

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

September 18, 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. 14-18, Schedule 145 Boardman Power Plant Decommissioning Adjustment

PGE hereby submits this filing, under the following authorities: ORS 757.210, OARs 860-022-0025 and 0030. In addition to the electronic filing, enclosed is the original along with three courtesy copies with a requested effective date of January 1, 2015:

Seventh Revision of Sheet No. 145-1 Eighth Revision of Sheet No. 145-2

The purpose of this filing is to update the Schedule 145 prices consistent with the 2015 Boardman decommissioning revenue requirements. Included in the prospective decommissioning costs are: (1) a plant-focused reliability plan (Reliability/Retention Plan) for employees of the Boardman Power Plant during the years of 2016-2020 and (2) the incremental decommissioning costs from PGE's increased share of Boardman (from 80% to 90%). The total proposed 2015 decommissioning costs are \$6.3 million. PGE intends to supplement this filing in late October to update the proposed Schedule 145 prices based on updated load forecasts. PGE would also like to hold a workshop in the near future.

To satisfy the requirements of Oregon Administrative Rules (OAR) 860-022-0025(2) and 860-022-0030(1), PGE provides the following responses:

The recovery of the updated decommissioning expenses results in an approximate 0.1% overall average rate increase for the 846,000 applicable Cost-of Service customers as of January 1, 2015. A typical Schedule 7 residential customer consuming 840 kWh monthly will see a bill increase of \$0.09 inclusive of the Public Purpose Charge or 0.1%.

PGE Advice No. 14-18 Page 2

The following are also included in this filing and provided electronic only:

Attachment A:	Discussion and Summary
Attachment B:	Twelve-month Revenue Requirement
Attachment C:	Incremental Decommissioning Analysis
Attachment D:	CONFIDENTIAL - Boardman Employee Reliability/Retention Plan
	Draft Performance Measures
Work Papers A:	Schedule 145 Price Development and Bill Impacts
Work Papers B:	Boardman Replacement Power Costs 2002-2013
Work Papers C:	2013 Costs per Hire

Attachment D is Confidential and enclosed separately under OPUC Protective Order No. 13-452 in Docket No. UE 230.

Please direct any questions regarding this filing to Patrick Hager at (503) 464-7580 or Marc Cody at (503) 464-7434.

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

Sincerely,

Jen Jenker

Jay Tinker Director, Regulatory Policy & Affairs

Enclosures cc: Service Lists UE 230

.

SCHEDULE 145 BOARDMAN POWER PLANT DECOMMISSIONING ADJUSTMENT

PURPOSE

This schedule establishes the mechanism to implement in rates the revenue requirement effect of the decommissioning expenses related to the Boardman power plant. This schedule is implemented as an "automatic adjustment clause" as defined in ORS 757.210.

APPLICABLE

To all bills for Electricity Service except Schedules 76R, 485, 489, 490, 491, 492, 495 and 576R.

ADJUSTMENT RATES

Schedule 145 Adjustment Rates will be set based an equal percent of Energy Charge revenues applicable at the time of any filing that revises rates pursuant to this schedule.

	<u>Schedule</u>	<u>Adjustm</u>	<u>ent Rate</u>	(n
7		0.038	¢ per kWh	· · · · · · · · · · · · · · · · · · ·	Ϊ
15		0.030	¢ per kWh		
32		0.035	¢ per kWh		
38		0.035	¢ per kWh		
47		0.041	¢ per kWh		
49		0.040	¢ per kWh		
75					
	Secondary	0.032	¢ per kWh		
	Primary	0.031	¢ per kWh		
	Subtransmission	0.031	¢ per kWh		
83		0.035	¢ per kWh		
85					
	Secondary	0.034	¢ per kWh		
	Primary	0.033	¢ per kWh	(Í)

SCHEDULE 145 (Continued)

ADJUSTMENT RATE (Continued)

<u>Schedule</u>	<u>Adjustm</u>	ent Rate	
89			(I)
Secondary	0.032	¢ per kWh	
Primary	0.031	¢ per kWh	
Subtransmission	0.031	¢ per kWh	
90	0.031	¢ per kWh	
91	0.030	¢ per kWh	
92	0.032	¢ per kWh	
95	0.030	¢ per kWh	
515	0.030	¢ per kWh	
532	0.035	¢ per kWh	
538	0.035	¢ per kWh	
549	0.040	¢ per kWh	
575			
Secondary	0.032	¢ per kWh	
Primary	0.031	¢ per kWh	
Subtransmission	0.031	¢ per kWh	
583	0.035	¢ per kWh	j
585			
Secondary	0.034	¢ per kWh	
Primary	0.033	¢ per kWh	
589			
Secondary	0.032	¢ per kWh	
Primary	0.031	¢ per kWh	
Subtransmission	0.031	¢ per kWh	
590	0.031	¢ per kWh	
591	0.030	¢ per kWh	
592	0.032	¢ per kWh	
595	0.030	¢ per kWh	 (I)
			.,

PGE Advice No. 14-18 Attachment A Discussion and Summary (Provided Electronically)

BOARDMAN TARIFF UPDATE

SCHEDULE 145

DISCUSSION

I. Boardman Tariff Advice Filing

Pursuant to Order No. 11-242 in docket UE 230, Portland General Electric Company (PGE) submits this Supplemental Filing to propose rate changes to the Boardman Power Plant Operating Life Adjustment Tariff (Schedule 145). This filing updates the results of docket UE 230 (Boardman Tariff Advice Filing) to include an updated forecast of decommissioning costs that reflects PGE's acquisition of Power Resources Cooperative's (PRC) 10% share in the Boardman facility. The update also includes a new plant-focused reliability plan (Reliability/Retention Plan) for employees of Boardman during the remaining years of production (2016-2020).

Schedule 145 is designed to recover PGE's net remaining decommissioning and other costs related to the plant's closure. The decommissioning cost amounts submitted in this filing are forecast at 90% of total decommissioning costs (less adjustments stipulated to in UE 281, Commission Order No. 14-169), which reflects PGE's acquisition of PRC's 10% ownership share of Boardman as proposed in PGE's latest General Rate Case filing (UE 283). As discussed in Section III, the total payment to PGE from PRC holds customers harmless for PRC's 10% share of the current decommissioning costs and includes an "Operating Risk Premium" payment covering any potential changes to decommissioning costs.

