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October 26, 2021

Via Electronic Filing

Public Utility Commission of Oregon
Attn: Filing Center
201 High St. SE, Suite 100
Salem OR 97301

Re: In the Matter of PORTLAND GENERAL ELECTRIC CO.
Request for a General Rate Revision.
Docket No. UE 394

Dear Filing Center:

Please find enclosed the revised Opening Testimony and Exhibits of Bradley G. Mullins (AWEC/100-108) and Dr. Lance D. Kaufman (AWEC/200-207) on behalf of the Alliance of Western Energy Consumers ("AWEC") in the above-referenced docket.

Please note that Dr. Kaufman's Exhibit AWEC/200 was inadvertently labeled as AWEC/100. AWEC has updated Exhibit AWEC/200 with the correct exhibit number, with changes shown in redline. In addition to this change, AWEC is redacting pages 49 and 59 of Exhibit AWEC/103 to Mr. Mullins' Opening Testimony. AWEC's Revised Opening Testimony and Exhibits are otherwise unchanged.

Please note AWEC's Opening Testimony and Exhibits contain Protected Information that is being handled in accordance with Order No. 21-206. The confidential portions of AWEC's filing have been encrypted with 7-zip software and are being transmitted electronically to the Commission and qualified persons.

Thank you for your assistance. If you have any questions, please do not hesitate to call.

Sincerely,

/s/ Jesse O. Gorsuch
Jesse O. Gorsuch

Enclosures

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the **Revised Confidential Opening Testimony of the Alliance of Western Energy Consumers** upon the parties shown below via electronic mail.

Dated at Portland, Oregon, this 26th day of October, 2021.

Sincerely,

/s/ Jesse O. Gorsuch
Jesse O. Gorsuch

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matter of	)
	)
Portland General Electric Company,	)
	)
Request for a General Rate Revision.	)
	)
	)

OPENING TESTIMONY OF

BRADLEY G. MULLINS

ON BEHALF OF

ALLIANCE OF WESTERN ENERGY CONSUMERS

October 25, 2021

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EXHIBIT LIST

I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is Bradley G. Mullins. I am a consultant representing utility customers before state public utility commissions in the Northwest and Intermountain West. My witness qualification statement can be found at Exhibit AWEC/101.

Q. PLEASE IDENTIFY THE PARTY ON WHOSE BEHALF YOU ARE TESTIFYING.

A. I am testifying on behalf of the Alliance of Western Energy Consumers ("AWEC"). AWEC is a non-profit trade association whose members are large energy users in the Western United States, including customers receiving electric services from Portland General Electric Company ("PGE"). Witness Dr. Lance Kaufman will also be providing testimony on behalf of AWEC in this proceeding.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I discuss my initial review of PGE's proposed general rate case ("GRC") filing, including issues related to revenue requirement and the associated rate schedules. In conjunction with its Annual Update Tariff ("AUT") filing in Docket No. UE 391, PGE has requested a $98,967,000 revenue requirement increase in its initial filing in this docket. As discussed below, however, this amount does not reflect PGE's most recent update to its forecasted 2022 power costs.

Notwithstanding, in light of load growth in PGE's service territory and the assumptions discussed below, this revenue increase is not justified. In Exhibit AWEC/102 and discussed below, AWEC recommends an overall revenue requirement reduction of $57,431,560, which includes PGE's most recent power cost update on October 15, 2021. Responses to data requests supporting my recommendation may be found in Exhibit AWEC/103.

Q. PLEASE SUMMARIZE YOUR REVENUE REQUIREMENT RECOMMENDATIONS.

A. My revenue requirement recommendations are summarized in Table 1, below. In addition, Table 1 also details the impact of adjustments proposed by witness Dr. Kaufman, who is also sponsoring testimony on behalf of AWEC in this proceeding.

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Table 1
AWEC Proposed GRC Adjustments
($000)

				$000
1	**PGE Proposed Revenue Def./ (Suf.)**			**98,967**
	Adjustments:			
2	A1	Cost Of Capital Settlement	(7,416)	
3	A2	Oct. UE 391 Update	6,894	
4	A3	Sept. Load Forecast	(17,935)	
5	A4	Kaufman: Load Forecast Adj.	(33,725)	
6	A5	Directors Defrd. Comp. Plan.	(429)	
7	A6	D&O Liability Insurance	(204)	
8	A7	D&O Misc. Expense	(306)	
9	A8	Revolver Fees	(1,720)	
10	A9	Margin Net Interest	(2,401)	
11	A10	Property Insurance	(747)	
12	A11	Research & Development	(1,517)	
13	A12	Plant - Updated Forecast	(6,839)	
14	A13	Plant - Faraday Repowering	(15,010)	
15	A14	Plant - Joint Pole Construction	(654)	
16	A15	Labor Escalation	(18,395)	
17	A16	Generic O&M Escalation	(7,712)	
18	A17	Tax - AFUDC Equity	(6,517)	
19	A18	ADIT-Incentives	(510)	
20	A19	ADIT - Storm Collection	(391)	
21	A20	ADIT - Boardman Removal	(985)	
22	A21	ADIT - Production Tax Credits	(4,577)	
23	A22	Schedule 146 Colstrip Reserves	(10,718)	
24	A23	Schedule 146 - Smart Burn	(699)	
25	A24	Storm Costs	(7,172)	
26	A25	Trojan Decomm. Contributions	(6,411)	
27	A26	Trojan Sch. 136 Accounting	(1,965)	
28	A27	OATT Revenues	(1,000)	
29	A28	Kaufman: WTC Lease	(7,339)	
30	**Total Adjustments**			**(156,399)**
31		**Adjusted GRC & AUT Rate Impact**		**(57,432)**

Q. PLEASE SUMMARIZE YOUR RATE SCHEDULE PROPOSALS.

A. I am sponsoring two additional non-rate proposals:

Outstanding Deferrals: In addition to commencing amortization of the UM 2119 Boardman Deferral, as proposed in my Joint Testimony with Mr. Will Gehrke from the Oregon Citizens' Utility Board, I recommend amortizing the UM 2115 2020 Wildfire deferral and the UM 2156 2021 Storm Deferral and over a three year period beginning on the rate effective date of this docket. The effects of these three deferrals will be largely offsetting.

Customer Battery Storage: I recommend creating a new Schedule 77R, Onsite Battery Storage Replacement Power tariff, for customers with onsite battery storage.

Q. ARE YOU SPONSORING ANY OTHER TESTIMONY?

A. Yes. I am also sponsoring Joint testimony with the Citizens' Utility Board regarding the deferral of $146,104,779 in revenue requirement savings associated with the retirement of Boardman coal fired power plant on October 15, 2020.

II. COST OF CAPITAL SETTLEMENT

Q. DOES YOUR REVENUE REQUIREMENT INCLUDE THE IMPACT OF THE COST OF CAPITAL SETTLEMENT SUBMITTED TO THE COMMISSION ON SEPTEMBER 30, 2021?

A. Yes. My revenue requirement analysis is based on a 4.13% cost of debt and the other cost of capital parameters assumed in the settlement.

Q. WHAT IS THE IMPACT OF THE COST OF CAPITAL SETTLEMENT ON REVENUE REQUIREMENT?

A. The impact of the cost of capital settlement was a $7,415,660 reduction to revenue requirement.

III. UE 391 OCTOBER UPDATE

Q. DOES THE REVENUE REQUIREMENT INCREASE PGE HAS PROPOSED INCLUDE THE IMPACTS OF THE 2022 AUT IN DOCKET UE 391?

A. Yes. PGE's initial filing in UE 391 assumed incremental Schedule 125 revenues of $38,942,825,[1/] and that increase is included in the $98,967,000 revenue increase that PGE is proposing in this docket. Given that parties have reached a stipulation in the AUT docket, I have updated the impacts of the AUT based on PGE's October update.

Q. WHAT IS THE RATE IMPACT OF UE 391 BASED ON THE OCTOBER UPDATE?

A. In its October update, PGE's net variable power cost forecast had increased by $6,894,000 relative to its April 1, 2021 filing. Thus, based on the October update, the total rate impact of UE 391 is a $45,836,825 increase to revenue requirement, which is included in the revenue requirement increase sought in this proceeding. Thus, the UE 391 net variable power cost increase represents approximately one-half of the proposed revenue requirement increase proposed in this docket.

IV. LOAD FORECAST

Q. DID THE UE 391 OCTOBER UPDATE ALSO INCLUDE AN UPDATE TO THE LOAD FORECAST?

A. Yes. A major part of the October UE 391 update was an update to the September 2021 load forecast. Accordingly, when incorporating the impact of the AUT update it is also necessary to consider the impacts of the updated load forecast on base revenue requirement.

1/ UE 391, PGE / 201, Macfarlane - Tang / 1.

Q. WHAT WAS THE IMPACT OF THE UPDATED LOAD FORECAST?

A. In response to AWEC Data Request 196 Attachment B, PGE provided calculations supporting the impact of the updated load forecast. In its response, the total revenue requirement increase declined by $9,556,095. Notwithstanding, the total revenue requirement also increased by $8,378,886. The increase to total revenue requirement is attributable to the increase in net variable power costs associated with the updated load forecast included in the October update. The increase to net variable power costs associated with the new load forecast was included in the impact of the UE 391 October update discussed above. Accordingly, the increase attributable to net variable power costs must be deducted when calculating the total impact of the load forecast on base rates. Thus, the total impact of the load forecast on base rates is a reduction to revenue requirement of $17,934,982.

Note that PGE's response to AWEC Data Request 196 did not provide the underlying workpapers supporting its calculation of the rate impacts from the September load forecast. Further, the October update did not contain information necessary to evaluate the revenue impacts of the change to net variable power costs. Accordingly, it is not yet possible to verify the precise net variable power cost impacts of the September load forecast update in this testimony. As necessary, AWEC will further verify and modify these impacts in Rebuttal Testimony.

Q. IS AWEC WITNESS DR, KAUFMAN PROPOSING ADJUSTMENTS TO THE SEPTEMBER LOAD FORECAST?

A. Yes. AWEC witness Dr. Kaufman is proposing several additional adjustments to PGE's September load forecast, which collectively amount to $33,725,103 in incremental revenues, including an estimate of the net variable power cost impacts. The impact of those adjustments on base rates, excluding net variable power cost impacts, is $65,623,698. Given that the AUT and GRC were not filed at the same point in time this year, considering the load forecast in this proceeding, and the corresponding net variable power cost impact is challenging. PGE will be required to establish Schedule 125 rates prior to the resolution of the load forecasting issues in this case. At this point, however, witness Dr. Kaufman has made an estimate of the incremental net variable power cost revenues associated with AWEC's load forecast recommendations and has included those impacts in the revenue requirement adjustment. These estimates will be revised in Rebuttal Testimony, however, depending on the outcome of the Docket No. UE 391 AUT proceeding.

V. DIRECTORS' FEES & EXPENSE

a. Deferred Compensation Plan

Q. PLEASE PROVIDE AN OVERVIEW OF PGE'S DEFERRED COMPENSATION PLAN.

A. PGE has a deferred compensation plan with its directors that allow the directors to defer payment of board fees and other compensation to a future period. Even though the amounts are not paid, the compensation is still accrued and included in rates when the obligation arises. In connection with deferring the compensation payments, the directors earn interest on the deferred compensation amounts. In Exhibit 200 workpaper "Exhibit Support 2022", Tab "A&G", Cell "C38", PGE identified $203,004 of interest expenses included in revenue requirement associated with the director's deferred compensation plan in this proceeding. As PGE noted in response to AWEC Data Request 046, this interest is recorded in Account 9302002: MiscGenExp-Dir Pen & DDCP.

Q. WHAT INTEREST RATE DO THE DIRECTORS EARN?

A. In response to AWEC Data Request 128, PGE stated that the directors earn, and PGE pays, an interest rate equal to 0.5% higher than Moody's Average Corporate Bond Yield Index.

Q. ARE THE LIABILITY BALANCES FOR THE DIRECTORS' DEFERRED COMPENSATION PLAN ALSO CONSIDERED IN REVENUE REQUIREMENT?

A. No. In response to AWEC Data Request 127, PGE confirmed that the liability balance associated with the directors' deferred compensation plan is not considered as an offset to rate base. Thus, while the interest expenses associated with the deferred compensation plan are included in revenue requirement, the corresponding financing benefits associated with the delayed compensation payments are not. This treatment results in a mismatch between costs and benefits.

Q. WHAT IS THE BALANCE OF THE DIRECTOR'S DEFERRED COMPENSATION PLAN?

A. In response to AWEC Data Request 129, PGE noted that the balance of the directors' deferred compensation plan was $4,838,378 as of June 30, 2021.

Q. WHAT DO YOU RECOMMEND?

A. To ensure a matching of costs and benefits, I recommend that the $4,838,378 balance associated with the deferred compensation plan be considered as a reduction to rate base. This recommendation results in a $428,710 reduction to revenue requirement.

b. Directors' & Officer's Liability Insurance

Q. WHAT AMOUNT OF DIRECTORS & OFFICERS ("D&O") LIABILITY INSURANCE PREMIUMS HAS PGE FORECAST FOR 2022?

A. In response to AWEC Data Request 047, Attachment A, PGE identifies $1,591,908 in forecast D&O liability insurance premiums.[2/] This represents a 32.9% increase in premiums relative to the $1,197,711 amount actually incurred in 2020.

Q. DOES PGE FOLLOW COMMISSION PRECEDENT BY ADJUSTING THE PREMIUMS BY 50% TO REFLECT SHAREHOLDER BENEFITS?

A. Yes. PGE performs an adjustment equal to $795,954 to remove 50% of the D&O liability insurance costs. This adjustment may be found in Exhibit PGE/200 workpaper "Exhibit Support 2022," Tab "A&G," cell "I39."

Q. WHAT IS DRIVING THE INCREASE RELATIVE TO 2020?

A. In AWEC Data Request 124, PGE was requested to provide workpapers and documentation supporting the increased liability insurance premiums. In its response PGE noted that the increase was being driven by "overall market conditions and PGE's recent claims activity[.]" PGE noted that the actual "claims (both securities litigation and derivative claims) arising out of the 2020 trading losses" are a driver of the increase. PGE also commented that event-driven litigation, such as wildfire and privacy breaches may also be a source of the increase.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the $394,197 increase in D&O liability insurance costs not be considered in revenue requirement in this docket because it is attributable to claims submitted with respect to the 2020 trading losses. PGE has committed to holding ratepayers harmless from these losses. Additionally, Chair Decker stated that the "PUC is preparing to protect customers from any

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[2/] D&O liability insurance is classified in the attachment under Cost Element ("CE") 5406 – Amortization.

costs, direct or indirect, flowing from this event."[3/] The increase to D&O liability insurance represents an indirect cost increase from the 2020 trading losses and, therefore, is appropriately excluded from revenue requirement.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. After applying the 50% shareholder adjustment to the D&O liability insurance premiums, my recommendation produces a $197,098 reduction to expense and a corresponding $203,798 reduction to revenue requirement.

c. <u>Misc. Directors' Fees and Expenses</u>

Q. HAVE YOU IDENTIFIED ANY OTHER ISSUES ASSOCIATED WITH DIRECTORS' EXPENSES IN REVENUE REQUIREMENT?

A. Yes. The historical amount of directors' expenses includes several items in account 9302004: MiscGenExp-Dir Fees & Exps that are not appropriate for revenue requirement. In response to AWEC Data Request 48, for example, PGE identified "$2,564 expense was the cost of wine sent to PGE board members for a virtual holiday event and corporate governance discussion." In response to AWEC Data Request 49, PGE clarified that the purpose of the wine was "[t]o facilitate additional engagement among the board members and support the cohesiveness of the board, a virtual team building event was organized. This event included the shipping of wine for each of the 12 directors and a few PGE officers." It's not clear why the board members need wine to engage in a corporate governance discussion. In any case, this type of costs is not appropriately considered in revenue requirement.

[3/] Exh. AWEC/103 (PGE Response to AWEC DR 49).

Q. HOW HAS PGE DEVELOPED ITS FORECAST OF BOARD FEES AND EXPENSES IN 2022?

A. It is not entirely clear. Based on PGE's response to OPUC Data Request 801, it appears PGE has taken the budgeted board fees and expenses for 2020 and simply escalated those expenses.

Q. WHAT AMOUNT OF BOARD EXPENSES ARE CONSIDERED IN PGE'S BUDGET?

A. As noted in response to AWEC Data Request 126, PGE forecast $1,166,928 for board fees. expense. In response to AWEC Data Request 125, PGE identified that the directors' expenses were expected to increase by $296,004, relative to the historical amount incurred in 2020. Accordingly, I recommend that this increase in directors' expenses be removed form revenue requirement as the amounts are not supported and relate to costs that are not appropriately included in revenue requirement.

Q. WHAT IS THE IMPACT OF REMOVING THESE UNSUPPORTED MISCELLANEOUS DIRECTORS' EXPENSES?

A. The impact of removing the above miscellaneous expenses is a $306,067 reduction to revenue requirement.

VI. REVOLVER FEES

Q. PLEASE SUMMARIZE YOUR RECOMMENDATION RELATED TO REVOLVER FEES.

A. PGE's revenue requirement includes Revolver Fees, which are attributable to the issuance of short-term debt. In response to AWEC Data Request 133, PGE stated that "Revolver Fees are fees paid to the bank for PGE to have access to a revolving line of credit facility."

Q. WHAT AMOUNT OF O&M COSTS ARE ATTRIBUTABLE TO REVOLVER FEES?

A. PGE's revenue requirement includes $1,663,564.

Q. DID PGE IDENTIFY AN ERROR IN THAT AMOUNT?

A. Yes. In the response to AWEC Data Request 133, PGE acknowledged that the amount forecast for 2022 was overstated by $177,715 and that the correct budgeted amount was $1,485,849.

Q. WHAT DO YOU RECOMMEND?

A. I recommend removing the Revolver Fees from revenue requirement. The Revolver Fees represent an issuance cost associated with short term debt. The cost of debt used to establish PGE's overall cost of capital only includes long-term debt issuances. PGE confirmed in response to AWEC Data Request 134 that "PGE's proposed (and settled) cost of debt does not include any revolving loans." Accordingly, revenue requirement does not consider the benefits associated with short-term debt issuances. Therefore, the issuance costs associated with short-term debt must also be removed from revenue requirement.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Removing the Revolver Fees from revenue requirement results in a $1,720,116 reduction to revenue requirement.

VII. MARGIN NET INTEREST

Q. WHAT IS MARGIN NET INTEREST?

A. In response to AWEC Data Request 132, PGE identifies $114,219 of margin net interest included in revenue requirement. According to PGE, this amount represents "interest paid to trading counterparties for deposits held as collateral for energy, capacity, transmission, and fuel purchase contracts."

Q. WHAT AMOUNT OF MARGIN FUNDS DOES PGE HOLD?

A. In Confidential Attachment A to its response to AWEC Data Request 254, PGE detailed the amount of the deposited margin liability balances that it held in 2020 and 2021 to date. This amount is identified in Exhibit AWEC/108.

Q. ARE THESE DEPOSITS INCLUDED IN RATE BASE?

A. No. In response to AWEC Data Request 253, PGE confirmed that the margin deposit balances are not considered in rate base. Thus, while PGE includes the interest costs that it is paying to counterparties in connection with the margin deposit funds, it has excluded the corresponding financing benefit that it receives from holding such funds.

Q. WHAT DO YOU RECOMMEND?

A. Consistent with the inclusion of interest costs associated with these liability balances in rates, I also recommend that the margin deposits also be considered in rate base. Specifically, I recommend including the 12-month average balance of margin funds in calendar year 2020 identified in response to AWEC Data Request 254.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. The impact of this recommendation is a $ 2,400,716 reduction to revenue requirement.

VIII. PROPERTY INSURANCE

Q. WHAT AMOUNT OF PROPERTY INSURANCE EXPENSE HAS PGE PROPOSED IN REVENUE REQUIREMENT?

A. PGE's property insurance expense covers policy coverages such as Main All-Risk Property, Renewables All-Risk Property, Fidelity & Crime, and Sabotage & Terrorism. These categories may be found in PGE's response to AWEC Data Request 182, Attachment B. In PGE/200 workpaper "Exhibit Support 2022 Errata", Tab I&B, PGE has included $10,230,999 of expense related to property insurance premiums.

Q. HOW DOES THE AMOUNT PGE HAS PROPOSED IN REVENUE REQUIREMENT COMPARE WITH THE ACTUAL PROPERTY INSURANCE PREMIUMS FOR 2021?

A. In AWEC Data Request 182, Confidential Attachment A, PGE identified its property insurance premiums for 2021.

Q. WHAT DO YOU RECOMMEND?

A. Given that the 2022 premiums are not yet known, I recommend that the premiums reported in response to AWEC Data Request 182 be used to establish revenue requirement in this case.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. This recommendation results in a $747,215 reduction to revenue requirement.

IX. RESEARCH & DEVELOPMENT

Q. WHAT AMOUNT OF RESEARCH AND DEVELOPMENT EXPENDITURES HAS PGE PROPOSED IN REVENUE REQUIREMENT?

A. PGE has proposed including $2,717,340 of research and development ("R&D") expenditures in revenue requirement in this case. This amount may be found in PGE/200 workpaper "Exhibit Support 2022" Tab "R&D Adjustment." The amount was calculated by taking the amount approved in UE 335 as a percentage of fixed O&M. That percentage of 0.910% was then applied to fixed O&M in this case to derive the amount PGE proposes to include in this case.

Q. IS IT APPROPRIATE TO CONSIDER R&D EXPENSES USING A FORMULA, AS PGE HAS DONE?

A. No. Rather than using a formula, which dedicates some arbitrary percentage towards R&D expenditures, the R&D expenditures included in revenue requirement must be based on the level that can be supported as producing benefits to ratepayers.

Q. HAVE YOU REVIEWED PGE'S HISTORICAL R&D EXPENDITURES?

A. Yes. The R&D expenses are recorded in Account 9302001: MiscGenExp-A&G Misc Expenses. In AWEC Data Request 38 through 43, AWEC requested information regarding the specific projects that were performed in 2020. The majority of the funding, over one-half, was provided to the Electric Power Research Institute, although other funding is provided to local entities the Northwest Energy Efficiency Alliance and the City of Portland.

Q. DO THE HISTORICAL EXPENDITURES PROVIDE CLEAR BENEFITS TO CUSTOMERS?

A. No. Several of the expenditures do not even appear to be R&D related. For example, in response to AWEC Data Request 42, PGE identified payments of $130,000 to the Northwest Energy Efficiency Alliance for "End Use Load Research." Load research, however, is not R&D. R&D involves activities that are scientific in nature and involve a process of experimentation. Non-scientific research activities, such as load research and legal research, for example, are not considered R&D.

In addition, the majority of the R&D funding is being paid to the Electric Power Research Institute. In response to AWEC Data Request 39, PGE identified $1,947,012 of payments that were made to the Electric Power Research Institute in 2020. Review of the underlying invoices, however, provides scant data for the underlying projects that Electric Power Research Institute is performing, let alone the benefit to PGE customers. The January

20, 2020 invoice include billing of $43,625, associated with the descriptions of "Wind" and "Strategic Sustainable Science." It is not possible to evaluate the reasonableness of this spending given the nature of these descriptions.

Q. HOW DO YOU RECOMMEND HANDLING PGE'S R&D BUDGET IN THIS CASE?

A. Given the lack of clear benefits, I recommend reducing PGE's R&D budget by 50% relative to the $2,500,000 amount assumed in Docket No. UE 335, or to $1,250,000. I also recommend that PGE be required to submit 50% of these funds to in-state projects performed by universities or foundations located in Oregon, as doing so will ensure that at least a portion of the funding is benefiting Oregonians. The impact of this recommendation is a $1,517,222 reduction to revenue requirement.

X. PLANT

Q. PLEASE SUMMARIZE HOW PGE HAS DEVELOPED THE PLANT IN SERVICE LEVELS FOR RATE BASE?

A. The plant balances in this case are based on the December 31, 2020 plant balances with pro forma plant additions through April 2022 and a corresponding rate base valuation date of May 1, 2022. In response to OPUC Data Request 199, PGE provided a rollforward for the gross plant additions used to establish the $11,631,763,539 gross plant in service values. PGE calculated the roll forward of the depreciation reserves in AWEC Data Request 26. Relative to the December 31, 2022 levels, PGE's gross plant included $1,113,070,480 of new plant additions. Further, in response to AWEC Data Request 104, PGE detailed the specific projects underlying the forecast capital additions.

Q. WHY HAS PGE PROPOSED A RATE BASE VALUATION DATE OF MAY 1, 2022?

A. The May 1, 2022 rate base valuation date corresponds to the rate effective date in this case.

Q. IS PGE'S RATE BASE VALUATION DATE CONSISTENT WITH OTHER ASPECTS OF REVENUE REQUIREMENT?

A. No. The revenues and operating expenses are based on PGE's forecast beginning January 1, 2022 through December 31, 2022. Further, depreciation expenses are based on the 12-months ending April 30, 2023. Thus, PGE's revenue requirement proposal is not entirely consistent.

Q. WHAT PORTION OF THE PLANT ADDITIONS DOES PGE EXPECT TO COME ONLINE IN 2022?

A. A major portion of PGE's proposed capital budget is expected to be placed into service near to the rate effective date. Given that parties will not have an opportunity to review many of these expenditures, greater scrutiny is warranted before including the 2022 proforma plant additions in revenue requirement.

a. <u>Updated Capital Forecast</u>

Q. HOW HAS PGE'S ACTUAL CAPITAL SPENDING COMPARED TO ITS CAPITAL BUDGET?

A. In response to AWEC Data Request 103, PGE acknowledged that it underspent by $55 million over the period January 2021 through August 2021 relative to the pro forma plant additions that PGE had forecast in its initial filing. Further, in response to AWEC Data Request 193, PGE updated its response through September 2021, acknowledging that the level of underspending had increased to $61,428,184.

Q. DID YOU REQUEST PGE UPDATE ITS CAPITAL FORECAST?

A. Yes. In response to AWEC Data Request 194 PGE provided an updated capital budget. In the response, PGE reported that it was now forecasting pro forma capital spending of $1,101,106,188, or $11,986,079 less than the forecast that PGE included in its initial filing. The reduction is driven by lower-than-expected costs for the Integrated Operations Center

Project, as well as delays in a number of other projects. Offsetting these reductions, however, PGE increased the budgets for several other funding projects. These increases occurred predominantly in calendar year 2022. Between January 2022 and April 2022 PGE increased its proposed spending levels by $51,899,801. Given the history of underspending relative to the budget, and the fact that parties will not have an opportunity to review these spending levels, this offsetting increase to 2022 capital is concerning.

Q. HAVE YOU PERFORMED A COMPARISON BETWEEN PGE'S ORIGINAL CAPITAL BUDGET AND ITS UPDATED CAPITAL BUDGET?

A. Yes. In Exhibit AWEC 104, I perform a line-by-line comparison of PGE's original budget to the capital budget it provided in response to AWEC Data Request 194.

Q. BASED ON YOUR REVIEW, DO YOU HAVE ANY CONCERNS WITH PGE'S BUDGET?

A. Yes. While several projects were delayed and excluded from the capital budget, such as the Beaver Modernization project, PGE added several new projects, which were not assumed in the initial filing. Further, a number of the blanket capital items, such as distribution systems construction were increased with no apparent justification. Finally, there were a few projects, such as the Faraday Repowering and the Shute Capacity Addition, which have been materially delayed and over budget. I further discuss those two additions below.

Q. HOW DO YOU RECOMMEND HANDLING THE NEW PROJECTS IN PGE'S REVISED CAPITAL BUDGET?

A. I recommend the new projects in PGE's capital budget be excluded from pro forma plant. PGE's revised capital budget includes several large new projects such "Distribution System Construct III," "Wildfire Mitigation-FITNES," "CY: Replace GT Equipment," "AMI Improvement Project," "OCLC Project," "Incremental Add 20 MD Bucket Trucks," and "Dist.

Customer Line Construct III". I recommend that these new projects be excluded from the proforma capital considered in this proceeding, since they were not included in PGE's application and there has been no opportunity to review the projects. Further, given that this spending is expected to occur after intervenors file Rebuttal Testimony, there will be little opportunity to review these projects for prudence.

Q. DO YOU HAVE ANY CONCERNS WITH BLANKET CAPITAL ITEMS IN PGE'S REVISED BUDGET?

A. Blanket capital projects are not attributable to any particular project, but rather, represent a budgeted amount of spending for a particular category of plant additions, such as distribution system construction. These types of expenditures are therefore justified on the basis of a spending rate, rather than a specific cost estimate. PGE's revised budget increases the spending rate for its blanket capital for many categories. AWEC has hot had adequate time to review the increased spending rate for these blanket investments. At this time, I am not recommending an adjustment for these blanket capital items but may address them in Rebuttal Testimony following further review.

Q. BASED ON THESE CONCERNS, WHAT PRO FORMA CAPITAL BUDGET DO YOU RECOMMEND?

A. The impact of using the updated budget, excluding new projects that were not identified in PGE's initial filing is a $56,101,251 reduction to the capital budget. The revenue requirement impact of this change is an approximate $6,838,788 reduction to revenue requirement. For purposes of calculating depreciation expense, I have assumed the 3.22% composite rate in PGE's filed deprecation study in Docket No. UM 2152.

b. <u>Faraday Repowering</u>

Q. WHAT AMOUNT OF PRO FORMA CAPITAL DOES PGE ASSUME FOR THE FARADAY REPOWERING PROJECT?

A. PGE's capital budget includes $119,384,638 of expenditures in connection with the Faraday Repowering project. The project was initially expected to be placed into service in in March of 2022. In the revised budget provided in response to AWEC Data Request 194, the in-service date was revised to April 2022 and the budget was increased to $120,177,341. In its response, PGE noted that "[t]here are on-going discussions with the general contractor regarding the construction project (P36167 - FY: Repower Faraday Units 1-5) which may result in a further delay of the project in-service date." Thus, the completion of this project in time for the rate effective date in this proceeding is highly uncertain, particularly considering the ongoing global supply chain problems.

Q. PLEASE PROVIDE AN OVERVIEW OF THE PROJECT.

A. The Faraday Repowering project was described at PGE/700 at Jenkins – Cristea / 4:5-5:23. PGE is proposing to construct a new powerhouse with two higher efficiency turbines. The new powerhouse will be reinforced with new flood protection systems.

Q. WHAT ARE THE BENEFITS OF THE PROJECT?

A. The Faraday Repowering will result in incremental capacity of 2 MW, and thus, costs about $60,000 per kW. That is about 100 times more expensive than a peaker plant, which may cost around $600 per kW.

Q. IS THE PROJECT EXPECTED TO PRODUCE ECONOMIC BENEFITS?

A. No. PGEs response to OPUC Data Request 584 demonstrated that the Faraday Repowering project is not expected to produce economic benefits to ratepayers. Part of this may be due to the fact that the project is wildly over budget relative to the initial estimates.

Q. WHY HAS THE PROJECT BEEN SO SIGNIFICANTLY OVER BUDGET?

A. There appear to have been problems during the construction process. In response to AWEC Data Request 120, Attachment F, the problems were the result of actions undertaken by PGE and/or the contractor. Based on my review of this documentation, which I have attached at Confidential Exhibit AWEC/105, my view is that customers should not be responsible for any of the excessive costs.

Q. WHAT DO YOU RECOMMEND?

A. Given that it is highly uncertain that the Faraday Repowering will be in service by the rate effective date and the questions regarding the prudence of the costs which can be noted in Confidential Exhibit AWEC/105, I recommend it be excluded from revenue requirement.

Q. ARE YOU RECOMMENDING A FULL DISALLOWANCE OF THE FARADAY REPOWERING PROJECT?

A. Not at this time. I am only recommending that it not be included in rates set in this rate case. PGE would be free to include this project in its next rate case once it has gone in service and when the full costs can be reviewed for prudence.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. This recommendation results in a $15,010,077 reduction to revenue requirement. For purposes of calculating the depreciation expense impacts, I have assumed a depreciation rate of 3.51%, which is the average deprecation rate for Faraday for Account 331 - Structures and Improvements and Account 333 – Water Wheels, Turbines and Generators.

c. <u>Joint Pole Construction</u>

Q. WHAT AMOUNT OF CAPITAL DOES PGE INCLUDE FOR JOINT POLE CONSTRUCTION?

A. PGE's updated budget includes $5,275,979 of capital related to Joint Pole Construction. This project consists of make ready work associated with the installation of new facilities to accommodate pole attachments.

Q. IS PGE RESPONSIBLE FOR THE COSTS OF THESE INSTALLATIONS?

A. No. In response to AWEC Data Request 235, PGE confirmed that these funds represent make ready work, which is performed at the expense of the attaching entity. The attaching entity must prepay the cost of all such installations prior to PGE performing the work. Make ready costs are defined by OAR 860-028-0020(11) as "engineering or construction activities necessary to make a pole, conduit, or other support equipment available for a new attachment, attachment modifications, or additional facilities." Under OAR 860-028-0110 (3), make ready work is billed to the attaching entity, in addition to annual rental rates, based on actual costs, including administrative costs. Thus, PGE will be fully reimbursed for the Joint Pole Construction costs.

Q. WHAT DO YOU RECOMMEND WITH RESPECT TO THIS PROJECT?

A. Since these costs are being paid for by the attaching licensee, I recommend the capital be excluded from revenue requirement, or in the alternative the expected reimbursements from the licensees for the additional capital be considered in the other credits category of rate base. The impact of this recommendation is a $653,511 reduction to revenue requirement. For the purpose of calculating depreciation expense, I used the 3.41% rate applicable to FERC Account 364 – Poles, Towers and Fixtures.

XI. LABOR EXPENSES ESCALATION

Q. HAS PGE PROVIDED A WAGE AND LABOR MODEL IN THIS CASE?

A. No. PGE has provided zero analytical support for the wage and labor expenses that it proposes to include in revenue requirement in this case. In AWEC Data Request 36, PGE was requested to provide its wage and labor model. In response, PGE stated that it "does not have a wage and labor model." Further, in AWEC Data Request 121, PGE was requested, again, to provide the workpapers supporting the labor expenses forecast for 2022. In response, PGE was unable to provide any workpapers supporting the calculation of labor expenses, other than a comparison between the labor expenses included in the filing and the amounts actually incurred over the period 2018 through 2020.

Q. HOW WERE PGE'S PROPOSED LABOR EXPENSES FOR 2022 DEVELOPED?

A. In response to Staff Data Request 295, PGE states that its labor expenses are based on PGE's budget for calendar year 2021 escalated for the factors in the "IHS Markit, Long-term Forecast dated February 2021".

Q. HOW WERE THE 2021 BUDGETED EXPENSES DEVELOPED?

A. In response to Staff Data Request 294, PGE stated that its 2021 labor expenses were based on its 2020 budget, once again, escalated for the IHS Markit escalation factors.

Q. HOW WERE THE 2020 BUDGETED EXPENSES DEVELOPED?

A. It is not known. It is possible that the 2020 budget represented costs escalated from an even earlier budget, which itself was a derivative of another budget. In response to AWEC Data

Request 252, however, PGE acknowledged that the 2020 budget was prepared in May 2019. Thus, PGE is requesting the Commission base its rates effective May 2022 on a budget that was prepared three years earlier, prior to the onset of the COVID-19 pandemic. Further, PGE has no documentation or workpapers to support the reasonableness of the 2020 budget. While PGE was able to identify that the costs in from its 2020 budget were escalated, no workpapers or analytical analyses were provided to support the 2020 budget, itself. Thus, there is no basis in this proceeding to assess the overall reasonableness of PGE's labor expenses.

Q. IS IT REASONABLE TO USE THE 2020 BUDGET TO ESTABLISH REVENUE REQUIREMENT FOR 2022 IN THIS PROCEEDING?

A. The 2020 budget has little bearing on the costs expected in 2022, and simply escalating those amounts, as PGE has done, provides little insight as to the appropriate level of costs to include in revenue requirement in this rate case. Further, the 2020 budget is now obsolete, since actual 2020 results are available.

Q. IS IT REASONABLE TO ESCALATE BUDGETED LABOR EXPENSES?

A. Not in the way PGE has proposed. Using a wage and labor model to incorporate known and measurable wage increases in the test period, along with expected increases or reductions to full-time-equivalent ("FTE") levels, could be a reasonable approach. Such a model would properly consider factors such as capitalization rates, overtime expenses and other factors, to develop an informed understanding of PGE's labor costs. It's not known what, if any, wage increases were approved by PGE in 2021, making it challenging to evaluate whether the change PGE proposes represent a known and measurable adjustment. Further, it is not possible to consider a known and measurable change to such a budget, such as increased wildfire mitigation costs, if an analytical model is not used to forecast labor expenses?

Q. HOW DO YOU RECOMMEND CONSIDERING PGE'S LABOR PROPOSAL?

A. At this time, AWEC recommends that all labor escalation be removed from the labor forecast and basing costs on PGE's most recent actual budget. If PGE desires to modify the budgeted amount to be more consistent with the levels it expects in 2022, the appropriate thing for it to do is prepare an entirely new budget based on an FTE model. AWEC may revise this recommendation as it gets more information about how the 2020 budgets were developed as this proceeding progresses.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Removing the escalation from 2021 to 2022 identified in PGE's response to OPUC Data Request 295 results in a $9,623,949 reduction to operating expenses. In addition, removing the escalation from 2020 to 2021 results in a $8,166,495 reduction to expenses. Collectively, removing these escalation amounts result in a $17,790,444 reduction to expense and a corresponding $18,395,225 reduction to revenue requirement.

