	20	SQ	0
394.00	TOOLS, SHOP AND GARAGE	11,124,759	20	SQ	0	20	SQ	0	20	SQ	0
395.00	LABORATORY EQUIPMENT	9,949,816	15	SQ	0	17	SQ	0	17	SQ	0
POWER OPERATED EQUIPMENT											
396.01	MAN LIFT	25,760,291	14	S1.5	5	14	S1.5	5	14	S1.5	5
396.02	DIGGER	8,491,374	15	S3	5	15	S3	5	15	S3	5
396.03	CRANE	4,868,443	20	L3	5	20	L3	5	20	L3	5
396.07	CONSTRUCTION EQUIPM	5,680,187	20	L1	5	20	L1	5	20	L1	5
TOTAL POWER OPERATED E	44,800,296										
COMMUNICATION EQUIPMENT											
397.01	LINE EQUIPMENT	1,833,385	15	SQ	0	15	SQ	0	15	SQ	0
397.03	RADIO, MICROWAVE ANC	69,486,641	15	SQ	0	15	SQ	0	15	SQ	0
397.06	MOBILE RADIO EQUIPME	598,856	15	SQ	0	15	SQ	0	15	SQ	0
397.07	TELEPHONE EQUIPMENT	688,064	15	SQ	0	15	SQ	0	15	SQ	0
TOTAL COMMUNICATION EQI	72,606,946										
398.00	MISCELLANEOUS EQUIPMEN	129,175	20	SQ	0	20	SQ	0	20	SQ	0
TOTAL GENERAL PLANT	319,940,626										
TOTAL DEPRECIABLE PLANT	6,366,168,383										