New to the decommissioning cost is the Boardman Employee Reliability/Retention Plan for all eligible union and non-union Boardman employees. The total cost for the

UE 230 Advice No. 14-18, Schedule 145 Attachment A

Page 2 of 15

Reliability/Retention Plan is approximately \$9.2 million (\$6.2 million after adjusting for PRC's 10% payment and the elimination of Boardman's current incentive plans). Of the \$9.2 million in total costs, approximately \$6.2 million represents the amount for union employees. These costs translate into approximately \$2.6 million annually (from 2015-2020), which will increase the annual revenue requirement for remaining decommissioning costs to approximately \$6.3 million. PGE will continue to update Schedule 145 on January 1 of each year, to account for updates to the load forecast and decommissioning costs, among other factors.

II. Background

The Oregon Regional Haze Plan (Haze Plan) and Oregon Utility Mercury Rule (Rule) requirements for Boardman caused PGE to examine the risks and benefits of making substantial investments in new emissions controls against the risks and benefits of ceasing plant operations and replacing Boardman with a new source of supply. In its Integrated Resource Plan (IRP) submitted November 2009 (LC 48), PGE presented the Public Utility Commission of Oregon (Commission or OPUC) with alternative scenarios ranging from a complete shutdown in July 2011 to installing all pollution control equipment required to fully comply with the Haze Plan and the Rule. During the IRP process, additional alternatives were evaluated, and PGE's final recommendation included the cessation of coal-fired operations at the end of 2020.

The Commission adopted Staff's recommendation to include an increase in depreciation/amortization expense and the decommissioning costs related to the planned Boardman plant closure changing from 2040 to 2020 in PGE's revenue requirement, subject to the following conditions:

- Beginning June 15, 2012, PGE will submit an annual informational report to all parties in the UE 230 proceeding that will include the current balance of dollars collected for decommissioning and any relevant changes to PGE forecasts of future decommissioning costs;
- 2. PGE shall submit its November 1st Annual Update as a supplemental filing to this docket (UE 230).

PGE has submitted its Annual Updates on November 1, 2012 and November 1, 2013. We are submitting our 2014 Annual Update early so that parties have sufficient time to evaluate the proposed Reliability/Retention Plan.

III. PRC Transaction

PRC purchased a 10% ownership share of Boardman in 1976 while the plant was under construction. At the time, PRC believed that it needed to secure additional generation to meet projected loads. In 1992, PRC (formerly "Pacific Northwest Generating Cooperative" or "PNGC") entered into a long-term power purchase agreement (PPA) to sell the output from its 10% ownership share of Boardman to the Turlock Irrigation District (TID). Recently, however, PRC has stated that it no longer desires to be in the wholesale power generation supply business and has sought to sell its interest in Boardman back to PGE along with the PPA with TID.

PGE is acquiring PRC's ownership share for two main reasons:

- By acquiring PRC's share of Boardman, the process of determining end-of-life options for Boardman will be much simpler and more efficient with a reduced number of co-owners¹.
- 2. PGE negotiated and structured the PRC transaction so that PGE customers receive a net benefit from the additional operating risk premium payment PGE secured from PRC that will be used to mitigate decommissioning related risks.

PRC's payment to PGE can be separated into two distinct elements that relate to Boardman decommissioning costs:

 The first element of PRC's payment provides a zero net present value for the 10% share of Boardman costs, including current decommissioning estimates, keeping customers whole over the remaining life of the plant.

¹ After the acquisition of PRC's ownership share, PGE and Idaho Power Company will be the remaining co-owners.

2. The second element of PRC's total payment to PGE includes an "Operating Risk Premium" that compensates customers for the possibility that actual decommissioning costs exceed the current base amount. PGE is holding this share of the payment, which includes PRC's 10% share of the Reliability/Retention Plan, in an escrow account.

PGE and PRC have fully executed the agreements for the sale and purchase of PRC's ownership interest and expect closing to occur on December 31, 2014.

IV. Boardman Employee Reliability/Retention Plan and Benefits

As Boardman approaches its 2020 closure, PGE expects adverse effects on employee morale, motivation, retention, and performance, which is typical in plant closures, including power plants or more commonly manufacturing plants. These adverse effects lower productivity and can lead to significant operating errors, causing outages. To help effects. PGE developed the Boardman mitigate these adverse Employee Reliability/Retention Plan (Plan). PGE expects the Plan to help maintain safe, efficient, and cost effective operations at Boardman through its scheduled closure date. We have included a draft version of the Plan as Confidential Attachment D.

The specific goals of the Plan include maintaining plant reliability and performance, reducing costly employee hiring, and maintaining high plant safety standards. Additionally, as the lines between bargaining, non-bargaining, and management begin to blur approaching Boardman's scheduled closure date, having one plan, with one set of goals, will align employee efforts in maintaining safe, efficient, and cost effective operations. The Plan is entirely performance-based. It focuses solely on operations at Boardman and is not tied to PGE or Boardman financial goals. This Plan would begin in 2016 with annual payouts if the performance goals are met or exceeded. All other incentive plans (and associated costs of approximately \$2 million) currently in place at Boardman² will be replaced by the Reliability/Retention Plan. As discussed in Section III, 10% of the Plan costs (approximately \$1 million) are covered by the PRC "Operating Risk Premium" payment.

² All non-union employees at Boardman are currently eligible for either PGE's Performance Incentive Compensation Plan or PGE's Annual Cash Incentive Plan. Union employees at Boardman are currently ineligible for any of PGE's incentive plans.

It is important that PGE resolve any regulatory issues soon so that we can finalize the draft Plan quickly. We will then be able to fully discuss the Plan with Boardman employees and The International Brotherhood of Electrical Workers (IBEW) Local 125 as soon as possible. Delays in making the detailed Plan public are likely to result in more employees leaving Boardman, which will put additional stress on the plant. Additionally, as the Plan includes union employees, PGE must allow time for negotiations before implementing the Plan.

A. Plan Design and Eligibility

1. Plan Design

The Boardman Employee Reliability/Retention Plan includes all Boardman employees, with payouts based on meeting plant operating goals. Payouts are <u>not</u> linked to overall corporate or financial goals. Plan goals are entirely focused on the operations at Boardman and focus on three primary areas: safety, quality, and schedule.

- a. <u>Safety</u>: Safety is important to plant operations and is one of PGE's core business goals. In addition, a safe workforce will lead to a more productive workforce. This safety goal focuses on the prevention, identification, and employee ownership of safety issues through two objective measures:
 - Safety observations The promotion of employee observations on the shop floor can result in the detection of negative behavioral patterns or conditions that would lead to an unsafe working environment.
 - Safety committee meetings Employee attendance and especially participation at monthly safety committee meetings can promote active

identify and eliminate potential safety hazards at the plant.