XII. GENERIC O&M ESCALATION

Q. DOES PGE ALSO PROPOSE GENERIC O&M ESCALATION BASED ON THE BUDGET IT PREPARED IN 2019?

A. Yes. Similar to labor expenses, PGE uses the O&M expenses forecast in its 2020 budget and adjusts those expense using generic escalation factors to arrive at test period O&M levels. In response to OPUC Data Request 295, PGE provided the escalation rates applicable to the O&M Expenses that it has assumed relative to the 2020 budget.

Q. ARE THESE ESCALATION FACTORS SUPPORTABLE?

A. No. Since the 2022 budget was based on a budget that was escalated from a prior budget, simply escalating the budget results to arrive at a 2022 value has no evidentiary basis and is not known and measurable.

Q. ARE COSTS EXPECTED TO INCREASE OVER TIME DUE TO INFLATION?

A. While inflation impact on costs, including O&M costs. Applying generic escalation to a budgeted amount, which is not supported, does not necessarily correspond to an inflation escalation. If O&M expenses have otherwise declined, for example, it would be unnecessary to make any assumptions about inflation. Similar to labor expenses, if the intention is to estimate costs for a future period, it would be necessary to develop an entirely new budget, considering all known and measurable changes since May 2019, including the COVID pandemic, rather than applying generic escalation to the May 2019 amounts.

Q. WHAT DO YOU RECOMMEND?

A. At this time, I recommend removing the generic O&M escalation from PGE's budget and holding PGE to the actual budgeted O&M expenses that it had originally budgeted in 2019. This recommendation results in a $7,458,245 reduction to expense and a $7,711,786 reduction to revenue requirement.

XIII. INCOME TAXES

a. Allowance for Funds Used During Construction - Equity

Q. WHAT BOOK-TAX DIFFERENCE DOES PGE PROPOSE WITH RESPECT TO ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION ("AFUDC")?

A. In its response to AWEC Data Request 31, PGE identified a permanent book tax difference of $17,040,096 associated AFUDC equity. PGE Stated that "[a]s AFUDC Equity is not included in Revenue Requirement, the reversal of AFUDC Equity through book depreciation is removed from Revenue Requirement through this book-tax difference." In response to AWEC Data Request 98, PGE provided the power tax reports supporting this book-tax difference item.

Q. IS IT NECESSARY TO ADJUST TAXABLE INCOME IN REVENUE REQUIREMENT FOR AFUDC EQUITY?

A. No. In response to AWEC Data Request 100, PGE confirmed that the depreciation expense included in revenue requirement does not include reversal of AFUDC equity. Since the reversals are not included in the regulatory accounting, it is not necessary to remove them when determining taxable income.

Q. IS THE DEFERRED TAX LIABILITY ASSOCIATED WITH AFUDC EQUITY INCLUDED IN REVENUE REQUIREMENT?

A. No. PGE recognizes the benefits of AFUDC Equity when property is placed into service but does not incur the incremental tax liability until the property is depreciated. To the extent that AFUDC equity is reversed as a permanent difference, it would also be necessary to add the associated deferred tax liability associated with the AFUDC regulatory asset.

Q. WHAT IS THE IMPACT OF THIS RECOMMENDATION.

A. Removing this book-tax difference item results in a $4,600,744 increase to net operating income and a corresponding $6,516,594 reduction to revenue requirement.

b. <u>ADIT - Accrued Incentives</u>

Q. WHAT DO YOU RECOMMEND WITH RESPECT TO THE ADIT ASSOCIATED WITH ACCRUED INCENTIVES

A. PGE includes ADIT associated with a book-tax difference item titled Accrued Incentives in the amount of $11,521,000. This amount may be found in the Exhibit PGE/200 workpaper "2022 Unbundled ROO Initial," Tab "Unbundled", Row "8084". Consistent with Commission policy to adjust 50% of incentives for the benefit of shareholders, I recommend also adjusting the associated ADIT Balance by 50%.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Removing 50% of the incentives ADIT balance results in a $5,761,000 reduction to rate base and a corresponding $510,460 reduction to revenue requirement.

c. <u>ADIT: Customer Storm Collection</u>

Q. WHAT AMOUNT OF ADIT HAS PGE RECORDED FOR ITS STORM COLLECTION PROVISION?

A. PGE includes $4,412,428 of ADIT associated with customer storm collection. This amount may be found in the Exhibit PGE/200 workpaper "2022 Unbundled ROO Initial," Tab "Unbundled," Row "8077." This amount relates to the provision included in revenue requirement associated with level III storms.

Q. DO YOU AGREE WITH INCLUDING THIS BALANCE AS ADIT IN REVENUE REQUIREMENT?

A. No. This ADIT amount is driven by the way PGE records the storm collection revenues, and the timing difference associated with that accounting and its tax accounting. PGE's financial accounting treats these amounts as an amount subject to refund, effectively as a prepaid revenue. This financial accounting treatment result in a timing difference between when the revenues are received and when the amounts are paid, and thus deductible, giving rise to a deferred tax asset.

From a regulatory accounting perspective, however, there is no associated timing difference. The storm provision not included in revenue requirement as an amount subject to refund. The storm provision assumes that PGE will incur some average amount of costs in a given calendar year and the storm cost provision provides PGE with compensation for those costs. There is no refund if costs are higher, or lower, than the provision, and there is no corresponding assumption about if, or when, the costs will be expended. Accordingly, this book-tax difference item is not necessary in revenue requirement. Removing this item results in a $390,968 reduction to revenue requirement.

d. <u>ADIT – Boardman Cost of Removal</u>

Q. WHAT ADIT ITEMS DOES PGE INCLUDE IN REVENUE REQUIREMENT RELATED TO BOARDMAN?

A. PGE includes an ADIT item Boardman Cost of Removal in the amount of $8,764,683 and Boardman Inventory Write-Off in the amount of $2,355,999. These amounts may be found in the Exhibit PGE/200 workpaper “2022 Unbundled ROO Initial,” Tab “Unbundled,” Rows “8111:8112.” These amounts represent removal costs and inventory costs that PGE had previously recovered in revenues through Schedule 145, prior to expending the funds. Since PGE recognized the taxable income from the Schedule 145 collections before spending the funds, the collections created a deferred tax asset. PGE described how the Costs of Removal impact ADIT in response to AWEC data request 112.

Q. IS IT APPROPRIATE TO CONTINUE INCLUDING ADIT AMOUNTS RELATED TO BOARDMAN REMOVAL IN REVENUE REQUIREMENT?

A. No. Since PGE has now paid, or is in the process of paying, these funds, it is no longer necessary to include the associated ADIT amounts in revenue requirement. PGE identified the current status of decommissioning activities in response to AWEC Data Request 110. Nearly all decommissioning activities are complete, and the remaining items are expected to close out by the end of 2022. Removing these Boardman ADIT items results in a $985,361 reduction to revenue requirement.

e. ADIT – Production Tax Credit Carryforwards

Q. WHAT AMOUNT OF PRODUCTION TAX CREDIT CARRYFORWARDS HAS PGE INCLUDED IN REVENUE REQUIREMENT?

A. PGE has included $69,809,838 of production tax credit ("PTC") carryforwards in rate base in this proceeding based on a forecast balance as of December 31, 2021. This amount may be derived in the Exhibit PGE/200 workpaper"2022 Unbundled ROO Initial," Tab "Unbundled," by summing the amounts on Rows "8118" and "8046." In response to AWEC Data Request 176, PGE states that it has reduced the PTC carryforwards that it would otherwise propose by $18,400,232 to account for the trading losses it recognized in 2020. The balance that PGE would otherwise forecast is $88,210,070, they claim.

Q. HOW DID PGE CALCULATE THESE AMOUNTS?

A. In response to AWEC Data Request 176, PGE provided the expected PTC carryforward balances from December 31, 2019 and December 31, 2020 included in its forecast. In the response, PGE reported an actual PTC carryforward balance of $31,952,816 from the year ending December 31, 2020. PGE also reported a PTC carryforward balance of $28,814,494 from the year ending December 31, 2019.

Q HAS THE PTC CARRYFORWARD BALANCE BEEN INCREASING?

A. No. If the impact of the 2020 trading losses are excluded, the PTC carryforward balance would have otherwise declined significantly in 2020. PGE's response to OPUC Data Request 188 details the expected tax credit utilization for 2020 and 2021.

Q. WILL THE PTC CARRYFORWARD BALANCE INCREASE IN 2021?

A. It is not known. In response to AWEC Data Request 176, PGE noted that it expects to generate $27,442,750 of new PTCs over the 12 months ending December 31, 2021. These new

PTCs will increase the PTC carryforward balance. Notwithstanding, this increase will be offset by the PTC's that PGE is able to utilize on its 2021 tax return. The amount that PGE will utilize, however, depends on PGE's level of taxable income, and PGE's tax return for the year ending December 31, 2021, will not be filed until September 2022. Thus, until the PGE's tax return for 2021 is filed in September 2022, the December 31, 2021 PTC carryforward balance is not known.

Q. CAN THE DECEMBER 31, 2021 PTC BALANCE BE ESTIMATED?

A. As detailed in its response to OPUC Data Request 188, PGE develops an estimate of its taxable income for 2021 to estimate an amount of tax credit utilization. At this point in time, however, there is no reliable way to determine the level of PTCs that will be utilized on PGE's 2021 tax return in order to develop an estimate of the PTC carryforward balance as of December 31, 2021. PGE's actual results for calendar year 2021 have not yet been finalized, and the amounts it has assumed may be dramatically different from the amounts ultimately recorded on the tax returns to be filed 11 months from now.

Given the declining PTC carryforward balances, it is certainly possible that the PTC carryforward balance will decline substantially by December 31, 2021 and even further reductions may be expected by the rate effective date of May 1, 2022. Note that PGE only calculated the balances through December 31, 2021, even though it claims the normalization requirements would otherwise require the timing of the PTC rate to be calculated at the same point in time as rate base.

Q. HOW DO YOU PROPOSE TO CALCULATE PTC CARRYFORWARDS IN THIS PROCEEDING?

A. Since the December 31, 2021 PTC utilization cannot be reasonably estimated at this time, I recommend using the actual PTC utilization from the year ending December 31, 2020, adjusted for the 2020 trading losses, as a proxy for the PTC utilization that will occur in 2021. Further, I recommend rolling forward the PTC carryforward balance for an additional five months to reflect the timing of the rate effective date in this proceeding. The results of this calculation may be found in my confidential workpapers, which produces a PTC carryforward balance of $18,152,994. Adjusting to this level results in a $51,656,844 reduction to rate base and a corresponding $4,577,115 reduction to revenue requirement.

XIV. COLSTRIP UNITS 3&4 SURCHARGE

a. Depreciation & Depreciation Reserves

Q. WHAT HAS PGE PROPOSED FOR ADDRESSING THE RETIREMENT OF COLSTRIP?

A. PGE has proposed to remove the Colstrip Units 3&4 revenue requirement from base rates and recover it exclusively through Schedule 146. PGE's initial filing calculates a $55,920,000 revenue requirement for Colstrip Units 3 and 4. Notwithstanding, in response to AWEC Data Request 200, Attachment A, PGE calculated that the surcharge revenue will increase to $67,010,000 if the settlement in Docket No. UM 2152 is approved.

Q. DOES AWEC SUPPORT THE CREATION OF SUCH A SURCHARGE?

A. Initially, it is important to note that AWEC has recommended in UM 2152 that PGE use excess depreciation reserves to buy down the full undepreciated balance of Colstrip. If this recommendation is adopted, then the only costs associated with Colstrip that will remain to be recovered from customers are operations and maintenance costs. This would significantly simplify the mechanics of Schedule 146 and how and when it is updated.

If, however, AWEC's proposal in UM 2152 is not adopted, then AWEC does not oppose the creation of such a surcharge so long as ratepayers are provided the ongoing benefit associated with the declining rate base balances at Colstrip units 3 and 4, which will decline rapidly because of the early closure. Resolution of Docket No. UM 2152 is not yet known, so AWEC has not incorporated those impacts into revenue requirement. AWEC may modify its recommendation on the Schedule 146 surcharge depending on the outcome of that proceeding.

Q. DOES PGE INTEND TO PASS ON THE BENEFIT OF THE DECLINING RATE BASE BALANCES?

A. No. In response to OPUC Data Request 603, PGE indicated that it would not update the Colstrip plant balances for incremental accumulated depreciation associated with the retirement. In the response, PGE stated "PGE will [only] update the accumulated depreciation in the annual updates if the forecasted Colstrip economic life changes from what was assumed in this rate case and thus changes the annual depreciation of the facility." PGE, however, does intend on updating decommissioning costs to the extent that new information becomes available.

Q. IS THIS POSITION CONSISTENT WITH PGE'S PRIOR STATEMENTS?

A. No. When PGE first proposed Schedule 146, in 2016, AWEC's predecessor organization, the Industrial Customers of Northwest Utilities, opposed making it an automatic adjustment clause.[4/] In response, PGE argued that "[i]mplementing Schedule 146 as an AAC provides PGE and our customers assurance that the full amount (and nothing more) of depreciation and

[4/] See Docket No. ADV 391, ICNU Comments (Oct. 25, 2016).

decommissioning will be collected. Additionally, an AAC allows PGE the ability to adjust Schedule 146 to reflect future changes in the Commission's decision on the treatment of Colstrip's incremental depreciation and decommissioning costs."[5/] PGE's position was successful at the Commission – Schedule 146 is an automatic adjustment clause – yet now PGE does not appear willing to use this schedule in the manner they argued would benefit customers.

Q. HAS PGE PROVIDED THE BENEFIT OF INCREMENTAL ACCUMULATED DEPRECIATION IN THIS DOCKET?

A. No. The rate base balances that PGE proposes are based on May 1, 2022 levels. While PGE proposes to include incremental accumulated depreciation associated with the early retirement, it has not included the benefit of the incremental reserves associated with that accelerated depreciation.

Q. HAS PGE MADE AN ERROR IN HOW IT HAS FORECAST THE INCREMENTAL DEPRECATION EXPENSES ASSOCIATED WITH THE COLSTRIP UNITS 3 AND 4 RETIREMENT?

A. Yes. In response to AWEC DR 206, PGE provided the calculation of depreciation expense associated with Colstrip units 3 &4. PGE's filing includes $23,713,787, including a $1,963,552 accrual for decommissioning expenses. Rather than using the depreciation rates approved in the depreciation study, PGE has assumed straight line depreciation through December 30, 2027 to calculate the incremental deprecation associated with Colstrip Units 3 & 4. PGE also calculated the depreciation expense based on the net plant balances, rather than the gross plant balances. This presents a problem because it is an accounting requirement for the actual depreciation expense and deprecation reserves that PGE will record on its books to be based on

[5/] Docket No. ADV 391, PGE Reply Comments, at 3-4 (Dec. 2, 2016).

the rates in the depreciation study, which are applied to the gross plant balances. In that case, ratepayers will be paying for depreciation expenses, which are actually not being accrued on PGE's books. In addition, the depreciation rate already recovers the cost of net salvage, so a separate accrual for decommissioning expense is not necessary.

Q. WHAT DEPRECIATION RATE WAS ASSUMED IN THE DEPRECIATION STUDY?

A. The filed depreciation study calculated a 3.08% composite depreciation rate for Colstrip Units 3&4. PGE's filing assumed $514,648,000 of gross plant, and thus, the depreciation accrual based on the filed deprecation study. Thus, the depreciation accrual applicable for the rate year is $15,851,158, including decommissioning costs. Thus, PGE's methodology overstates deprecation expenses by $7,862,629.

Q. ARE THERE ALSO ERRORS IN THE DEPRECIATION RESERVES PGE CALCULATED?

A. Yes. In Response to AWEC Data Request 208, Attachment A, PGE identified $380,074,767 of depreciation reserves as of May 30, 2022 that were included in PGE's revenue requirement calculation for Colstrip Units 3&4. In response to AWEC Data Request 206, however, PGE reported $401,360,679 of depreciation reserves as of May 30, 2022. Thus, the Deprecation reserves included in PGE's filing were understated by $21,285,912.

Q. WHAT DO YOU RECOMMEND?

A. If AWEC's proposal in UM 2152 to use excess reserves to fully buy down Colstrip's undepreciated value is rejected, I recommend that the rate base balances used in the Schedule 146 surcharge include the average impacts of incremental deprecation reserves accumulated over the period May 1, 2022 through April 30, 2023. I recommend updating the deprecation expenses included in Schedule 146 to be based on the actual deprecation rates in the deprecation study. I also recommend that the depreciation reserves be updated to the amounts reported in AWEC Data Request 206. Finally, I recommend that the tariff language be modified to require annual updates on May 1 of each year, including the benefit of the incremental deprecation reserves that will accrue during the tariff collection period.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Making the above changes results in a $10,718,235 reduction to Schedule 146 revenue requirement. AWEC may update this recommendation in Rebuttal Testimony to reflect that the impact does not include incremental ADIT reversal.

b. <u>Smart Burn Capital Project</u>

Q. HOW MUCH DID PGE SPEND ON THE SMART BURN CAPITAL PROJECT?

A. In response to AWEC Data Request 218, PGE stated that it spent $5.8 million on the SmartBurn capital project. PGE does not provide any testimony in its application justifying this investment.

Q. PLEASE PROVIDE AN OVERVIEW OF THE SMART BURN CAPITAL PROJECT.

A. SmartBurn is an emissions control that was installed on Colstrip Units 3 and 4 to reduce nitrogen oxides (NOx). According to statements made by other owners of these units, SmartBurn was installed in anticipation of future NOx regulations under the Federal Regional Haze Rule.[6/] However, the Washington Utilities and Transportation Commission ("WUTC") has disallowed the SmartBurn investment in both Puget Sound Energy's and Avista Corp.'s rates, finding that these utilities: "(1) failed to demonstrate that SmartBurn is necessary and (2) failed to maintain appropriate documentation of its decision to install SmartBurn."[7/]

6/ WUTC Docket Nos. UE-190529 <u>et al.</u>, Order 08 ¶ 184 (July 8, 2020).

7/ <u>Id.</u> ¶ 197; WUTC Docket Nos. UE-200900, <u>et al.</u>, Order 08 ¶¶ 264-274 (Sept. 27, 2021); <u>see also</u>, WUTC Docket Nos. UE-170485 <u>et al.</u>, Order 07 ¶ 204 (Apr. 26, 2018).

Specifically, the WUTC found that these utilities failed to demonstrate that SmartBurn was required by any Federal or State law, and otherwise did not justify the investment on any other grounds.

Q. HAS PGE PROVIDED ANY DOCUMENTATION IN THIS CASE THAT PSE AND AVISTA DID NOT IN WASHINGTON THAT WOULD JUSTIFY THE DECISION TO INVEST IN SMARTBURN?

A. No, since PGE has provided no testimony or evidence at all on this issue, it has not met its burden to demonstrate the prudence of the SmartBurn investment.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the SmartBurn project be disallowed as imprudent. The impact of the disallowance is an approximate $698,629 reduction to Schedule 146 revenue requirement.

XV. STORM COSTS

Q. WHAT AMOUNT OF STORM COSTS HAS PGE INCLUDED IN REVENUE REQUIREMENT?

A. PGE has included a provision for storm costs in the amount of $10,445,350. This amount was calculated in Exhibit PGE/816.

Q. HOW DID PGE CALCULATE THIS AMOUNT?

A. Similar to past proceedings, PGE calculated the average annual cost of Level III storms over a 10-year period, including a provision for inflation.

Q. HAVE YOU IDENTIFIED ANY PROBLEMS WITH PGE'S CALCULATION?

A. Yes. In its calculation, PGE includes the impact of the January and February 2021 ice storms. Those amounts, however, are not appropriately considered in the storm cost provision in this case. First, PGE has filed a separate deferral for the costs associated with the 2021 ice storms. Accordingly, considering those amounts again in the context of a storm cost provision would have the effect of double counting those costs. Second, 2021 is not yet completed. Accordingly, it would be premature to include storm costs from 2021 in the 10-year average.

Q. WHAT IS THE IMPACT OF REMOVING THE 2021 ICE STORM FROM THE STORM COST PROVISION?

A. Removing the 2021 storms, which are also being deferred, results in a storm cost provision of $3,509,598, or a $6,935,752 reduction from PGE's filing. The impact of this recommendation is a $7,171,531 reduction to revenue requirement.

Q. DO YOU SUPPORT PGE'S PROPOSAL FOR A STORM COST BALANCING ACCOUNT?

A. No. PGE has proposed a balancing account where base prices would continue to include the 10-year average of Level III storm costs, but these amounts would be held in a reserve account that would be allowed to go negative in years restoration costs that exceed the reserve amount. PGE would assume 10% of the costs of any negative balance, with customers responsible for the other 90%. PGE would also refund or recover any positive or negative balance that exceeds $12 million.[8/]

While PGE acknowledges that the Commission previously rejected a storm cost balancing account in the utility's last rate case, it also notes that the Commission invited PGE to make an alternative proposal that was evidentiarily justified and provided a balance in the mechanism that continued to incentivize PGE to make resiliency investment.[9/]

8/ PGE/800, Bekkedahl-Jenkins/62:20-63:7

9/ Id. at 61:19-62:15; see also, Docket No. UE 335, Order No. 19-129 at 14-15 (Apr. 12, 2019).

Q. DOES PGE'S TESTIMONY AND PROPOSED MECHANISM MEET THESE REQUIREMENTS?

A. No. PGE does not present any new evidence in this case, which would warrant changing that precedent. If PGE bases its proposal on the assertion that it is experiencing greater storm intensity due to climate change, for instance, the Commission required "some foundational analysis to justify this claim, and provide a chain of causation that connects evidence of expected increases in storm frequency and intensity to increased costs."[10/] To meet this burden, PGE cites "two recent examples [that] involve non-winter wind events" and then includes general quotations from the Fourth National Climate Assessment.[11/] This is not foundational analysis or demonstration of any chain of causation.

In fact, other than the 2021 ice storm, PGE has incurred relatively little level III storm costs in recent years and the use of a provisional estimate in revenue requirement has been sufficient. Further, PGE is deferring the impact of the 2021 storm costs and would have an opportunity to do so again in the future if a storm of a similar magnitude occurred. Accordingly, a storm balancing account continues to be unnecessary and unwarranted.

XVI. TROJAN DECOMMISSIONING COSTS

a. Unpaid Funding

Q. WHAT AMOUNT HAS PGE PROPOSED TO COLLECT FROM RATEPAYERS FOR TROJAN DECOMMISSIONING?

A. PGE has proposed recovering $1,900,000 in decommissioning and remediation expense in connection with the Trojan decommissioning. In addition to these customer-contributed funds,

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10/ Order No. 19-129 at 14.
11/ PGE/800 at 66:6-67:10.

the Department of Energy ("DOE") also contributes annually to Trojan decommissioning and remediation expenses pursuant to a settlement reached with PGE.

Q. PLEASE PROVIDE AN OVERVIEW OF THE TROJAN DECOMMISSIONING TRUST.

A. PGE has no place to store the spent nuclear fuel at the Trojan facility. Accordingly, it must continue to maintain the facility and cannot fully decommission the Trojan power plant until a fuel storage site can be found. Given the inability to decommission the site, a decommissioning trust was established to pay for the ongoing decommissioning and remediation expenditures, as well as to provide funding for when the facility is ultimately decommissioned.

Q. PLEASE DESCRIBE THE SETTLEMENT REACHED WITH THE DEPARTMENT OF ENERGY.

A. The DOE settlement was described in PGE's response to AWEC Data Request 247. The DOE had an obligation to provide PGE with a site to store the spent fuel from the Trojan power plant. Since no site has been provided, PGE was due funds from the DOE to pay for its ongoing remediation and the increase in decommissioning costs associated with the delay in identifying a fuel storage site. The settlement involved of a $50,004,086 lump sum for amounts customers had already overpaid prior to 2012 towards Trojan decommissioning. Since customers had already paid these amounts, the lump sum settlement amount was refunded to customers through Schedule 143.

Further, the settlement also provided for annual payments from the DOE to cover ongoing decommissioning and remediation costs at Trojan. Over the period 2015 through 2019, PGE recovered $13,297,323 from the DOE as a part of these ongoing payments.

Q. HAS PGE ACTUALLY BEEN CONTRIBUTING THE DOE FUNDS INTO THE DECOMMISSIONING TRUST?

A. No. In response to AWEC Data Request 246, PGE explains that the DOE funding is submitted to PGE, and not contributed directly to the trust. In response to AWEC DR 241, Attachment A, it can be noted that, other than the lumpsum amount, PGE has only contributed one payment from the DOE into the decommission trust. The initial lumpsum settlement of $50,004,086 was contributed to the trust in 2013 and 2014, followed by a withdrawal associated with the refund that was provided through Schedule 143. Subsequently, PGE made one contribution of $2,797,147 in 2019 in connection with DOE settlement funding. Thus, PGE retained $10,500,175 of DOE settlement funding and did not contribute those amounts to the Trojan decommissioning trust.

Q. HOW MUCH IS PGE COLLECTING IN RATES FOR ADDITIONAL CUSTOMER CONTRIBUTIONS?

A. In addition to the DOE contributions, PGE's rate also includes a provision for decommission expenses. PGE's current rate from UE 335 provided for $1,900,000 in collections for contributions into the Trojan decommissioning trust.

Q. HAS PGE BEEN CONTRIBUTING THESE FUNDS TO THE DECOMMISSIONING TRUST?

A. No. In response to AWEC Data Requests 91 and 240, PGE acknowledged that, similar to the DOE funds, it did not contribute to the Trojan decommissioning trust in 2020, notwithstanding the fact that it was collecting $1,900,000 from customers in rates to do so. It's unknown if PGE has similarly withheld the customer contributions from the in 2021, as well.

Q. WHY DID PGE NOT MAKE A CONTRIBUTION IN 2020?

A. PGE ties its decision of not making a contribution in 2020 to the expiration of Schedule 143 - Spent Fuel Adjustment. In response to AWEC Data Request 240, PGE stated that it "considered that the $1.9 million collection from customers already incorporated the DOE reimbursement impact." That is not accurate, however. The spent fuel credits being refunded through Schedule 143, however, were distinct from the obligations for PGE to contribute customer funding to the decommissioning trust. The customer contributions towards decommissioning were recovered in base distribution rates. In UE 335, Macfarlane – Goodspeed/15:1-2, for example, PGE stated that the "Distribution Charge also includes the allocation of franchise fees and Trojan Decommissioning costs." The Schedule 143 credits related to residual amounts associated with the lump sum DOE payments, and not the customer contributions to the remediation trust, nor the ongoing payments that the DOE was contributing to the trust. Accordingly, it was improper for PGE not to fund the trust in accordance with the $1,900,000 of annual funding that had been set aside in UE 335.

Q. WHAT DO YOU RECOMMEND?

A. Had PGE contributed these funds to the trust, the ongoing obligation for customers to contribute to the decommissioning trust would be reduced. Accordingly, I recommend that PGE be required to refund to customers the DOE settlement amounts that it did not contribute to the decommissioning trust, as well as the 2020 customer payments which PGE did not contribute. In total PGE collected $10,500,175 for the DOE and $1,900,000 from customers. I recommend that this $12,400,175 in funding not submitted to the trust be refunded over two years through Schedule 143. The impact of this recommendation is a $6,410,858 reduction to revenue requirement.

b. Schedule 136 Surcharge

Q. HAS PGE INCLUDED THE $1,900,000 OF CUSTOMER CONTRIBUTIONS IN REVENUE REQUIREMENT IN THIS PROCEEDING?

A. Yes. PGE proposes to retain the same level of Trojan decommissioning funding as assumed in UE 335.

Q. IS PGE PROPOSING TO RECOVER THE DECOMMISSIONING CONTRIBUTION THROUGH BASE RATES OR SCHEDULE 146?

A. Both. In base revenue requirement, PGE includes the customer contribution to the decommissioning trust in amortization expense. This can be noted in PGE/200 workpaper "Exhibit Support 2022", Tab "Amort", Line 2. Notwithstanding, in the Rate Spread model, PGE also includes separate surcharge rates to cover the cost of the customer contributions, and unlike the Schedule 146 surcharge for Colstrip, PGE does not consider the proposed Schedule 136 surcharge revenues as an offset to the base rate increase. Therefore, PGE double-counts these revenues in revenue requirement.

Q. HOW DO YOU RECOMMEND THESE REVENUES BE HANDLED?

A. The customer decommissioning funding can be included in base rates, or as a supplemental schedule, but not both. In UE 335, the customer contributions to the Trojan decommissioning trust were included in base rates, while Schedule 143 was used to refund the DOE settlement associated with past customer contributions. Tracking these contributions in a surcharge, however, has some merit, in that the precise amounts collected from customers can be identified and tracked against the actual contributions into the decommissioning trust fund. It would also be possible to update the collections to the extent the trust becomes over-, or under-funded. If these revenues are to be included in a separate surcharge, however, I recommend they be subject to an annual tracking relative to the amounts contributed to the decommissioning trust through an annual filing. In addition, I recommend that a separate rate be established within the schedule for the ongoing funding obligations and the refunds discussed above.

Q WHAT IS THE IMPACT OF THIS RECOMMENDATION?

A. Removing the customer contributions to the Trojan trust from base rate revenue requirement results in a $1,964,590 reduction to revenue requirement.

XVII. OATT REVENUES

Q. WHAT DO YOU RECOMMEND WITH RESPECT TO OATT REVENUES?

A. PGE has stated that it plans to file a transmission rate case in or around November 2021. Since the impacts of that case will be known by the time that this case is resolved, I recommend including the incremental revenues from PGE's OATT rate case filing in this case. The impacts will likely be known by the time parties file Rebuttal Testimony in this case. OATT transmission cases are approved as filed, subject to refund, with the refund amounts accruing the FERC interest rate, which is similar to the Modified Blended Treasury Rate the Oregon Commission uses.

Q. WHAT AMOUNT OF TRANSMISSION REVENUES DO YOU ESTIMATE IN CONNECTION WITH THE OATT RATE CASE FILING?

A. PGE has undergone a process to reclassify material amounts of distribution plant to transmission. Accordingly, it is probable that PGE will recognize additional revenues from its transmission rate case. For purposes of this testimony, I have included a $1,000,000 revenue increase as a placeholder and will update this estimate after PGE's OATT rate case is filed.

XVIII. WILDFIRE AND STORM DEFERRALS

Q. PLEASE SUMMARIZE DEFERRALS THAT PGE HAS OUTSTANDING.

A. In response to Bench Request 2 in this docket, PGE has identified several large deferral balances. Specifically, PGE has accrued: $55,290,764 in connection with the UM 2156 deferral for 2021 Storm Cost; $32,069,107 in connection with the UM 2115 deferral for 2020 wildfires; and, $18,638,383 in connection with the UM 2064 deferral for COVID-19 costs. Collectively, these deferrals amount to $105,998,254 in additional deferred costs. In addition to these deferrals, PGE's response to Bench Request 2 neglects to identify the UM 2119 deferral related to the retirement of Boardman, which as identified in Exhibit AWEC-CUB/100 will have accrued a customer benefit of $146,104,779 by the rate effective date in this docket.

Q. HAVE THESE DEFERRALS BEEN APPROVED?

A. The UM 2156 Storm Cost deferral and the UM 2119 Boardman deferral have not yet been approved. The UM 2115 Wildfire deferral and the UM 2064 COVID-19 deferral have been approved.

Q. IS PGE SEEKING TO AMORTIZE ANY OF THESE DEFERRALS IN THIS DOCKET?

A. No. In response to Bench Request 02, with respect to these specific deferrals, PGE states it "[w]ill propose to begin amortization in 2023 over a multi-year period to reduce customer price impact." Thus, PGE will seek to amortize those deferral amounts in a single-issue rate filing in 2022. Given the magnitude of the funds at issue, the rate impact of those single-issue filings, however, will exceed the rate impact of this general rate proceeding.

Q. DOES THE COMMISSION DISCOURAGE AMORTIZING DEFERRALS OUTSIDE OF THE CONTEXT OF A RATE CASE?

A. Yes. In UM 1712, for example, the Commission considered PacifiCorp's proposal to amortize deferred costs associated with the Deer Creek Mine closure costs through a single-issue charge, outside of the context of a rate case. The Commission concluded that:

> Although there is no prohibition on the use of single-issue ratemaking, we conclude that such unique regulatory treatment is not warranted in the present circumstances. Indeed, as the company is doing in Idaho, Utah, and Wyoming, PacifiCorp may file a general rate case here in Oregon. At that we can address all aspects of PacifiCorp's operations for potential cost reductions that might offset costs resulting from this transaction.[12/]

Given that PGE is now in the process of a rate case, there can be no extenuating circumstances that would warrant amortizing the above deferred balances through single issue rate filings in 2022.

Q. IS THE POTENTIAL CUSTOMER LIABILITY FOR THESE DEFERRALS KNOWN?

A. The UM 2156 Storm Cost deferral and the UM 2115 Wildfire deferral are known, and therefore, can be appropriately handled in the context of this rate case. Similarly, the company liability for the Boardman deferral is also known and can also be resolved in this rate case. The COVID-19 deferral is still accruing costs, so the final customer liability for that account is not yet known. Accordingly, I recommend handling the UM 2156 Storm Cost deferral and the UM 2115 Wildfire deferral in this docket and dealing with the COVID-19 deferral at a later date when the total amount of deferred costs is known.

[12/] UM 1712, Order 15-161, at 6 (May 27, 2015).

Q. IS IT FAIR TO ALLOW PGE TO AMORTIZE THOSE BALANCES AFTER THE CONCLUSION OF THIS RATE CASE?

A. No. Amortization of balances of such a magnitude are best considered in the context of the rate case, rather than waiting until after the rate case conclusion. When evaluating the amount of the deferral and the amortization period, it is appropriate to consider the overall rate impacts of all of the rate changes customers are facing, including both the amortization impacts and the general rate case impacts. The Commission will have little certainty over the rates that it is approving in this case, for example, if it is PGE's intention to further increase the rates immediately after the rate effective date in this case for these regulatory balances.

If PGE does not include the balances in this case, I believe it will have foregone the opportunity to recover those deferred funds, or at least, would need to wait until its next general rate case to consider amortizing the balances.

Q. ARE THE DEFERRAL BALANCES ACCRUING CARRYING CHARGES?

A. Yes. In response to OPUC 756, PGE indicated that the UM 2156 Storm Cost deferral and the UM 2115 Wildfire deferral are accruing interest at PGE's authorized rate of return of 7.3%.

Q. IS IT APPROPRIATE FOR PGE TO CONTINUE EARNING FINANCING CHARGES ON THESE BALANCES AT ITS RATE OF RETURN AFTER THE RATE EFFECTIVE DATE OF THIS CASE?

A. No. Given that PGE had the opportunity to being amortizing the balances in this case, it would be inappropriate for PGE to recognize additional financing charges associated with the delay in amortization, particularly carrying charges incurred at its authorized rate of return. Since it was PGE's decision to delay amortization, it should not be provided with additional benefits in connection with the delay.

Q. DO YOU HAVE ANY CONCERNS WITH THE AMOUNTS ACCRUED TO THE WILDFIRE AND STORM DEFERRALS?

A. Yes. PGE provided the accounting data underlying the deferral amounts in response to AWEC Data Request 158. I have summarized that data for the UM 2156 Storm Cost deferral and the UM 2115 Wildfire deferrals in Exhibit AWEC/106. As can be seen, a portion of the deferred costs includes utility overheads and items such as advertising expenses that are not appropriately considered in the deferral, since PGE is already recovering those costs in base rates. In response to OPUC Data Request 137, for example, PGE stated that the deferrals included all labor costs, other than straight time labor, including overhead labor and labor loadings. Allocated overheads, such as pension costs, incentives and liability insurance, however, do not increase as a result of the storm costs or wildfire costs. PGE does not, for example, incur more pension expense or spend more on liability insurance as a result of the work performed on storm or wildfire restoration, and to the extent PGE's liability insurance increases as a consequence of these events, those increases are reflected in PGE's rate request in this case. Further, items such as advertising expense do not appear to have a clear nexus to the repairs at issue. Accordingly, I recommend that the overheads and other items identified in Exhibit AWEC/106 be removed from the wildfire and storm deferrals.

Q. DOES PGE ALSO PROPOSE TO RECOVER CAPITAL COSTS IN CONNECTION WITH THESE DEFERRALS?

A. Yes. In response, to AWEC Data Request 232, PGE indicated that it was also proposing to recover capital costs associated with the wildfire and storm cost deferrals. The impact of those capital costs, however, were not considered in responses to Bench Request 02 or AWEC Data Request 158. Traditionally, storm cost deferrals have not included the impacts of capital costs and have been limited to operating expenses. While the Commission has authority to defer capital costs, it has emphasized that "any request for deferral of a capital project will need to be analyzed closely."[13] In this case, capital cost recovery is not appropriate for the wildfire and ice storm deferrals because those capital additions are already included in revenue requirement in this proceeding and are not so abnormal to warrant extraordinary treatment.

It can be noted in PGE's response to AWEC 104, Attachment A, for example, that PGE spent $55,922,466 in total capital in February 2021 during the 2021 Ice Storm. The average monthly capital spending budgeted for 2021, however, was $69,355,671. Therefore, the capital spending in February 2021 associated with the February ice storm was still below average relative to the rest of the year. This means that no capital deferral is necessary, as capital costs are included in this case and will be recovered through base rates.