- b. <u>Quality</u>: Plant quality measures are key indicators of the plant's operational effectiveness and the value it creates. This goal includes metrics in four areas that can either be "met" or "not met":
 - Environmental quality (no violations) Environmental stewardship is a core principle for PGE, acknowledging the fact that environmental protection and sound business practices are one and the same. Violations may result in fines, shutdown, or other actions that would increase production costs. If the plant has "no violations", its costs would be lower than otherwise.
 - Availability This metric is a key indicator of effective plant management. Having an availability goal motivates employees to complete all outages in a timely manner and ensures that proper plant maintenance is performed, thus keeping the plant in an optimal state of readiness.
 - Forced outage rate Caused by equipment failure or operator error, forced outages are directly tied to the operations and maintenance of the plant.
 Keeping the number of forced outages low translates to reduced capital and power costs, benefiting customers.
 - Number of unit trips The number of times the plant is inadvertently taken off-line is directly tied to the correct operation and execution of maintenance. A plant trip increases costs and is detrimental to the plant.

- c. <u>Schedule</u>: Schedule adherence ensures timely plant maintenance and effectively utilizes Boardman employees and technology. This goal includes metrics in three areas that can either be "met" or "not met":
 - Preventive maintenance compliance Performing preventive maintenance as scheduled reduces unexpected corrective maintenance, leading to greater safety adherence, environmental compliance, plant availability, and reliability.
 - Outage schedule compliance On-time completion of outages helps to ensure outage maintenance is on budget and that the plant meets commitments to provide power.
 - Non-outage urgent and emergency maintenance backlog Emergency work orders need to be completed immediately, while urgent work orders require completion within the working week. Timely completion of both can have a direct impact on safety, availability, and the environment and is a leading indicator of the effectiveness of the plant's maintenance program.

2. Eligibility

All regular Boardman bargaining (approximately 81) and non-bargaining (approximately 28) employees are eligible to participate in the plan. Temporary employees or participants at Boardman who voluntarily transfer from the plant, resign, or

are discharged during the year are not eligible. Employees must also be employed as of the date incentive awards are paid³.

B. Benefits and Potential Offsetting Reductions

As noted above, the Plan will help focus employees' efforts on maintaining and improving operations at Boardman. Boardman should operate more efficiently than without the plan, leading to benefits in several areas including safety incidents, forced outages, and maintenance duration.

1. Benefits

Forced outages, along with planned outages extending longer than scheduled, can result in substantial cost increases. The average cost per day of an unplanned outage is approximately \$396,000⁴. Though unplanned outages are often the result of equipment failures and to an extent a normal cost of business, having employees who are focused and committed can also affect the rate and duration of these occurrences.

Although each unplanned outage can be minimal, the possibility of several minor outages or an extended unplanned outage due to an unfocused employee can lead to several hundred thousand dollars (or millions) of repairs and replacement power costs. The Plan should increase the employee focus on keeping Boardman operational, lowering the possibility of such events. Additionally, accurate and timely completion of backlog tasks and scheduled preventative maintenance can reduce the risk, length and severity of outages. Together, these goals help to ensure an "eyes on task/mind on task" mentality that should improve plant quality and reliability.

³ Employees who terminate due to retirement, position elimination, disability or death are eligible for prorated awards.

⁴ Based on outage data from 2002 through 2013.

a. Employee Retention:

As the closure date nears, PGE expects the turnover rate at Boardman to increase significantly. Presently, Boardman already competes with a number of other generating plants in the area, including Goldendale, Hermiston, Coyote Springs, and Carty. The proposed Reliability/Retention Plan would encourage employees to remain at Boardman rather than move to other plants because they would be paid higher at Boardman than at other plants, if the goals are met.

Also, the increased turnover creates additional stress on and work for the remaining employees, since they will be required to take on additional responsibilities (including the training of new employees), which would likely require additional overtime. Additionally, with the expectation of a reduced workforce as Boardman moves closer to 2020 (resulting in lower operating costs), remaining employees will be required to learn and perform a wider range of duties. Because the Plan will help employees stay committed and focused at Boardman, PGE will see less attrition, which will result in reduced hiring, training and overtime costs.

b. Employee Recruitment:

The average cost to hire an employee at PGE is approximately \$2,000. As Boardman approaches its potential closure date, candidates will be less willing to accept positions at Boardman, which will increase our hiring costs⁵. Higher skilled and less available candidates typically come from out-of-state, and usually out of the region as well because the West has relatively few coal plants. Out-of-state candidates require additional recruitment costs related to interviewing and potentially relocation expenses.

⁵ The cost to PGE for hiring Boardman employees in 2013 was approximately \$50,000 and 2014 is on pace to increase by 30%.

These types of costs can be 10 to 15 times higher than the average hiring cost. We are likely to encounter more of these situations as we approach 2020. Also, new employees (even if coming from another coal plant) must undergo extensive training, specific to operating and maintaining Boardman, which will increase costs and add additional strain to the remaining employees.

Additionally, filling critical positions (e.g., control operators, equipment operators, instrument control technicians) may require using 'head-hunters', who typically charge a 25% premium based on starting annual salary. PGE estimates that hiring a highly-skilled and experienced Control Operator through a recruiting firm would cost approximately \$23,250 in fees⁶. Having the ability to retain individuals with these higher skills through a retention plan would lower these types of costs.

c. <u>Safety</u>:

As Boardman moves closer to 2020, with a leaner workforce performing a wider range of tasks, the risk of safety incidents is likely to increase. PGE's average direct cost of an employee injury at Boardman from 2011-2013 is approximately \$13,000. In addition, the indirect costs of an injury can range from two to five times the direct cost of an injury⁷. Rewarding safe behavior will help keep work place injuries lower than otherwise, which will keep our worker's compensation and other costs down.

2. Offsetting cost reductions

In addition to the Plan benefits described above, PGE expects to be able to lower the costs of running and maintaining Boardman, which would partially offset the

⁶ 2014 annual salary of \$93,000 times 25%.

⁷ https://www.osha.gov/dcsp/smallbusiness/safetypays/background.html.

Reliability/Retention Plan costs. As noted above, some of these offsetting reductions include the elimination of current incentive plans at Boardman (reflected in PGE's future general rate case filings) and the PRC "Operating Risk Premium" (reflected in future Schedule 145 filings), which total approximately \$3 million or one-third of the Plan costs.

Also, beginning in 2017, PGE expects to reduce staffing levels at Boardman by 10-15%. PGE will achieve this leaner workforce through attrition, by reducing the backfilling of non-critical positions after current employees depart. With the average fully loaded cost of a Boardman employee at approximately \$140,000, this strategy could present significant savings. With this reduction in staff, there will be increased training, workload, and other requirements for the remaining Boardman employees. Clearly, such a reduction in staff levels would also consider any potential safety impacts.

Finally, if it is determined that Boardman will cease all operations at the end of 2020, PGE intends to implement a reduced outage schedule that should offer significant savings. In essence, rather than performing the standard annual major outage schedule necessary for reducing the wear and tear on Boardman, PGE is analyzing the possibility of moving to a staggered major/minor outage schedule. This staggered outage schedule has the potential for significant cost savings.

V. SUMMARY

The Schedule 145 revenue requirement for 2015 is approximately \$6.3 million. New to the 2015 decommissioning plan costs is a Boardman plant operations focused Reliability/Retention Plan. The plant-focused goals of the plan are to reduce employee turnover, entice qualified individuals to apply for critical positions, increase safety awareness, and maintain efficient operations through the closure date of the plant. This plan is based <u>only</u> on the performance of Boardman and its employees. Also new to the decommissioning plan is the effect of PGE's acquisition of PRC's 10% ownership stake in Boardman, which PGE expects approval of in PGE's current general rate case (UE 283). PGE will continue to update Schedule 145, effective January 1, 2015 and each year thereafter, to account for updates to the load forecast and decommissioning costs, among other factors.

PGE Advice No. 14-18 Attachment B Twelve-month Revenue Requirement (Provided Electronically)

Portland General Electric Company 2015 Incremental Revenue Requirement - Decommissioning Dollars in 000s