Q. WHAT IS THE IMPACT OF REMOVING THE OVERHEAD LABOR LOADINGS AND CAPITAL COSTS?

A. As can be seen in Exhibit AWEC/106, the impact of removing the overhead labor loadings and other miscellaneous costs is a reduction of $913,556 and $897,770 to the UM 2156 Storm Cost deferral and the UM 2115 Wildfire deferral, respectively, based on the information provided in response to AWEC Data Request 158. Note that the response to AWEC Data Request 158 and Bench Request 2 did not include any provision for capital costs, so I have not separately detailed those impacts here.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the UM 2119 Boardman deferral, the UM 2156 Storm Cost deferral and the UM 2115 Wildfire deferral all be amortized in in this proceeding in an offsetting manner over the same three-year period. Based on the balances reported in response to Bench Request 2,

[13] Docket UM 1909, Order No. 20-147 at 1 (Apr. 30, 2020).

and the calculation for the Boardman deferral provided in Exhibit CUB-AWEC/100, the net impact of these deferrals will be offsetting, with a residual credit to customers. The total amount of the incremental credit, however, depends on the ongoing incremental interest accruals through the rate effective date for the UM 2156 Storm Cost deferral and the UM 2115 Wildfire deferral, which were not included in response Bench Request 02. In addition, the final impact of the offsetting credits depends on the amount of capital costs appropriately excluded from the wildfire and storm cost deferrals.

XIX. SCHEDULE 77R ONSITE BATTERY STORAGE TARIFF

Q. PLEASE SUMMARIZE YOUR RECOMMENDATION FOR A BATTERY STORAGE TARIFF SCHEDULE 77R?

A. AWEC recommends that a new replacement power tariff be implemented for customers with onsite battery storage. The tariff would follow a rate structure that is similar to Schedules 75 and 76R. Under this new tariff, Schedule 77R, a customer with onsite battery storage will have the option to purchase replacement power to charge its onsite battery storage at prevailing market rates. The customer will subsequently have the option to use its battery storage to serve a portion of its load, recognizing a credit based on the market price of energy at the time of discharging. In addition, the customer will be provided with a capacity payment, equal to the Schedule 26 non-residential demand response reservation rates. The awarding of a capacity payment would follow substantially the same event notification protocol as Schedule 26, except that special consideration will be provided to ensure that the participating customer has a reasonable opportunity to recharge its battery storage following an event.

Q. WHY DO YOU PROPOSE TO USE SCHEDULES 75 AND 76R AS A MODEL FOR THIS NEW BATTERY STORAGE TARIFF?

A. Schedules 75 and 76R are a partial requirements tariff that allows eligible customers to use on-site generation to meet a portion of their load, and purchase market power to meet that same portion at times when it is more economical to do so than self-generating. Currently, there are no customers on Schedules 75 and 76R, suggesting that this tariff may need to be modernized. My proposal for a new Schedule 77R that utilizes on-site battery storage attempts this modernization but recognizes that there are substantial differences between battery storage and the type of baseload generation contemplated by Schedules 75 and 76R.

Q. WHY IS IT DESIRABLE TO DEVELOP A BATTERY STORAGE TARIFF?

A. Such a tariff will encourage customers to build on-site battery storage in a way that provides capacity to PGE's system. In addition, it will allow the customers to operate the battery storage based on market conditions, in a way that is beneficial to the electrical system.

Q. HAVE YOU PREPARED A DRAFT TARIFF?

A. As necessary, AWEC will present proposed tariff language in Rebuttal Testimony, depending on how PGE responds to this straw proposal.

Q. DOES THIS CONCLUDE YOUR OPENING TESTIMONY?

A. Yes.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/101

QUALIFICATION STATEMENT OF BRADLEY G. MULLINS

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ABOUT

MW Analytics is the professional consulting practice of Brad Mullins, a consultant and expert witness that represents utility customers in regulatory proceedings before state utility commissions throughout the Western United States. Brad has sponsored expert witness testimony in over 80 regulatory proceeding encompassing a variety of subject matters, including revenue requirement, regulatory accounting, rate development, and new resource additions. Brad has also assisted his clients through numerous informal regulatory, legislative and energy policy matters. In addition to providing regulatory services, MW Analytics also provides advisory, energy marketing and other energy consulting services.

PRACTICE AREAS

MW Analytics has experience representing customer interests in litigated and informal regulatory proceedings, including the following subject areas:

- Revenue Requirement
- Power Cost Modeling
- Tax Provisions and Tax Reform
- Capital Additions and Forecasting
- Regulatory Accounting
- Depreciation Studies
- Pole Attachments
- Integrated Resource Planning
- Avoided Cost Calculations
- Utility Plant Retirements

EDUCATION AND WORK EXPERIENCE

Brad has a Master of Accounting degree from the University of Utah. After obtaining his master's degree, Brad worked at Deloitte Tax in San Jose, California, where he was responsible for preparing corporate tax returns for multinational corporate clients and partnership returns for hedge fund clients. Brad was later promoted to a Tax Senior position in a national tax practice specializing research and development tax credit studies. Following Deloitte, Brad worked at PacifiCorp Energy, as an analyst involved in power cost modeling and forecasting.

REGULATORY APPEARANCES

Brad has sponsored expert witness testimony in the following regulatory proceedings:

Docket	Party	Topics
In re PacifiCorp, dba Pacific Power, 2020 Power Cost Adjustment Mechanism, Or.PUC Docket No. UE 392	Alliance of Western Energy Consumers	Power Cost Deferral
In re the Application of Rocky Mountain Power for Authority to Decrease Current Rates by $14.9 Million to Refund Deferred Net Power Costs Under Tariff Schedule 95 Energy Cost Adjustment Mechanism and to Decrease Current Rates by $166 Thousand Under Tariff Schedule 93, REC and SO2 Revenue Adjustment Mechanism, Wy.PSC Docket No. 20000-599-EM-21	Wyoming Industrial Energy Consumers	Power Cost Deferral
In re Portland General Electric 2021 Annual Update Tariff Schedule 125, Or. PUC Docket No. UE 391	Alliance of Western Energy Consumers	Power Cost Modeling

Docket	Party	Topics
In re Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of a regulatory asset account to recover costs relating to the development and implementation of their Joint Natural Disaster Protection Plan, PUC NV. Docket No. 21-03004	Wynn Las Vegas, LLC; Smart Energy Alliance	Single-Issue Rate Filing
In re PacifiCorp d.b.a. Pacific Power, 2022 Transition Adjustment Mechanism, Or.PUC Docket No. UE 390	Alliance of Western Energy Consumers	Power Cost Modeling
In re Avista 2020 General Rate Case, Wa.U.T.C. Docket No. UE-200900 (Cons.)	Alliance of Western Energy Consumers	Revenue Requirement
In re NV Energy's Fourth Amendment to Its 2018 Joint Integrated Resource Plan, PUC Nv. Docket No 20-07023	Wynn Las Vegas, LLC; Smart Energy Alliance	Transmission Planning
In Re Cascade Natural Gas Corporation, 2020 General Rate Case, Wa.U.T.C. Docket No. UG-200568	Alliance of Western Energy Consumers	Revenue Requirement
In re Cascade Natural Gas Corporation, Petition to File Depreciation Study, Or.PUC Docket No. UM 2073	Alliance of Western Energy Consumers	Depreciation Rates
In re the Application of Rocky Mountain Power for Authority to Increase Current Rates By $7.4 Million to Recover Deferred Net Power Costs Under Tariff Schedule 95 Energy Cost Adjustment Mechanism and to Decrease Current Rates by $604 Thousand Under Tariff Schedule 93, Rec and So2 Revenue Adjustment Mechanism, Wy.PSC Docket No. 20000-582-EM-20	Wyoming Industrial Energy Consumers	Power Cost Deferral
In re the Complaint of Willamette Falls Paper Company and West Linn Paper Company against Portland General Electric Company, Or.PUC Docket No. UM 2107	Willamette Falls Paper Company	Consumer Direct Access, Tariff Dispute
In re The Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates by Approximately $7.1 Million Per Year or 1.1 Percent, to Revise the Energy Cost Adjustment Mechanism, and to Discontinue Operations at Cholla Unit 4, Wy.PSC Docket No. 2000-578-ER-20	Wyoming Industrial Energy Consumers	Power Cost Modeling
Avista Corporation 2021 General Rate Case, Or.PUC Docket No. UG 389	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
In re NW Natural Request for a General Rate Revision, Or.PUC Docket No. UG 388.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
In re PacifiCorp, Request to Initiate an Investigation of Multi-Jurisdictional Issues and Approve an Inter-Jurisdictional Cost Allocation Protocol, Or.PUC, UM 1050.	Alliance of Western Energy Consumers	Jurisdictional Allocation
In re Puget Sound Energy 2019 General Rate Case, Wa.UTC Docket No. UE 190529.	Alliance of Western Energy Consumers	Revenue Requirement, Coal Retirement Costs
Avista Corporation 2020 General Rate Case, Wa.UTC Docket No. UE-190334 (Cons.)	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
In re Cascade Natural Gas Corporation Application for Approval of a Safety Cost Recovery Mechanism, Or. PUC Docket No. UM 2026	Alliance of Western Energy Consumers	Ratemaking Policy
In re Avista Corporation, Request for a General Rate Revision, Or.PUC Docket No. UG 366.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
In re Portland General Electric, 2020 Annual Update Tariff (Schedule 125), Or.PUC Docket No UE 359.	Alliance of Western Energy Consumers	Power Cost Modeling
In re PacifiCorp 2020 Transition Adjustment Mechanism, Or.PUC Docket No. UE 356.	Alliance of Western Energy Consumers	Power Cost Modeling

Docket	Party	Topics
In re PacifiCorp 2020 Renewable Adjustment Clause, Or.PUC Docket No. UE 352.	Alliance of Western Energy Consumers	Single-Issue Rate Filing
2020 Joint Power and Transmission Rate Proceeding, Bonneville Power Administration, Case No. BP-20	Alliance of Western Energy Consumers	Revenue Requirement, Policy
In the Matter of the Application of MSG Las Vegas, LLC for a Proposed Transaction with a Provider of New Electric Resources, PUC Nv. Docket No. 18-10034	Madison Square Garden	Customer Direct Access
Puget Sound Energy 2018 Expedited Rate Filing, Wa.UTC Dockets UE-180899/UG-180900 (Cons.).	Alliance of Western Energy Consumers	Revenue Requirement, Settlement
Georgia Pacific Gypsum LLC's Application to Purchase Energy, Capacity, and/or Ancillary Services from a Provider of New Electric Resources, PUC Nv. Docket No. 18-09015.	Georgia Pacific	Customer Direct Access
Joint Application of Nevada Power Company d/b/a NV Energy for approval of their 2018-2038 Triennial Integrated Resource Plan and 2019-2021 Energy Supply Plan, PUCN Docket No. 18-06003.	Smart Energy Alliance	Resource Planning
In re Cascade Natural Gas Corporation Request for a General Rate Revision, Or.PUC, Docket No. UE 347.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
In re Portland General Electric Company Request for a General Rate Revision, Or.PUC Docket No UE 335.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
In re Northwest Natural Gas Company, dba NW Natural, Request for a General Rate Revision, Or.PUC Docket No. UG 344.	Alliance of Western Energy Consumers	Revenue Requirement, Rate Design
In re Cascade Natural Gas Corporation Request for a General Rate Revision, Wa.UTC, Docket No. UE-170929.	Northwest Industrial Gas Users	Revenue Requirement, Rate Design
In the Matter of Hydro One Limited, Application for Authorization to Exercise Substantial Influence over the Policies and Actions of Avista Corporation, Or.PUC, Docket No. UM 1897.	Alliance of Western Energy Consumers	Merger
Application of Rocky Mountain Power for Approval of a Significant Energy Resource Decision and Voluntary Request for Approval of Resource Decision, Ut.PSC Docket No. 17-035-40	Utah Industrial Energy Consumers, & Utah Associated Energy Users	New Resource Addition
In re PacifiCorp, dba Rocky Mountain Power, for a CPCN and Binding Ratemaking Treatment for New Wind and Transmission Facilities, Id.PUC Case No. PAC-E-17-07	PacifiCorp Idaho Industrial Customers	New Resource Addition
In re PacifiCorp, dba Pacific Power, 2016 Power Cost Adjustment Mechanism, Or.PUC, Docket No. UE 327.	Alliance of Western Energy Consumers	Power Cost Deferral
In re PacifiCorp 2016 Power Cost Adjustment Mechanism, Wa.UTC Docket No. UE-170717	Boise Whitepaper, LLC	Power Cost Deferral
In re Avista Corporation 2018 General Rate Case, Wa.UTC Dockets UE-170485 and UG-170486 (Consolidated).	Industrial Customers of Northwest Utilities, & Northwest Industrial Gas Users	Revenue Requirement, Rate Design

Docket	Party	Topics
Application of Nevada Power Company d/b/a NV Energy for authority to adjust its annual revenue requirement for general rates charged to all classes of electric customers and for relief properly related thereto, PUCN. Docket No. 17-06003.	Smart Energy Alliance	Revenue Requirement
In re the Application of Rocky Mountain Power for Authority to Decrease Current Rates by $15.7 Million to Refund Deferred Net Power Costs Under Tariff Schedule 95 Energy Cost Adjustment Mechanism and to Decrease Current Rates By $528 Thousand Under Tariff Schedule 93, REC and SO2 Revenue Adjustment Mechanism, Wy. PSC, Docket No. 20000-514-EA-17 (Record No. 14696).	Wyoming Industrial Energy Consumers	Power Cost Deferral
In re the 2018 General Rate Case of Puget Sound Energy, Wa.UTC, Docket No. UE-170033 (Cons.).	Industrial Customers of Northwest Utilities, & Northwest Industrial Gas Users	Revenue Requirement, Rate Design
In re PacifiCorp, dba Pacific Power, 2018 Transition Adjustment Mechanism, Or.PUC, Docket No. UE 323.	Industrial Customers of Northwest Utilities	Power Cost Modeling
In re Portland General Electric Company, Request for a General Rate Revision, Or.PUC, Docket No. UE 319.	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
In re Portland General Electric Company, Application for Transportation Electrification Programs, Or.PUC, UM 1811.	Industrial Customers of Northwest Utilities	Electric Vehicle Charging
In re Pacific Power & Light Company, Application for Transportation Electrification Programs, Or.PUC, Docket No. UM 1810.	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
In re the Public Utility Commission of Oregon, Investigation to Examine PacifiCorp, dba Pacific Power's Non-Standard Avoided Cost Pricing, Or.PUC, Docket No. UM 1802.	Industrial Customers of Northwest Utilities	Qualifying Facilities
In re Pacific Power & Light Co., Revisions to Tariff WN U-75, Advice No. 16-05, to modify the Company's existing tariffs governing permanent disconnection and removal procedures, Wa.UTC, Docket No. UE-161204.	Boise Whitepaper, LLC	Customer Direct Access
In re Puget Sound Energy's Revisions to Tariff WN U-60, Adding Schedule 451, Implementing a New Retail Wheeling Service, Wa.UTC, Docket No. UE-161123.	Industrial Customers of Northwest Utilities	Customer Direct Access
2018 Joint Power and Transmission Rate Proceeding, Bonneville Power Administration, Case No. BP-18.	Industrial Customers of Northwest Utilities	Revenue Requirement, Policy
In re Portland General Electric Company Application for Approval of Sale of Harborton Restoration Project Property, Or.PUC, Docket No. UP 334 (Cons.).	Industrial Customers of Northwest Utilities	Environmental Deferral
In re An Investigation of Policies Related to Renewable Distributed Electric Generation, Ar.PSC, Matter No. 16-028-U.	Arkansas Electric Energy Consumers	Net Metering
In re Net Metering and the Implementation of Act 827 of 2015, Ar.PSC, Matter No. 16-027-R.	Arkansas Electric Energy Consumers	Net Metering
In re the Application of Rocky Mountain Power for Approval of the 2016 Energy Balancing Account, Ut.PSC, Docket No. 16-035-01	Utah Associated Energy Users	Power Cost Deferral
In re Avista Corporation Request for a General Rate Revision, Wa.UTC, Docket No. UE-160228 (Cons.).	Industrial Customers of Northwest Utilities, & Northwest Industrial Gas Users	Revenue Requirement, Rate Design
In re the Application of Rocky Mountain Power to Decrease Current Rates by $2.7 Million to Recover Deferred Net Power Costs Pursuant to Tariff Schedule	Wyoming Industrial Energy Consumers	Power Cost Deferral

Docket	Party	Topics
95 and to Increase Rates by $50 Thousand Pursuant to Tariff Schedule 93, Wy.PSC, Docket No. 20000-292-EA-16.		
In re PacifiCorp, dba Pacific Power, 2017 Transition Adjustment Mechanism, Or.PUC, Docket No. UE 307.	Industrial Customers of Northwest Utilities	Power Cost Modeling
In re Portland General Electric Company, 2017 Annual Power Cost Update Tariff (Schedule 125), Or.PUC, Docket No. UE 308.	Industrial Customers of Northwest Utilities	Power Cost Modeling
In re Pacific Power & Light Company, General rate increase for electric services, Wa.UTC, Docket No. UE-152253.	Boise Whitepaper, LLC	Revenue Requirement, Rate Design
In The Matter of the Application of Rocky Mountain Power for Authority of a General Rate Increase in Its Retail Electric Utility Service Rates in Wyoming of $32.4 Million Per Year or 4.5 Percent, Wy.PSC, Docket No. 20000-469-ER-15.	Wyoming Industrial Energy Consumers	Power Cost Modeling
In re Avista Corporation, General Rate Increase for Electric Services, Wa.UTC, Docket No. UE-150204.	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
In re the Application of Rocky Mountain Power to Decrease Rates by $17.6 Million to Recover Deferred Net Power Costs Pursuant to Tariff Schedule 95 to Decrease Rates by $4.7 Million Pursuant to Tariff Schedule 93, Wy.PSC, Docket No. 20000-472-EA-15.	Wyoming Industrial Energy Consumers	Power Cost Deferral
Formal complaint of The Walla Walla Country Club against Pacific Power & Light Company for refusal to provide disconnection under Commission-approved terms and fees, as mandated under Company tariff rules, Wa.UTC, Docket No. UE-143932.	Columbia Rural Electric Association	Customer Direct Access / Customer Choice
In re PacifiCorp, dba Pacific Power, 2016 Transition Adjustment Mechanism, Or.PUC, Docket No. UE 296.	Industrial Customers of Northwest Utilities	Power Cost Modeling
In re Portland General Electric Company, Request for a General Rate Revision, Or.PUC, Docket No. UE 294.	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
In re Portland General Electric Company and PacifiCorp dba Pacific Power, Request for Generic Power Cost Adjustment Mechanism Investigation, Or.PUC, Docket No. UM 1662.	Industrial Customers of Northwest Utilities	Power Cost Deferral
In re PacifiCorp, dba Pacific Power, Application for Approval of Deer Creek Mine Transaction, Or.PUC, Docket No. UM 1712.	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
In re Public Utility Commission of Oregon, Investigation to Explore Issues Related to a Renewable Generator's Contribution to Capacity, Or.PUC, Docket No. UM 1719.	Industrial Customers of Northwest Utilities	Resource Planning
In re Portland General Electric Company, Application for Deferral Accounting of Excess Pension Costs and Carrying Costs on Cash Contributions, Or.PUC, Docket No. UM 1623.	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
2016 Joint Power and Transmission Rate Proceeding, Bonneville Power Administration, Case No. BP-16.	Industrial Customers of Northwest Utilities	Revenue Requirement, Policy
In re Puget Sound Energy, Petition to Update Methodologies Used to Allocate Electric Cost of Service and for Electric Rate Design Purposes, Wa.UTC, Docket No. UE-141368.	Industrial Customers of Northwest Utilities	Cost of Service
In re Pacific Power & Light Company, Request for a General Rate Revision Resulting in an Overall Price Change of 8.5 Percent, or $27.2 Million, Wa.UTC, Docket No. UE-140762.	Boise Whitepaper, LLC	Revenue Requirement, Rate Design

Docket	Party	Topics
In re Puget Sound Energy, Revises the Power Cost Rate in WN U-60, Tariff G, Schedule 95, to reflect a decrease of $9,554,847 in the Company's overall normalized power supply costs, Wa.UTC, Docket No. UE-141141.	Industrial Customers of Northwest Utilities	Power Cost Modeling
In re the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming Approximately $36.1 Million Per Year or 5.3 Percent, Wy.PSC, Docket No. 20000-446-ER-14.	Wyoming Industrial Energy Consumers	Power Cost Modeling
In re Avista Corporation, General Rate Increase for Electric Services, RE, Tariff WN U-28, Which Proposes an Overall Net Electric Billed Increase of 5.5 Percent Effective January 1, 2015, Wa.UTC, Docket No. UE-140188.	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design, Power Costs
In re PacifiCorp, dba Pacific Power, Application for Deferred Accounting and Prudence Determination Associated with the Energy Imbalance Market, Or.PUC, Docket No. UM 1689.	Industrial Customers of Northwest Utilities	Single-issue Ratemaking
In re PacifiCorp, dba Pacific Power, 2015 Transition Adjustment Mechanism, Or.PUC, Docket No. UE 287.	Industrial Customers of Northwest Utilities	Power Cost Modeling
In re Portland General Electric Company, Request for a General Rate Revision, Or.PUC, Docket No. UE 283.	Industrial Customers of Northwest Utilities	Revenue Requirement, Rate Design
In re Portland General Electric Company's Net Variable Power Costs (NVPC) and Annual Power Cost Update (APCU), Or.PUC, Docket No. UE 286.	Industrial Customers of Northwest Utilities	Power Cost Modeling

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/102

REVENUE REQUIREMENT ANALYSIS

UE-394 - Portland General Electric 2021 General Rate Case
Alliance of Western Energy Consumers
Electric Revenue Requirement Summary ($000)

							Impact of AWEC Adjustments			
Line	**Adj. No.**	**Description**	NOI Bef. Int. Ded.	Net Oper. Income	Rate Base	Rev. Req. Def. / (Suf.)	Pre-Tax Net Oper. Income	Post-Tax Net Oper. Income	Rate Base	Rev. Req. Def. / (Suf.)
1		**PGE Filed**	**294,273**	**328,198**	**5,737,484**	**98,166**				
Adjustments:										
2	A1	Cost Of Capital Settlement	294,273	326,184	5,737,484	90,528	-	-	-	(7,638)
3	A2	Oct. UE 391 Update	289,401	321,312	5,737,484	97,363	(6,675)	(4,873)	-	6,835
4	A3	Sept. Load Forecast	302,076	333,988	5,737,484	79,582	17,364	12,676	-	(17,781)
5	A4	Kaufman: Load Forecast Adj.	329,562	361,474	5,737,484	41,028	37,651	27,486	-	(38,554)
6	A5	Directors Defrd. Comp. Plan.	329,562	361,447	5,732,645	40,603	-	-	(4,838)	(424)
7	A6	D&O Liability Insurance	329,706	361,590	5,732,645	40,402	197	144	-	(202)
8	A7	D&O Misc. Expense	329,922	361,807	5,732,645	40,099	296	216	-	(303)
9	A8	Revolver Fees	331,137	363,021	5,732,645	38,395	1,664	1,214	-	(1,703)
10	A9	Margin Net Interest	331,137	362,870	5,705,551	36,018	-	-	(27,094)	(2,377)
11	A10	Property Insurance	331,664	363,398	5,705,551	35,278	723	528	-	(740)
12	A11	Research & Development	332,370	364,104	5,705,551	34,288	967	706	-	(991)
13	A12	Plant - Updated Forecast	333,689	365,111	5,649,450	27,517	1,806	1,319	(56,101)	(6,771)
14	A13	Plant - Faraday Repowering	336,768	367,522	5,529,273	12,655	4,218	3,079	(120,177)	(14,862)
15	A14	Plant - Joint Pole Construction	336,900	367,624	5,523,997	12,008	180	131	(5,276)	(647)
16	A15	Labor Escalation	349,887	380,611	5,523,997	(6,209)	17,790	12,987	-	(18,217)
17	A16	Generic O&M Escalation	355,331	386,055	5,523,997	(13,846)	7,458	5,445	-	(7,637)
18	A17	Tax - AFUDC Equity	359,932	390,656	5,523,997	(20,300)	6,302	4,601	-	(6,453)
19	A18	ADIT-Incentives	359,932	390,624	5,518,236	(20,805)	-		(5,761)	(505)
20	A19	ADIT - Storm Collection	359,932	390,599	5,513,823	(21,192)	-		(4,412)	(387)
21	A20	ADIT - Boardman Removal	359,932	390,538	5,502,702	(22,168)	-	-	(11,121)	(976)
22	A21	ADIT - Production Tax Credits	359,932	390,225	5,446,445	(27,103)	-	-	(56,257)	(4,935)
23	A22	Schedule 146 Colstrip Reserves	365,672	395,964	5,446,445	(35,154)	7,863	5,740	-	(8,051)
24	A23	Schedule 146 - Smart Burn	365,802	396,063	5,440,645	(35,846)	179	130	(5,800)	(692)
25	A24	Storm Costs	370,865	401,126	5,440,645	(42,948)	6,936	5,063	-	(7,102)
26	A25	Trojan Decomm. Contributions	375,391	405,652	5,440,645	(49,296)	6,200	4,526	-	(6,349)
27	A26	Trojan Sch. 136 Accounting	376,778	407,039	5,440,645	(51,242)	1,900	1,387	-	(1,946)
28	A27	OATT Revenues	377,485	407,746	5,440,645	(52,233)	968	707	-	(991)
29	A28	Kaufman: WTC Lease	380,857	411,117	5,440,645	(56,963)	4,619	3,372	-	(4,729)
30		**AWEC Proposed**	**380,857**	**411,117**	**5,440,645**	**(56,963)**	**118,607**	**86,584**	**(296,839)**	**(155,128)**

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/103

PGE RESPONSES TO DATA REQUESTS

August 25, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 026
Dated August 11, 2021

Request:

Reference PGE's response to AWEC Data Request 01, Attachment B in Docket No. UE 335: Please provide the equivalent information rolling forward depreciation reserves on a year-by-year basis to December 31, 2017, December 31, 2018, December 31, 2019, December 31, 2020, December 31, 2021 (forecast) and December 31, 2022 (forecast).

Response:

Attachment 026-A provides the requested information through April 30, 2022, consistent with PGE's filed request in this proceeding.

August 25, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 031
Dated August 11, 2021

Request:

Reference workpaper "Exhibit Support 2022," Tab "Ref Req Base": Cell "C82": Please provide workpapers detailing the calculation of the -$14,248,227 of Permanent Book Tax Differences.

Response:

The Permanent Book Tax Differences on workpaper "Exhibit Support 2022," Tab "Ref Req Base"; Cell "C82" is made up of the following items:

Book-Tax Difference	Amount
Book depreciation relating to AFUDC Equity which is a flow-through temporary difference. As AFUDC Equity is not included in Revenue Requirement, the reversal of AFUDC Equity through book depreciation is removed from Revenue Requirement through this book-tax difference.	($17,040,096)
Retirement of flow-through temporary book-tax differences.	3,830,395
Certain meals and entertainment expenses are not fully deductible for tax purposes. This is a permanent difference between book and tax expense.	(1,042,000)
Amounts allocated to retail customers (see "Exhibit Support 2022" Tab "Retail RevReq" Cell "C77")	3,474
Total	($14,248,227)

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 036
Dated August 18, 2021

Request:

Please provide PGE's proposed wage and labor model with all formulas and links intact.

Response:

PGE objects to this request on the basis that it is vague. Without waiving and notwithstanding this objection PGE responds as follows:

PGE does not have a wage and labor model. PGE Exhibit 300, Section III, discusses PGE's total aggregate labor requirements and PGE Exhibit 302 provides total labor costs for 2018 actuals through the 2022 test year. Additionally, PGE's Response to OPUC Data Request Nos. 391 and 392 provide both full-time equivalent employee data and headcount data. However, as we note in PGE Exhibit 300, Section III, "Simply tracking PGE employee hours does not accurately reflect the change in PGE's labor needs and can be misleading. As such, we focus on total labor dollars in this proceeding."[1] A focus on total labor dollars, including contractor and overtime dollars provides a more accurate view of PGE's true aggregate labor needs from year to year.

[1] PGE Exhibit 300, page 13, lines 20-21.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 039
Dated August 18, 2021

Request:

Please identify all payments to the Electric Power Research Institute in calendar year 2020 and provide invoices supporting the payments.

Response:

Attachment 039-A provides the requested information.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 040
Dated August 18, 2021

Request:

Please identify all payments to Nooter Eriksen, Inc. in calendar year 2020 and provide invoices supporting the payments.

Response:

Attachment 040-A provides the requested information.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 041
Dated August 18, 2021

Request:

Please identify all payments made to Battelle in calendar year 2020 and provide invoices supporting the payments.

Response:

Payments to Batelle are made upfront, and invoices are subsequently received in the same year, or even the following year. These invoices total $0 and are used for bookkeeping purposes as opposed to a true “invoice” purpose as the payments are made upfront.

Attachment 041-A provides the requested information.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 042
Dated August 18, 2021

Request:

Please identify all payments made to Northwest Energy Efficiency Alliance, Inc. in calendar year 2020 and provide invoices supporting the payments.

Response:

Attachment 042-A provides the requested information.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 043
Dated August 18, 2021

Request:

Please identify all research and development payments to the City of Portland in 2020 and provide invoices supporting the payments.

Response:

PGE objects to this request on the basis that it is unduly burdensome. Notwithstanding this objection, PGE responds as follows:

Due to the volume of documents to research and the fact that PGE's Accounts Payable department is currently implementing an accounting software transition, which impedes this response, PGE is able to provide a portion of the requested documents in Attachment 043-A. PGE will supplement this response as additional documents become available.

Attachment 043-A provides the requested information.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 046
Dated August 18, 2021

Request:

Reference OPUC Standard Data Request 57, Confidential Attachment A: Please explain why approximately $151,815 in interest expenses were booked to account "9302002: MiscGenExp-Dir Pen & DDCP" in calendar year 2020.

Response:

Account 9302002: MiscGenExp-Dir Pen & DDCP records interest earned (and paid by PGE) by outside Directors who have a deferred compensation plan.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 047
Dated August 18, 2021

Request:

Reference workpaper “Exhibit Support 2022,” Tab “A&G”, Cell “C39”:

a. Please provide workpapers supporting the “$3,145,878” in costs associated with account “9302004: MiscGenExp-Dir Fees & Exps” in the referenced cell.

b. Please provide an itemized comparison between the amount in the referenced cell and the $2,794,663 amount identified for this account in the 2020 transaction data provided in response to OPUC Standard Data Request 57, Confidential Attachment A.

Response:

a. See PGE Exhibit 400 workpaper “Corp Supp Workpaper FINAL” tab “Core Data – Unadj” and filter column A on “9302004: MiscGenExp-Dir Fees & Exps”.

b. Attachment 047-A provides the requested information.

Account	Account Description	CE plus Description	2020	2022
9302004	MiscGenExp-Dir Fees & Exps	2110 - Other Materials & Equipment	$ -	$ -
9302004	MiscGenExp-Dir Fees & Exps	2200 - Outside Services	$ 346,342.55	$ 90,673.98
9302004	MiscGenExp-Dir Fees & Exps	2300 - Other Products and Services	$ -	$ -
9302004	MiscGenExp-Dir Fees & Exps	2400 - Business Expense	$ 364.32	$ 296,368.01
9302004	MiscGenExp-Dir Fees & Exps	2701 - Memberships	$ -	$ -
9302004	MiscGenExp-Dir Fees & Exps	2803 - Employee worker's comp expense	$ -	$ -
9302004	MiscGenExp-Dir Fees & Exps	2850 - Other Miscellaneous Expense	$ 1,250,244.97	$ 1,166,928.00
9302004	MiscGenExp-Dir Fees & Exps	5406 - Amortization	$ 1,197,711.21	$ 1,591,908.04
9302004	MiscGenExp-Dir Fees & Exps	7001 - Joint Owner Credit	$ -	$ -
		Total	**$ 2,794,663.05**	**$ 3,145,878.03**

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 048
Dated August 18, 2021

Request:

Reference OPUC Standard Data Request 57, Confidential Attachment A: Please provide an explanation and support for the $2,564 of costs booked in calendar year 2020 to account "9302004: MiscGenExp-Dir Fees & Exps," Cost Element "2250", with the description of "Holiday wine to PGE board members." (see Reference No. "0000166063").

Response:

The $2,564 expense was the cost of wine sent to PGE board members for a virtual holiday event and corporate governance discussion.

Attachment 048-A provides the invoices.

September 1, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 049
Dated August 18, 2021

Request:

Does PGE consider the cost of gifts to its board members as taxable compensation to the board members? Please explain.

Response:

Ordinarily, PGE does not provide gifts to its board members. As we all experienced, 2020 was an a-typical year. In 2020, all board meetings were conducted virtually to safeguard against the pandemic and in compliance with COVID-19 mandates. Additionally, during 2020, new board members were added while other members were readying to not stand for reelection in 2021. To facilitate additional engagement among the board members and support the cohesiveness of the board, a virtual team building event was organized. This event included the shipping of wine for each of the 12 directors and a few PGE officers. The individual cost of the wine for the participants was approximately $160 including shipping, which was considered de minimis, and therefore not taxable.

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 091
Dated August 30, 2021

Request:

Please identify all Trojan Decommissioning Securities outstanding as of December 31, 2021, and identify the terms of those securities.

Response:

The requested 2021 Trojan Nuclear Decommissioning Trust (NDT) outstanding securities will be available after December 31, 2021.

Attachment 091-A provides Trojan NDT non-qualified plan outstanding securities and their terms as of December 31, 2020. Attachment 091-B provides Trojan NDT qualified fund outstanding securities and their terms as of December 31, 2020.

Please note that the reports provided as Attachments 091-A and 091-B do not include qualified and non-qualified cash assets of approximately $5.5 million and $6.2 million, respectively. The cash assets are invested in a Money Market Fund at Northern Trust.

Attachments 091-A and 091-B are protected information and subject to Protective Order No. 21-206.

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 098
Dated August 30, 2021

Request:

Reference PGE's response to AWEC Data Request 31: Please provide workpapers supporting the (-)$17,040,096 permanent difference associated with AFUDC Equity.

Response:

Attachment 098-A provides a copy of the PowerTax report supporting the ($17,040,096) permanent difference associated with AFUDC Equity.

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 100
Dated August 30, 2021

Request:

Reference PGE's response to AWEC Data Request 31: Do the depreciation expenses identified in workpaper "Exhibit Support 2022," Tab "Ref Req Base", Cell "C29" (which are used to derive the "Book" Operating Income before Interest and Income Taxes in Cell "C79") include reversal of AFUDC Equity? If yes, please identify the amount of AFUDC Equity included in the identified depreciation expense by FERC account.

Response:

No.

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 103
Dated August 30, 2021

Request:

Reference workpaper "Exhibit Support 2022", tab "Rate Base Data": Please provide actual transfers to plant by FERC account on a monthly basis over the period December 31, 2020, through August 31, 2021.

Response:

Attachment 103-A provides actual closes to plant over the period requested.

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 104
Dated August 30, 2021

Request:

Reference workpaper “Exhibit Support 2022”, tab “Rate Base Data”: Please provide project-by-project detail supporting forecast transfers to plant, on a monthly basis, over the period December 31, 2020, through December 31, 2022, used to derive the gross plant value of 11,631,763,539 in the referenced workpaper

Response:

Attachment 104-A provides the requested information. Because PGE established UE 394 rate base as of April 30, 2022 (see PGE Exhibit 200, page 3, line 21), Attachment 104-A provides detail only through April 2022.

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 110
Dated August 30, 2021

Request:

Please provide an update on the decommissioning process at Boardman, including the expected substantial completion of decommissioning activities.

Response:

As of September 1, 2021, all decommissioning activity is complete with the exception of abatement and demolition. In summary, PGE has:

- decommissioned the plant and made it "cold, dark, and dry;"
- reclaimed and revegetated the coal yard;
- removed underground storage tanks; and
- closed the ash disposal area in accordance with EPA's Coal Combustion Residual regulations.

Demolition and abatement activities to be performed include asbestos and lead paint abatement, cleaning ponds, demolition, and site restoration. This remaining work is expected to begin in Q4, 2021 and be largely completed by year-end 2022.

September 9, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 112
Dated August 30, 2021

Request:

Reference PGE's Response to AWEC Data Request 28, Confidential Attachment A: Please provide an explanation for the amounts identified in Excel Row "23."

Response:

Excel Row "23" in PGE's response to AWEC Data Request 28, Confidential Attachment A, represents the Cost of Removal associated with the Boardman Plant that was recorded as a part of the book depreciation adjustment on prior tax returns. This also relates to the amount of Cost of Removal (ARO) collected from customers under PGE Schedule 145.

In conjunction with the retirement of the Boardman Plant, this depreciation reserve was moved from being tracked as part of the book reserve in PGE's PowerTax system to a Schedule M item outside of PowerTax. This M-Item (i.e., deferred tax asset) will be reversed as cash is spent on the removal and other decommissioning costs of the Boardman Plant.

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 124
Dated September 21, 2021

Request:

Reference PGE's response to AWEC Data Request 47, Attachment A: Please provide workpapers or documentation supporting the increase to D&O insurance amortization.

Response:

The increase in PGE's D&O insurance program is reflective of the overall D&O insurance market as well as recent D&O claims activity for PGE. Overall, United States public company D&O rates continued to experience significant increases on both a primary and total program basis (+50%); however, power and utility companies have fared better. The total program rate change for power and utility companies was 24.1% versus an increase of 58.5% for all industries. While securities claims for utilities remain low (~5% of total filings in 2020), underwriters remain keenly aware of event-driven litigation (e.g., wildfires, aging infrastructure, COVID-19, cyber and privacy breaches, etc.) as a source of D&O litigation. Also affecting PGE's D&O increases are the claims (both securities litigation and derivative claims) arising out of the 2020 trading losses.

Based on overall market conditions and PGE's recent claims activity, PGE expects to see a 26% increase in rated premium in 2022 compared to its 2021 premiums.

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 125
Dated September 21, 2021

Request:

Reference PGE's response to AWEC Data Request 47, Attachment A: Please explain why the "2400 - Business Expense" (also identified as "Business Meals & Entertainment") are expected to increase by $296,004 in the forecast period, with reference to specific known and measurable adjustments.

Response:

The increase in Cost Element 2400 from 2020 actuals to the 2022 forecast is due to the assumption that in-person Board meetings will resume in 2022. No in-person Board meetings were held during 2020 due to the COVID-19 Pandemic. The forecast for 2022 includes the expenses involved in bringing the Board of Directors together for four quarterly meetings in Portland and one offsite planning meeting outside of the Portland area.

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 126
Dated September 21, 2021

Request:

Reference PGE's Response to AWEC Data Request 47, Attachment A: Please provide workpapers supporting the $1,166,928.00 amount attributed to 2850 - Other Miscellaneous Expense.

Response:

The above-referenced amount consists of Board of Directors' costs, including annual cash retainers, annual committee fees, board chair retainers, equity compensation, etc. See PGE's responses to OPUC Standard Data Request No. 62 and OPUC Data Request No. 801 for further detail.

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 127
Dated September 21, 2021

Request:

Reference PGE's response to AWEC Data Request 051: Are the deferred compensation fees in the referenced response included as a liability offsetting rate base?

Response:

No.

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 128
Dated September 21, 2021

Request:

Reference PGE's response to AWEC Data Request 051: What interest rate do directors earn with respect to the deferred compensation plan?

Response:

With respect to the deferred compensation plan, directors earn an interest rate equal to 0.5% higher than Moody's Average Corporate Bond Yield Index.

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 129
Dated September 21, 2021

Request:

Reference PGE's response to AWEC Data Request 051: Please provide the total balance of directors' deferred compensation as of December 31, 2020, and June 30, 2021.

Response:

Balance as of December 31, 2020: $4,620,705.04

Balance as of June 30, 2021: $4,838,378.15

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 132
Dated September 21, 2021

Request:

Reference PGE's response to AWEC Data Request 55: Please provide an explanation for the amounts identified as Margin Net Int in the amount of $114,219 and provide transaction data from 2020 supporting the historical amounts.

Response:

Margin Net Interest is interest paid to trading counterparties for deposits held as collateral for energy, capacity, transmission, and fuel purchase contracts.

Attachment 132-A provides transaction data to support $111,079 of Margin Net Interest in 2020.

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 133
Dated September 21, 2021

Request:

Reference PGE's response to AWEC Data Request 55: Please provide an explanation for the amounts identified as Revolver Fees in the amount of $1,663,564 and provide transaction data from 2020 supporting the historical amounts.

Response:

Revolver Fees are fees paid to the bank for PGE to have access to a revolving line of credit facility. Revolver fees include Revolver Extension Fees, Annual Fees, and agent and legal fees. The line of credit is used to ensure that PGE has access to adequate short-term liquidity.

Attachment 133-A provides transaction data to support $1,294,012.01 of Revolver Fees in 2020. Note that this amount varies from the $1,625,526 found in PGE Exhibit 400 work paper "Corp Supp Workpaper FINAL_Errata" tab "Adjustments" because PGE inadvertently included additional Extension Fee amounts in the work paper. This inadvertent inclusion is also applied to 2021 and 2022 Revolver Fee amounts. The correct amounts for 2021 and 2022 are $1,488,553 (not $1,628,974) and $1,485,849 (not $1,663,564).

October 5, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 134
Dated September 21, 2021

Request:

Did PGE include any revolving loans in calculating its proposed cost of debt in this docket?

Response:

No. PGE's proposed (and settled) cost of debt does not include any revolving loans.

October 14, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 158
Dated September 30, 2021

Request:

Reference PGE's Response to Bench Request No. 002, Attachment A Revised, Page 5: Please provide transaction level detail supporting each of the deferral balances in the referenced response. Please detail both the underlying expenses and reclassification entries into the regulatory asset balances.

Response:

Attachment 158-A provides the requested information.

October 14, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 176
Dated September 30, 2021

Request:

Please identify the amount of production tax credit carryforwards included in rate base. Specifically, please provide the production tax credit carry forward schedule showing the amounts carried forward for each tax year.

Response:

The following table provides production tax credit carryover amounts included in rate base.

Carryover from 2019	$28,814,494
Carryover from 2020	$31,952,816
Estimated generation in 2021	$27,442,750
Projected Balance 12/31/2021[1]	$88,210,070
Adjustment for unused PTCs related to trading losses	($18,400,232)
PTC balance in Rate Base	$69,809,838

[1.] Note: PGE did not include forecast generation amounts from 1/1/2022 to 4/30/2022

October 14, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 182
Dated September 30, 2021

Request:

Please identify each of PGE's currently effective liability insurance policies, the associated premiums, deductibles, coverages, and any other relevant information about the policies. Please also provide a policy statement for each policy.

Response:

Confidential Attachment 182-A and Attachment 182-B provide the requested information.

As of October 8, 2021, all but one line of coverage (Aircraft Hull & Liability) has been renewed for the 2021-2022 policy year. The forecast is updated throughout the course of the year as policies renew to reflect the most current year-end insurance premium forecast.

Confidential Attachment 182-A contains protected information and is subject to General Protective Order No. 21-206.

PGE's Insurance Policies

Insurance Policy	Description
All Risk Property	PGE’s main All-Risk property insurance program is led by FM Global and insures PGE’s property such as power plants, substations, office buildings, etc. from “all-risks” of direct physical loss or damage (including boiler and machinery), subject to policy exclusions, caused by perils such as fire, explosion, lightning, wind, ice, hail, flood, earthquake, and certain acts of terrorism. This policy specifically excludes coverage for PGE’s transmission and distribution property as well as PGE’s renewable projects. Under this program PGE maintains coverage limits of $600 million with a $2.5 million deductible.
Renewable Property	The All-Risk property insurance program for PGE’s renewable assets is currently placed in the London market. Operational All-Risk coverage for these assets, including both wind and solar, are insured to their combined full replacement value of $1.3 billion and carry a $1 million deductible for wind assets and $0.025 million deductible for solar assets.
Director's and Officer's Insurance	Directors and Officers (“D&O”) Liability Insurance shields PGE’s directors and officers against the normal risks associated with managing the business. The insurance premiums requested in this case are reasonable expenses that are necessary to attract and maintain qualified and competent directors and officers and they provide a direct benefit to PGE’s customers. Currently PGE purchases $140 million in D&O insurance limits with $1 million deductible. No deductible applies to Side A, or individual coverage. The limits purchased are reasonable, necessary and consistent with the standard practice of the utility industry. The lack of an appropriate level of D&O insurance would make it difficult for PGE to hire qualified and competent people for positions at the director and officer level. In addition, lack of appropriate D&O limits would provide a significant motivation for our experienced directors and officers to seek employment elsewhere. Subjecting the Company to the potential of such adverse outcomes is not in the best interest of PGE’s ratepayers.
General & Auto Liability	General and Auto Liability insurance covers PGE’s legal liability from claims resulting from bodily injury or property damage arising out of PGE’s operations, including the use of company vehicles. Given PGE’s contact with its customer’s premises and the dangerous nature of its operations, this insurance is of paramount importance. PGE maintains coverage limits of $185 million with a $5 million self-insured retention.
Nuclear	PGE is required by the United States Nuclear Regulatory Commission to maintain Nuclear Liability coverage for the on-site storage of its spent fuel until such time that the radioactive materials have been removed from the Trojan site. The coverage consists of three policies: (1) The Facility Form insuring PGE’s legal responsibility for damages because of bodily injury, property damage, or covered environmental clean-up costs caused by the Nuclear Energy Hazard during the policy period and reported within ten years of the policy termination date. (2) Master Worker insuring PGE’s legal obligation to pay as damages because of bodily injury sustained by a “worker” and caused by the nuclear energy hazard. “Worker” refers to a person who is or was engaged in nuclear related employment; (3) Suppliers and Transporters covering incidents caused by radioactive waste materials stored either temporarily or permanently at off-site locations not owned/operated by the insured.
Fiduciary	Fiduciary Liability insurance provides protection for officers and employees for both breach of fiduciary duties and other wrongful acts in the administration of employee benefits programs. This program is made up of total limits of $50 million with a $0.25 million self-insured retention.
Aviation (Helicopter)	This policy insures the helicopter’s hull value from physical damage and provides $20 million of liability coverage in operating the aircrafts during PGE’s aerial patrol operations.
Aviation (Unmanned Aircraft Systems)	This policy provides $5 million of liability coverage for operating Unmanned Aircraft Systems (also known as 'Drones') while conducting aerial patrols and inspections.
Cyber	The policy has several insuring agreements, providing coverage for: (1) damages and claims expenses due to theft, loss or unauthorized disclosure of personally identifiable non-public information or third party corporate information, (2) costs incurred to comply with a breach notification law, and (3) claims expenses and penalties in the form of a regulatory proceeding resulting from the violation of a privacy law such as HIPPA or FTC. PGE purchases a limit of $30 million with a $1 million self-insured retention.
Fidelity & Crime	Insures losses incurred by PGE or its employee benefit plans as a result of the dishonest acts of employees, including embezzlement, forgery or the theft of money or securities. The policy has a $10 million limit and $0.5 million deductible. This coverage is typically excluded under most All-Risk Property policies and must therefore be purchased under separate cover.
Excess Workers' Compensation	The State of Oregon requires PGE to maintain Workers' Compensation coverage to protect itself from catastrophic losses to employees arising out of and in the course of employment. This coverage sits above PGE's self-insured Workers' Compensation program and is subject to a $2 million self-insured retention.
Sabotage & Terrorism	Insures buildings and contents against physical loss or physical damage. Insures damages and claims expenses that the Company may become legally liable to pay for bodily injury, property damage and/or defense costs caused by an Act or series of Acts of Terrorism and/or Sabotage. PGE maintains coverage limits of $800 million for property and $200 million for liability subject to a $0.25 million deductible.
Surety Bonds	In the course of doing business PGE must procure and maintain a number of Surety bonds throughout the year. These bonds allow PGE to do work for various state and city governments and agencies and are a requirement for maintaining a form of collateral for self-insuring PGE's Workers’ Compensation obligations.

October 14, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 193
Dated September 30, 2021

Request:

Reference PGE’s response to AWEC Data Request 103, Attachment A: Please provide an updated version of the referenced report based on transfers to plant as of September 30, 2021

Response:

Attachment 193-A provides the requested information.

October 14, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 194
Dated September 30, 2021

Request:

Reference PGE's response to AWEC Data Request 104, Attachment A: Please provide an updated version of the referenced report based on actual transfers to plant through September 30, 2021, and including PGE's most recent projections for transfers to plant through the rate effective date.

Response:

Attachment 194-A provides the requested information.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 196
Dated October 5, 2021

Request:

Please identify and provide PGE's most recent load forecast, including load data by rate schedule. Please also calculate the impact of the updated load forecast on revenue requirement and rate spread / rate design.

Response:

PGE's most recent load forecast was finalized in early September 2021. Associated files are labeled vintage SSEP21. Cycle energy deliveries in MWh (load data) by rate for test year 2022 are provided in Attachment 196-A.

Attachment 196-B provides the impact on revenue requirement and rate spread.

TABLE 1
PORTLAND GENERAL ELECTRIC
ESTIMATED EFFECT ON CONSUMERS' TOTAL ELECTRIC BILLS
2022

Table 1 with Load Forecast Update
2022

CATEGORY	RATE SCHEDULE	Forecast SSEP18E19 CUSTOMERS	MWH SALES	TOTAL ELECTRIC BILLS CURRENT w/ Sch. 125, 122, 131, 146	TOTAL ELECTRIC BILLS PROPOSED w/ Sch. 125, 122, 131, 146	Change AMOUNT	Change PCT.	Load Forecast Update MWH SALES	TOTAL ELECTRIC BILLS CURRENT w/ Sch. 125, 122, 131, 146	TOTAL ELECTRIC BILLS PROPOSED w/ Sch. 125, 122, 131, 146	Change AMOUNT	Change PCT.
Residential	7	809,036	7,555,010	$1,018,311,934	$1,109,452,374	$91,140,441	9.0%	7,569,338	$1,020,069,425	$1,107,911,873	$87,842,449	8.6%
Employee Discount				($1,134,426)	($1,235,249)	($100,824)			($1,134,426)	($1,231,400)		
Subtotal				$1,017,177,508	$1,108,217,125	$91,039,617	9.0%		$1,018,934,999	$1,106,680,473	$87,745,474	8.6%
Outdoor Area Lighting	15	0	14,480	$3,231,235	$3,477,303	$246,069	7.6%	13,922	$3,106,716	$3,280,256	$173,540	5.6%
General Service <30 kW	32	94,649	1,576,157	$194,110,195	$206,783,080	$12,672,886	6.5%	1,588,439	$195,964,504	$207,797,442	$11,832,939	6.0%
Opt. Time-of-Day G.S. >30 kW	38	377	31,528	$4,332,435	$4,305,951	($26,484)	-0.6%	27,371	$3,777,957	$3,937,528	$159,571	4.2%
Irrig. & Drain. Pump. < 30 kW	47	2,775	20,075	$4,169,700	$4,376,272	$206,572	5.0%	19,423	$4,028,637	$4,199,362	$170,725	4.2%
Irrig. & Drain. Pump. > 30 kW	49	1,405	61,430	$9,325,546	$10,020,937	$695,391	7.5%	62,083	$9,442,136	$10,133,737	$691,601	7.3%
General Service 31-200 kW	83	11,844	2,800,127	$272,880,844	$281,500,600	$8,619,757	3.2%	2,870,308	$282,173,850	$288,219,900	$6,046,049	2.1%
General Service 201-4,000 kW												
Secondary	85-S	1,304	2,134,357	$181,066,170	$180,136,422	($929,748)	-0.5%	2,074,462	$177,327,853	$175,436,228	($1,891,624)	-1.1%
Primary	85-P	177	612,588	$49,110,419	$48,909,694	($200,725)	-0.4%	570,537	$45,156,161	$44,743,742	($412,418)	-0.9%
Schedule 89 > 4 MW												
Secondary	89-S	0	0	$0	$0	$0		95,807	$6,635,784	$6,569,356	($66,428)	-1.0%
Primary	89-P	12	562,911	$38,196,001	$37,950,500	($245,501)	-0.6%	639,544	$43,519,988	$43,061,099	($458,889)	-1.1%
Subtransmission	89-T/75-T	5	53,697	$4,360,519	$4,444,284	$83,765	1.9%	51,499	$4,259,583	$4,328,303	$68,720	1.6%
Schedule 90	90-P	6	2,824,250	$176,594,338	$170,066,131	($6,528,207)	-3.7%	2,827,139	$177,027,286	$170,091,437	($6,935,849)	-3.9%
Street & Highway Lighting	91/95	184	41,836	$9,397,870	$10,791,969	$1,394,099	14.8%	43,876	$9,856,127	$10,484,794	$628,667	6.4%
Traffic Signals	92	16	2,576	$225,812	$195,493	($30,320)	-13.4%	2,576	$225,812	$188,769	($37,043)	-16.4%
COS TOTALS		921,790	18,291,022	$1,964,178,591	$2,071,175,762	$106,997,171	5.4%	18,456,323	$1,981,437,392	$2,079,152,426	$97,715,034	4.9%
Direct Access Service 201-4,000 kW												
Secondary	485-S	230	518,480	$12,703,868	$10,701,143	($2,002,725)	-15.8%	493,315	$12,032,279	$10,198,712	($1,833,567)	-15.2%
Primary	485-P	57	373,475	$8,280,395	$6,347,398	($1,932,996)	-23.3%	341,815	$7,487,635	$6,165,125	($1,322,510)	-17.7%
Direct Access Service > 4 MW												
Secondary	489-S	1	13,878	$278,982	$261,825	($17,157)	-6.1%	0	$0	$0		
Primary	489-P	14	1,007,674	$18,518,467	$11,216,169	($7,302,298)	-39.4%	1,057,666	$20,776,193	$12,462,205	($8,313,988)	-40.0%
Subtransmission	489-T	3	243,839	$1,436,608	$1,419,118	($17,490)	-1.2%	266,569	$1,647,503	$1,580,601	($66,902)	-4.1%
New Load Direct Access Service > 10MW												
Primary	689-P	1	48,674	$639,003	$574,356	($64,647)	-10.1%	37,473	$589,893	$515,589	($74,304)	-12.6%
DIRECT ACCESS TOTALS		306	2,206,020	41,857,322	30,520,010	($11,337,312)		2,196,838	42,533,503	30,922,232	($11,611,271)	
COS AND DA CYCLE TOTALS		922,096	20,497,042	$2,006,035,913	$2,101,695,771	$95,659,858	4.8%	20,653,161	$2,023,970,895	$2,110,074,658	$86,103,763	4.3%

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 200
Dated October 5, 2021

Request:

Reference PGE's response to Staff Data Request 560, Attachment B: Please provide an updated revenue requirement calculation utilizing the 2025 Colstrip end of life per the multi-party stipulation in Docket No. UM 2152. Please provided updated workpapers supporting the revised rates.

Response:

Attachment 200-A provides an updated revenue requirement for Colstrip, based on the Docket No. UM 2152 stipulation.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 206
Dated October 5, 2021

Request:

Reference PGE's response to Staff Data Request 560, Attachment B: Please provide workpapers detailing the calculation of depreciation expenses by FERC account included in the $55,920,000 Colstrip Units 3 & 4 revenue requirement in the reference attachment.

Response:

Attachment 206-A provides the requested information.

Colstrip (Steam)

Net Salvage -3%

Row Labels		Sum of end_balance	Sum of total_reserve
31101-COLSTRIP	- PGE SHARE (20%)	91,313,879	78,568,984
31102-COLSTRIP	-PGE SHARE (20%)	907,782	115,219
31105-COLSTRIP	- PGE SHARE (20%)	28,838,244	28,753,434
31200-COLSTRIP	- PGE SHARE (20%)	207,486,999	136,639,790
31205-COLSTRIP	- PGE SHARE (20%)	71,697,784	73,903,634
31400-COLSTRIP	- PGE SHARE (20%)	76,409,473	56,000,449
31500-COLSTRIP	- PGE SHARE (20%)	25,684,337	21,622,181
31601-COLSTRIP	- PGE SHARE (20%)	6,993,550	5,756,987
Grand Total		**509,332,046.72**	**401,360,678.93**

Depreciation Base

	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23
31101-COLSTRIP - PGE SHARE (20%)	15,484,311	15,256,601	15,028,890	14,801,180	14,573,469	14,345,759	14,118,048	13,890,338	13,662,628	13,434,917	13,207,207	12,979,496
31102-COLSTRIP -PGE SHARE (20%)	819,796	807,740	795,684	783,628	771,572	759,517	747,461	735,405	723,349	711,293	699,238	687,182
31105-COLSTRIP - PGE SHARE (20%)	949,958	935,988	922,018	908,048	894,078	880,108	866,138	852,168	838,198	824,228	810,258	796,288
31200-COLSTRIP - PGE SHARE (20%)	77,071,819	75,938,410	74,805,001	73,671,592	72,538,183	71,404,774	70,271,364	69,137,955	68,004,546	66,871,137	65,737,728	64,604,319
31205-COLSTRIP - PGE SHARE (20%)	(54,917)	(54,110)	(53,302)	(52,494)	(51,687)	(50,879)	(50,072)	(49,264)	(48,456)	(47,649)	(46,841)	(46,034)
31400-COLSTRIP - PGE SHARE (20%)	22,701,307	22,367,465	22,033,622	21,699,779	21,365,936	21,032,094	20,698,251	20,364,408	20,030,565	19,696,723	19,362,880	19,029,037
31500-COLSTRIP - PGE SHARE (20%)	4,832,686	4,761,618	4,690,549	4,619,480	4,548,411	4,477,342	4,406,273	4,335,204	4,264,135	4,193,066	4,121,997	4,050,928
31601-COLSTRIP - PGE SHARE (20%)	1,446,369	1,425,099	1,403,829	1,382,559	1,361,289	1,340,018	1,318,748	1,297,478	1,276,208	1,254,938	1,233,668	1,212,398

Ending Reserve

	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23
31101-COLSTRIP - PGE SHARE (20%)	78,796,695	79,024,405	79,252,116	79,479,826	79,707,536	79,935,247	80,162,957	80,390,668	80,618,378	80,846,089	81,073,799	81,301,510
31102-COLSTRIP -PGE SHARE (20%)	127,275	139,331	151,387	163,443	175,498	187,554	199,610	211,666	223,722	235,777	247,833	259,889
31105-COLSTRIP - PGE SHARE (20%)	28,767,404	28,781,374	28,795,343	28,809,313	28,823,283	28,837,253	28,851,223	28,865,193	28,879,163	28,893,133	28,907,103	28,921,073
31200-COLSTRIP - PGE SHARE (20%)	137,773,199	138,906,608	140,040,018	141,173,427	142,306,836	143,440,245	144,573,654	145,707,063	146,840,472	147,973,881	149,107,290	150,240,700
31205-COLSTRIP - PGE SHARE (20%)	73,902,827	73,902,019	73,901,211	73,900,404	73,899,596	73,898,789	73,897,981	73,897,173	73,896,366	73,895,558	73,894,751	73,893,943
31400-COLSTRIP - PGE SHARE (20%)	56,334,292	56,668,135	57,001,978	57,335,820	57,669,663	58,003,506	58,337,349	58,671,191	59,005,034	59,338,877	59,672,720	60,006,562
31500-COLSTRIP - PGE SHARE (20%)	21,693,250	21,764,318	21,835,387	21,906,456	21,977,525	22,048,594	22,119,663	22,190,732	22,261,801	22,332,870	22,403,939	22,475,008
31601-COLSTRIP - PGE SHARE (20%)	5,778,258	5,799,528	5,820,798	5,842,068	5,863,338	5,884,608	5,905,878	5,927,149	5,948,419	5,969,689	5,990,959	6,012,229

Depreciation Expense

	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Total		
31101-COLSTRIP - PGE SHARE (20%)	227,710	227,710	227,710	227,710	227,710	227,710	227,710	227,710	227,710	227,710	227,710	227,710	**2,732,526**		
31102-COLSTRIP -PGE SHARE (20%)	12,056	12,056	12,056	12,056	12,056	12,056	12,056	12,056	12,056	12,056	12,056	12,056	**144,670**		
31105-COLSTRIP - PGE SHARE (20%)	13,970	13,970	13,970	13,970	13,970	13,970	13,970	13,970	13,970	13,970	13,970	13,970	**167,640**		
31200-COLSTRIP - PGE SHARE (20%)	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	1,133,409	**13,600,909**		
31205-COLSTRIP - PGE SHARE (20%)	(808)	(808)	(808)	(808)	(808)	(808)	(808)	(808)	(808)	(808)	(808)	(808)	**(9,691)**		
31400-COLSTRIP - PGE SHARE (20%)	333,843	333,843	333,843	333,843	333,843	333,843	333,843	333,843	333,843	333,843	333,843	333,843	**4,006,113**		
31500-COLSTRIP - PGE SHARE (20%)	71,069	71,069	71,069	71,069	71,069	71,069	71,069	71,069	71,069	71,069	71,069	71,069	**852,827**		
31601-COLSTRIP - PGE SHARE (20%)	21,270	21,270	21,270	21,270	21,270	21,270	21,270	21,270	21,270	21,270	21,270	21,270	**255,242**		
													21,750,235	1,963,552	**23,713,787**
														Annual Decom Accrual	

Depreciation Rate

	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23
Months Remaining	68	67	66	65	64	63	62	61	60	59	58	57
31101-COLSTRIP - PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%
31102-COLSTRIP -PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%
31105-COLSTRIP - PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%
31200-COLSTRIP - PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%
31205-COLSTRIP - PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%
31400-COLSTRIP - PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%
31500-COLSTRIP - PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%
31601-COLSTRIP - PGE SHARE (20%)	17.65%	17.91%	18.18%	18.46%	18.75%	19.05%	19.35%	19.67%	20.00%	20.34%	20.69%	21.05%

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 208
Dated October 5, 2021

Request:

Please detail the monthly roll forward of Colstrip Units 3 & 4 rate base to May 1, 2022, starting with the December 31, 2020 actual balances. Please detail all incremental accumulated depreciation, deferred taxes, capital additions, and any other incremental or decremental plant balances necessary to derive the May 2022 amounts included in revenue requirement.

Response:

PGE objects to this request on the basis that it is unduly burdensome and requires new analysis. Without waiving and notwithstanding this objection PGE responds as follows:

Attachment 208-A provides Colstrip monthly activity for plant and reserve balances. Attachment 208-A also provides deferred tax balances for 12/31/2020, 12/31/2021, and 4/30/2022.

Colstrip Monthly Activity - 12/31/2021 through 4/30/2022

Gross Plant	Beg Balance	202101	202102	202103	202104	202105	202106	202107	202108	202109
Additions	$ 529,768,952	5,264,485	602,895	5,226	1,987,046	4,487,687	3,087,879	663,532	500,641	100,638
ARO	$ (34,911,263)	-	-	-	-	-	-	-	-	-
Monthly Activity	$ -	5,264,485	602,895	5,226	1,987,046	4,487,687	3,087,879	663,532	500,641	100,638
Cumulative Total	**$ 494,857,688**	**$ 500,122,173**	**$ 500,725,068**	**$ 500,730,294**	**$ 502,717,340**	**$ 507,205,027**	**$ 510,292,906**	**$ 510,956,439**	**$ 511,457,080**	**$ 511,557,719**

Accumulated Reserve	Beg Balance	202101	202102	202103	202104	202105	202106	202107	202108	202109
Depreciation Expense	$ (390,683,297)	(1,256,111)	(1,341,487)	(1,346,801)	(1,124,068)	(1,976,149)	(1,976,149)	(1,976,149)	(1,976,149)	(1,976,149)
ARO	$ 35,787,704	280,596	221,499	221,499	221,499	221,499	221,499	221,499	221,499	221,499
Monthly Activity	$ -	(975,515)	(1,119,988)	(1,125,302)	(902,569)	(1,754,650)	(1,754,650)	(1,754,650)	(1,754,650)	(1,754,650)
Cumulative Total	**$ (354,895,592)**	**$ (355,871,107)**	**$ (356,991,095)**	**$ (358,116,397)**	**$ (359,018,966)**	**$ (360,773,617)**	**$ (362,528,267)**	**$ (364,282,917)**	**$ (366,037,567)**	**$ (367,792,218)**
Colstrip Plant Rate Base	**$ 139,962,096**	**$ 144,251,066**	**$ 143,733,974**	**$ 142,613,897**	**$ 143,698,374**	**$ 146,431,411**	**$ 147,764,640**	**$ 146,673,522**	**$ 145,419,513**	**$ 143,765,501**

	12/31/2020 Balance
Accumulated Deferred Income Taxes[1]	(14,052,964)
Excess Accumulated Deferred Income Taxes	(4,910,910)

1. The ADIT balances above are inclusive of the Excess ADIT amounts referenced in line 20.

Colstrip Monthly Activity - 12/31/2021 thr

Gross Plant	202110	202111	202112	202201	202202	202203	202204	Ending Balance
Additions	182,754	100,638	2,805,351	373	373	373	373	
ARO	-	-	-	-	-	-	-	
Monthly Activity	182,754	100,638	2,805,351	373	373	373	373	
Cumulative Total	**$ 511,740,472**	**$ 511,841,111**	**$ 514,646,462**	**$ 514,646,835**	**$ 514,647,208**	**$ 514,647,582**	**$ 514,647,955**	**$ 514,647,955**

Accumulated Reserve	202110	202111	202112	202201	202202	202203	202204	Ending Balance
Depreciation Expense	(1,976,149)	(1,976,149)	(1,976,149)	(1,976,149)	(1,976,149)	(1,976,149)	(1,976,148)	
ARO	221,499	221,499	221,499	221,499	221,499	221,499	221,499	
Monthly Activity	(1,754,650)	(1,754,650)	(1,754,650)	(1,754,650)	(1,754,650)	(1,754,650)	(1,754,649)	
Cumulative Total	**$ (369,546,868)**	**$ (371,301,518)**	**$ (373,056,168)**	**$ (374,810,818)**	**$ (376,565,468)**	**$ (378,320,118)**	**$ (380,074,767)**	**$ (380,074,767)**
Colstrip Plant Rate Base	**$ 142,193,604**	**$ 140,539,593**	**$ 141,590,294**	**$ 139,836,017**	**$ 138,081,740**	**$ 136,327,463**	**$ 134,573,188**	**$ 134,573,187**

Accumulated Deferred Income Taxes[1]			(11,604,401)					(6,904,916)
Excess Accumulated Deferred Income Taxes			(4,074,166)					(3,213,808)

1. The ADIT balances above are inclusive of the Excess ADIT a

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 218
Dated October 5, 2021

Request:

Please identify the total amount of capital expended by PGE with respect to the Smart Burn capital project at Colstrip.

Response:

Approximately $5.8 million was spent on the Smart Burn capital project.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 232
Dated October 5, 2021

Request:

Reference PGE's Response to Bench Request No. 002, Attachment A Revised, Page 5:

a. Does the February 2021 Ice Storm Deferral include deferral of capital costs? If yes, please identify the amount of the associated capital costs included in the referenced deferral amounts.
b. Does the Wildfire Emergency Deferral include deferral of capital costs? If yes, please identify the amount of the associated capital costs included in the referenced deferral amounts.

Response:

a. Yes. See PGE's response to OPUC Data Request No. 138, Attachment 138-A for further detail.
b. Yes. See PGE's response to OPUC Data Request No. 126, Attachment 126-A for further detail.

PGE will soon supplement Attachments 138-A and 126-A with the latest information.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 235
Dated October 5, 2021

Request:

Reference PGE's response to AWEC Data Request 104, Attachment A, Funding Project P37047, Joint Pole Construction:

a. Please provide a description of the capital costs that are recovered with respect to this funding project.
b. Does this funding project include capital costs, which are otherwise reimbursed by a third-party licensee as make ready, or other similar, funding mechanisms?
c. Please explain how the budget for this funding category was developed.
d. Please provide workpapers used to support the capital budget for this funding category.

Response:

a. Capital costs recovered in the P37047-Joint Pole Construction are for replacement of capital assets. The project funding justification provided in Attachment 198-A[1] provides more detail on what work is included.
b. Yes, additional information is provided in the project justification form.
c. Funding for this category was developed by looking at historical data trends and forecasts of incoming work. Refer to the description and scope sections of the project justification form.
d. The project justification form, submitted as Attachment 198-A to PGE's revised response to OPUC Data Request No. 198, provides the requested information.

[1] See, PGE's revised response to OPUC Data Request No. 198.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 240
Dated October 5, 2021

Request:

Reference PGE's response to AWEC Data Request 91, Confidential Attachments A and B: Please explain why there were no contributions to the decommissioning trust in 2020.

Response:

PGE did not make contributions to the decommissioning trust in 2020 to address an issue of double counting the DOE reimbursements during 2019. Specifically, during the 2019 general rate case (UE 335), PGE proposed a reduction of the Trojan annual accrual after including the DOE reimbursements in the Trojan annual accrual calculation. The Commission adopted a Stipulation between parties to that docket that reduced the Trojan annual accrual from $3.5 million to $1.9 million starting January 1, 2019. However, PGE continued to also refund the DOE reimbursement to PGE customers through Schedule 143 - Spent Fuel Adjustment. To address the issue, PGE proposed, and the Commission approved to set the Schedule 143 prices to $0 effective January 1, 2020 in Docket No. ADV 1046, Advice No. 19-27.

Because during 2019 PGE reduced the Trojan annual accrual to account for ongoing DOE reimbursements but also refunded the DOE reimbursements to customers, PGE did not make any contributions to the decommissioning trust in 2020. That is, PGE considered that the $1.9 million collection from customers already incorporated the DOE reimbursement impact.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 241
Dated October 5, 2021

Request:

Reference PGE's response to AWEC Data Request 91: Please provide a schedule detailing all contributions and withdrawals from the Trojan decommissioning trust since January 1, 2010.

Response:

See Attachment 241-A.

Attachment 241-A is protected information subject to Protective Order No. 21-206.

[redacted]

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 246
Dated October 5, 2021

Request:

Reference PGE's response to CUB Data Request 20, Confidential Attachment A, Tab "Return - 2022 GRC", cell Q329: Are the going forward DOE Settlement amounts contributed directly into the Trojan decommissioning trust? Alternatively, are the ongoing DOE settlement amounts deposited with PGE? Please explain.

Response:

No, the going-forward DOE settlement amounts, when received, are first recorded in PGE's accounting books as working cash.
The process regarding funding the Trojan nuclear decommissioning trust (NDT) and paying for ongoing expenses associated with the long-term storage of spent fuel is as follows:

- PGE collects and deposits the Trojan annual accrual from customers for the year into the Trojan NDT (the funding amount from customers is adjusted to incorporated future expected DOE refunds).
- PGE incurs ongoing expenses for spent fuel storage that is initially paid out of working cash.
- PGE withdraws funds that are needed from the trust to cover/reimburse itself for ongoing expenses.
- PGE submits a claim to DOE based on the costs incurred for the year.
- DOE reviews, and, if accepted, wires the funds to PGE the next year.
- PGE first records the receipt of the DOE funds in the working cash accounts in the books.
- PGE then deposits the cash into the Trojan NDT.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 247
Dated October 5, 2021

Request:

Please identify all DOE contributions to the Trojan decommissioning trust since January 1, 2010 and identify whether the amounts were actually contributed into the decommission trust.

Response:

PGE's response to AWEC Data Request No. 241, Attachment 241-A, tab "PP Rollforward", column M, provides the DOE contributions that were deposited into the Trojan decommissioning trust between 2010 and 2020.

Please note that the DOE contribution deposited in year 2013 was related to the Settlement Agreement between the DOE and Trojan co-owners, discussed in PGE's response to OPUC Data Request No. 244. The Settlement Agreement resulted in partial reimbursement of costs incurred by the Trojan co-owners through the end of 2009 (approximately $70 million). PGE's share was approximately $44.2 million. This amount plus an additional $5.8 million were withdrawn and refunded to customers via Schedule 143 over a three-year period (see the withdrawal in tab "PP Rollforward", cell O76) between 2015 and 2017.

Attachment 247-A provides the annual DOE reimbursements to PGE between 2010 and 2020.

Attachment 247-A is protected information subject to Protective Order No. 21-206.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 252
Dated October 7, 2021

Request:

Reference PGE/200, Tooman – Batzler / 7:6: Please identify the date that the 2020 budget was prepared.

Response:

Preparation began on the 2020 budget in May of 2019, with budgets finalized in the September timeframe and formally approved by PGE's Board of Directors in October 2019.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 253
Dated October 7, 2021

Request:

Reference PGE's Response to AWEC Data Request 132: Are the deposited net margin liability balances identified in the reference request included in rate base? If yes, please identify the amount of the balance included in PGE's filing and the location in PGE's workpapers where the balance may be identified.

Response:

No.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 254
Dated October 7, 2021

Request:

Reference PGE's Response to AWEC Data Request 132: Please provide detail of the monthly deposited net margin liability balances identified in the referenced request on a monthly basis over the period January 2020 through September 2021 (or the most recent month available).

Response:

Confidential Attachment 254-A provides the requested information.

Confidential Attachment 254-A contains protected information and is subject to General Protective Order No. 21-206.

July 23, 2021

To: Matt Muldoon
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to OPUC Data Request 137
Dated June 22, 2021

Request:

Please describe the basis for including any labor cost as being incremental to that included in rates. Clearly indicate if each cost is addressed in the current general rate case or not.

Response:

PGE considers only costs that are "incremental" as appropriate and qualifying for the 2021 February Winter Storm deferral (Docket UM 2156). Incremental is defined as all costs which are not straight-time labor (cost element 11XX). Straight-time labor is excluded because it is already recovered in base rates. All overhead labor and labor loadings associated with straight-time labor are also excluded from the deferral. Incremental labor included in the deferral is not included in the general rate case.

Regarding capitalized labor costs: In Order No. 20-147, the Commission stated that it had legal authority to allow deferral of capital-related costs. Because these costs consist primarily of return on and return of incremental capital, then wildfire-related capital costs would also be deferrable until that capital is included in the 2022 general rate case (UE 394) as part of rate base. In PGE's deferral application for UM 2156 (dated February 15, 2021), PGE requested that "the Deferred Amount include both capital-related and operations and maintenance costs as both are being incurred as a part of the restoration effort." Capitalized labor incurred prior to April 30, 2022 is included in the general rate case, net of any depreciation.