	January	February	March	April	May	June	July	August	September	October	November	December	Annual Rev Req
Sales to Consumers Sales for Resale	\$526 \$-	\$ 525 \$ \$ \$	525 \$ - \$	524 \$ - \$	523 \$ - \$	523 \$ - \$	522 \$ - \$	522	\$	520 5 -	\$520 \$-	\$519 \$-	\$6,269 \$-
Other Revenues Total Operating Revenues	<u>\$</u> - \$526	<u>\$\$</u> \$525\$	- \$ 525 \$	- \$ 524 \$	- \$ 523 \$	- \$ 523 \$	- \$ 522 \$	- 522	\$	520	\$ <u>-</u> \$520	\$ \$519	\$ <u>-</u> \$6,269
Net Variable Power Cosis Production O&M (Excludes Trojan) Trajan O&M Distribution O&M Customer & MBC O&M Uncollectibles Expense OPUC Fees A&G, Ins/Bene., & Gen. Plant Total Operating & Maintenance	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$ \$ - \$ \$ \$ - \$ \$ \$ - \$ \$ \$ - \$ \$ \$ - \$ \$ \$ - \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ 2 \$ 2 \$ 2 \$ 4 \$	- \$ - \$ - \$ - \$ - \$ 2 \$ 2 \$ 2 \$ - \$ 4 \$	- \$ - \$ - \$ - \$ - \$ 2 \$ 2 - \$ 2 \$ - 4 \$	- \$ - \$ - \$ - \$ - \$ 2 \$ 2 \$ -	- \$ - \$ - \$ - \$ - \$ 2 \$ 2 - 2 \$ - 4 \$	- - - 2 2 2	\$ - ! \$ - !		\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ 2 \$ 2 \$ - \$ - \$ 2 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$ - \$ - \$ - \$ - \$ 29 \$ 20 \$ - \$ 49
Depreciation Amortization Property Tax Payroll Tax Other Taxes Franchise Fees Utility Income Tax Total Operating Expenses & Taxes Utility Operating Income	\$ 507 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 507 \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ 13 \$ \$ 0 \$ \$ 524 \$ \$ 1 \$	507 \$ - \$ - \$ - \$ 13 \$ 0 \$ 524 \$ 0 \$	507 \$ - \$ - \$ - \$ - \$ 13 \$ 0 \$ 524 \$ 0 \$	507 \$ - \$ - \$ - \$ 13 \$ (0) \$ 524 \$ (0) \$	507 \$ - \$ - \$ - \$ - \$ 13 \$ (0) \$ 524 \$ (1) \$	507 \$ - \$ - \$ - \$ 13 \$ (1) \$ 523 \$ (1) \$	507 - - - - - - - - - - - - - - - - - - -	\$ 507 \$ - \$ - \$ - \$ - \$ 13 \$ (1) \$ 523 \$ (2)	5 507 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	\$ 507 \$ - \$ - \$ - \$ - \$ 13 \$ (1) \$ 523 \$ (3)	\$ 507 \$ - \$ - \$ - \$ - \$ 13 \$ (1) \$ 522 \$ (3)	\$ 6,081 \$ - \$ - \$ - \$ - \$ 157 \$ (5) \$ 6,281 \$ (12)
Average Rate Base Avg. Gross Plant Avg. Accum. Deprec. / Amort Avg. Accum. Def Tax Avg. Accum. Def TrC Avg. Net Utility Plant	\$ - \$ (54) \$ 22 \$ - \$ (33)	\$ - \$ \$ (163) \$ \$ 65 \$ \$ - <u>\$</u> \$ (98) \$	- \$ (272) \$ 109 \$ - \$ (163) \$	- \$ (381) \$ 152 \$ - \$ (229) \$	- \$ (490) \$ 196 \$ - \$ (294) \$	- \$ (599) \$ 239 \$ - \$ (360) \$	- \$ (708) \$ 283 \$ - \$ (425) \$	(816) 326 (490)	\$ - 5 \$ (925) \$ 370 \$ - 5 \$ (556)	\$ - \$ (1,034) \$ 413 \$ - \$ (621)	\$ - \$ (1,143) \$ 457 \$ - \$ (686)	\$ - \$ (1,252) \$ 500 \$ - \$ (752)	\$ - \$ (653) \$ 261 <u>\$ -</u> \$ (392)
Mise. Deferred Debits Operating Materials & Fuel Mise. Deferred Credits Working Cash Average Rate Base	\$ - \$ - \$ - <u>\$ 19</u> \$ (13)	\$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ 19_\$ \$ (79) \$	- \$ - \$ - \$ 19 \$ (144) \$	- \$ - \$ - \$ 19 \$ (209) \$	- \$ - \$ - \$ 19 \$ (275) \$	- \$ - \$ - \$ 19 \$ (340) \$	- \$ - \$ - \$ 19 \$ (406) \$	- - - - - - - - - - - - - - - - - - -	\$ - \$ - \$ - \$ 19 \$ (536)	\$ - \$ - \$ 19 \$ (602)	\$ - \$ - \$ - \$ 19 \$ (667)	\$ - \$ - \$ - \$ 19 \$ (732)	\$ - \$ - \$ - \$ 232 \$ (160)
Rate of Return Implied Return on Equity													7.561% 9.680%
Effective Cost of Debt Effective Cost of Preferred Debt Share of Cap Structure Preferred Share of Cap Structure Weighted Cost of Debt (monthly) Weighted Cost of Preferred Equity Share of Cap Structure State Tax Rate Federal Tax Rate Bad Debt Rate Franchise Fee Rate Working Cash Factor WACC (monthly) Gross-Up Factor ROE Target Grossed-Up COC OPUC Fee Rate	5.443% 0.000% 50.000% 0.2727% 0.000% 50.000% 50.000% 35.943% 0.470% 2.5014 3.700% 7.662% 7.662% 0.630% 1.665 9.860% 10.781% 0.3125%	5.443% 0.000% 50.000% 0.2722% 0.227% 0.000% 50.000% 39.949% 0.470% 2.501% 3.700% 7.562% 1.665 9.660% 10.781% 0.3125%	5.443% 0.000% 50.000% 0.000% 0.22% 0.020% 50.000% 35.000% 39.94% 0.470% 2.501% 3.700% 7.562% 0.630% 1.665 9.680% 0.781% 0.3125%	5.443% 0.000% 50.000% 0.000% 0.2722% 0.022% 50.000% 55.000% 39.949% 0.470% 2.5011% 3.700% 1.662% 0.630% 1.665 9.680% 0.3125%	5.443% 0.000% 50.000% 0.027% 0.027% 0.0227% 0.000% 50.000% 35.000% 39.949% 0.470% 2.50196 3.700% 7.562% 0.630% 1.665 9.680% 10.781% 0.3125%	5.443% 0.000% 50.000% 0.020% 2.722% 0.020% 50.000% 30.00% 39.949% 0.470% 2.501% 3.700% 7.562% 0.630% 1.665 9.660% 10.781% 0.3125%	5.443% 0.000% 50.000% 0.2722% 0.227% 0.000% 50.000% 35.000% 39.949% 0.470% 2.50196 3.700% 3.7062% 0.630% 1.665 9.660% 10.781% 0.3125%	5.443% 0.000% 50.000% 2.722% 0.000% 7.614% 35.000% 7.614% 39.949% 0.470% 2.501% 3.700% 7.562% 0.630% 1.665 9.680% 10.781% 0.3125%	5.443% 0.000% 50.000% 2.722% 0.227% 0.000% 50.000% 39.949% 0.470% 2.5501% 3.700% 7.614% 0.630% 1.665 9.680% 10.781% 0.3125%	5.443% 0.000% 50.000% 2.722% 0.027% 0.000% 35.000% 39.949% 0.470% 2.501% 3.700% 7.562% 0.630% 1.665 9.680% 10.781% 0.3125%	5.443% 0.000% 50.000% 2.722% 0.027% 50.000% 35.000% 39.949% 0.470% 2.5511% 3.700% 7.562% 0.630% 1.665 9.680% 10.781% 0.3125%	5.443% 0.000% 50.000% 2.722% 0.000% 50.000% 50.000% 39.949% 0.470% 2.501% 3.700% 7.562% 0.630% 1.665 9.680% 0.781% 0.3125%	5.443% 0.000% 50.000% 2.722% 0.027% 50.000% 7.614% 35.000% 2.501% 3.9.949% 0.470% 2.501% 3.700% 7.562% 0.630% 1.665 9.680% 0.781% 0.3125%
Utility Income Taxes Book Revenues Book Expenses Interest Deduction Production Deduction Permanent Ms Deferred Ms Taxable Income	\$ 526 \$ 524 \$ 0 \$ - \$ - \$ - \$ 110	\$ 525 \$ \$ 524 \$ \$ 0 \$ \$ - \$ \$ - \$ \$ \$ (109) \$ \$ 110 \$	525 \$ 524 \$ 0 \$ - \$ (109) \$ 109 \$	524 \$ 524 \$ 0 \$ - \$ (109) \$ 109 \$	523 \$ 524 \$ (0) \$ - \$ (109) \$ 108 \$	523 \$ 524 \$ (0) \$ - \$ (109) \$ 108 \$	522 \$ 524 \$ (0) \$ - \$ (109) \$ 108 \$	5 522 5 524 6 (1) 6 - 6 (109) 5 107	\$ 521 \$ 524 \$ (1) \$ - \$ - \$ (109) \$ 107	\$ 520 \$ 524 \$ (1) \$ - \$ - \$ (109) \$ 106	\$ 520 \$ 524 \$ (1) \$ - \$ - \$ (109) \$ 106	\$ 519 \$ 524 \$ (1) \$ - \$ - <u>\$ (109)</u> \$ 105	\$ 6,269 \$ 6,287 \$ (4) \$ - \$ (1,306) \$ 1,293
Current State Tax State Tax Credits Net State Taxes	\$8 <u>\$</u> - \$8	\$8\$ \$-\$ \$8\$	8\$ -\$ 8\$	8\$ -\$ 8\$	8\$ - \$ 8\$	8 \$ - \$ 8 \$		8 	\$8 \$- \$8	\$8 \$- \$8	\$8 \$- \$8	\$8 \$- \$8	\$98 <u>\$-</u> \$98
Federal Taxable Income	\$ 102	\$ 101 \$	101 \$	101 \$	100 \$	100 \$	99 \$	9 9	\$ 99	\$ 98	\$ 98	\$ 97	\$ 1,195
Current Federal Tax Federal Tax Credits TTC Amort Deferred Taxes Total Income Tax Expense SB 408 Ratio - Net to Gross SB 408 Ratio - Effective Tax Rate Check SB 408 Calc Regulated Nt Income Check Regulated NI	\$ 36 \$ - \$ - \$ (43) \$ 1 0% 30% \$ -	\$ 35 \$ \$ - \$ \$ - \$ \$ (43) \$ \$ 0 \$ 0% 30% \$ - \$	35 \$ - \$ (43) \$ 0 \$ 0% 30% 5 - \$	35 \$ - \$ (43) \$ 0 \$ 0% 30% - \$	35 \$ - \$ (43) \$ (0) \$ 0% 30% - \$	35 \$ - \$ - (43) \$ (0) \$ 0% 30% - \$	35 3 - 3 (43) 3 (1) 4 0% 30% - 5	5 35 - 5 (43) 5 (1) 0% 30% 5 -	\$ 34 \$ - \$ (43) \$ (1) -1% 30% \$ -	\$ 34 \$ - \$ (43) \$ (1) -1% 30% \$ -	\$ 34 \$ - \$ (43) \$ (1) -1% 30% \$ -	\$ 34 \$ - \$ (43) \$ (1) -1% 30% \$ -	\$ 418 \$ - \$ (522) \$ (5) 0% 30% \$ - \$ (8) \$ (8)