August 12, 2021

To: John Fox
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to OPUC Data Request 199
Dated July 29, 2021

Request:

Regarding the response to Staff Data Request 144, please provide projected additions, retirements, adjustments, and transfers for FERC accounts 301 through 399.1, monthly, from December 31, 2020 through April 30, 2022.

Response:

Attachment 199-A provides the requested information.

August 19, 2021

To: John Fox
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to OPUC Data Request 295
Dated August 5, 2021

Request:

Regarding the escalation factors listed for the 2021 budget to the 2022 test year,

a. Please provide the "IHS Markit, Long-term Forecast dated February 2021" referenced as a source of escalation rates.

b. Please provide an analysis showing, by FERC account, the rates and dollar amounts of escalation included in the filed case.

Response:

a. Attachment 295-A provides the "IHS Markit, Long-term Forecast dated February 2021." See Tab "P&W1A" for the source rates utilized for escalations.

b. Attachment 295-B provides the rates by Cost Elements (CE) used to escalate labor and non-labor CEs from 2021 dollars into 2022 dollars. See PGE's Response to OPUC Data Request No. 294 for an explanation of how PGE escalates costs by CE. Attachment 295-C provides PGE's budget system data without escalations ("2022 Forecast GRC Unesc" column) and with escalations ("2022 GRC" column). The data is summarized by FERC account and CE to show the escalation rates used. Please note, for budgeting purposes, PGE moved the recording of budgeted Paid Time Off (PTO – i.e., CE 1300) from account "9260010 - BenefitExp-Paid Time Off" to account "1840017 - AllocClearing - PTO-Vacation" beginning in 2022. As such, the escalation of this CE requires the summing of these two amounts in Attachment 295-C.

Attachment 295-A is protected information subject to Protective Order No. 21-206.

Labor escalation rates

2020 to 2021	CE	Increase (%)
Exempt and Officers	1101	2.50
Union (Bargaining)	1102	3.50
Nonexempt	1103	2.50
PTO	**1300**	2.83
Other Union Labor: Hig	1200	3.50
Overtime - Hourly	1401	2.50
Overtime - Union	1402	3.50
Temporary Labor Stra	1501	2.50
Temporary Labor Overt	1601	2.50

2021 to 2022	CE	Increase (%)
Exempt and Officers	1101	3.00
Union (Bargaining)	1102	3.50
Nonexempt	1103	3.00
PTO	**1300**	3.17
Other Union Labor: Hig	1200	3.50
Overtime - Hourly	1401	3.00
Overtime - Union	1402	3.50
Temporary Labor Stra	1501	3.00
Temporary Labor Overt	1601	3.00

[redacted]

Account Cap or OM	Operating
2021 to 2022 Escalations	2021 to 2022 Escalations

Cost Element	2022 Forecast GRC UnEsc	2022 GRC	Escalations	% Escalations
1101 - Straight-Time Labor - Salary	176,867,093	182,108,900	5,241,807	2.96%
1102 - Straight-Time Labor - Union	40,074,454	41,476,671	1,402,217	3.49%
1103 - Straight-Time Labor - Hourly	21,655,894	22,297,766	641,872	2.96%
1200 - Other Union Labor	1,664,509	1,722,767	58,258	3.50%
1300 - PTO, VHA, ETO	47,569,591	49,009,444	1,439,853	#DIV/0!
1401 - Overtime - Hourly	1,154,823	1,189,069	34,246	2.97%
1402 - Overtime - Union	10,217,818	10,575,442	357,624	3.50%
1501 - Temporary Labor Straight Time	1,470,375	1,513,833	43,458	2.95%
1502 - Non-PGE Labor Straight Time	13,775,692	14,171,756	396,064	2.88%
1601 - Temporary Labor Overtime	28,792	29,657	864	3.00%
1602 - Non-PGE Labor Overtime	267,348	275,035	7,686	2.88%
2101 - Storerm Material Issue/Returns	8,742,745	8,859,857	117,112	1.34%
2110 - Other Materials & Equipment	27,677,842	28,048,598	370,756	1.34%
2111 - Office Supplies	41,070	41,929	860	2.09%
2200 - Outside Services	160,603,289	165,203,763	4,600,474	2.85%
2250 - Other Outside Services	150,000	154,313	4,313	2.88%
2300 - Other Products and Services	27,352,562	28,138,415	785,852	2.87%
2400 - Business Expense	9,351,054	9,546,369	195,315	2.09%
2500 - Intracompany Charges	819,327	836,480	17,152	2.09%
2600 - Rents and Lease Expense	11,811,166	12,058,427	247,261	2.09%
2650 - Other Rent & Lease Expenses	434,328	443,420	9,092	2.09%
2701 - Memberships	3,675,675	3,752,623	76,948	2.09%
2850 - Other Miscellaneous Expense	49,349,860	50,382,968	1,033,109	2.09%
Grand Total	**614,755,305**	**631,837,499**	**17,082,193**	**#DIV/0!**

September 14, 2021

To: Moya Enright
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to OPUC Confidential Data Request 584
Dated August 31, 2021

Request:

Regarding the response to CUB DR 006 (specifically UE 359_CUB DR 021_Attach A_CONF.xlsm) and the project justification form provided in response to Staff DR 198 (P36167 Funding Justification.pdf, page 5 of 7) showing [redacted] respectively,

a. Please confirm or deny that the Company relied on either model when evaluating its decision to proceed with the powerhouse and turbine upgrades.
b. Please provide all documentation and modeling underlying the [redacted] million.
c. Please provide any other cost benefit analysis or modeling the Company relied upon when evaluating its decision to proceed with the powerhouse and turbine upgrades.
d. Please provide the most recent NPV estimates for the project.

Response:

a. PGE did not rely on either of the economic analysis documents referenced in this request when evaluating the decision to proceed with the Faraday Repowering project. The two economic analysis documents referenced in this request were prepared in 2019 and 2020, after the project started.
Attachment 584-A provides the economic analysis prepared in 2016, prior to the project starting date, with best information known at that time. This analysis compared two scenarios, status quo and repowering, and it showed that the repowering scenario had a greater Net Present Value (NPV) than the status quo scenario (see tab “Assump”, cell O24 for the delta between the two scenarios NPVs). PGE relied on this model and several other factors described in PGE’s responses to OPUC Data Requests Nos. 587 and 588 when the Faraday Repowering project contractor was given notice to proceed by PGE. PGE also had urgency to start the construction project prior to December 2016 to ensure the facility would qualify for Production Tax Credits.
b. Attachment 584-B provides the economic analysis model that produced the NPV referenced in this request.

c. See parts a,b, and PGE's response to CUB Data Request No. 006, Attachment 006-B, for economic analysis modeling developed by PGE for the Faraday Repowering Project. As noted above, when PGE gave the notice to proceed, PGE relied on several factors including the economic analysis provided as Attachment 584-A. Additionally, as described in Exhibit 700 and in PGE's responses to OPUC Data Requests Nos. 587 and 588, PGE proceeded with the Faraday Repowering for safety and reliability reasons due to the facility being housed in an un-reinforced masonry building, which was seismically unfit and subject to flooding.
d. See Attachment 584-B.

Attachments 584-A and 584-B are protected information subject to Protective Order No. 21-206.

September 15, 2021

To: Rose Anderson
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to OPUC Data Request 603
Dated September 1, 2021

Request:

PGE's proposed Schedule 146 Tariff says, "The Adjustment Rates will be updated annually to reflect the subsequent year's change in the Colstrip Power Plant Units 3 and 4 decommissioning revenue requirement and depreciation revenue requirement (Parts A and B)."

Please explain whether Schedule 146, as proposed in PGE's initial filing, would update the undepreciated capital plant balance and associated return on investment for the Colstrip plant annually.

Response:

PGE only intends to update decommissioning costs in Schedule 146 on an annual basis (i.e., Part A of Schedule 146). PGE will update the accumulated depreciation in the annual updates if the forecasted Colstrip economic life changes from what was assumed in this rate case and thus changes the annual depreciation of the facility.

October 1, 2021

To: Mitchell Moore
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to OPUC Data Request 801
Dated September 17, 2021

Request:

Referring to the Company's responses to OPUC standard data request No. 62 (including attachment A), please supplement the responses and:

a. Include the actual Board of Director Costs for 2020, the allocation to the Oregon regulated operations, and the transactional detail by FERC account and cost element for the 2020 actual Board of Director costs;

b. Provide, by FERC account, the amount of Board of Director costs included in the test year. If the amounts vary from the 2020 budget, please provide a detailed narrative;

c. Identify whether any Board members are also PGE company officers; and whether Board compensation for those officers is included in the test year budget.

d. Provide the breakdown of 2020 "Other Expenses" by cost type and:

    i. Explain whether the expenses and reimbursements for directors includes only the "Offsite Strategic Planning" meeting or does it include other meetings and, if so, describe the frequency, business nature, and location of those meetings;

    ii. Explain whether it includes any amounts for spouse, children, and significant others etc.;

    iii. What portion of the costs are for entertainment versus business?

    iv. Explain whether travel reimbursement includes the cost of using private airplanes. If so, please justify.

    v. Explain where the "Offsite Strategic Planning" meeting was held in 2019 and 2020, and where it is planned to be held in 2021.

Response:

a. PGE Board of Directors' fees and expenses are budgeted and recorded in account 9302004. Account 9302004 also includes Board of Directors' portion of Directors' and Officers' (D&O) Insurance. Attachment 801-A provides transaction level detail consistent with and included in amounts provided in PGE's response to Standard Data

Request No. 057, Attachment 057-B for Board of Directors' fees and expenses, not including D&O liability insurance.

b. The amount included in PGE's test year for Board of Directors' fees and expenses (Account 9302004), excluding D&O insurance,[1] is $1,553,969.99. The increase from PGE's 2020 budget amount results from two primary assumptions. First, PGE has forecast a retainer and Board compensation increase totaling approximately $70,000 compared to 2020 (or approximately 3% annually compared to 2020 budgeted amounts). Second, PGE has forecast an out of state annual offsite meeting for 2022, also resulting in an increase of approximately $70,000 over the 2020 budget. The remaining increase is due to base escalation of other miscellaneous expenses related to the quarterly on-site board meetings forecast for 2022.

c. PGE's CEO, Maria Pope, is the only Board member who is also a PGE Officer. She does not receive compensation for being a PGE Board member.

d. Attachment 801-B provides PGE's 2020 budget for Board of Directors' fees and expenses by cost element. Please note, the final 2020 budget amounts provided in Attachment 801-B differ slightly from amounts provided in PGE's response to OPUC Data Request No. 062, Attachment 062-A. This is because the amounts in Attachment 062-A used the preliminary budget work paper and not the final approved budget provided in Attachment 801-B.

    i. Directors receive reimbursement for booked travel, hotel lodging, and related meals for 4 quarterly meetings, held in Portland, and one annual strategic offsite meeting, which alternates between being held in Oregon and out of state.

    ii. PGE's Board compensation and expenses do not include any amounts for spouses, children, or significant others.

    iii. PGE's budget does not include costs for entertainment.

    iv. PGE does not reimburse Directors for use/cost of private planes.

    v. In 2019, the offsite was held in Palo Alto CA. In 2020 and 2021, the offsite meeting was held virtually due to the COVID-19 pandemic.

[1] PGE included 50% of Board of Directors' D&O Liability Insurance, or $795,954.02, in its test year request.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/104

ANALYSIS OF OCTOBER 2022 CAPITAL BUDGET UPDATE

Capital Budget Comparison

		Filed Capital Budget																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P37048	Outage or Emergency Replacement	3,472,040	22,551,234	4,732,887	(4,582,440)	1,458,203	1,458,203	1,458,203	1,458,203	1,458,203	1,458,203	1,458,203	1,457,871	-	-	-	-	37,839,010
P37218	OH FITNES Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36868	Shute Capacity Addition	-	-	-	-	-	-	-	-	-	-	-	10,006,219	-	-	-	-	10,006,219
P37241	Wildfire Mitigation-FITNES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35890	Purchase Distribution Transformers	564,843	1,220,930	414,418	636,151	607,866	829,727	676,005	701,499	628,775	618,664	728,326	905,846	-	-	-	-	8,533,049
P35924	Distribution System Construction II	3,348,774	2,211,001	5,989,803	6,410,069	2,850,660	3,504,036	2,743,751	2,538,453	2,527,086	2,527,086	2,527,086	8,359,129	-	-	-	-	45,536,933
P37213	Distribution System Construct III	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P14628	Replace Failed Underground Cables	1,488,780	919,921	1,782,904	1,669,789	1,179,886	1,079,253	1,234,253	1,389,253	1,389,253	1,234,253	1,215,963	1,209,416	-	-	-	-	15,792,924
P37093	Facilities Management Fitness	-	-	16,958	27,751	60,826	27,933	12,554	-	-	-	124,244	14,312	-	-	-	-	284,577
P36101	Substation Communication Upgrade	-	3,690	-	-	-	-	-	-	-	-	32,306,188	176,601	-	-	-	-	32,486,479
P36770	Street and Area Light Construction	483,680	535,883	412,409	756,487	1,160,162	1,598,116	848,231	848,473	849,001	909,372	1,295,853	730,157	-	-	-	-	10,427,824
P37046	T&D Asset Relocation	12,061	(146,889)	(754,919)	624,206	579,616	419,475	1,311,635	948,228	664,197	664,197	729,824	581,706	-	-	315,967	-	5,949,303
P37277	CY: Replace GT Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37135	2021 Server Storage Fitness	1,553	2,706	2,107	243,436	203,436	123,436	123,436	123,436	123,436	120,000	120,000	1,154,468	-	-	-	-	2,341,451
P36879	Advanced Dist Mgmt Sys(ADMS) Phs 1	-	23,450	(19,392)	-	-	-	26,184,901	805,670	96,513	97,475	97,475	97,475	-	-	-	-	27,383,567
P37162	Bill Redesign	-	-	-	-	-	-	-	-	-	-	-	184,062	-	-	-	-	184,062
P37049	Line Crew Truck Stock Materials	-	-	202,012	144,585	144,585	144,585	144,585	144,585	144,585	144,585	144,585	144,585	-	-	-	-	1,503,277
P37204	AMI Improvement Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37201	OCLC Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37274	Incremental Add 20 MD Bucket Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37214	Dist. Customer Line Construct III	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36911	Wildfire Mitigation	(24,831)	255,603	818,808	689,882	1,018,909	557,264	231,535	114,636	386,413	396,396	51,086	822,709	-	-	-	-	5,318,411
P37279	Maximo Licensing and Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36545	Tree Wire Installment Program	77,729	90,264	643,611	965,149	551,739	127,969	271,786	268,756	268,756	606	606	22,688	-	-	-	-	3,289,660
P36391	Willbridge Station 11kV Conversion	17,159	-	-	-	-	-	9,506,372	308,324	339,936	356,640	50,986	16,669	-	-	-	-	10,596,085
P37251	PACS 2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37264	PW: Purchase SOGAV Valves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37047	Joint Pole Construction	427	9,162	(61,739)	1,062,069	309,530	272,625	448,617	406,667	211,729	494,287	433,881	78,634	-	-	-	-	3,665,888
P37085	CTO Infrastructure Fitness Blanket	-	-	-	-	-	287,476	337,476	337,476	337,476	287,476	287,476	247,476	-	-	-	-	2,122,332
P37207	Lightweight Design	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36859	ODOT Outer Powell Project Phase 2	738	4,226	234	2,422	2,346	2,707	8,418	9,660	87,160	88,264	88,264	12,131	-	-	-	-	306,567
P35484	Repl Trans Structures & Insulators	28,023	3,246	10,060	8,601	5,057	655,781	215,337	189,564	190,564	230,028	229,278	166,453	-	-	-	-	1,931,991
P37272	Oracle Utilities Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36178	North Portland Conversion	-	-	-	-	-	-	-	-	128,946	7,132	9,104	22,400	55,211	-	-	5,077	227,870
P36341	St Marys System Protection Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,396,181	6,396,181
P35892	Purchase Customer Meters	131,534	127,176	948,144	520,439	330,501	330,501	330,501	166,897	166,897	253,063	330,501	330,501	414,797	414,797	414,797	414,797	5,625,841
P37242	Wildfire Mitigation-Tree Attachment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37099	BR: Restore Beaver GT#5	-	-	-	803,564	5,238,243	-	-	-	-	-	-	-	-	-	-	-	6,041,807
P37131	2021 Desktop Fitness	-	47,253	56,345	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	-	-	-	-	2,128,598
P36740	Energy Storage Controls	599	3,736	11,413	12,500	22,500	25,000	25,000	13,750	13,250	7,500	7,400	7,800	29,583	29,583	29,583	29,583	268,781
P36464	Facilities Asphalt R&R Project	-	-	-	162,214	162,214	162,214	162,214	162,214	162,214	162,214	-	-	-	-	-	-	1,135,500
P36167	FY: Repower Faraday Units 1-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117,503,218	1,881,420	119,384,638
P36973	Build IVA	-	-	-	-	-	1,782,929	-	-	-	-	-	-	-	-	-	-	1,782,929
P37262	PW: Purchase Spare Turbo Assemblies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36537	Unjacketed Cable Replacement Prgrm	214,151	85,741	383,104	1,105,751	1,009,945	721,440	690,201	-	-	-	-	-	-	-	-	-	4,210,334
P36683	PSES DCS Windows Security Upgrades	-	4,375	9,563	289,089	-	-	-	-	-	-	-	1,033,779	-	-	-	-	1,336,806
P35556	Avian Protection Program	39,373	51,870	91,434	60,806	59,357	59,357	59,357	50,057	66,360	50,320	10,947	10,947	-	-	-	-	610,186
P37133	2021 Network Fitness	1,405	-	20,942	166,667	166,667	166,667	166,667	166,667	166,667	166,667	166,667	1,432,078	-	-	-	-	2,787,758
P37103	ODOT OR213/SE82nd Foster to Lindy	103,040	106,314	227,532	321,623	330,213	20,720	32,473	16,697	16,697	16,697	16,697	17,249	-	-	-	-	1,225,955
P37089	Facilities Furniture Purchases	-	-	1,440	200	51,875	51,875	51,875	51,875	51,875	51,875	51,875	65,235	-	-	-	-	430,000
P37101	Tech CoE Automation 2020	97,823	86,131	24,426	-	-	-	-	-	-	-	-	-	-	-	-	-	208,381
P36679	Orenco Substation 115kV Rebuild	9,814	10,042	8,713	(513,148)	-	-	-	29,450	29,450	-	-	-	-	-	-	-	(425,680)
P37244	Wildfire Mitigation-Resiliency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36656	Energy Storage - PW2 Project	-	-	-	-	-	5,268,866	477,781	-	-	-	-	-	-	-	-	-	5,746,647
P37225	Purch Inst BU Camera Older Models	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P22723	Pelton/Round Butte PME - Aquatic Re	-	-	-	47,971	-	-	-	-	-	-	-	-	-	-	-	-	47,971
P37226	Electric Island Equip. Test& Eval.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36599	PW: Install PW2 Blackstart LoadBank	-	-	-	-	-	3,588,291	-	-	-	-	-	-	-	-	-	-	3,588,291
P36587	Physical Access Control Sys (PACS)	65,068	16,587	17,792	-	-	13,334,173	-	-	-	-	-	-	-	-	-	-	13,433,618
P37211	Substation Cap Rplcmts 2022-2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37263	PRB: Install Fish Facility Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36285	PurchaseT&D - Tools & Lab Equipment	149,940	-	122,302	42,776	42,776	128,344	45,370	37,589	48,229	44,104	37,120	34,261	-	-	-	-	732,810
P35572	Build New Rock Creek Substation	55,240	203,872	265,538	(320,634)	91,707	-	-	-	-	-	-	-	-	-	-	-	295,723
P37260	PRB: Install Oilless Dewater Pumps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37034	Biglow Eagle Permit Mitigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36454	Substation Rerock - multiple sites	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35663	Harborton NRD Mitigation	-	-	-	-	-	-	-	-	-	-	-	5,433	-	-	-	-	5,433
P36466	BR - GSU Transformer Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	30,577	30,550	30,550	30,550	122,226
P14757	Underground Locating	24,453	(24,453)	-	105,238	34,875	58,125	38,750	27,125	42,625	34,875	23,250	19,375	-	-	-	-	384,238
P36412	Incremental Added Vehicles	-	-	629	(57)	-	-	-	-	-	-	-	-	-	-	-	-	572
P36373	Blue Lake Phase II	596,875	31,337	31,561	79,218	95,664	38,293	22,599	-	-	-	-	-	-	-	-	-	895,548
P36645	DPU Relay Replacement Program	146,876	12,262	6,503	11,349	9,522	9,522	9,522	9,522	9,522	230,559	9,522	9,522	-	-	-	-	474,201
P36235	Install Low OH Services Guarding	43,966	56,689	(79,032)	119,109	-	-	-	148,358	-	148,358	-	148,358	-	-	-	-	585,806
P37227	Outage Map Improvement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36970	2020 Network Blanket	182,613	161,290	108,324	-	-	-	-	-	-	-	-	-	-	-	-	-	452,227
P36971	2020 Server Storage Blanket	35,311	19,599	402,547	-	-	-	-	-	-	-	-	-	-	-	-	-	457,457
P36899	T&D BSG Reserve	6,614	2,499	2,901	-	-	-	-	-	-	-	-	-	-	-	-	-	12,014
P35591	As-Built Drawings - Generation	126,151	127,575	145,865	41,855	72,843	59,320	51,365	46,442	47,298	66,958	53,467	53,235	69,054	69,051	69,051	69,051	1,168,583
P16567	UG FITNES	15,179	44,869	28,789	60,447	59,089	59,089	67,210	67,210	73,485	116,203	106,051	111,310	-	-	-	-	808,931
P36039	Harborton Reliability Project PH1	(774,242)	164,020	777,038	(772,200)	7,900,356	260,044	8,280	1,886,450	-	-	-	-	-	-	-	-	9,449,746
P37001	Helvetia Sub-Temp G Installation	-	-	-	-	-	-	-	-	-	-	(149,736)	-	-	-	-	-	(149,736)
P36543	PRC-002 Protection Upgrades	-	281	-	-	521,032	27,160	8,483	-	-	311,603	940,710	185,439	570,816	16,000	-	-	2,581,523
P36299	RB: Install Forebay Guidance Net	168,621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168,621
P36270	Roseway Substation Expansion	-	18,971,723	127,166	266,979	-	-	-	-	-	-	-	-	-	-	-	-	19,365,868
P35217	Generation Cap Tools & Lab Equip	-	37,482	19,669	73,750	31,250	26,250	48,750	28,750	26,250	68,750	18,750	6,250	-	-	-	-	385,901
P37232	Communications Fitness II	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36855	Wheatridge Renewable Enrgy Facility	32,697	13,485	313,272	513,269	(170,043)	-	-	-	-	-	-	-	-	-	-	-	702,680

		Filed Capital Budget																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P35846	CPP Switch Replacement	59,254	9,770	137,680	84,572	50,019	79,932	55,004	40,048	59,990	50,019	35,063	(9,923)	-	-	-	-	651,429
P36602	RB: Replace Hatchery Chiller System	-	-	-	-	-	-	-	920,314	-	-	-	-	-	-	-	-	920,314
P36989	NW WAN 2020	4,861	169,658	5,920	-	-	-	-	-	-	-	-	-	-	-	-	-	180,439
P37236	Gresham LCC Shed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35650	Emergent Radio Equipment	693	133	1,436	3,061	3,061	3,061	3,061	3,061	3,061	3,061	3,061	3,061	-	-	-	-	29,807
P36525	2018 Desktop Vintage	49,537	50,124	56,355	-	-	-	-	-	-	-	-	-	-	-	-	-	156,015
P36949	Build Web Next Gen 2.0	251,458	12,734	9,291	-	-	-	-	-	-	-	-	-	-	-	-	-	273,484
P36571	Marquam Radial Feeder Addition	-	-	-	70,685	-	9,382,391	-	-	-	-	-	-	-	-	-	-	9,453,076
P36563	Battery Safety Improvements	530	23,254	1,328	826	72,235	69,735	71,735	69,735	70,235	69,735	-	-	-	-	-	-	449,347
P36672	Boardman Decommissioning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35995	Downtown UG Core Cable Replacement	1,732	4,051	167,215	347,040	85,973	85,973	1,233	1,233	1,233	1,233	1,233	120,116	-	-	-	-	818,262
P36105	2016-2023 Dispatchable Standby Gen	69,226	-	142	-	-	245,921	-	-	-	-	-	1,258,056	-	-	-	-	1,573,344
P37107	PBT Transmission Line Relocation	-	-	-	-	-	-	-	-	-	(47,681)	-	-	-	-	-	-	(47,681)
P36205	Metal Streetlight Grounding	-	-	-	24,357	24,357	24,357	24,357	24,357	24,357	24,357	(0)	-	-	-	-	-	170,500
P37106	Mobile 2.0	-	-	720,301	-	-	-	-	-	-	-	-	-	-	-	-	-	720,301
P36449	PRB: Upgrade Governors & Exciters	10,330	29,601	5,939	(4,784)	-	-	-	-	-	-	-	-	-	-	-	-	41,086
P36307	PRP - Vehicles & Capital Equipment	-	-	(38,569)	(139)	-	-	-	-	-	-	-	-	-	-	-	-	(38,708)
PX0041	Hydro & Wind Fitness Capital Job Fu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35914	Substation Fitness 2015-2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35212	Misc. Pumps, Valves, Motors	-	26,332	-	26,249	26,249	26,249	26,249	26,249	26,249	26,249	26,249	26,265	26,249	26,249	26,249	26,249	367,581
P35980	PCB Transformer Replacement	(4,060)	2,370	-	(96,630)	-	-	-	-	-	-	-	-	-	-	-	-	(98,320)
P35349	Dist Line Sys - Equip Replacement	86,100	53,043	110,891	68,708	34,225	50,031	36,860	28,957	39,494	34,225	-	-	-	-	-	-	542,534
P37015	Electronic Payments Redesign	4,881	7,255	3,628	-	-	-	-	-	-	-	-	-	-	-	-	-	15,764
P37019	OG: Improve Access to West Portal	-	-	-	-	-	-	-	-	-	-	-	64,878	-	-	-	-	64,878
P36888	2020 Fitness for Facilities Managem	230,416	7,918	5,635	-	-	-	-	-	-	-	-	-	-	-	-	-	243,969
P35193	BN-Add Water Treatment Automation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P23528	Clackamas PME - Recreation, Aesthet	4,973	6,180	13,049	-	98,124	10,016	14,928	47,911	6,729	5,667	3,776	2,950	-	-	-	-	214,304
P37108	Proactive Outage	-	-	710,814	24,894	-	-	-	-	-	-	-	-	-	-	-	-	735,709
P36166	Orient sub: Capacity Addition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36099	Replace KTS at Malin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36898	2020 Infrastructure Fitness Blanket	2,760	104	734	-	-	-	-	-	-	-	-	-	-	-	-	-	3,597
P37042	Purchase the SN IRM Module	320,249	136,724	-	-	-	-	-	-	-	-	-	-	-	-	-	-	456,973
P36510	CY: Water Treatment System Upgrades	26,545	25,633	1,245	-	-	-	-	-	-	-	-	-	-	-	-	-	53,422
P36884	Facilities Capital Furn 2020	(372)	718	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346
P36947	Install RB-Grizzly Comm Line	(28,794)	(101)	125	-	-	-	-	-	-	-	-	-	-	-	-	-	(28,769)
P36872	CS: DCS Windows Upgrade	114	2,040	(11,298)	-	-	-	-	-	-	-	-	-	-	-	-	-	(9,144)
P36527	TRIP (TripSaver II) Implementation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P24723	Substation Arc Flash Mitigation	-	-	619	-	-	-	-	-	-	-	-	-	-	-	-	-	619
P35842	N. Plains - Pumpkin Ridge Recond.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37113	Web Next Gen 2.0 Phase II	-	-	1,081,581	-	-	-	-	-	-	-	-	-	-	-	-	-	1,081,581
P36497	3G Meter Replacement Project	22	(2)	(0)	-	-	-	-	-	-	-	-	-	-	-	-	-	20
P35061	Install UI Planner Model	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35149	Colstrip Transmission NW Energy	8,348	35,681	47,017	(53,720)	61,700	61,700	61,700	61,700	61,700	61,700	61,700	61,700	35,729	35,729	35,729	35,729	673,844
P35344	Install LED Streetlights	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P26874	QRP Reliability Improvements (2012-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36987	BR: Upgrade Metalclad Switchgear	-	-	-	-	-	-	-	-	-	-	431,495	-	-	-	-	-	431,495
P26261	Mt Hood Corridor Reliability Projec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35085	Substation Fitness	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36546	Data Center Resiliency 2018	264	11,254	970	-	-	-	-	-	-	-	-	-	-	-	-	-	12,488
P36151	Eagle Take Permitting	-	-	500	-	-	-	-	-	-	-	-	-	-	-	-	-	500
P37127	Golden Hills - Integration Project	-	-	-	-	-	-	-	-	(252,634)	61,507	34,488	-	-	-	-	-	(156,640)
P36968	2020 Desktop Fitness/Vintage	720	36,313	222,607	-	-	-	-	-	-	-	-	-	-	-	-	-	259,641
P36690	New 115kV Tapline for CRPUD Sub	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36937	North Lombard ODOT Project	49,011	6,010	(8)	-	-	-	-	-	-	-	-	-	-	-	-	-	55,012
P35570	West Union - 115kV Conversion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PX0045	Thermal Fitness Capital Job Fund <$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35096	Dist Customer Line Construction	8,424	-	4,537	-	-	-	-	-	-	-	-	-	-	-	-	-	12,961
P36271	OG: Timothy Spillway Modifications	-	2,377	283	-	-	-	-	-	-	-	-	-	-	-	-	-	2,660
P36327	Replace Kelley Point Switchgear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P27149	DSG Dispatchable Standby Generation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36324	Garden Home Substation Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36456	RB - Replace Governors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P19712	Underperforming Feeder Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35802	Horizon Phase II Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35199	BR - Install Raw Water Clarifier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36487	PGE Safety - Vehicle for Generation	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P36706	HR Optimization Project	180,325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180,325
P35769	Construct Carty Generating Plant	44,866	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44,866
P35834	Round Butte Transmission Upgrades	1,964	36,785	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38,749
P36551	Kelley Point Switch Replacement	-	14,842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,842
P36814	2019 Desktop Fitness/Vintage	12,437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,437
P35908	SAM: Proactive UG Cable Program	-	3,489	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,489
P36886	ERC/CSS Remodel	1,926	-	167	-	-	-	-	-	-	-	-	-	-	-	-	-	2,093
P35214	BN - Misc. Pumps. Valves, Motors	258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	258
P35965	PW: Upgrade CT to G1+	-	-	236	-	-	-	-	-	-	-	-	-	-	-	-	-	236
P35155	Install NERC CIP Substation Access	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	200
P35050	HL - Clackamas Micro Turbines	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35156	PW: Install New DCS Upgrade	269,500	(269,500)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36508	Verizon High Speed Deployment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36649	Budget Only: Customer BSG Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P22722	Pelton/Round Butte PME - Recreation	-	-	-	(187)	-	-	-	-	-	-	-	-	-	-	-	-	(187)
P36878	PSLD Regional Decentralization	21,445	-	(111,266)	-	-	-	-	-	-	-	-	-	-	-	-	-	(89,821)
P23631	Clackamas PME - Mitigation Fund	-	(125,539)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(125,539)
P35679	Construct Marquam Project	0	711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	711
P37045	RB: Modify Spillway Plug Anchorage	2,833	17,391	(67)	-	-	-	-	-	-	-	-	-	-	-	-	-	20,158
P36433	BR: Upgrade Critical Valves	19,286	-	3,490	-	-	-	-	-	-	-	-	-	-	-	-	-	22,776
P35407	2020 Vision Wave 2 -MMS,GIS,OMS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36727	Energy Storage, Microgrid	-	-	-	-	-	132,711	-	-	-	-	-	1,153,494	-	-	-	-	1,286,205
P36852	M400 Tower Improvements	114	60	(0)	-	-	-	-	-	-	-	-	-	-	-	-	-	174

		Filed Capital Budget																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P35351	Major Event Tracking	16,273	(1,838)	1,072	-	-	-	-	-	-	-	-	-	-	-	-	-	15,507
P36470	Sensus DT34 Meter Exchanges	10,165	4,303	1,415	-	-	-	-	-	-	-	-	-	-	-	-	-	15,884
P36087	PRB - Misc. Pumps, Valves, Motors	-	-	-	1,115	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,115	14,435
P36462	EV Charging Network Expansion	387	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	387
P36921	PGE/DTNA HD charging Demonstration	-	-	-	1,605,661	-	-	-	-	-	-	-	-	-	-	-	-	1,605,661
P36246	Malin Physical Security Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35221	PRB Capital Tools & Lab Equip	-	-	-	5,050	5,050	5,050	5,050	5,050	5,050	5,050	5,050	5,053	5,051	5,050	5,050	5,050	65,657
P36408	Parks Fitness Fund	4,836	-	-	58,544	33,165	100,434	-	76,737	40,000	25,279	25,224	-	-	11,900	47,600	29,750	453,468
P36996	New PowerPlan	-	-	-	1,921	2,881	1,921	2,881	1,921	2,881	1,921	2,881	1,921	2,893	1,928	2,893	1,928	30,770
P22771	PRB PME - Habitat Fund	-	-	-	84,612	-	-	-	-	-	-	-	-	-	-	-	-	84,612
P37126	Walker Rd Beaverton-Road Widening	-	-	-	-	-	-	-	-	-	-	-	-	-	273,416	-	-	273,416
P37157	Mobile 3.0	-	-	-	-	-	-	-	-	-	-	-	1,885,269	-	-	-	-	1,885,269
P37175	Electronic Payment Redesign Phase 2	-	-	-	-	-	-	-	-	-	-	1,096,611	17,000	-	-	-	-	1,113,611
P36439	Gresham Sub 115kV Rebuild	158,403	(7,857)	7,761	-	-	-	-	-	-	-	-	-	16,153	16,153	16,153	16,153	222,921
1	PGE O&M Tracking AWOs ONLY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36447	PW: Upgrade CTG Excitation Equip	-	-	-	-	-	-	390,467	-	-	-	-	-	-	-	-	-	390,467
P36628	BR: Replace U5 Exhaust Frame	-	-	-	-	1,849,401	-	-	-	-	-	-	-	-	-	-	-	1,849,401
P18834	Station E: River District Infrastr	-	-	-	-	-	-	-	-	-	-	-	5,162,638	-	-	-	-	5,162,638
P37155	Time of Day	-	-	-	-	-	-	-	-	888,088	-	-	-	-	-	-	-	888,088
P37168	2021 QF Projects	-	-	-	-	-	-	-	-	-	-	-	(8,838)	-	-	-	-	(8,838)
P36639	RB Station Service Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127,139	11,828	138,968
P23970	Corporate Strategic Fiber Project	130	9,514	(10)	-	-	-	-	-	-	-	-	491,897	-	-	-	-	501,531
P37136	AppWorx Replacement	-	-	-	-	-	-	-	-	328,555	-	-	-	-	-	-	-	328,555
P36170	OHSU Infrastructure Upgrades	-	3,947	-	-	111,341	39,749	27,883	20,763	30,256	25,510	18,390	16,016	-	-	-	-	293,854
P35938	Field Voice Communications System	(33,892)	102,046	94,255	234,677	116,190	2,806,846	-	-	-	-	-	-	-	-	-	-	3,320,120
P36564	Stephens 11kV Conversion Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36716	Arleta-Holgate Ln Rebuild SE PDX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36763	Install Horizon VWR3 Transformer	-	1,478	8,805	99,015	6,330,221	2,559,454	-	-	-	-	-	-	-	-	-	-	8,998,973
P37114	Project BaT	939	1,885	6,639	19,192	89,249	327,374	573,411	474,028	158,471	-	-	-	-	-	-	-	1,651,187
P36713	Dayton-Gr Ronde Conv Segment 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36907	Reconductor Murrayhill-St Marys	-	-	-	-	-	1,117,840	237,927	117,665	85,549	-	-	-	-	-	-	6,368,619	7,927,599
P35894	Communications Fitness	(39,200)	57,598	12,011	-	-	-	-	-	-	-	-	594,022	-	-	-	-	624,430
P37020	Marquam Fiber Project	-	-	-	-	-	-	-	-	-	-	-	252,000	-	-	-	-	252,000
P36641	Oil Spill Containment Modifications	-	-	-	-	-	-	-	-	-	-	-	571,522	-	-	-	-	571,522
P36089	Transm Full Pole Inspct & Replace	5,613	38,388	8,162	139,159	104,045	189,446	317,548	402,948	402,808	402,808	317,432	287,481	-	-	-	-	2,615,837
P36582	Substation FITNES 2019-2021	1,119,745	7,757	169,975	73,182	25,760	687,169	169,236	194,534	123,863	82,067	144,683	2,011,300	-	-	-	-	4,809,272
P35565	PSES - Generation Site Paving	-	-	-	11,568	108,624	-	-	-	-	-	-	9	99,167	99,167	99,167	99,167	516,868
P37097	Replace Microwave Transfer Trip	-	-	-	-	-	-	-	-	-	-	-	401,351	-	-	-	-	401,351
P37112	Kelley Point Reconfiguration	-	-	-	-	-	-	-	-	-	417,482	-	-	-	-	-	-	417,482
P24995	PRB Water Fund	(6,154)	-	-	(2,526,103)	-	-	-	-	-	-	-	2,532,257	-	-	-	-	-
P37111	Supply Chain Evolution	-	-	-	-	-	-	-	3,101,240	4,738,597	903,211	455,469	455,470	-	-	-	-	9,653,986
P36829	Sherwood Training Center	-	-	-	-	-	5,662,098	1,659	1,659	1,659	5,708,010	-	-	-	-	-	-	11,375,085
P37121	Durham Substation Separation	-	-	-	52,143	-	-	480,000	-	-	-	-	7,636	-	-	-	-	539,778
P36867	Remote Disconnect Project	37,624	31,646	973,181	668,331	439,496	126,487	125,487	125,487	125,487	125,487	125,487	125,487	156,228	156,228	158,879	158,879	3,659,899
P35959	WSH Structural/Reliability Upgrades	31,835	1,139	(50)	-	-	-	-	-	-	713,341	-	-	-	-	-	-	746,265
P37143	Credit Remote Connect Meters	-	-	-	77,446	459,354	498,347	510,466	510,466	302,307	262,146	262,146	262,146	-	-	-	-	3,144,821
P35228	Clackamas PME Road Fund	-	-	-	-	-	-	2,120,405	-	-	-	-	420,801	-	-	-	-	2,541,207
P37094	Replace SCADA RTU with SER	-	-	-	-	-	-	-	-	-	-	-	850,950	-	-	-	-	850,950
P36910	Outer Div Multi-Modal Safety Proj	1,418,127	139,434	743,446	542,517	-	-	-	-	-	-	-	-	-	-	-	-	2,843,524
P37061	OH FITNES Transmission	123	51,584	48,053	426,150	443,194	690,107	687,022	899,961	737,118	607,996	340,202	218,414	-	-	-	-	5,149,925
P37110	Restore Bethel-RB 230 kV Line	164,768	1,327,256	(51,764)	-	-	-	-	-	-	-	3,079,213	-	-	-	-	-	4,519,473
P36708	Butler Substation Construction	1,522,234	211,485	106,515	18,243,081	13,000	-	200,000	-	-	-	-	-	-	-	-	5,629,594	25,925,909
P36100	Bethel to Round Butte Fiber	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36742	RM: Rewind Units 3, 2, 1	-	-	-	-	-	-	-	-	-	-	-	-	289,939	289,934	289,934	289,934	1,159,740
P36693	Build Helvetia Substation	-	23	-	(10,677)	-	-	-	22,278,946	145,753	35,097	-	-	-	-	-	-	22,449,142
P36732	CY: Implement Carty Separation Plan	-	-	-	-	448,827	-	-	1,318,211	594,031	9,334,320	36,633	762,445	-	-	-	-	12,494,467
P37095	SCADA Replacement - Grizzly Sub	-	-	-	-	-	-	-	-	-	-	-	1,372,075	-	-	-	-	1,372,075
P36134	Hydro Control System Upgrade	7,814	255,783	(51,064)	(231,284)	-	-	-	-	2,511,537	12,000	12,000	1,890,319	222,249	162,392	19,773	-	4,811,521
P36522	Distribution Automation	272,336	812,932	903,887	1,409,238	1,458,258	1,405,326	1,097,084	1,321,179	1,410,979	1,156,999	1,003,798	576,721	-	-	-	-	12,828,737
P37118	WSH:Restore Facilities post-fire	-	-	-	-	-	-	354,624	-	-	-	-	6,568,758	-	-	-	-	6,923,382
P36762	Milliken Tower Reinforcement	-	-	-	-	-	-	-	-	5,625,890	-	-	-	-	-	-	-	5,625,890
P36913	Trans. Line Clearance Mitigation	471,935	339,740	252,212	141,220	549,676	913,293	1,247,439	1,092,176	1,014,676	472,176	84,676	22,676	66,667	66,667	66,667	66,667	6,868,560
P35172	PSES - Generation Fitness Fund	9,265	2,222	64,527	665,741	-	1,378,701	-	398,294	242,412	354,405	509,096	306,136	448,725	448,721	448,721	448,721	5,725,687
P37109	Customer Data Centers	-	32,202	(1,238,809)	2,190,800	2,045,159	1,873,795	545,583	-	-	-	-	-	-	-	-	-	5,448,729
P36417	Replace/Rewind Failed Transformers	16,020	5,832	1,447,034	10,261	206	190,651	417,267	206	206	206	206	490,852	961,006	961,006	961,006	913,006	6,374,968
P36723	Field Area Network Project	392,431	340,586	896,140	409,990	381,667	248,683	401,760	248,683	293,867	234,224	229,394	224,394	4,020,116	188,116	188,116	188,116	8,886,285
P36550	Small Gen/QF/NM Interconnect Costs	8,813	(16,321)	(227,653)	175,787	(156,360)	46,267	115,922	132,092	(667,470)	122,951	(87,066)	100,200	10,665	1,535	-	-	(440,637)
P36116	Wind Generation Fitness Program	191,514	7,147	146,196	997,124	184,008	108,414	300,000	200,000	600,000	650,000	950,342	963,033	595,000	595,000	595,000	595,000	7,677,777
P36861	Division Transit Project (DTP)	19,796	1,146,719	1,499,666	1,061,850	1,807,795	-	-	-	-	-	-	-	-	-	-	-	5,535,825
P22449	P22449 Colstrip Capital Proj PPL	5,659,857	602,895	5,226	1,987,608	2,500,000	3,087,237	662,891	500,000	100,000	182,114	100,000	2,804,710	-	-	-	-	18,192,538
P37017	Facilities Upgrades-EV Readiness	-	-	-	631,313	20,482	20,482	20,482	20,482	3,304,761	34,597	34,597	2,822,722	-	-	-	-	6,909,917
P36394	Vintage Vehicle Replacement II	44,594	195,255	302,472	574,171	682,591	58,411	4,436,251	814,731	58,411	516,758	508,411	358,411	301,228	569,228	569,228	3,785,228	13,775,376
P35925	Dist. Customer Line Construction II	2,726,988	(622,522)	3,350,717	4,507,054	3,465,289	5,009,234	2,887,793	2,280,563	5,789,425	2,664,062	2,375,439	2,305,910	-	-	-	-	36,739,951
P36836	BR: Beaver Modernization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,172,085	10,172,085
P36680	Brookwood Substation Conversion	7,256	15,896	14,182	25,898	15,310	54,127	78,503	39,753	1,003	1,003	9,622,414	29,538	-	-	-	13,469,442	23,374,326
P36501	Integrated Operations Center - IOC	-	-	-	-	-	-	-	-	-	-	202,646,970	11,104,955	687,047	308,520	228,569	222,544	215,198,605
P17443	T&D Major System Inspect, Replace	1,222,379	2,490,784	2,269,618	4,066,594	3,742,382	4,809,597	5,377,074	5,437,380	5,700,678	5,572,923	5,550,427	4,813,054	10,814,574	10,814,574	10,814,574	10,814,574	94,311,187
	Grand Total	**28,119,207**	**55,972,536**	**33,180,627**	**51,006,806**	**54,151,718**	**81,681,488**	**72,366,845**	**56,966,763**	**45,716,217**	**42,504,733**	**273,794,943**	**86,867,190**	**19,929,832**	**15,592,604**	**133,064,722**	**62,176,035**	**1,113,092,267**

Capital Budget Comparison

		Updated AWEC Data Request 193																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P37048	Outage or Emergency Replacement	3,472,040	22,551,234	4,732,887	1,212,968	2,297,393	3,847,905	(775,150)	1,333,920	1,238,714	582,897	750,209	2,297,303	922,037	836,010	792,995	749,981	46,843,342
P37218	OH FITNES Distribution	-	-	-	-	-	-	-	-	-	-	-	-	1,673,324	2,079,758	2,379,490	2,868,260	9,000,832
P36868	Shute Capacity Addition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,012,272	284,903	18,297,176
P37241	Wildfire Mitigation-FITNES	-	-	-	-	-	-	-	-	-	-	-	-	413,785	859,951	2,305,351	2,049,852	5,628,939
P35890	Purchase Distribution Transformers	564,843	1,220,930	414,418	695,372	(312,025)	1,360,230	874,577	1,137,637	1,228,755	1,388,310	1,265,727	762,200	700,732	1,015,107	869,281	712,945	13,899,038
P35924	Distribution System Construction II	3,348,774	2,211,001	5,989,803	(325,949)	3,234,213	2,512,344	2,912,744	2,274,432	9,995,964	6,491,846	2,956,010	3,475,570	1,728,635	1,750,804	1,771,685	58,010	50,385,886
P37213	Distribution System Construct III	-	-	-	-	-	-	-	-	-	-	-	-	1,199,593	1,199,593	1,199,593	1,199,593	4,798,371
P14628	Replace Failed Underground Cables	1,488,780	919,921	1,782,904	1,375,133	1,497,308	1,354,413	1,848,489	1,047,171	1,129,854	940,006	1,009,622	1,164,019	1,257,595	1,257,595	1,257,595	1,257,595	20,588,000
P37093	Facilities Management Fitness	-	-	16,958	15,914	41,926	18,826	31,483	21,179	62,703	794,070	727,424	2,341,808	-	-	-	-	4,072,289
P36101	Substation Communication Upgrade	-	3,690	-	-	-	-	31,278,621	376,524	1,057,124	571,427	620,350	344,875	401,434	391,548	661,548	385,548	36,092,687
P36770	Street and Area Light Construction	483,680	535,883	412,409	1,309,378	745,510	1,602,333	415,066	1,533,089	810,249	878,065	768,515	546,551	595,186	1,022,970	1,022,970	1,251,181	13,933,034
P37046	T&D Asset Relocation	12,061	(146,889)	(754,919)	(34,002)	326,361	354,880	1,485,744	243,826	492,599	501,856	448,981	917,366	889,800	1,271,005	2,129,329	1,204,787	9,342,786
P37277	CY: Replace GT Equipment	-	-	-	-	-	-	-	-	-	-	-	3,360,098	-	-	-	-	3,360,098
P37135	2021 Server Storage Fitness	1,553	2,706	2,107	2,169	12,470	955,165	(195,255)	3,316,149	773,899	5,621	5,621	722,096	-	-	-	-	5,604,300
P36879	Advanced Dist Mgmt Sys(ADMS) Phs 1	-	23,450	(19,392)	-	-	-	-	-	-	-	-	28,819,125	351,221	504,520	727,365	-	30,406,289
P37162	Bill Redesign	-	-	-	-	-	-	-	-	-	-	-	3,103,196	-	-	-	-	3,103,196
P37049	Line Crew Truck Stock Materials	-	-	202,012	157,149	458,046	374,484	426,863	339,635	219,940	427,210	427,210	351,789	198,333	198,333	198,333	198,333	4,177,670
P37204	AMI Improvement Project	-	-	-	-	-	-	-	-	-	-	-	2,546,979	-	-	-	-	2,546,979
P37201	OCLC Project	-	-	-	-	-	-	-	2,528,170	785	-	-	-	-	-	-	-	2,528,956
P37274	Incremental Add 20 MD Bucket Trucks	-	-	-	-	-	-	-	-	-	-	-	2,400,000	-	-	-	-	2,400,000
P37214	Dist. Customer Line Construct III	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,279,709	2,279,709
P36911	Wildfire Mitigation	(24,831)	255,603	818,808	840,201	1,047,833	1,032,945	431,510	694,361	1,634,476	353,067	371,550	125,209	-	-	-	-	7,580,732
P37279	Maximo Licensing and Upgrade	-	-	-	-	-	-	-	-	-	-	-	2,105,869	-	-	-	-	2,105,869
P36545	Tree Wire Installment Program	77,729	90,264	643,611	1,007,811	650,921	694,721	857,149	314,672	172,809	-	111,937	113,610	42,051	246,451	124,982	135,121	5,283,840
P36391	Willbridge Station 11kV Conversion	17,159	-	-	1,326	5,035	(10)	127	11,549,396	385,774	208,272	156,817	89,489	-	-	-	-	12,413,385
P37251	PACS 2.0	-	-	-	-	-	-	-	-	-	-	-	-	435,000	330,000	680,000	250,000	1,695,000
P37264	PW: Purchase SOGAV Valves	-	-	-	-	-	-	-	-	-	-	1,653,879	-	-	-	-	-	1,653,879
P37047	Joint Pole Construction	427	9,162	(61,739)	361,448	270,498	1,125,243	196,347	(183,451)	1,026,304	551,153	380,143	319,102	320,335	320,336	320,336	320,336	5,275,979
P37085	CTO Infrastructure Fitness Blanket	-	-	-	-	-	-	-	-	-	-	-	-	903,177	903,177	903,177	903,177	3,612,710
P37207	Lightweight Design	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,482,873	1,482,873
P36859	ODOT Outer Powell Project Phase 2	738	4,226	234	4,214	3,292	1,905	5,946	4,451	5,407	126,260	79,620	17,208	375,666	375,666	375,666	375,666	1,756,163
P35484	Repl Trans Structures & Insulators	28,023	3,246	10,060	14,919	83,228	734,083	215,133	121,732	98,829	216,003	97,095	1,084,974	59,708	59,055	355,435	46,624	3,228,145
P37272	Oracle Utilities Upgrade	-	-	-	-	-	-	-	-	-	1,264,244	-	-	-	-	-	-	1,264,244
P36178	North Portland Conversion	-	-	-	-	-	-	-	-	-	666,497	69,268	-	-	722,913	27,713	-	1,486,391
P36341	St Marys System Protection Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,637,862	7,637,862
P35892	Purchase Customer Meters	131,534	127,176	948,144	553,579	756,262	335,744	118,570	420,364	647,086	317,093	422,437	595,303	559,279	252,963	438,477	201,125	6,825,136
P37242	Wildfire Mitigation-Tree Attachment	-	-	-	-	-	-	-	-	-	-	-	-	155,758	155,758	155,758	716,398	1,183,671
P37099	BR: Restore Beaver GT#5	-	-	-	6,143,498	132,034	851,423	(708,064)	703,928	67,997	-	-	-	-	-	-	-	7,190,816
P37131	2021 Desktop Fitness	-	47,253	56,345	263,929	58,977	264,246	(91,313)	482,309	481,182	460,000	510,000	707,790	-	-	-	-	3,240,716
P36740	Energy Storage Controls	599	3,736	11,413	26,258	1,556	29,063	8	2,723	448	-	-	-	-	-	-	1,242,308	1,318,112
P36464	Facilities Asphalt R&R Project	-	-	-	-	-	-	110,761	22,428	-	1,689,239	114,400	-	-	-	-	-	1,936,829
P36167	FY: Repower Faraday Units 1-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120,177,341	120,177,341
P36973	Build IVA	-	-	-	-	-	-	-	-	-	-	2,502,214	-	-	-	-	-	2,502,214
P37262	PW: Purchase Spare Turbo Assemblies	-	-	-	-	-	-	-	-	-	660,000	-	-	-	-	-	-	660,000
P36537	Unjacketed Cable Replacement Prgrm	214,151	85,741	383,104	376,724	558,771	479,835	315,010	409,986	410,738	544,792	209,565	441,823	122,976	122,976	148,627	-	4,824,820
P36683	PSES DCS Windows Security Upgrades	-	4,375	9,563	(98)	76	1,564	663	-	-	-	-	1,914,922	-	-	-	-	1,931,065
P35556	Avian Protection Program	39,373	51,870	91,434	50,199	28,155	50,194	144,411	60,716	92,782	173,615	211,097	10,192	-	28,005	53,598	73,144	1,158,785
P37133	2021 Network Fitness	1,405	-	20,942	124,890	80,353	262,411	29,519	382,655	120,739	298,117	623,117	1,279,862	110,000	-	-	-	3,334,011
P37103	ODOT OR213/SE82nd Foster to Lindy	103,040	106,314	227,532	141,365	142,605	117,306	(19,294)	301,915	(196,590)	-	-	279,217	159,332	86,332	161,332	161,538	1,771,944
P37089	Facilities Furniture Purchases	-	-	1,440	585	3,548	54,968	16,226	6,526	214,448	190,833	17,500	279,407	35,833	35,833	35,833	35,833	928,814
P37101	Tech CoE Automation 2020	97,823	86,131	24,426	60,836	221,672	58,774	65,991	41,975	39,299	-	-	-	-	-	-	-	696,928
P36679	Orenco Substation 115kV Rebuild	9,814	10,042	8,713	7,234	11,177	2,105	7,469	8,834	(8,192)	-	-	-	-	-	-	-	57,195
P37244	Wildfire Mitigation-Resiliency	-	-	-	-	-	-	-	-	-	-	-	-	113,434	113,434	194,894	54,014	475,775
P36656	Energy Storage - PW2 Project	-	-	-	-	-	-	-	-	-	-	6,208,124	-	-	-	-	-	6,208,124
P37225	Purch Inst BU Camera Older Models	-	-	-	-	-	-	-	345,374	6,365	36,334	36,334	36,334	-	-	-	-	460,742
P22723	Pelton/Round Butte PME - Aquatic Re	-	-	-	-	-	-	-	-	455,545	47,971	-	-	-	-	-	-	503,516
P37226	Electric Island Equip. Test& Eval.	-	-	-	-	-	-	-	-	-	-	-	446,541	-	-	-	-	446,541
P36599	PW: Install PW2 Blackstart LoadBank	-	-	-	-	-	-	-	-	-	4,026,505	5,000	-	-	-	-	-	4,031,505
P36587	Physical Access Control Sys (PACS)	65,068	16,587	17,792	(125)	1,023	(430)	340	13,716,764	18,244	-	-	-	-	-	-	-	13,835,262
P37211	Substation Cap Rplcmts 2022-2024	-	-	-	-	-	-	-	-	-	-	-	-	5,641	163,641	95,928	130,069	395,279
P37263	PRB: Install Fish Facility Upgrades	-	-	-	-	-	-	-	-	-	-	-	379,858	-	-	-	-	379,858
P36285	PurchaseT&D - Tools & Lab Equipment	149,940	-	122,302	43,148	33,038	10,224	66,355	186,253	71,107	52,460	41,506	37,477	75,010	66,854	65,896	83,658	1,105,228
P35572	Build New Rock Creek Substation	55,240	203,872	265,538	14,810	22,919	(108,043)	75,439	27,194	101,435	-	-	-	-	-	-	-	658,403
P37260	PRB: Install Oilless Dewater Pumps	-	-	-	-	-	-	-	-	-	-	353,104	-	-	-	-	-	353,104
P37034	Biglow Eagle Permit Mitigation	-	-	-	-	343,453	-	-	-	-	-	-	-	-	-	-	-	343,453
P36454	Substation Rerock - multiple sites	-	-	-	-	-	-	-	-	-	-	-	337,604	-	-	-	-	337,604
P35663	Harborton NRD Mitigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	303,022	-	303,022
P36466	BR - GSU Transformer Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	280,915	19,822	104,562	-	405,299
P14757	Underground Locating	24,453	(24,453)	-	133,645	10,099	36,164	135,420	51,611	58,655	96,238	21,300	17,250	25,550	21,900	21,900	32,850	662,583
P36412	Incremental Added Vehicles	-	-	629	2,864	-	66	2,853	1,244	944	-	-	-	-	-	-	252,000	260,600
P36373	Blue Lake Phase II	596,875	31,337	31,561	8,438	23,758	68,044	56,709	48,613	85,582	83,089	104,060	13,800	-	-	-	-	1,151,867
P36645	DPU Relay Replacement Program	146,876	12,262	6,503	7,234	9,634	7,197	257,614	8,104	9,328	205,702	28,820	9,231	-	-	-	-	708,506
P36235	Install Low OH Services Guarding	43,966	56,689	(79,032)	48,106	6,558	36,900	154,639	196,818	2,123	39,279	47,244	66,765	8,925	90,033	-	90,033	809,047
P37227	Outage Map Improvement	-	-	-	-	-	-	-	-	-	-	-	207,864	-	-	-	-	207,864
P36970	2020 Network Blanket	182,613	161,290	108,324	198,454	6,808	(1,867)	875	578	801	-	-	-	-	-	-	-	657,877
P36971	2020 Server Storage Blanket	35,311	19,599	402,547	11,230	1,426	(620)	113	184,926	48	-	-	-	-	-	-	-	654,580
P36899	T&D BSG Reserve	6,614	2,499	2,901	(1,977)	20,455	7,887	(39,460)	22,908	185,804	-	-	-	-	-	-	-	207,630
P35591	As-Built Drawings - Generation	126,151	127,575	145,865	109,007	95,090	97,774	65,401	122,680	69,159	51,521	42,463	33,235	69,054	69,051	69,051	69,051	1,362,131
P16567	UG FITNES	15,179	44,869	28,789	76,906	77,757	76,422	46,995	103,119	52,544	78,523	93,793	89,991	35,519	30,956	104,930	44,646	1,000,939
P36039	Harborton Reliability Project PH1	(774,242)	164,020	777,038	(758,946)	7,543,281	138,119	15,706	5,953	23,852	(19,771)	351,892	71,172	-	-	2,103,028	-	9,641,101
P37001	Helvetia Sub-Temp G Installation	-	-	-	-	-	-	-	-	-	-	36,750	-	-	-	-	-	36,750
P36543	PRC-002 Protection Upgrades	-	281	-	-	694,434	4,113	7,028	(660)	1,725	-	-	2,047,116	13,140	-	-	-	2,767,177
P36299	RB: Install Forebay Guidance Net	168,621	-	-	2,034	3,953	2,977	1,128	-	-	168,858	-	-	-	-	-	-	347,571
P36270	Roseway Substation Expansion	-	18,971,723	127,166	278,459	7,797	91,742	64,616	855	2,048	-	-	-	-	-	-	-	19,544,405
P35217	Generation Cap Tools & Lab Equip	-	37,482	19,669	2,474	50,651	5,829	5,803	40,724	2,475	68,750	78,750	65,000	33,750	23,750	43,750	73,750	552,607
P37232	Communications Fitness II	-	-	-	-	-	-	-	-	-	-	-	-	41,496	41,496	41,496	41,496	165,982
P36855	Wheatridge Renewable Enrgy Facility	32,697	13,485	313,272	69,532	5,675	35,519	347,764	67	37,806	-	-	-	-	-	-	-	855,817

		Updated AWEC Data Request 193																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P35846	CPP Switch Replacement	59,254	9,770	137,680	(2,269)	33,217	(86)	312	13,578	146,568	83,987	42,545	77,536	49,327	49,328	49,328	49,328	799,404
P36602	RB: Replace Hatchery Chiller System	-	-	-	-	-	-	-	-	-	1,061,327	-	-	-	-	-	-	1,061,327
P36989	NW WAN 2020	4,861	169,658	5,920	16,839	13,248	11,601	11,322	14,585	65,568	-	-	-	-	-	-	-	313,602
P37236	Gresham LCC Shed	-	-	-	-	-	-	-	-	-	-	-	132,182	-	-	-	-	132,182
P35650	Emergent Radio Equipment	693	133	1,436	7,566	49,240	43,539	24,598	4,751	13,671	3,061	3,061	3,061	-	-	-	-	154,809
P36525	2018 Desktop Vintage	49,537	50,124	56,355	58,701	32,662	-	-	-	33,601	-	-	-	-	-	-	-	280,980
P36949	Build Web Next Gen 2.0	251,458	12,734	9,291	46,243	21,678	9,459	2,471	39,682	3,446	-	-	-	-	-	-	-	396,463
P36571	Marquam Radial Feeder Addition	-	-	-	340,816	8,920,772	8,112	32,020	159,437	111,731	-	-	-	-	-	-	-	9,572,888
P36563	Battery Safety Improvements	530	23,254	1,328	15,708	38,007	52,002	40,037	57,633	54,202	89,946	56,800	-	-	-	50,554	45,254	525,256
P36672	Boardman Decommissioning	-	-	-	-	-	-	-	-	-	70,000	-	-	-	-	-	-	70,000
P35995	Downtown UG Core Cable Replacement	1,732	4,051	167,215	311,761	19,139	1,952	142,011	178,405	13,592	1,033	1,168	40,321	1,430	1,430	1,430	1,430	888,098
P36105	2016-2023 Dispatchable Standby Gen	69,226	-	142	(4)	100	(2)	0	893	-	-	-	1,559,154	-	-	-	-	1,629,510
P37107	PBT Transmission Line Relocation	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2
P36205	Metal Streetlight Grounding	-	-	-	-	-	-	-	-	7,073	40,678	50,228	48,813	17,277	17,277	17,277	17,277	215,899
P37106	Mobile 2.0	-	-	720,301	3,983	67,174	1,860	6,390	19,605	(56,540)	-	-	-	-	-	-	-	762,773
P36449	PRB: Upgrade Governors & Exciters	10,330	29,601	5,939	8,912	29	(3,306)	-	17,671	12,014	-	-	-	-	-	-	-	81,190
P36307	PRP - Vehicles & Capital Equipment	-	-	(38,569)	38,569	-	-	-	-	-	-	-	-	-	-	-	-	-
PX0041	Hydro & Wind Fitness Capital Job Fu	-	-	-	-	-	-	-	-	30,372	-	-	-	-	-	-	-	30,372
P35914	Substation Fitness 2015-2018	-	-	0	-	-	5,683	-	22,937	1,694	-	-	-	-	-	-	-	30,314
P35212	Misc. Pumps, Valves, Motors	-	26,332	-	8,086	2,152	20,835	48,601	18,429	20,989	26,249	26,249	92,265	26,249	26,249	26,249	26,249	395,181
P35980	PCB Transformer Replacement	(4,060)	2,370	-	-	18,710	-	6,479	-	-	(96,630)	-	-	-	-	-	-	(73,131)
P35349	Dist Line Sys - Equip Replacement	86,100	53,043	110,891	19,615	13,655	2,086	28,769	7,208	37,950	25,813	12,126	9,963	39,935	37,308	37,308	45,187	566,958
P37015	Electronic Payments Redesign	4,881	7,255	3,628	2,418	5,033	11,628	4,051	-	-	-	-	-	-	-	-	-	38,895
P37019	OG: Improve Access to West Portal	-	-	-	-	-	-	-	-	-	-	-	82,590	-	-	-	-	82,590
P36888	2020 Fitness for Facilities Managem	230,416	7,918	5,635	11,411	1,427	2,983	929	-	-	-	-	-	-	-	-	-	260,720
P35193	BN-Add Water Treatment Automation	-	-	-	-	-	-	-	133	-	13,461	-	-	-	-	-	-	13,594
P23528	Clackamas PME - Recreation, Aesthet	4,973	6,180	13,049	12,465	17,043	6,545	15,458	29,095	45,054	41,765	23,600	11,800	-	-	-	-	227,027
P37108	Proactive Outage	-	-	710,814	20,383	15,002	445	1,113	310	(84)	-	-	-	-	-	-	-	747,982
P36166	Orient sub: Capacity Addition	-	-	-	-	-	10,792	-	-	-	-	-	-	-	-	-	-	10,792
P36099	Replace KTS at Malin	-	-	-	-	71,107	10,382	-	-	(71,107)	-	-	-	-	-	-	-	10,382
P36898	2020 Infrastructure Fitness Blanket	2,760	104	734	3,111	2,473	507	370	(42)	3,360	-	-	-	-	-	-	-	13,376
P37042	Purchase the SN IRM Module	320,249	136,724	-	7,556	-	-	-	-	-	-	-	-	-	-	-	-	464,529
P36510	CY: Water Treatment System Upgrades	26,545	25,633	1,245	983	2,640	2,627	1,014	-	-	-	-	-	-	-	-	-	60,687
P36884	Facilities Capital Furn 2020	(372)	718	-	7,040	-	-	-	-	-	-	-	-	-	-	-	-	7,386
P36947	Install RB-Grizzly Comm Line	(28,794)	(101)	125	4,030	-	-	-	2,846	-	-	-	-	-	-	-	-	(21,893)
P36872	CS: DCS Windows Upgrade	114	2,040	(11,298)	611	105	5,572	121	-	-	-	-	-	-	-	-	-	(2,734)
P36527	TRIP (TripSaver II) Implementation	-	-	-	-	-	-	-	-	6,272	-	-	-	-	-	-	-	6,272
P24723	Substation Arc Flash Mitigation	-	-	619	319	-	961	4,670	-	-	-	-	-	-	-	-	-	6,568
P35842	N. Plains - Pumpkin Ridge Recond.	-	-	-	5,761	-	-	-	-	-	-	-	-	-	-	-	-	5,761
P37113	Web Next Gen 2.0 Phase II	-	-	1,081,581	4,918	116	(53)	9	(25)	(4)	-	-	-	-	-	-	-	1,086,542
P36497	3G Meter Replacement Project	22	(2)	(0)	(0)	0	2,197	17	2,356	-	-	-	-	-	-	-	-	4,590
P35061	Install UI Planner Model	-	-	-	-	650	-	-	3,850	(1,275)	-	-	-	-	-	-	-	3,225
P35149	Colstrip Transmission NW Energy	8,348	35,681	47,017	19,129	124,463	65,457	-	12,815	151,221	(53,720)	61,700	61,700	35,729	35,729	35,729	35,729	676,727
P35344	Install LED Streetlights	-	-	-	-	-	-	705	-	-	1,865	-	-	-	-	-	-	2,570
P26874	QRP Reliability Improvements (2012-	-	-	-	-	2,553	-	-	-	-	-	-	-	-	-	-	-	2,553
P36987	BR: Upgrade Metalclad Switchgear	-	-	-	-	-	-	-	-	-	-	432,952	-	-	-	-	-	432,952
P26261	Mt Hood Corridor Reliability Projec	-	-	-	-	-	-	-	-	1,325	-	-	-	-	-	-	-	1,325
P35085	Substation Fitness	-	-	-	-	-	-	1,749	165	(994)	80	-	-	-	-	-	-	1,000
P36546	Data Center Resiliency 2018	264	11,254	970	(10)	133	(5)	1	214	453	-	-	-	-	-	-	-	13,275
P36151	Eagle Take Permitting	-	-	500	-	-	742	1	-	-	-	-	-	-	-	-	-	1,243
P37127	Golden Hills - Integration Project	-	-	-	-	-	-	-	-	-	-	-	(155,990)	-	-	-	-	(155,990)
P36968	2020 Desktop Fitness/Vintage	720	36,313	222,607	(36)	683	(12)	2	-	-	-	-	-	-	-	-	-	260,278
P36690	New 115kV Tapline for CRPUD Sub	-	-	-	492	-	-	-	-	-	-	-	-	-	-	-	-	492
P36937	North Lombard ODOT Project	49,011	6,010	(8)	450	14	(6)	1	-	-	-	-	-	-	-	-	-	55,471
P35570	West Union - 115kV Conversion	-	-	-	436	-	-	-	-	-	-	-	-	-	-	-	-	436
PX0045	Thermal Fitness Capital Job Fund <$	-	-	-	432	-	-	-	-	-	-	-	-	-	-	-	-	432
P35096	Dist Customer Line Construction	8,424	-	4,537	-	-	37	-	276	-	-	-	-	-	-	-	-	13,274
P36271	OG: Timothy Spillway Modifications	-	2,377	283	107	59	(25)	110	-	-	-	-	-	-	-	-	-	2,912
P36327	Replace Kelley Point Switchgear	-	-	-	-	-	-	-	164	-	-	-	-	-	-	-	-	164
P27149	DSG Dispatchable Standby Generation	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	150
P36324	Garden Home Substation Upgrade	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	110
P36456	RB - Replace Governors	-	-	-	102	-	-	-	-	-	-	-	-	-	-	-	-	102
P19712	Underperforming Feeder Improvements	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	94
P35802	Horizon Phase II Project	-	-	-	-	83	-	-	-	-	-	-	-	-	-	-	-	83
P35199	BR - Install Raw Water Clarifier	-	-	-	75	-	(65)	-	-	-	-	-	-	-	-	-	-	10
P36487	PGE Safety - Vehicle for Generation	-	1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	1
P36706	HR Optimization Project	180,325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180,325
P35769	Construct Carty Generating Plant	44,866	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44,866
P35834	Round Butte Transmission Upgrades	1,964	36,785	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38,749
P36551	Kelley Point Switch Replacement	-	14,842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,842
P36814	2019 Desktop Fitness/Vintage	12,437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,437
P35908	SAM: Proactive UG Cable Program	-	3,489	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,489
P36886	ERC/CSS Remodel	1,926	-	167	-	-	-	-	-	-	-	-	-	-	-	-	-	2,093
P35214	BN - Misc. Pumps. Valves, Motors	258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	258
P35965	PW: Upgrade CT to G1+	-	-	236	-	-	-	-	-	-	-	-	-	-	-	-	-	236
P35155	Install NERC CIP Substation Access	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	200
P35050	HL - Clackamas Micro Turbines	-	-	-	4,546	-	(4,546)	-	-	-	-	-	-	-	-	-	-	-
P35156	PW: Install New DCS Upgrade	269,500	(269,500)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36508	Verizon High Speed Deployment	-	-	-	-	-	-	(113,072)	124,939	218,047	(229,914)	-	-	-	-	-	-	-
P36649	Budget Only: Customer BSG Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P22722	Pelton/Round Butte PME - Recreation	-	-	-	-	-	-	-	-	-	(187)	-	-	-	-	-	-	(187)
P36878	PSLD Regional Decentralization	21,445	-	(111,266)	-	-	-	-	-	-	-	-	-	-	-	-	-	(89,821)
P23631	Clackamas PME - Mitigation Fund	-	(125,539)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(125,539)
P35679	Construct Marquam Project	-	711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	711
P37045	RB: Modify Spillway Plug Anchorage	2,833	17,391	(67)	(28)	37	(18)	3	-	-	-	-	-	-	-	-	-	20,151
P36433	BR: Upgrade Critical Valves	19,286	-	3,490	(90)	70	(29)	6	-	-	-	-	-	-	-	-	-	22,732
P35407	2020 Vision Wave 2 -MMS,GIS,OMS	-	-	-	-	(57)	-	-	-	-	-	-	-	-	-	-	-	(57)
P36727	Energy Storage, Microgrid	-	-	-	-	-	-	-	-	-	-	-	1,068,911	86,476	130,680	-	-	1,286,067
P36852	M400 Tower Improvements	114	60	(0)	(931)	0	(0)	-	-	-	-	-	-	-	-	-	-	(756)