PGE Advice No. 14-18 Attachment C Incremental Decommissioning Analysis (Provided Electronically

UE 230 PGE Advice No. 14-18, Schedule 145 Attachment C Page 1

BOARDMAN DECOMMISSIONING ESTIMATE August 20, 2014

	From Study								
	100% share	100% share	100% Share	100% Share	100% Share	100% Share	100% share	100% share	PGE share
Non Coal Handling	2010\$	2010\$	2016\$	2017\$	2018\$	2019\$	2020\$	Total	*2020\$
Power Plant and Associated Facilities	41.078.000	41.078.000							
Carty Reservoir	3,625,000	3,625,000							
Transmission Lines	2,137,000	2,137,000							
Access Road - Extension of Tower Road	1,098,000	1,098,000							
Ash Field	26,785,000	5,807,000							
Subtotal	74,723,000	53,745,000							
Contingency	7,472,000	5,375,000							
Scrap	(13,483,000)	(13,483,000)							
Total Non Coal Handling	68,712,000	45,637,000					55,372,000	55,372,000	
Severance							8,764,000	8,764,000	
Retention/Reliability Plan			1,671,713	1,770,574	2,135,887	2,265,653	2,404,045	10,247,871	
Decom Study Costs							50,000	50,000	
							66,590,045	74,433,871	66,990,000 90% share
	100% share	100% share							
Coal Handling	2010\$	2010\$							
Coal handling	11,509,000	3,504,000							
Railroad Spur and Power Plant Loop	493,000	493,000							
Subtotal	12,002,000	3,997,000							
Contingency	1,200,000	400,000							
Scrap	(1,144,000)	(1,144,000)					(1,388,063)		(1,249,256)
Total Coal Handling	12 058 000	3 253 000					3 947 000		3 552 000 90% share
		5,255,000				:	3,347,000		0000 0000 0000 00000000000000000
Grand Total						:	70,537,045		70,542,000
								Prior Total (2014):	54,456,000
								Difference:	16,086,000 2,681,000

										U	E 230 PGE	Advice No	o. 14-18, Sc Att	hedule 145 tachment C
Table Prices 8	Wages 1:	Annual												Page 2
Prices and W	ages										,			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Indexes														
Consumer Prid	ces (1982-6	84=1.000)												
All-Urban	1.953	2.016	2.073	2.153	2.146	2.181	2.249	2.296	2.330	2.374	2.410	2.447	2.492	2.543
									1.0000	1.0237	1.0484	1.0741	1.1008	1.1288
						1.0000	1.0225	1.0460	1.0703	1.0957	1.1222	1.1496	1.1783	1.2082
Percent Chan Consumer Price	ge ces													
All-Urban	3.4	3.2	2.9	3.8	-0.3	1.6	3.1	2.1	1.5	1.9	1.5	1.5	1.8	2.0
									1.0000	1.0190	1.0345	1.0504	1.0698	1.0915
						1.0000	1.0314	1.0528	1.0682	1.0886	1.1051	1.1221	1.1427	1.1659

Global Insight Q2 2014; All Urban Prices

										UI	E 230 PGE	Advice No.	14-18, Sch Atta	edule 145 chment C Page 3
2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
2.593 1.1581 1.2396	2.646 1.1887 1.2724	2.704	2.763	2.822	2.881	2.940	2.999	3.060	3.119	3.179	3.238	3.300	3.365	3.433
2.0 1.1132 1.1892	2.0 1.1358 1.2133	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0

UE 230 PGE Advice No. 14-18, Schedule 145 Attachment C Page 4

2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	
3.501	3.571	3.643	3.717	3.793	3.872	3.952	4.034	4.119	4.206	4.297
2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2

PGE Advice No. 14-18 Attachment D - CONFIDENTIAL Boardman Employee Reliability/Retention Plan Draft Performance Measures (Provided under separate cover) PGE Advice No. 14-18 Work Papers A Schedule 145 Price Development and Bill Impacts (Provided Electronically) PGE Advice No. 14-18 Work Papers B Boardman Replacement Power Costs 2002-2013 (Provided Electronically) PGE Advice No. 14-18 Work Papers C 2013 Costs per Hire (Provided Electronically)

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused **PGE Advice No. 14-18, Schedule 145 Boardman Power Plant Decommissioning Adjustment** to be served by electronic mail to those parties whose email addresses appear on the attached service list for OPUC Docket No. UE 230

Dated at Portland, Oregon, this 18th day of September, 2014.

Tinker

Jay/Tinker Portland General Electric Company 121 SW Salmon St., 1WTC0701 Portland, OR 97204 (503) 464-7002 Telephone (503) 464-7651 Fax jay.tinker@pgn.com

SERVICE LIST DOCKET UE 230

S. Bradley Van Cleve	Donald Schoenbeck
DAVISON VAN CLEVE, PC	REGULATORY & COGENERATION
bvc@dvclaw.com	SERVICES, INC.
	dws@r-c-s-inc.com
Doug Tingey	
PORTLAND GENERAL ELECTRIC	
doug.tingey@pgn.com	

Portland General Electric Company 2015 Incremental Revenue Requirement - Decommissioning Dollars in 000s

		January	February	March	April	Мау	June	July	August	September	October	November	December	Annual Rev Req
Sales to Consumers	\$	526 \$	525 \$	525 \$	524 \$	523 \$	523 \$	522 \$	522	\$ 521 \$	520	\$ 520	\$ 519	\$ 6,269
Sales for Resale	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$-\$; -	\$-	\$-	\$-
Other Revenues	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	<u>\$-9</u>	5 - 520	\$ - \$ 520	\$- \$519	<u>\$</u> -
Net Variable Power Costs	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$ - \$	5 520 5 -	\$ 520 \$ -	\$ 519 \$ -	\$ 0,209 \$ -
Trojan O&M (Excludes Trojan)	ծ Տ	- \$	- \$	- \$	- \$	- \$ - \$	- \$	- \$	-	\$-3 \$-9	, - , -	\$- \$-	\$- \$-	\$- \$-
Transmission O&M	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$ - \$	- 6	\$ -	\$ -	\$-
Distribution O&M	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$-\$	-	\$ -	\$-	\$- •
Uncollectibles Expense	Դ Տ	- >	- 3	- >	- \$	- \$	- \$	- \$	- 2	\$-3 \$29	, - ; 2	», - Տ 2	\$- \$2	\$- \$29
OPUC Fees	\$	2 \$	2 \$	2 \$	2 \$	2 \$	2 \$	2 \$	2	\$ 2 \$	5 2	\$2	\$2	\$ 20
A&G, Ins/Bene., & Gen. Plant	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$ - \$	<u> </u>	<u>\$</u> -	<u>\$</u> -	<u>\$ -</u>
Total Operating & Maintenance	\$	4 \$	4 \$	4 \$	4 \$	4 \$	4 \$	4 \$	4	\$ 43	b 4	\$4	\$ 4	\$ 49
Depreciation	\$	507 \$	507 \$	507 \$	507 \$	507 \$	507 \$	507 \$	507	\$ 507 \$	507	\$ 507	\$ 507	\$ 6,081
Property Tax	э \$	- 3	- 3	- 5	- 3	- \$	- \$	- 5	-	s - 1	- -	s -	э- \$-	s - S -
Payroll Tax	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$ - \$	- 6	\$ -	\$ -	\$-
Other Taxes	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$-9	- -	\$-	\$-	\$-
Utility Income Tax	ֆ Տ	13 \$	0 \$	0 \$	13 \$	(0) \$	(0) \$	(1) \$	(1)	\$ 13 3 \$ (1) 9	5 13 5 (1)	\$ 13 \$ (1)	\$ 13 \$ (1)	\$ 157 \$ (5)
Total Operating Expenses & Taxes	\$	525 \$	524 \$	524 \$	524 \$	524 \$	524 \$	523 \$	523	\$ 523 \$	523	\$ 523	\$ 522	\$ 6,281
Utility Operating Income	\$	1 \$	1 \$	0\$	0 \$	(0) \$	(1) \$	(1) \$	(2)	\$ (2) \$	6 (2)	\$ (3)	\$ (3)	\$ (12)
Average Rate Base	¢				. «				_	¢		٩	۹	۹
Avg. Accum. Deprec. / Amort	\$	(54) \$	(163) \$	(272) \$	(381) \$	(490) \$	(599) \$	(708) \$	(816)	\$ (925) \$	6 (1,034)	\$ (1,143)	\$ (1,252)	\$ (653)
Avg. Accum. Def Tax	\$	22 \$	65 \$	109 \$	152 \$	196 \$	239 \$	283 \$	326	\$ 370 \$	5 413	\$ 457	\$ 500	\$ 261
Avg. Accum. Def ITC Avg. Net Utility Plant	\$	- \$ (33) \$	- \$	- \$	- \$ (229) \$	- \$ (294) \$	- \$ (360) \$	- \$ (425) \$	(490)	\$ <u>-</u> \$ \$(556) \$	621)	\$ - \$ (686)	\$- \$(752)	<u>-</u> \$ (392)
Misc. Deferred Debits	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$-\$; -	\$-	\$-	\$-
Operating Materials & Fuel	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$-\$	- S	\$-	\$-	\$-
Misc. Deferred Credits Working Cash	\$ ¢	- \$	- \$	- \$	- \$	- \$ 10 \$	- \$	- \$ 10 ¢	- 10	\$-\$	5 - 5 10	\$- ¢ 10	\$- \$10	\$- \$-222
Average Rate Base	\$	(13) \$	(79) \$	(144) \$	(209) \$	(275) \$	(340) \$	(406) \$	(471)	\$ (536) \$	602)	\$ (667)	\$ (732)	\$ (160)
Rate of Return Implied Return on Equity														7.561% 9.680%
Effective Cost of Debt		5 443%	5 443%	5 443%	5 443%	5 443%	5 443%	5 443%	5 443%	5 443%	5 443%	5 443%	5 443%	5 443%
Effective Cost of Preferred		0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Debt Share of Cap Structure		50.000%	50.000%	50.000%	50.000%	50.000%	50.000%	50.000%	50.000%	50.000%	50.000%	50.000%	50.000%	50.000%
Weighted Cost of Debt		0.000%	0.000%	2 722%	0.000%	0.000%	2 722%	0.000%	0.000%	2 722%	2 722%	0.000%	0.000%	0.000%
Weighted Cost of Debt (monthly)		0.227%	0.227%	0.227%	0.227%	0.227%	0.227%	0.227%	0.227%	0.227%	0.227%	0.227%	0.227%	0.227%
Weighted Cost of Preferred		0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Equity Share of Cap Structure State Tax Rate		50.000% 7.614%	50.000% 7.614%	50.000% 7.614%	50.000% 7.614%	50.000% 7.614%								
Federal Tax Rate		35.000%	35.000%	35.000%	35.000%	35.000%	35.000%	35.000%	35.000%	35.000%	35.000%	35.000%	35.000%	35.000%
Composite Tax Rate		39.949%	39.949%	39.949%	39.949%	39.949%	39.949%	39.949%	39.949%	39.949%	39.949%	39.949%	39.949%	39.949%
Bad Debt Rate Franchise Fee Rate		0.470%	0.470%	0.470%	0.470%	0.470%	0.470%	0.470%	0.470%	0.470%	0.470%	0.470%	0.470%	0.470% 2.501%
Working Cash Factor		3.700%	3.700%	3.700%	3.700%	3.700%	3.700%	3.700%	3.700%	3.700%	3.700%	3.700%	3.700%	3.700%
WACC		7.562%	7.562%	7.562%	7.562%	7.562%	7.562%	7.562%	7.562%	7.562%	7.562%	7.562%	7.562%	7.562%
WACC (monthly)		0.630%	0.630%	0.630%	0.630%	0.630%	0.630%	0.630%	0.630%	0.630%	0.630%	0.630%	0.630%	0.630%
ROE Target		9.680%	9.680%	9.680%	9.680%	9.680%	9.680%	9.680%	9.680%	9.680%	9.680%	9.680%	9.680%	9.680%
Grossed-Up COC		10.781%	10.781%	10.781%	10.781%	10.781%	10.781%	10.781%	10.781%	10.781%	10.781%	10.781%	10.781%	10.781%
OPUC Fee Rate		0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%	0.3125%
Utility Income Taxes	¢	E06 @	E0E #	EDE @	E04 @	E00 @	E00 #	E00 M	500	¢ 504 4	500	¢ 500	¢ =10	¢ 6.060
Book Expenses	э \$	520 \$ 524 \$	525 \$ 524 \$	524 \$	524 \$ 524 \$	523 \$ 524 \$	523 \$ 524 \$	522 \$ 524 \$	522 524	⊊ ⊃∠⊺ \$ \$ 524 \$, 520 5 524	ψ 520 \$ 524	\$ 524	φ 0,209 \$ 6,287
Interest Deduction	\$	0\$	0 \$	0\$	0 \$	(0) \$	(0) \$	(0) \$	(1)	\$ (1) \$	6 (1)	\$ (1)	\$ (1)	\$ (4)
Production Deduction	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$-\$	-	\$ -	\$-	\$- ¢
Deferred Ms	э \$	- ə (109) \$	(109) \$	(109) \$	(109) \$	(109) \$	- 5 (109) \$	- 5 (109) \$	(109)	s - 3 \$ (109) \$	5 - 5 (109)	\$ - \$ (109)	φ - \$ (109)	\$ - \$ (1,306)
Taxable Income	\$	110 \$	110 \$	109 \$	109 \$	108 \$	108 \$	108 \$	107	\$ 107 \$	5 106	\$ 106	\$ 105	\$ 1,293
Current State Tax	\$	8\$	8 \$	8\$	8\$	8 \$	8 \$	8 \$	8	\$8\$	5 8	\$8	\$8	\$ 98
State Tax Credits	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$\$	<u> </u>	<u>\$</u> -	<u>\$-</u>	<u> </u>
Federal Taxable Income	э \$	ە ە 102 \$	101 \$	0 0 0 101 \$	ە م 101 \$	0 \$ 100 \$	o ə 100 \$	o ə 99 \$	99	\$99.\$, o ; 98	а о \$98	\$97	\$
Current Federal Tax	\$	36 \$	35 \$	35 \$	35 \$	35 \$	35 \$	35 \$	35	\$ 34 \$	34	\$ 34	\$ 34	\$ 418
Federal Tax Credits	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$- <u>\$</u>	- -	\$ -	\$ -	\$ -
Deferred Taxes	\$ \$	- \$ (43) \$	- \$	- \$	- \$ (43) \$	- \$ (43) \$	- \$ (43) \$	- \$ (43) \$	- (43)	⇒ - \$ \$ (43) 9	- (43)	φ - \$ (43)	φ - \$ (43)	ə - \$ (522)
Total Income Tax Expense	\$	1 \$	0 \$	0 \$	0 \$	(0) \$	(0) \$	(1) \$	(1)	\$ (1) \$	6 (1)	\$ (1)	\$ (1)	\$ (5)
SB 408 Ratio - Net to Gross		0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	0%
ор 408 капо - Effective Tax Rate Check SB 408 Calc	\$	30% - «	30%	30%	30% _ ¢	30% _ ¢	30% _ ¢	30% _ ¢	30%	30% \$	30%	30% \$-	30% \$-	30% \$-
Regulated Net Income Check Regulated NI	Ψ	- 	- Y	ų, s	ų.	ų.	ų.	ų.	- ,	÷	-	Ŧ	.	\$ (8) \$ (8)