		Updated AWEC Data Request 193																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P35351	Major Event Tracking	16,273	(1,838)	1,072	(335)	(683)	(69)	92	(112)	56	-	-	-	-	-	-	-	14,455
P36470	Sensus DT34 Meter Exchanges	10,165	4,303	1,415	670	(6,150)	2,043	923	253	-	-	-	-	-	-	-	-	13,622
P36087	PRB - Misc. Pumps, Valves, Motors	-	-	-	-	-	3,275	143	-	-	1,110	1,110	1,110	1,110	1,110	1,110	1,115	11,191
P36462	EV Charging Network Expansion	387	-	-	(8,000)	-	-	-	-	-	-	-	-	-	-	-	-	(7,613)
P36921	PGE/DTNA HD charging Demonstration	-	-	-	1,570,821	1,563	(36)	15,670	6,501	47	-	-	-	-	-	-	-	1,594,567
P36246	Malin Physical Security Upgrades	-	-	-	-	-	-	-	-	(18,907)	-	-	-	-	-	-	-	(18,907)
P35221	PRB Capital Tools & Lab Equip	-	-	-	-	-	5,964	-	-	1,748	5,050	5,050	5,053	5,051	5,050	5,050	5,050	43,067
P36408	Parks Fitness Fund	4,836	-	-	25,023	3,334	-	44,080	70,315	-	-	59,101	158,079	-	-	59,553	-	424,320
P36996	New PowerPlan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P22771	PRB PME - Habitat Fund	-	-	-	-	-	-	-	-	-	46,810	-	5,282	-	-	-	-	52,092
P37126	Walker Rd Beaverton-Road Widening	-	-	-	-	-	-	-	-	-	-	-	-	-	231,830	-	-	231,830
P37157	Mobile 3.0	-	-	-	-	-	-	-	-	-	-	-	1,843,096	-	-	-	-	1,843,096
P37175	Electronic Payment Redesign Phase 2	-	-	-	-	-	-	-	-	-	-	911,824	140,756	-	-	-	-	1,052,579
P36439	Gresham Sub 115kV Rebuild	158,403	(7,857)	7,761	(1,184)	(493)	103	602	-	18	-	-	-	-	-	-	-	157,354
1	PGE O&M Tracking AWOs ONLY	(54,403)	(50,070)	-	-	27,930	(0)	(162,544)	162,544	-	-	-	-	-	-	-	-	(76,544)
P36447	PW: Upgrade CTG Excitation Equip	-	-	-	-	-	208,830	104,504	(26)	553	-	-	-	-	-	-	-	313,862
P36628	BR: Replace U5 Exhaust Frame	-	-	-	1,552,518	194,471	(14,129)	16	(38)	9,141	-	-	-	-	-	-	-	1,741,981
P18834	Station E: River District Infrastr	-	-	-	-	-	-	-	-	-	4,884,148	31,211	30,298	25,481	25,481	25,481	25,481	5,047,583
P37155	Time of Day	-	-	-	-	-	-	-	-	-	761,359	-	-	-	-	-	-	761,359
P37168	2021 QF Projects	-	-	-	-	-	-	-	-	-	-	-	(23,083)	16,364	-	(139,241)	-	(145,961)
P36639	RB Station Service Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P23970	Corporate Strategic Fiber Project	130	9,514	(10)	59,767	14,232	(24)	296	(139)	90	-	-	237,193	-	-	-	-	321,049
P37136	AppWorx Replacement	-	-	-	-	-	-	-	-	-	-	-	147,798	-	-	-	-	147,798
P36170	OHSU Infrastructure Upgrades	-	3,947	-	-	2,136	-	-	-	-	38,131	17,996	43,934	-	-	-	-	106,143
P35938	Field Voice Communications System	(33,892)	102,046	94,255	37,361	(454,914)	69,341	27,969	39,951	21,889	3,170,202	34,576	12,922	-	-	-	-	3,121,703
P36564	Stephens 11kV Conversion Project	-	-	-	-	-	-	-	-	(211,108)	-	-	-	-	-	-	-	(211,108)
P36716	Arleta-Holgate Ln Rebuild SE PDX	-	-	-	-	-	-	-	-	(221,347)	-	-	-	-	-	-	-	(221,347)
P36763	Install Horizon VWR3 Transformer	-	1,478	8,805	9,741	5,877,136	301,511	103,549	2,429,031	43,559	-	-	-	-	-	-	-	8,774,810
P37114	Project BaT	939	1,885	6,639	6,222	10,387	3,875	3,695	981,658	124,345	282,543	4,588	-	-	-	-	-	1,426,776
P36713	Dayton-Gr Ronde Conv Segment 1	-	-	-	-	-	-	-	-	(230,734)	-	-	-	-	-	-	-	(230,734)
P36907	Reconductor Murrayhill-St Marys	-	-	-	-	-	-	-	-	-	-	6,894,240	798,917	-	-	-	-	7,693,156
P35894	Communications Fitness	(39,200)	57,598	12,011	12,486	12,511	11,329	3,753	5,306	146,816	53,306	53,306	53,443	-	-	-	-	382,665
P37020	Marquam Fiber Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36641	Oil Spill Containment Modifications	-	-	-	43,029	(225)	41,760	449	(478)	31,492	81,975	57,602	-	-	-	-	-	255,605
P36089	Transm Full Pole Inspct & Replace	5,613	38,388	8,162	24,209	81,821	20,221	108,205	193,015	160,333	291,349	393,600	382,467	146,938	146,939	146,938	146,939	2,295,137
P36582	Substation FITNES 2019-2021	1,119,745	7,757	169,975	212,171	117,174	714,236	42,587	45,829	219,522	148,369	308,302	579,645	68,705	514,602	68,705	133,685	4,471,009
P35565	PSES - Generation Site Paving	-	-	-	-	113,022	(47)	1,933	313	3,219	-	11,568	-	-	-	-	-	130,008
P37097	Replace Microwave Transfer Trip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P37112	Kelley Point Reconfiguration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P24995	PRB Water Fund	(6,154)	-	-	166,675	-	(42,046)	-	-	-	(577,709)	-	-	-	-	-	-	(459,234)
P37111	Supply Chain Evolution	-	-	-	-	-	-	-	-	-	6,771,374	1,550,022	868,993	-	-	-	-	9,190,389
P36829	Sherwood Training Center	-	-	-	-	-	-	-	-	-	10,857,160	-	-	-	-	-	-	10,857,160
P37121	Durham Substation Separation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36867	Remote Disconnect Project	37,624	31,646	973,181	189,610	620,137	615,620	(439,980)	20,247	9,869	-	-	-	255,747	255,747	259,125	259,125	3,087,697
P35959	WSH Structural/Reliability Upgrades	31,835	1,139	(50)	(111)	3,097	-	-	-	-	-	-	-	-	-	-	-	35,910
P37143	Credit Remote Connect Meters	-	-	-	-	-	-	699,451	-	469,640	255,269	24,153	23,747	237,107	237,107	237,107	237,107	2,420,689
P35228	Clackamas PME Road Fund	-	-	-	-	-	-	-	-	-	1,720,889	-	-	-	-	-	-	1,720,889
P37094	Replace SCADA RTU with SER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36910	Outer Div Multi-Modal Safety Proj	1,418,127	139,434	743,446	(160,589)	(198,722)	(8,998)	30,983	(27,189)	57	-	-	-	-	-	-	-	1,936,549
P37061	OH FITNES Transmission	123	51,584	48,053	171,513	56,375	16,794	84,813	103,509	1,041,336	577,448	876,630	5,567	126,578	184,992	316,684	498,725	4,160,724
P37110	Restore Bethel-RB 230 kV Line	164,768	1,327,256	(51,764)	(3)	2	(1)	1,994,484	12,078	221	-	-	-	-	-	-	-	3,447,042
P36708	Butler Substation Construction	1,522,234	211,485	106,515	18,025,006	182,006	153,144	93,522	47,406	(323,631)	4,393,097	373,014	15,635	-	-	-	-	24,799,433
P36100	Bethel to Round Butte Fiber	-	-	-	-	-	(1,144,934)	-	-	-	-	-	-	-	-	-	-	(1,144,934)
P36742	RM: Rewind Units 3, 2, 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36693	Build Helvetia Substation	-	23	-	-	-	-	-	18,838,170	2,188,170	(30,708)	228,881	-	-	-	-	-	21,224,535
P36732	CY: Implement Carty Separation Plan	-	-	-	-	469,793	2,753	1,232	2,275	425,927	-	10,099,173	180,967	-	-	-	-	11,182,121
P37095	SCADA Replacement - Grizzly Sub	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36134	Hydro Control System Upgrade	7,814	255,783	(51,064)	(140,940)	1,810	(123)	-	-	-	3,136,173	33,500	-	-	54,814	11,149	-	3,308,916
P36522	Distribution Automation	272,336	812,932	903,887	344,395	513,920	1,845,224	767,685	380,676	1,034,713	1,365,657	720,666	459,301	14,636	324,002	569,281	994,983	11,324,294
P37118	WSH:Restore Facilities post-fire	-	-	-	-	-	-	354,624	2,554	13	6,484	4,930,068	113,629	-	-	-	-	5,407,374
P36762	Milliken Tower Reinforcement	-	-	-	-	-	-	-	-	-	-	-	-	-	3,763,127	292,000	-	4,055,127
P36913	Trans. Line Clearance Mitigation	471,935	339,740	252,212	374,810	145,287	201,020	394,964	427,579	265,995	810,992	787,791	20,472	60,833	60,833	187,131	376,584	5,178,180
P35172	PSES - Generation Fitness Fund	9,265	2,222	64,527	475,854	1,024,064	260,663	(8,846)	1,273	453,921	314,454	1,157,676	51,189	-	-	-	-	3,806,263
P37109	Customer Data Centers	-	32,202	(1,238,809)	1,026,529	1,309,187	(208)	1,823,102	26,544	304,131	188,097	-	-	-	-	-	-	3,470,774
P36417	Replace/Rewind Failed Transformers	16,020	5,832	1,447,034	44,436	6,030	605,851	98,808	619,225	636,957	-	-	476,043	236,839	-	-	-	4,193,075
P36723	Field Area Network Project	392,431	340,586	896,140	372,513	118,266	390,763	309,804	435,391	563,927	181,777	242,601	185,470	202,633	202,633	934,633	877,202	6,646,771
P36550	Small Gen/QF/NM Interconnect Costs	8,813	(16,321)	(227,653)	(13)	10	3,483	20	20,943	656	(3,016,150)	331,919	158,206	3,353	1,535	-	-	(2,731,199)
P36116	Wind Generation Fitness Program	191,514	7,147	146,196	357,261	457,180	(91,646)	244,921	250,744	1,047,423	652,840	441,585	1,468,347	-	-	116,000	-	5,289,511
P36861	Division Transit Project (DTP)	19,796	1,146,719	1,499,666	9,343	(398,996)	325,639	403,594	(55,990)	93,862	-	-	-	-	-	-	-	3,043,633
P22449	P22449 Colstrip Capital Proj PPL	5,659,857	602,895	5,226	3,333	52,877	17,851	4,762,092	209,086	40,618	846,881	1,264,401	116,545	509,517	509,517	509,517	509,517	15,619,730
P37017	Facilities Upgrades-EV Readiness	-	-	-	-	-	607,604	272	(607,875)	-	-	-	-	-	4,069,634	53,781	53,781	4,177,195
P36394	Vintage Vehicle Replacement II	44,594	195,255	302,472	856,293	359,037	1,728,112	943,258	712,985	1,290,154	994,451	1,206,931	845,728	301,228	301,228	301,228	569,228	10,952,182
P35925	Dist. Customer Line Construction II	2,726,988	(622,522)	3,350,717	2,344,896	1,978,980	3,591,680	(343,040)	972,316	3,293,147	4,079,900	3,441	2,406,262	2,298,228	2,298,228	2,298,182	-	30,677,401
P36836	BR: Beaver Modernization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36680	Brookwood Substation Conversion	7,256	15,896	14,182	13,321	7,516	7,474	21,528	9,085	(334,520)	-	-	10,808,006	96,509	25,109	-	-	10,691,363
P36501	Integrated Operations Center - IOC	-	-	-	-	-	-	-	-	-	172,150,593	4,587,965	4,984,232	2,155,332	1,182,883	3,402,013	11,973,219	200,436,236
P17443	T&D Major System Inspect, Replace	1,222,379	2,490,784	2,269,618	2,481,427	2,377,273	4,419,560	4,502,994	4,028,681	5,014,176	3,400,142	4,774,823	3,678,309	-	-	-	-	40,660,167
	Grand Total	**28,064,804**	**55,922,466**	**33,180,627**	**46,112,605**	**45,866,895**	**34,128,583**	**58,561,166**	**75,656,036**	**41,835,408**	**245,158,224**	**67,089,189**	**100,692,052**	**21,331,835**	**31,361,999**	**50,130,497**	**166,013,802**	**1,101,106,188**

Capital Budget Comparison

		Delta																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P37048	Outage or Emergency Replacement	-	-	-	5,795,408	839,190	2,389,702	(2,233,353)	(124,282)	(219,488)	(875,306)	(707,994)	839,432	922,037	836,010	792,995	749,981	9,004,332
P37218	OH FITNES Distribution	-	-	-	-	-	-	-	-	-	-	-	-	1,673,324	2,079,758	2,379,490	2,868,260	9,000,832
P36868	Shute Capacity Addition	-	-	-	-	-	-	-	-	-	-	-	(10,006,219)	-	-	18,012,272	284,903	8,290,956
P37241	Wildfire Mitigation-FITNES	-	-	-	-	-	-	-	-	-	-	-	-	413,785	859,951	2,305,351	2,049,852	5,628,939
P35890	Purchase Distribution Transformers	-	-	-	59,221	(919,891)	530,503	198,572	436,138	599,980	769,646	537,401	(143,646)	700,732	1,015,107	869,281	712,945	5,365,989
P35924	Distribution System Construction II	-	-	-	(6,736,018)	383,553	(991,692)	168,993	(264,021)	7,468,878	3,964,760	428,924	(4,883,559)	1,728,635	1,750,804	1,771,685	58,010	4,848,953
P37213	Distribution System Construct III	-	-	-	-	-	-	-	-	-	-	-	-	1,199,593	1,199,593	1,199,593	1,199,593	4,798,371
P14628	Replace Failed Underground Cables	-	-	-	(294,656)	317,422	275,160	614,236	(342,082)	(259,399)	(294,247)	(206,341)	(45,397)	1,257,595	1,257,595	1,257,595	1,257,595	4,795,075
P37093	Facilities Management Fitness	-	-	-	(11,837)	(18,900)	(9,107)	18,929	21,179	62,703	794,070	603,180	2,327,496	-	-	-	-	3,787,712
P36101	Substation Communication Upgrade	-	-	-	-	-	-	31,278,621	376,524	1,057,124	571,427	(31,685,838)	168,273	401,434	391,548	661,548	385,548	3,606,208
P36770	Street and Area Light Construction	-	-	-	552,891	(414,652)	4,217	(433,165)	684,616	(38,752)	(31,307)	(527,338)	(183,606)	595,186	1,022,970	1,022,970	1,251,181	3,505,211
P37046	T&D Asset Relocation	-	-	-	(658,207)	(253,255)	(64,595)	174,109	(704,402)	(171,598)	(162,341)	(280,843)	335,660	889,800	1,271,005	1,813,363	1,204,787	3,393,483
P37277	CY: Replace GT Equipment	-	-	-	-	-	-	-	-	-	-	-	3,360,098	-	-	-	-	3,360,098
P37135	2021 Server Storage Fitness	-	-	-	(241,267)	(190,967)	831,728	(318,692)	3,192,713	650,463	(114,379)	(114,379)	(432,372)	-	-	-	-	3,262,849
P36879	Advanced Dist Mgmt Sys(ADMS) Phs 1	-	-	-	-	-	-	(26,184,901)	(805,670)	(96,513)	(97,475)	(97,475)	28,721,650	351,221	504,520	727,365	-	3,022,722
P37162	Bill Redesign	-	-	-	-	-	-	-	-	-	-	-	2,919,134	-	-	-	-	2,919,134
P37049	Line Crew Truck Stock Materials	-	-	-	12,564	313,461	229,899	282,278	195,050	75,355	282,625	282,625	207,204	198,333	198,333	198,333	198,333	2,674,393
P37204	AMI Improvement Project	-	-	-	-	-	-	-	-	-	-	-	2,546,979	-	-	-	-	2,546,979
P37201	OCLC Project	-	-	-	-	-	-	-	2,528,170	785	-	-	-	-	-	-	-	2,528,956
P37274	Incremental Add 20 MD Bucket Trucks	-	-	-	-	-	-	-	-	-	-	-	2,400,000	-	-	-	-	2,400,000
P37214	Dist. Customer Line Construct III	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,279,709	2,279,709
P36911	Wildfire Mitigation	-	-	-	150,319	28,924	475,681	199,974	579,725	1,248,063	(43,330)	320,464	(697,500)	-	-	-	-	2,262,322
P37279	Maximo Licensing and Upgrade	-	-	-	-	-	-	-	-	-	-	-	2,105,869	-	-	-	-	2,105,869
P36545	Tree Wire Installment Program	-	-	-	42,662	99,182	566,752	585,364	45,916	(95,947)	(606)	111,331	90,922	42,051	246,451	124,982	135,121	1,994,180
P36391	Willbridge Station 11kV Conversion	-	-	-	1,326	5,035	(10)	(9,506,245)	11,241,072	45,839	(148,368)	105,831	72,820	-	-	-	-	1,817,300
P37251	PACS 2.0	-	-	-	-	-	-	-	-	-	-	-	-	435,000	330,000	680,000	250,000	1,695,000
P37264	PW: Purchase SOGAV Valves	-	-	-	-	-	-	-	-	-	-	1,653,879	-	-	-	-	-	1,653,879
P37047	Joint Pole Construction	-	-	-	(700,621)	(39,032)	852,618	(252,270)	(590,118)	814,575	56,866	(53,738)	240,469	320,335	320,336	320,336	320,336	1,610,090
P37085	CTO Infrastructure Fitness Blanket	-	-	-	-	-	(287,476)	(337,476)	(337,476)	(337,476)	(287,476)	(287,476)	(247,476)	903,177	903,177	903,177	903,177	1,490,378
P37207	Lightweight Design	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,482,873	1,482,873
P36859	ODOT Outer Powell Project Phase 2	-	-	-	1,792	946	(802)	(2,471)	(5,209)	(81,753)	37,996	(8,644)	5,077	375,666	375,666	375,666	375,666	1,449,595
P35484	Repl Trans Structures & Insulators	-	-	-	6,318	78,171	78,302	(204)	(67,831)	(91,735)	(14,025)	(132,183)	918,522	59,708	59,055	355,435	46,624	1,296,154
P37272	Oracle Utilities Upgrade	-	-	-	-	-	-	-	-	-	1,264,244	-	-	-	-	-	-	1,264,244
P36178	North Portland Conversion	-	-	-	-	-	-	-	-	(128,946)	659,365	60,164	(22,400)	(55,211)	722,913	27,713	(5,077)	1,258,521
P36341	St Marys System Protection Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,241,681	1,241,681
P35892	Purchase Customer Meters	-	-	-	33,140	425,761	5,243	(211,931)	253,467	480,189	64,030	91,936	264,802	144,483	(161,833)	23,681	(213,671)	1,199,295
P37242	Wildfire Mitigation-Tree Attachment	-	-	-	-	-	-	-	-	-	-	-	-	155,758	155,758	155,758	716,398	1,183,671
P37099	BR: Restore Beaver GT#5	-	-	-	5,339,934	(5,106,209)	851,423	(708,064)	703,928	67,997	-	-	-	-	-	-	-	1,149,008
P37131	2021 Desktop Fitness	-	-	-	38,929	(166,023)	39,246	(316,313)	257,309	256,182	235,000	285,000	482,790	-	-	-	-	1,112,118
P36740	Energy Storage Controls	-	-	-	13,758	(20,944)	4,063	(24,992)	(11,027)	(12,802)	(7,500)	(7,400)	(7,800)	(29,583)	(29,583)	(29,583)	1,212,724	1,049,331
P36464	Facilities Asphalt R&R Project	-	-	-	(162,214)	(162,214)	(162,214)	(51,453)	(139,786)	(162,214)	1,527,025	114,400	-	-	-	-	-	801,329
P36167	FY: Repower Faraday Units 1-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(117,503,218)	118,295,921	792,703
P36973	Build IVA	-	-	-	-	-	(1,782,929)	-	-	-	-	2,502,214	-	-	-	-	-	719,285
P37262	PW: Purchase Spare Turbo Assemblies	-	-	-	-	-	-	-	-	-	660,000	-	-	-	-	-	-	660,000
P36537	Unjacketed Cable Replacement Prgrm	-	-	-	(729,027)	(451,174)	(241,605)	(375,191)	409,986	410,738	544,792	209,565	441,823	122,976	122,976	148,627	-	614,486
P36683	PSES DCS Windows Security Upgrades	-	-	-	(289,187)	76	1,564	663	-	-	-	-	881,143	-	-	-	-	594,259
P35556	Avian Protection Program	-	-	-	(10,607)	(31,202)	(9,163)	85,054	10,659	26,422	123,294	200,150	(755)	-	28,005	53,598	73,144	548,599
P37133	2021 Network Fitness	-	-	-	(41,777)	(86,314)	95,745	(137,148)	215,989	(45,927)	131,451	456,451	(152,216)	110,000	-	-	-	546,253
P37103	ODOT OR213/SE82nd Foster to Lindy	-	-	-	(180,259)	(187,608)	96,587	(51,767)	285,217	(213,288)	(16,697)	(16,697)	261,967	159,332	86,332	161,332	161,538	545,990
P37089	Facilities Furniture Purchases	-	-	-	385	(48,327)	3,093	(35,649)	(45,349)	162,573	138,958	(34,375)	214,172	35,833	35,833	35,833	35,833	498,814
P37101	Tech CoE Automation 2020	-	-	-	60,836	221,672	58,774	65,991	41,975	39,299	-	-	-	-	-	-	-	488,548
P36679	Orenco Substation 115kV Rebuild	-	-	-	520,382	11,177	2,105	7,469	(20,616)	(37,642)	-	-	-	-	-	-	-	482,875
P37244	Wildfire Mitigation-Resiliency	-	-	-	-	-	-	-	-	-	-	-	-	113,434	113,434	194,894	54,014	475,775
P36656	Energy Storage - PW2 Project	-	-	-	-	-	(5,268,866)	(477,781)	-	-	-	6,208,124	-	-	-	-	-	461,477
P37225	Purch Inst BU Camera Older Models	-	-	-	-	-	-	-	345,374	6,365	36,334	36,334	36,334	-	-	-	-	460,742
P22723	Pelton/Round Butte PME - Aquatic Re	-	-	-	(47,971)	-	-	-	-	455,545	47,971	-	-	-	-	-	-	455,545
P37226	Electric Island Equip. Test& Eval.	-	-	-	-	-	-	-	-	-	-	-	446,541	-	-	-	-	446,541
P36599	PW: Install PW2 Blackstart LoadBank	-	-	-	-	-	(3,588,291)	-	-	-	4,026,505	5,000	-	-	-	-	-	443,214
P36587	Physical Access Control Sys (PACS)	-	-	-	(125)	1,023	(13,334,603)	340	13,716,764	18,244	-	-	-	-	-	-	-	401,644
P37211	Substation Cap Rplcmts 2022-2024	-	-	-	-	-	-	-	-	-	-	-	-	5,641	163,641	95,928	130,069	395,279
P37263	PRB: Install Fish Facility Upgrades	-	-	-	-	-	-	-	-	-	-	-	379,858	-	-	-	-	379,858
P36285	PurchaseT&D - Tools & Lab Equipment	-	-	-	371	(9,738)	(118,120)	20,986	148,664	22,879	8,356	4,386	3,217	75,010	66,854	65,896	83,658	372,418
P35572	Build New Rock Creek Substation	-	-	-	335,444	(68,789)	(108,043)	75,439	27,194	101,435	-	-	-	-	-	-	-	362,681
P37260	PRB: Install Oilless Dewater Pumps	-	-	-	-	-	-	-	-	-	-	353,104	-	-	-	-	-	353,104
P37034	Biglow Eagle Permit Mitigation	-	-	-	-	343,453	-	-	-	-	-	-	-	-	-	-	-	343,453
P36454	Substation Rerock - multiple sites	-	-	-	-	-	-	-	-	-	-	-	337,604	-	-	-	-	337,604
P35663	Harborton NRD Mitigation	-	-	-	-	-	-	-	-	-	-	-	(5,433)	-	-	303,022	-	297,589
P36466	BR - GSU Transformer Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	250,338	(10,728)	74,012	(30,550)	283,072
P14757	Underground Locating	-	-	-	28,407	(24,776)	(21,961)	96,670	24,486	16,030	61,363	(1,950)	(2,125)	25,550	21,900	21,900	32,850	278,345
P36412	Incremental Added Vehicles	-	-	-	2,921	-	66	2,853	1,244	944	-	-	-	-	-	-	252,000	260,028
P36373	Blue Lake Phase II	-	-	-	(70,780)	(71,906)	29,752	34,110	48,613	85,582	83,089	104,060	13,800	-	-	-	-	256,319
P36645	DPU Relay Replacement Program	-	-	-	(4,115)	112	(2,325)	248,093	(1,418)	(194)	(24,857)	19,299	(291)	-	-	-	-	234,305
P36235	Install Low OH Services Guarding	-	-	-	(71,003)	6,558	36,900	154,639	48,460	2,123	(109,079)	47,244	(81,593)	8,925	90,033	-	90,033	223,241
P37227	Outage Map Improvement	-	-	-	-	-	-	-	-	-	-	-	207,864	-	-	-	-	207,864
P36970	2020 Network Blanket	-	-	-	198,454	6,808	(1,867)	875	578	801	-	-	-	-	-	-	-	205,650
P36971	2020 Server Storage Blanket	-	-	-	11,230	1,426	(620)	113	184,926	48	-	-	-	-	-	-	-	197,123
P36899	T&D BSG Reserve	-	-	-	(1,977)	20,455	7,887	(39,460)	22,908	185,804	-	-	-	-	-	-	-	195,617
P35591	As-Built Drawings - Generation	-	-	-	67,152	22,248	38,454	14,036	76,238	21,861	(15,437)	(11,004)	(20,000)	-	-	-	-	193,548
P16567	UG FITNES	-	-	-	16,459	18,668	17,333	(20,215)	35,910	(20,942)	(37,680)	(12,258)	(21,319)	35,519	30,956	104,930	44,646	192,008
P36039	Harborton Reliability Project PH1	-	-	-	13,254	(357,075)	(121,925)	7,426	(1,880,497)	23,852	(19,771)	351,892	71,172	-	-	2,103,028	-	191,356
P37001	Helvetia Sub-Temp G Installation	-	-	-	-	-	-	-	-	-	-	186,486	-	-	-	-	-	186,486
P36543	PRC-002 Protection Upgrades	-	-	-	-	173,403	(23,047)	(1,455)	(660)	1,725	(311,603)	(940,710)	1,861,677	(557,676)	(16,000)	-	-	185,654
P36299	RB: Install Forebay Guidance Net	-	-	-	2,034	3,953	2,977	1,128	-	-	168,858	-	-	-	-	-	-	178,951
P36270	Roseway Substation Expansion	-	-	-	11,480	7,797	91,742	64,616	855	2,048	-	-	-	-	-	-	-	178,537
P35217	Generation Cap Tools & Lab Equip	-	-	-	(71,276)	19,401	(20,421)	(42,947)	11,974	(23,775)	-	60,000	58,750	33,750	23,750	43,750	73,750	166,706
P37232	Communications Fitness II	-	-	-	-	-	-	-	-	-	-	-	-	41,496	41,496	41,496	41,496	165,982
P36855	Wheatridge Renewable Enrgy Facility	(0)	-	-	(443,737)	175,718	35,519	347,764	67	37,806	-	-	-	-	-	-	-	153,137

		Delta																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P35846	CPP Switch Replacement	-	-	-	(86,840)	(16,802)	(80,018)	(54,692)	(26,470)	86,578	33,968	7,482	87,459	49,327	49,328	49,328	49,328	147,975
P36602	RB: Replace Hatchery Chiller System	-	-	-	-	-	-	-	(920,314)	-	1,061,327	-	-	-	-	-	-	141,013
P36989	NW WAN 2020	-	-	-	16,839	13,248	11,601	11,322	14,585	65,568	-	-	-	-	-	-	-	133,163
P37236	Gresham LCC Shed	-	-	-	-	-	-	-	-	-	-	-	132,182	-	-	-	-	132,182
P35650	Emergent Radio Equipment	-	-	-	4,505	46,179	40,479	21,538	1,691	10,611	-	-	-	-	-	-	-	125,003
P36525	2018 Desktop Vintage	-	-	-	58,701	32,662	-	-	-	33,601	-	-	-	-	-	-	-	124,964
P36949	Build Web Next Gen 2.0	0	-	-	46,243	21,678	9,459	2,471	39,682	3,446	-	-	-	-	-	-	-	122,980
P36571	Marquam Radial Feeder Addition	-	-	-	270,131	8,920,772	(9,374,279)	32,020	159,437	111,731	-	-	-	-	-	-	-	119,812
P36563	Battery Safety Improvements	-	-	-	14,882	(34,228)	(17,733)	(31,698)	(12,101)	(16,033)	20,212	56,800	-	-	-	50,554	45,254	75,909
P36672	Boardman Decommissioning	-	-	-	-	-	-	-	-	-	70,000	-	-	-	-	-	-	70,000
P35995	Downtown UG Core Cable Replacement	-	-	-	(35,279)	(66,834)	(84,021)	140,778	177,172	12,359	(200)	(65)	(79,795)	1,430	1,430	1,430	1,430	69,836
P36105	2016-2023 Dispatchable Standby Gen	-	-	-	(4)	100	(245,923)	0	893	-	-	-	301,098	-	-	-	-	56,166
P37107	PBT Transmission Line Relocation	-	-	-	-	-	-	-	-	-	47,681	-	-	-	2	-	-	47,683
P36205	Metal Streetlight Grounding	-	-	-	(24,357)	(24,357)	(24,357)	(24,357)	(24,357)	(17,284)	16,321	50,228	48,813	17,277	17,277	17,277	17,277	45,399
P37106	Mobile 2.0	-	-	-	3,983	67,174	1,860	6,390	19,605	(56,540)	-	-	-	-	-	-	-	42,472
P36449	PRB: Upgrade Governors & Exciters	-	-	-	13,696	29	(3,306)	-	17,671	12,014	-	-	-	-	-	-	-	40,104
P36307	PRP - Vehicles & Capital Equipment	-	-	-	38,708	-	-	-	-	-	-	-	-	-	-	-	-	38,708
PX0041	Hydro & Wind Fitness Capital Job Fu	-	-	-	-	-	-	-	-	30,372	-	-	-	-	-	-	-	30,372
P35914	Substation Fitness 2015-2018	-	-	0	-	-	5,683	-	22,937	1,694	-	-	-	-	-	-	-	30,314
P35212	Misc. Pumps, Valves, Motors	-	-	-	(18,162)	(24,097)	(5,414)	22,353	(7,819)	(5,260)	-	-	66,000	-	-	-	-	27,600
P35980	PCB Transformer Replacement	-	-	-	96,630	18,710	-	6,479	-	-	(96,630)	-	-	-	-	-	-	25,189
P35349	Dist Line Sys - Equip Replacement	-	-	-	(49,093)	(20,570)	(47,945)	(8,091)	(21,749)	(1,544)	(8,412)	12,126	9,963	39,935	37,308	37,308	45,187	24,424
P37015	Electronic Payments Redesign	-	-	-	2,418	5,033	11,628	4,051	-	-	-	-	-	-	-	-	-	23,131
P37019	OG: Improve Access to West Portal	-	-	-	-	-	-	-	-	-	-	-	17,711	-	-	-	-	17,711
P36888	2020 Fitness for Facilities Managem	-	-	-	11,411	1,427	2,983	929	-	-	-	-	-	-	-	-	-	16,750
P35193	BN-Add Water Treatment Automation	-	-	-	-	-	-	-	133	-	13,461	-	-	-	-	-	-	13,594
P23528	Clackamas PME - Recreation, Aesthet	(0)	-	-	12,465	(81,082)	(3,471)	529	(18,817)	38,325	36,098	19,824	8,850	-	-	-	-	12,723
P37108	Proactive Outage	-	-	-	(4,512)	15,002	445	1,113	310	(84)	-	-	-	-	-	-	-	12,273
P36166	Orient sub: Capacity Addition	-	-	-	-	-	10,792	-	-	-	-	-	-	-	-	-	-	10,792
P36099	Replace KTS at Malin	-	-	-	-	71,107	10,382	-	-	(71,107)	-	-	-	-	-	-	-	10,382
P36898	2020 Infrastructure Fitness Blanket	-	-	-	3,111	2,473	507	370	(42)	3,360	-	-	-	-	-	-	-	9,779
P37042	Purchase the SN IRM Module	-	-	-	7,556	-	-	-	-	-	-	-	-	-	-	-	-	7,556
P36510	CY: Water Treatment System Upgrades	-	-	-	983	2,640	2,627	1,014	-	-	-	-	-	-	-	-	-	7,264
P36884	Facilities Capital Furn 2020	-	-	-	7,040	-	-	-	-	-	-	-	-	-	-	-	-	7,040
P36947	Install RB-Grizzly Comm Line	-	-	-	4,030	-	-	-	2,846	-	-	-	-	-	-	-	-	6,876
P36872	CS: DCS Windows Upgrade	-	-	-	611	105	5,572	121	-	-	-	-	-	-	-	-	-	6,410
P36527	TRIP (TripSaver II) Implementation	-	-	-	-	-	-	-	-	6,272	-	-	-	-	-	-	-	6,272
P24723	Substation Arc Flash Mitigation	-	-	-	319	-	961	4,670	-	-	-	-	-	-	-	-	-	5,950
P35842	N. Plains - Pumpkin Ridge Recond.	-	-	-	5,761	-	-	-	-	-	-	-	-	-	-	-	-	5,761
P37113	Web Next Gen 2.0 Phase II	-	-	-	4,918	116	(53)	9	(25)	(4)	-	-	-	-	-	-	-	4,961
P36497	3G Meter Replacement Project	-	-	-	(0)	0	2,197	17	2,356	-	-	-	-	-	-	-	-	4,570
P35061	Install UI Planner Model	-	-	-	-	650	-	-	3,850	(1,275)	-	-	-	-	-	-	-	3,225
P35149	Colstrip Transmission NW Energy	-	-	-	72,850	62,763	3,756	(61,700)	(48,885)	89,520	(115,421)	-	-	-	-	-	-	2,883
P35344	Install LED Streetlights	-	-	-	-	-	-	705	-	-	1,865	-	-	-	-	-	-	2,570
P26874	QRP Reliability Improvements (2012-	-	-	-	-	2,553	-	-	-	-	-	-	-	-	-	-	-	2,553
P36987	BR: Upgrade Metalclad Switchgear	-	-	-	-	-	-	-	-	-	-	1,457	-	-	-	-	-	1,457
P26261	Mt Hood Corridor Reliability Projec	-	-	-	-	-	-	-	-	1,325	-	-	-	-	-	-	-	1,325
P35085	Substation Fitness	-	-	-	-	-	-	1,749	165	(994)	80	-	-	-	-	-	-	1,000
P36546	Data Center Resiliency 2018	-	-	-	(10)	133	(5)	1	214	453	-	-	-	-	-	-	-	787
P36151	Eagle Take Permitting	-	-	-	-	-	742	1	-	-	-	-	-	-	-	-	-	743
P37127	Golden Hills - Integration Project	-	-	-	-	-	-	-	-	252,634	(61,507)	(34,488)	(155,990)	-	-	-	-	650
P36968	2020 Desktop Fitness/Vintage	-	-	-	(36)	683	(12)	2	-	-	-	-	-	-	-	-	-	637
P36690	New 115kV Tapline for CRPUD Sub	-	-	-	492	-	-	-	-	-	-	-	-	-	-	-	-	492
P36937	North Lombard ODOT Project	-	-	-	450	14	(6)	1	-	-	-	-	-	-	-	-	-	459
P35570	West Union - 115kV Conversion	-	-	-	436	-	-	-	-	-	-	-	-	-	-	-	-	436
PX0045	Thermal Fitness Capital Job Fund <$	-	-	-	432	-	-	-	-	-	-	-	-	-	-	-	-	432
P35096	Dist Customer Line Construction	-	-	-	-	-	37	-	276	-	-	-	-	-	-	-	-	313
P36271	OG: Timothy Spillway Modifications	-	-	-	107	59	(25)	110	-	-	-	-	-	-	-	-	-	252
P36327	Replace Kelley Point Switchgear	-	-	-	-	-	-	-	164	-	-	-	-	-	-	-	-	164
P27149	DSG Dispatchable Standby Generation	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	150
P36324	Garden Home Substation Upgrade	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	110
P36456	RB - Replace Governors	-	-	-	102	-	-	-	-	-	-	-	-	-	-	-	-	102
P19712	Underperforming Feeder Improvements	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	94
P35802	Horizon Phase II Project	-	-	-	-	83	-	-	-	-	-	-	-	-	-	-	-	83
P35199	BR - Install Raw Water Clarifier	-	-	-	75	-	(65)	-	-	-	-	-	-	-	-	-	-	10
P36487	PGE Safety - Vehicle for Generation	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0
P36706	HR Optimization Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35769	Construct Carty Generating Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35834	Round Butte Transmission Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36551	Kelley Point Switch Replacement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36814	2019 Desktop Fitness/Vintage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35908	SAM: Proactive UG Cable Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36886	ERC/CSS Remodel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35214	BN - Misc. Pumps. Valves, Motors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35965	PW: Upgrade CT to G1+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35155	Install NERC CIP Substation Access	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35050	HL - Clackamas Micro Turbines	-	-	-	4,546	-	(4,546)	-	-	-	-	-	-	-	-	-	-	-
P35156	PW: Install New DCS Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P36508	Verizon High Speed Deployment	-	-	-	-	-	-	(113,072)	124,939	218,047	(229,914)	-	-	-	-	-	-	-
P36649	Budget Only: Customer BSG Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P22722	Pelton/Round Butte PME - Recreation	-	-	-	187	-	-	-	-	-	(187)	-	-	-	-	-	-	-
P36878	PSLD Regional Decentralization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P23631	Clackamas PME - Mitigation Fund	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P35679	Construct Marquam Project	(0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(0)
P37045	RB: Modify Spillway Plug Anchorage	-	-	-	(28)	37	(18)	3	-	-	-	-	-	-	-	-	-	(6)
P36433	BR: Upgrade Critical Valves	-	-	-	(90)	70	(29)	6	-	-	-	-	-	-	-	-	-	(44)
P35407	2020 Vision Wave 2 -MMS,GIS,OMS	-	-	-	-	(57)	-	-	-	-	-	-	-	-	-	-	-	(57)
P36727	Energy Storage, Microgrid	-	-	-	-	-	(132,711)	-	-	-	-	-	(84,584)	86,476	130,680	-	-	(138)
P36852	M400 Tower Improvements	-	-	-	(931)	0	(0)	-	-	-	-	-	-	-	-	-	-	(930)