BOARDMAN DECOMMISSIONING ESTIMATE August 20, 2014

Non Coal Handling	From Study 100% share 2010\$	100% share 2010\$	100% Share 2016\$	100% Share 2017\$	100% Share 2018\$	100% Share 2019\$	100% share 2020\$	100% share Total	PGE share *2020\$
Power Plant and Associated Facilities Carty Reservoir Transmission Lines Access Road - Extension of Tower Road Ash Field	41,078,000 3,625,000 2,137,000 1,098,000 26,785,000	41,078,000 3,625,000 2,137,000 1,098,000 5,807,000							
Subtotal	74,723,000	53,745,000							
Contingency	7,472,000	5,375,000							
Scrap	(13,483,000)	(13,483,000)							
Total Non Coal Handling	68,712,000	45,637,000					55,372,000	55,372,000	
Severance Retention/Reliability Plan Decom Study Costs			1,671,713	1,770,574	2,135,887	2,265,653	8,764,000 2,404,045 50,000	8,764,000 10,247,871 50,000	
							66,590,045	74,433,871	66,990,000 90% share
Coal Handling	100% share 2010\$	100% share 2010\$							
Coal handling Railroad Spur and Power Plant Loop Subtotal	11,509,000 493,000 12,002,000	3,504,000 493,000 3,997,000							
Contingency	1,200,000	400,000							
Scrap	(1,144,000)	(1,144,000)					(1,388,063)		(1,249,256)
Total Coal Handling	12,058,000	3,253,000					3,947,000	-	3,552,000 90% share
Grand Total							70,537,045	_	70,542,000
								Prior Total (2014):	54,456,000 Annual
								Difference:	16,086,000 2,681,000

											UE 230 P	chedule 145 ttachment C		
Table Prices	& Wages 1	: Annual												Page 2
Prices and W	Vages													
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Indexes														
Consumer Pr	rices (1982-	84=1.000)												
All-Urban	1.953	2.016	2.073	2.153	2.146	2.181	2.249	2.296	2.330	2.374	2.410	2.447	2.492	2.543
									1.0000	1.0237	1.0484	1.0741	1.1008	1.1288
						1.0000	1.0225	1.0460	1.0703	1.0957	1.1222	1.1496	1.1783	1.2082
D														
Consumer Pri	nge ices													
All-Urban	3.4	3.2	2.9	3.8	-0.3	1.6	3.1	2.1	1.5	1.9	1.5	1.5	1.8	2.0
									1.0000	1.0190	1.0345	1.0504	1.0698	1.0915
						1.0000	1.0314	1.0528	1.0682	1.0886	1.1051	1.1221	1.1427	1.1659

Global Insight Q2 2014; All Urban Prices

											UE 230 PGE Advice No. 14-18, Schedule 145 Attachment C Page 3			
2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
2.593 1.1581 1.2396	2.646 1.1887 1.2724	2.704	2.763	2.822	2.881	2.940	2.999	3.060	3.119	3.179	3.238	3.300	3.365	3.433
2.0 1.1132 1.1892	2.0 1.1358 1.2133	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0

2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	
3.501	3.571	3.643	3.717	3.793	3.872	3.952	4.034	4.119	4.206	4.297
2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2