		Delta																
Project No.	Name	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	202201	202202	202203	202204	Grand Total
P35351	Major Event Tracking	-	-	-	(335)	(683)	(69)	92	(112)	56	-	-	-	-	-	-	-	(1,052)
P36470	Sensus DT34 Meter Exchanges	-	-	-	670	(6,150)	2,043	923	253	-	-	-	-	-	-	-	-	(2,262)
P36087	PRB - Misc. Pumps, Valves, Motors	-	-	-	(1,115)	(1,110)	2,166	(966)	(1,110)	(1,110)	-	-	-	-	-	-	-	(3,244)
P36462	EV Charging Network Expansion	-	-	-	(8,000)	-	-	-	-	-	-	-	-	-	-	-	-	(8,000)
P36921	PGE/DTNA HD charging Demonstration	-	-	-	(34,840)	1,563	(36)	15,670	6,501	47	-	-	-	-	-	-	-	(11,094)
P36246	Malin Physical Security Upgrades	-	-	-	-	-	-	-	-	(18,907)	-	-	-	-	-	-	-	(18,907)
P35221	PRB Capital Tools & Lab Equip	-	-	-	(5,050)	(5,050)	913	(5,050)	(5,050)	(3,302)	-	-	-	-	-	-	-	(22,590)
P36408	Parks Fitness Fund	-	-	-	(33,521)	(29,832)	(100,434)	44,080	(6,422)	(40,000)	(25,279)	33,877	158,079	-	(11,900)	11,953	(29,750)	(29,148)
P36996	New PowerPlan	-	-	-	(1,921)	(2,881)	(1,921)	(2,881)	(1,921)	(2,881)	(1,921)	(2,881)	(1,921)	(2,893)	(1,928)	(2,893)	(1,928)	(30,770)
P22771	PRB PME - Habitat Fund	-	-	-	(84,612)	-	-	-	-	-	46,810	-	5,282	-	-	-	-	(32,520)
P37126	Walker Rd Beaverton-Road Widening	-	-	-	-	-	-	-	-	-	-	-	-	-	(41,586)	-	-	(41,586)
P37157	Mobile 3.0	-	-	-	-	-	-	-	-	-	-	-	(42,173)	-	-	-	-	(42,173)
P37175	Electronic Payment Redesign Phase 2	-	-	-	-	-	-	-	-	-	-	(184,787)	123,756	-	-	-	-	(61,031)
P36439	Gresham Sub 115kV Rebuild	-	-	-	(1,184)	(493)	103	602	-	18	-	-	-	(16,153)	(16,153)	(16,153)	(16,153)	(65,567)
1	PGE O&M Tracking AWOs ONLY	(54,403)	(50,070)	-	-	27,930	(0)	(162,544)	162,544	-	-	-	-	-	-	-	-	(76,544)
P36447	PW: Upgrade CTG Excitation Equip	-	-	-	-	-	208,830	(285,963)	(26)	553	-	-	-	-	-	-	-	(76,605)
P36628	BR: Replace U5 Exhaust Frame	-	-	-	1,552,518	(1,654,930)	(14,129)	16	(38)	9,141	-	-	-	-	-	-	-	(107,420)
P18834	Station E: River District Infrastr	-	-	-	-	-	-	-	-	-	4,884,148	31,211	(5,132,341)	25,481	25,481	25,481	25,481	(115,056)
P37155	Time of Day	-	-	-	-	-	-	-	-	(888,088)	761,359	-	-	-	-	-	-	(126,729)
P37168	2021 QF Projects	-	-	-	-	-	-	-	-	-	-	-	(14,246)	16,364	-	(139,241)	-	(137,123)
P36639	RB Station Service Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(127,139)	(11,828)	(138,968)
P23970	Corporate Strategic Fiber Project	-	-	-	59,767	14,232	(24)	296	(139)	90	-	-	(254,704)	-	-	-	-	(180,482)
P37136	AppWorx Replacement	-	-	-	-	-	-	-	-	(328,555)	-	-	147,798	-	-	-	-	(180,756)
P36170	OHSU Infrastructure Upgrades	-	-	-	-	(109,205)	(39,749)	(27,883)	(20,763)	(30,256)	12,621	(393)	27,917	-	-	-	-	(187,711)
P35938	Field Voice Communications System	-	-	-	(197,316)	(571,104)	(2,737,505)	27,969	39,951	21,889	3,170,202	34,576	12,922	-	-	-	-	(198,418)
P36564	Stephens 11kV Conversion Project	-	-	-	-	-	-	-	-	(211,108)	-	-	-	-	-	-	-	(211,108)
P36716	Arleta-Holgate Ln Rebuild SE PDX	-	-	-	-	-	-	-	-	(221,347)	-	-	-	-	-	-	-	(221,347)
P36763	Install Horizon VWR3 Transformer	-	-	-	(89,274)	(453,085)	(2,257,942)	103,549	2,429,031	43,559	-	-	-	-	-	-	-	(224,163)
P37114	Project BaT	-	-	-	(12,969)	(78,862)	(323,499)	(569,717)	507,630	(34,126)	282,543	4,588	-	-	-	-	-	(224,412)
P36713	Dayton-Gr Ronde Conv Segment 1	-	-	-	-	-	-	-	-	(230,734)	-	-	-	-	-	-	-	(230,734)
P36907	Reconductor Murrayhill-St Marys	-	-	-	-	-	(1,117,840)	(237,927)	(117,665)	(85,549)	-	6,894,240	798,917	-	-	-	(6,368,619)	(234,443)
P35894	Communications Fitness	-	-	-	12,486	12,511	11,329	3,753	5,306	146,816	53,306	53,306	(540,579)	-	-	-	-	(241,766)
P37020	Marquam Fiber Project	-	-	-	-	-	-	-	-	-	-	-	(252,000)	-	-	-	-	(252,000)
P36641	Oil Spill Containment Modifications	-	-	-	43,029	(225)	41,760	449	(478)	31,492	81,975	57,602	(571,522)	-	-	-	-	(315,917)
P36089	Transm Full Pole Inspct & Replace	-	-	-	(114,949)	(22,224)	(169,226)	(209,342)	(209,933)	(242,476)	(111,460)	76,168	94,986	146,938	146,939	146,938	146,939	(320,700)
P36582	Substation FITNES 2019-2021	-	0	-	138,989	91,414	27,066	(126,650)	(148,705)	95,659	66,301	163,619	(1,431,655)	68,705	514,602	68,705	133,685	(338,263)
P35565	PSES - Generation Site Paving	-	-	-	(11,568)	4,398	(47)	1,933	313	3,219	-	11,568	(9)	(99,167)	(99,167)	(99,167)	(99,167)	(386,861)
P37097	Replace Microwave Transfer Trip	-	-	-	-	-	-	-	-	-	-	-	(401,351)	-	-	-	-	(401,351)
P37112	Kelley Point Reconfiguration	-	-	-	-	-	-	-	-	-	(417,482)	-	-	-	-	-	-	(417,482)
P24995	PRB Water Fund	-	-	-	2,692,778	-	(42,046)	-	-	-	(577,709)	-	(2,532,257)	-	-	-	-	(459,234)
P37111	Supply Chain Evolution	-	-	-	-	-	-	-	(3,101,240)	(4,738,597)	5,868,163	1,094,554	413,523	-	-	-	-	(463,598)
P36829	Sherwood Training Center	-	-	-	-	-	(5,662,098)	(1,659)	(1,659)	(1,659)	5,149,150	-	-	-	-	-	-	(517,925)
P37121	Durham Substation Separation	-	-	-	(52,143)	-	-	(480,000)	-	-	-	-	(7,636)	-	-	-	-	(539,778)
P36867	Remote Disconnect Project	-	-	-	(478,721)	180,641	489,134	(565,466)	(105,239)	(115,618)	(125,487)	(125,487)	(125,487)	99,518	99,518	100,245	100,245	(572,203)
P35959	WSH Structural/Reliability Upgrades	-	-	-	(111)	3,097	-	-	-	-	(713,341)	-	-	-	-	-	-	(710,355)
P37143	Credit Remote Connect Meters	-	-	-	(77,446)	(459,354)	(498,347)	188,986	(510,466)	167,333	(6,877)	(237,992)	(238,398)	237,107	237,107	237,107	237,107	(724,132)
P35228	Clackamas PME Road Fund	-	-	-	-	-	-	(2,120,405)	-	-	1,720,889	-	(420,801)	-	-	-	-	(820,318)
P37094	Replace SCADA RTU with SER	-	-	-	-	-	-	-	-	-	-	-	(850,950)	-	-	-	-	(850,950)
P36910	Outer Div Multi-Modal Safety Proj	-	-	-	(703,106)	(198,722)	(8,998)	30,983	(27,189)	57	-	-	-	-	-	-	-	(906,975)
P37061	OH FITNES Transmission	-	-	-	(254,637)	(386,819)	(673,313)	(602,210)	(796,452)	304,219	(30,549)	536,428	(212,846)	126,578	184,992	316,684	498,725	(989,201)
P37110	Restore Bethel-RB 230 kV Line	-	-	-	(3)	2	(1)	1,994,484	12,078	221	-	(3,079,213)	-	-	-	-	-	(1,072,431)
P36708	Butler Substation Construction	-	-	-	(218,075)	169,006	153,144	(106,478)	47,406	(323,631)	4,393,097	373,014	15,635	-	-	-	(5,629,594)	(1,126,476)
P36100	Bethel to Round Butte Fiber	-	-	-	-	-	(1,144,934)	-	-	-	-	-	-	-	-	-	-	(1,144,934)
P36742	RM: Rewind Units 3, 2, 1	-	-	-	-	-	-	-	-	-	-	-	-	(289,939)	(289,934)	(289,934)	(289,934)	(1,159,740)
P36693	Build Helvetia Substation	-	-	-	10,677	-	-	-	(3,440,777)	2,042,417	(65,805)	228,881	-	-	-	-	-	(1,224,607)
P36732	CY: Implement Carty Separation Plan	-	-	-	-	20,966	2,753	1,232	(1,315,936)	(168,104)	(9,334,320)	10,062,540	(581,478)	-	-	-	-	(1,312,346)
P37095	SCADA Replacement - Grizzly Sub	-	-	-	-	-	-	-	-	-	-	-	(1,372,075)	-	-	-	-	(1,372,075)
P36134	Hydro Control System Upgrade	-	-	-	90,344	1,810	(123)	-	-	(2,511,537)	3,124,173	21,500	(1,890,319)	(222,249)	(107,578)	(8,624)	-	(1,502,604)
P36522	Distribution Automation	-	-	-	(1,064,842)	(944,338)	439,897	(329,399)	(940,503)	(376,266)	208,658	(283,131)	(117,420)	14,636	324,002	569,281	994,983	(1,504,443)
P37118	WSH:Restore Facilities post-fire	-	-	-	-	-	-	0	2,554	13	6,484	4,930,068	(6,455,129)	-	-	-	-	(1,516,008)
P36762	Milliken Tower Reinforcement	-	-	-	-	-	-	-	-	(5,625,890)	-	-	-	-	3,763,127	292,000	-	(1,570,763)
P36913	Trans. Line Clearance Mitigation	-	-	-	233,591	(404,389)	(712,273)	(852,475)	(664,597)	(748,680)	338,816	703,115	(2,203)	(5,833)	(5,833)	120,464	309,917	(1,690,381)
P35172	PSES - Generation Fitness Fund	-	-	-	(189,887)	1,024,064	(1,118,038)	(8,846)	(397,021)	211,509	(39,951)	648,580	(254,947)	(448,725)	(448,721)	(448,721)	(448,721)	(1,919,424)
P37109	Customer Data Centers	-	-	-	(1,164,271)	(735,972)	(1,874,003)	1,277,519	26,544	304,131	188,097	-	-	-	-	-	-	(1,977,955)
P36417	Replace/Rewind Failed Transformers	-	-	-	34,175	5,825	415,201	(318,460)	619,019	636,751	(206)	(206)	(14,810)	(724,166)	(961,006)	(961,006)	(913,006)	(2,181,893)
P36723	Field Area Network Project	-	-	-	(37,478)	(263,401)	142,080	(91,956)	186,708	270,060	(52,447)	13,207	(38,924)	(3,817,483)	14,517	746,517	689,086	(2,239,514)
P36550	Small Gen/QF/NM Interconnect Costs	-	-	-	(175,800)	156,370	(42,784)	(115,903)	(111,149)	668,125	(3,139,102)	418,985	58,006	(7,312)	-	-	-	(2,290,562)
P36116	Wind Generation Fitness Program	-	0	-	(639,863)	273,171	(200,059)	(55,079)	50,744	447,423	2,840	(508,757)	505,314	(595,000)	(595,000)	(479,000)	(595,000)	(2,388,266)
P36861	Division Transit Project (DTP)	-	-	-	(1,052,506)	(2,206,791)	325,639	403,594	(55,990)	93,862	-	-	-	-	-	-	-	(2,492,192)
P22449	P22449 Colstrip Capital Proj PPL	-	-	-	(1,984,274)	(2,447,123)	(3,069,386)	4,099,202	(290,914)	(59,382)	664,766	1,164,401	(2,688,165)	509,517	509,517	509,517	509,517	(2,572,809)
P37017	Facilities Upgrades-EV Readiness	-	-	-	(631,313)	(20,482)	587,122	(20,210)	(628,357)	(3,304,761)	(34,597)	(34,597)	(2,822,722)	-	4,069,634	53,781	53,781	(2,732,722)
P36394	Vintage Vehicle Replacement II	-	-	-	282,123	(323,553)	1,669,701	(3,492,993)	(101,745)	1,231,743	477,693	698,520	487,317	-	(268,000)	(268,000)	(3,216,000)	(2,823,194)
P35925	Dist. Customer Line Construction II	-	-	-	(2,162,158)	(1,486,309)	(1,417,554)	(3,230,833)	(1,308,248)	(2,496,278)	1,415,838	(2,371,998)	100,352	2,298,228	2,298,228	2,298,182	-	(6,062,550)
P36836	BR: Beaver Modernization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(10,172,085)	(10,172,085)
P36680	Brookwood Substation Conversion	-	-	-	(12,577)	(7,794)	(46,652)	(56,975)	(30,668)	(335,524)	(1,003)	(9,622,414)	10,778,469	96,509	25,109	-	(13,469,442)	(12,682,963)
P36501	Integrated Operations Center - IOC	-	-	-	-	-	-	-	-	-	172,150,593	(198,059,005)	(6,120,723)	1,468,285	874,363	3,173,444	11,750,675	(14,762,369)
P17443	T&D Major System Inspect, Replace	-	-	-	(1,585,167)	(1,365,109)	(390,037)	(874,079)	(1,408,699)	(686,502)	(2,172,781)	(775,603)	(1,134,745)	(10,814,574)	(10,814,574)	(10,814,574)	(10,814,574)	(53,651,019)
	Grand Total	**(54,403)**	**(50,070)**	**0**	**(4,894,201)**	**(8,284,823)**	**(47,552,904)**	**(13,805,678)**	**18,689,273**	**(3,880,809)**	**202,653,490**	**(206,705,754)**	**13,824,862**	**1,402,003**	**15,769,395**	**(82,934,225)**	**103,837,767**	**(11,986,079)**

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/105

CORRESPONDENCE REGARDING FARADAY REPOWERING COST OVERRUNS

(REDACTED)

Exhibit AWEC/105 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
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Request for a General Rate Revision.	)
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EXHIBIT AWEC/106

SUMMARY OF AMOUNTS INCLUDED IN UM 2115 WILDFIRE DEFERRAL AND UM 2156 STORM DEFERRAL

UM 2115 Wildfire Deferral

Cost Elm Description	Total	Exclude	Revised Total
Accrual	-	-	-
Airfare	10	-	10
Business Meals & Entertainment	102,210	-	102,210
Deferral	-	-	-
Employee Benefits Overhead	68,969	(68,969)	-
Employee Incentives and Bonus	664,948	-	664,948
Employee Support Offset	2,182	-	2,182
Equipment Rental	136,599	-	136,599
Excavation Services	12,986	-	12,986
Flagging Services	386,169	-	386,169
Incentives Overhead	11,186	(11,186)	-
Injuries Overhead	126,637	(126,637)	-
Interest	1,244,508	-	1,244,508
Labor Allocation - Hourly OT	464	(464)	-
Labor Allocation - ST Salary	125,548	(125,548)	-
Labor Allocation-ST Hrly NonUn	10,186	(10,186)	-
Labor Allocation-ST Hrly Union	91,458	(91,458)	-
Labor Allocation-ST Temporary	334	(334)	-
Labor Allocation-Union HrlyOT	3,832	(3,832)	-
Labor Allocation-Union Premium	317	(317)	-
Landscaping Services	140,841	-	140,841
Lodging	85,492	-	85,492
Materials	39,136	-	39,136
Mileage - Non-taxable	6,180	-	6,180
Mileage - Taxable	1,400	-	1,400
Miscellaneous Revenue	(3,765,417)	-	(3,765,417)
Non-Labor Allocation	417,202	(417,202)	-
Non-PGE Labor Overtime	2,506,716	-	2,506,716
Non-PGE Labor Straight Time	135,583	-	135,583
Office Supplies	269	(269)	-
Other Business Travel Expense	69	-	69
Other Employee Business Exp	10,055	-	10,055
Other Materials & Equipment	346,523	-	346,523
Other Outside Services	2,808,148	-	2,808,148
Other Rent & Lease Expenses	1,323	-	1,323
Other Taxes & Government Fees	138	-	138
OtherPostEmplBene-SvcCostLoad	1,426	(1,426)	-
OtherPostEmplBenNonSvcCstLoad	14	(14)	-
Outside Printing Services	5,753	-	5,753
Overtime - Hourly	152,329	-	152,329
Overtime - Union	1,739,051	-	1,739,051
Paid Time Off	-	-	-
Payroll Taxes	261,967	-	261,967
Pension Non-Service Cost	3,533	(3,533)	-
Pension Service Cost	14,651	(14,651)	-
PGE Printing Services	1,855	-	1,855
Storerm Material Issue/Returns	206,347	-	206,347
Temporary Labor Overtime	11,349	-	11,349
Temporary Labor Straight Time	11,584	-	11,584
Tree Trimming Services	23,311,460	-	23,311,460
Union Meals & Incidental Exp	92,905	-	92,905
Union Premium Pay	495,156	-	495,156
Vacation Overhead	37,529	(37,529)	-
Grand Total	**32,069,107**	**(913,556)**	**31,155,551**

UM 2156 Storm Deferral

Cost Elm Description	Total	Exclude	Revised Total
Union Premium Pay	1,126,412	-	1,126,412
Overtime - Hourly	611,406	-	611,406
Overtime - Union	4,485,616	-	4,485,616
Temporary Labor Straight Time	42,431	-	42,431
Non-PGE Labor Straight Time	1,519,914	-	1,519,914
Temporary Labor Overtime	65,547	-	65,547
Non-PGE Labor Overtime	16,402,882	-	16,402,882
Storerm Material Issue/Returns	2,017,566	-	2,017,566
Other Materials & Equipment	544,757	-	544,757
Office Supplies	13,282	(13,282)	-
Engineering Services	564,059	-	564,059
Advertising Services	41,870	(41,870)	-
Outside Printing Services	17,289	-	17,289
Flagging Services	2,483,587	-	2,483,587
Tree Trimming Services	17,801,532	-	17,801,532
Janitorial Services	15,932	-	15,932
Landscaping Services	557,010	-	557,010
Excavation Services	107,011	-	107,011
Security Services	2,835	-	2,835
Recruitment and Hiring Service	1,200	-	1,200
Other Outside Services	17,166,582	-	17,166,582
Mileage - Non-taxable	11,693	-	11,693
Mileage - Taxable	5,510	-	5,510
Lodging	674,584	-	674,584
Business Meals & Entertainment	503,415	-	503,415
Union Meals & Incidental Exp	204,066	-	204,066
Airfare	10	-	10
Other Business Travel Expense	9	-	9
Other Employee Business Exp	19,333	-	19,333
PGE Printing Services	3,641	-	3,641
Equipment Rental	43,014	-	43,014
Employee Incentives and Bonus	1,275,578	-	1,275,578
Employee Recognition	29,550	-	29,550
Other Taxes & Government Fees	296	-	296
Pension Service Cost	(0)	0	-
Employee Support Offset	1,640	-	1,640
Incentives Overhead	8,857	(8,857)	-
Vacation Overhead	35,179	(35,179)	-
Employee Benefits Overhead	66,320	(66,320)	-
Payroll Taxes	772,544	-	772,544
Injuries Overhead	374,485	(374,485)	-
Pension Service Cost	16,272	(16,272)	-
OtherPostEmplBene-SvcCostLoad	1,645	(1,645)	-
OtherPostEmplBenNonSvcCstLoad	(177)	177	-
Pension Non-Service Cost	2,948	(2,948)	-
Materials	342,986	-	342,986
Interest	1,441,906	-	1,441,906
Accrual	(0)	-	(0)
Deferral	(3,709,405)	-	(3,709,405)
Reclassification	(4,113,123)	-	(4,113,123)
Misc Accounting Adjustments	(8,647,818)	-	(8,647,818)
Labor Allocation - ST Salary	202,398	(202,398)	-
Labor Allocation-ST Hrly Union	118	(118)	-
Labor Allocation-ST Hrly NonUn	15,858	(15,858)	-
Labor Allocation - Hourly OT	639	(639)	-
Labor Allocation-ST Temporary	216	(216)	-
Non-Labor Allocation	117,862	(117,862)	-
Grand Total	**55,290,764**	**(897,770)**	**54,392,994**

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
Request for a General Rate Revision.	)
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EXHIBIT AWEC/107

PORTLAND BUSINESS JOURNAL ARTICLE REGARDING PGE TRADING LOSSES

From the Portland Business Journal:
https://www.bizjournals.com/portland/news/2020/08/27/oregon-puc-vows-oversight-of-pge-mishap.html

Oregon utility regulator vows oversight of PGE's $100M-plus market mishap

Aug 27, 2020, 2:20pm PDT **Updated: Aug 27, 2020, 3:28pm PDT**

PORTLAND GENERAL ELECTRIC

Wholesale electricity prices shot up during a recent Western heat wave, exposing apparently risking trade position PGE had taken. Seen in photo: PGE's Carty Generating Station in Boardman

Portland General Electric Co.'s announcement Monday that it had lost more than $100 million in the wholesale electricity market was a shocker. Perhaps just as striking was that the company immediately said it wouldn't try to recover any of the losses through rates.

In a regulated-utility world where tussling over which costs should fall to investors and which to ratepayers is a constant, that was a rare company stand-down.

"It is unusual in my experience to have a utility come out so quickly and so clearly with a statement that it would not seek cost recovery of the loss," Megan Decker, chair of the Oregon Public Utility Commission, said in an interview. "I don't know anything more about what happened (than has been publicly disclosed). But that tells me something about how they must view what happened."

Decker said it was also notable that PGE revealed it had placed two employees on administrative leave after its market trading blew up amid a recent California energy crisis that had price impacts throughout the Western grid.

PGE's ownership of responsibility doesn't mean, however, that the PUC is done with the matter, Decker said.

"The PUC is preparing to protect customers from any costs, direct or indirect, flowing from this event," Decker said. "The PUC has a number of different rate proceedings in which costs that the utilities incur may be passed on to customers. PGE has been very clear about its pledge, but the PUC will need to be active and vigilant in preventing customers from experiencing harm from this incident."

Further, she said, the PUC is looking forward to seeing the results of the investigation that PGE said it has launched.

"We expect the company to be fully transparent with the PUC about the findings of the investigation that the special committee of their board is conducting," Decker said. "With the facts in hand, the PUC will determine whether additional actions are needed to ensure that customers remain protected and the company remains financially stable going into the future."

The utility planning process is intended to ensure that companies have resources lined up to reliably meet their power needs at least cost, but they're in the market constantly. They might be looking for opportunities to sell surplus power. Or they could buy power instead of dispatching their own generation if there's a price advantage to doing so. And they use the market to hedge their costs, something the PUC examines in annual power cost cases, Decker said.

"The PUC expects companies to have prudent controls and risk management procedures, and those are critical in all market environments," Decker said.

PGE said Monday that the unspecified trading that got it in trouble had begun earlier this year, then increased late in the quarter ended June 30 and into the current quarter. Those activities resulted in "significant exposure for the company," PGE said.

As of Monday, the company had realized losses of $104 million, with additional "unrealized, mark-to-market losses of $23 million." Losses in the current quarter were expected to be "up to $155 million subject to market conditions — although the ultimate amount of losses could exceed that amount," it said.

Nothing has been revealed about the precise nature of the trading, but PGE said the California crisis, at its peak from Aug. 14 through midweek last week, unmasked its market exposure.

"In August 2020, this portion of PGE's energy portfolio experienced significant losses as wholesale electricity prices increased substantially at various market hubs due to extreme weather conditions, constraints to regional transmission facilities, and changes in power supply in the West," it said.

Amid PGE's own investigation and the PUC's vow of oversight, several law firms have issued news releases soliciting input from shareholders for possible class-action suits. PGE's stock fell around 10 percent in after-hours trading after the announcement. At Thursday's close, it was down 9 percent from the Monday pre-incident close.

Pete Danko
Staff Reporter
Portland Business Journal

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
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EXHIBIT AWEC/108

2020 TRADING MARGINS BALANCE

(REDACTED)

Exhibit AWEC/108 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matter of	)
	)
Portland General Electric Company,	)
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OPENING TESTIMONY OF

DR. LANCE D. KAUFMAN

ON BEHALF OF

ALLIANCE OF WESTERN ENERGY CONSUMERS

(REDACTED)

October 25, 2021

TABLE OF CONTENTS

EXHIBIT LIST

I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is Dr. Lance D. Kaufman. I am a consultant representing utility customers before state public utility commissions in the Northwest and Intermountain West. My witness qualification statement can be found at Exhibit AWEC/201.

Q. PLEASE IDENTIFY THE PARTY ON WHOSE BEHALF YOU ARE TESTIFYING.

A. I am testifying on behalf of the Alliance of Western Energy Consumers ("AWEC"). AWEC is a non-profit trade association whose members are large energy users in the Western United States, including customers receiving electric services from Portland General Electric Company ("PGE").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I discuss my initial review of PGE's proposed general rate case ("GRC") filing, including issues related to load forecast, rate spread, rate design, affiliated interest transactions, and the Beaver plant conversion. My recommendations are incorporated into the revenue requirement presented by AWEC witness Bradley G. Mullins.

Q. PLEASE SUMMARIZE YOUR REVENUE REQUIREMENT RECOMMENDATIONS.

A. My revenue requirement recommendations are summarized below.

> **LOAD FORECAST ENERGY EFFICIENCY:** PGE makes an outboard adjustment to its load forecast to remove SB 838 funded energy efficiency savings. This adjustment is duplicative. I recommend forecasting revenues using PGE's base forecast. This increases revenue by $12.1 million and power costs by $6.3 million.

> **LOAD FORECAST COVID VARIABLES:** PGE assumes 30 percent of work-from-home behavior continues during the test year. This assumption is not data driven and is neither known or measurable. I recommend assuming 75 percent of work-from-home behavior continues during the test year, consistent with a recent survey of Portland executives. This increases revenue by $27.9 million and power costs by $14.6 million.

LOAD FORECAST HILLSBORO GROWTH: PGE's planning forecast is inconsistent with PGE's rate case forecast despite being produced four months apart. PGE's investments driven by planning documents should have been paired with minimum load agreements consistent with planned load. I recommend forecasting Hillsboro large customer revenues using PGE's medium case 2020 Planning Forecast. This increases revenue by $21 million and power costs by $11 million.

LOAD FORECAST FACILITY CAPACITY: PGE's forecast of Facility Capacity is not consistent with the billing determinants used to set rates. PGE also appears to be under-forecasting Facility Capacity. I recommend rates be set using a Facility Capacity forecast that is consistent with past use and forecasted demand growth. This increases revenue by $4.7 million and has no impact on power costs.

WORLD TRADE CENTER RENT: PGE rents the World Trade Center from an affiliate. PGE's affiliate recently purchased the World Trade Center at a severely discounted value due to a value impairment caused by PGE's long-term lease of the building at below market value. PGE's transfer price does not meet the lower of cost or market standard. I show that PGE's decision to purchase the asset through an affiliate rather than owning the building itself harms customers. I recommend setting a lease price such that the affiliate's return on the transaction equals PGE's utility cost of capital. This reduces revenue requirement by $7.339 million.

BEAVER PLANT CONVERSION: PGE intends to convert the Beaver plant from dual fuel to natural gas only. I am concerned that this conversion is uneconomic and decreases the reliability of PGE's system. I recommend the costs associated with this project be removed from rates. The revenue requirement impact of my adjustment is included in the plant update adjustment of AWEC Witness Bradley Mullins.

Q. PLEASE SUMMARIZE YOUR RATE SCHEDULE PROPOSALS.

A. I am sponsoring six additional non-revenue requirement proposals:

Rate spread Customer Marginal Cost: PGE recently updated its method of unbundling consumer costs. This update unbundled additional accounts and departments to other consumer costs. I recommend that these additions be incorporated into the Other Consumer Cost component of the customer marginal cost model.

Rate spread Generation Marginal Cost: PGE's generation marginal cost model does not account for renewable capacity values or costs. I recommend that these be incorporated into the generation marginal cost model.

Schedule 90 Subtransmission Rate: PGE offers a subtransmission rate for Schedule 89 but not for Schedule 90. I recommend that a subtransmission rate be included for Schedule 90.

New Large Load Cost of Service: PGE has included a concept for a New Large Load Cost of Service offering, which would be formally proposed in a later proceeding. I support this offering and recommend that PGE base this program on NV Energy's Large Customer Market Price Energy tariff in Nevada.

Direct Access Cost Allocation: PGE has proposed new or modified tariffs to allocate the costs of certain programs to direct access customers. I oppose these modifications. Among other things, PGE has failed to provide any rationale or evidentiary basis for its cost allocation proposal.

Customer Impact Offset: PGE uses the Customer Impact Offset to limit the rate increase to Schedules 7 and 32, which requires higher rates for other schedules. Because AWEC recommends an overall rate reduction in this case, the Customer Impact Offset is not needed and should be removed.

II. LOAD FORECAST

Q. WHAT ADJUSTMENTS DO YOU PROPOSE TO PGE'S LOAD FORECAST?

A. I recommend four adjustments to PGE's load and revenue forecast. 1) PGE should eliminate the energy efficiency adjustment because energy efficiency trends are fully embodied within the historic data PGE uses to estimate model parameters. 2) PGE should modify the residential COVID parameter to reflect 75 percent work-from-home rather than 30 percent work-from-home. 3) PGE should use the 2020 Planning Forecast for Hillsboro large customer load. 4) PGE should reconcile forecasted Facility Capacity with the billing determinants used to forecast revenue and design rates.

a. PGE's Energy Efficiency Adjustment Should be Eliminated

Q. WHAT IS PGE'S ENERGY EFFICIENCY ADJUSTMENT?

A. PGE's energy efficiency ("EE") adjustment is described in PGE / 1000 Riter / 8 and 9. PGE adjusts the base forecast to remove energy associated with incremental EE programs funded through SB 838.[1] PGE justifies its energy efficiency adjustment due to the short history and

[1] PGE / 1000 Riter / 8:2-4.

moderate variability of SB 838.[2/] By contrast, PGE assumes that EE trends are captured in its forecasting model and makes no adjustment for energy efficiency procured under Senate Bill 1149 ("SB 1149").[3/]

Q. WHY DO YOU RECOMMEND ELIMINATING THE EE ADJUSTMENT?

A. Like PGE, I find it is reasonable to assume that EE trends are captured within the forecasting model. However, I believe it is appropriate to evaluate EE trends holistically, rather than by funding source. The mathematical properties of regression modeling that cause EE to be embedded within PGE's forecast do not distinguish between funding sources. PGE's total annual EE savings exhibit little to no trend over the history of data used to estimate PGE's forecast model parameters.

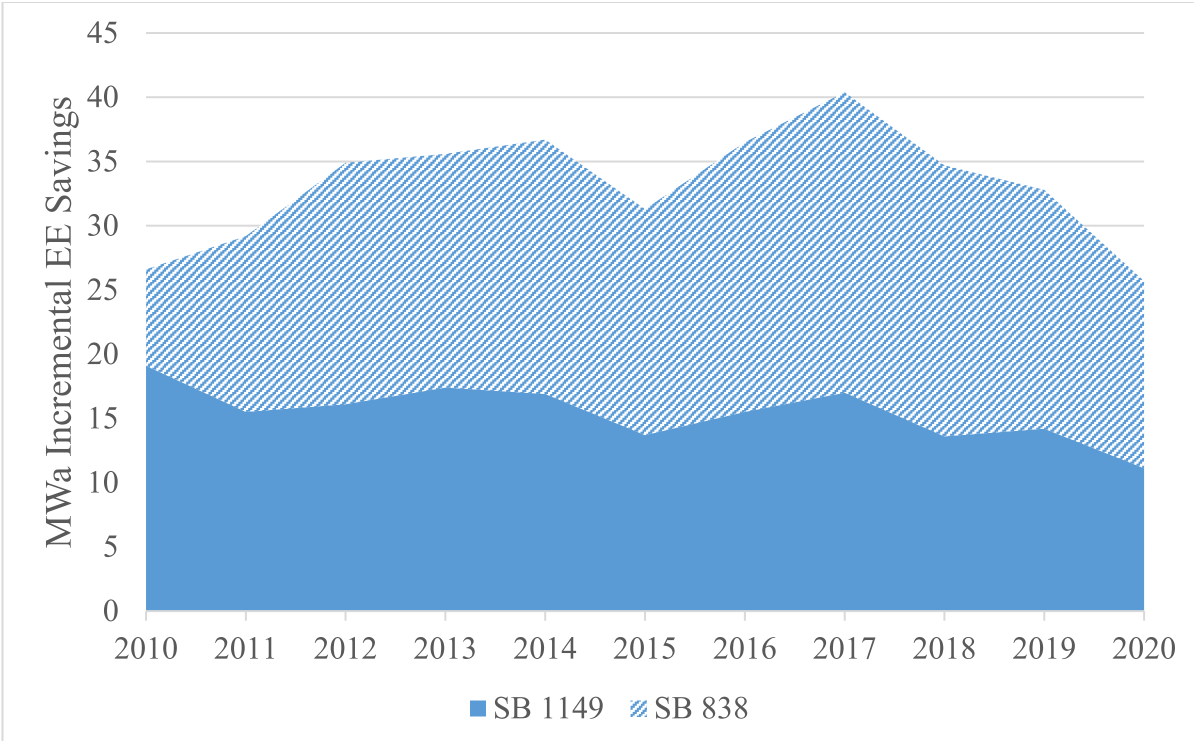
Q. HOW HAVE SB 1149 AND SB 838 SAVINGS CHANGED OVER TIME?

A. PGE's energy efficiency savings have gradually increased from 2010 to 2017. Savings have decreased since 2017. From 2010 to present there is no overall trend.

[2/] Exh. AWEC/202 (PGE Response to AWEC Data Request 014);Exh. AWEC/202 at (PGE Response to AWEC Data Request 076).

[3/] PGE / 1000 Riter / 8:4-6.

Figure 1: PGE Annual Incremental Energy Efficiency Savings[4/]



Q. **WHAT HISTORIC DATA DOES PGE USE TO ESTIMATE ITS FORECASTING PARAMETERS?**

A. PGE estimates all forecasting energy related parameters using data from 2010 to present.[5/]

Q. **HOW DOES PGE'S RELIANCE ON POST 2010 DATA AFFECT THE VALIDITY OF THE EE ADJUSTMENT?**

A. PGE's forecast models include various combinations of trends, steps, economic indicators, and autoregressive error structures.[6/] When PGE states that it assumes that EE trends are accounted for in its forecast model,[7/] it is referring to the parameters applied to the trends, steps, economic

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4/ Exh. AWEC/202 (PGE Response to AWEC Data Request 015 Attachment A).

5/ PGE / 1000 Workpaper "10-Regression Output.pdf". The variables HCNSF (Housing connects new for single family) and BPONMF (State of Oregon multiple-family building permits) use date from 2000 to present, but new connections and building permits are not expected to be affected by energy efficiency measures.

6/ PGE / 1000 Workpaper "10-Regression Output.pdf".

7/ PGE / 1000 Riter / 8:4-6.

indicators, and autoregressive error structures. All these factors have the potential to account for the impact of energy use associated with past energy efficiency savings. This means that forecasts generated from PGE's models likely anticipate incremental energy efficiency.

PGE acknowledges this possibility for SB 1149-related energy efficiency but denies it for SB 838 energy efficiency. There is no statistically or theoretically valid basis to presume that the model accounts fully for SB 1149 funding but not SB 838 funding. PGE's justification may have carried some weight when the historic data included periods with little or no SB 838 related EE savings. However, now that PGE's historic data is limited to 2010, SB 1149 and SB 838 have equivalent levels of history embedded within the forecast. There is no longer a basis for an outboard EE adjustment.

Q. DOES PGE PROVIDE ANY ADDITIONAL REASONS FOR KEEPING THE EE ADJUSTMENT?

A. Yes, in UE 335 parties agreed to reduce the EE adjustment by 40 percent when forecasting 2019 revenues. PGE Exhibit 1013 provides PGE forecast error from 2011 to 2019. PGE notes that it over-forecasted energy use in 2019 and concludes that the reduction to its EE adjustment caused at least part of this over-forecast.[8/] This assertion is not supported by any rigorous analysis and makes no effort to control for other sources of forecast error such as model misspecification, weather variance, or economic variance. The same logic, when applied to the 2014 and 2015 forecast years, yield the opposite conclusion. PGE under-forecasted energy from residential and commercial sectors in 2014 and 2015 and applied the 100 percent EE adjustment to reduce the forecast in each of these years.

[8/] PGE / 1000 Riter / 8:8-15.

PGE made modifications to model specifications and historic data periods in each annual forecast. Because every forecast year relied on a different forecast model it is not appropriate to draw any conclusions across time from Exhibit PGE/1013.

Q. WHAT IS YOUR RECOMMENDATION RELATED TO THIS ISSUE?

A. I recommend that the "base" forecast, which is exclusive of the outboard energy efficiency adjustment, be used for forecasting revenues and billing determinants.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. The base forecast of the September Update increases retail sales by approximately $12.1 million relative to the energy efficiency adjusted forecast of the September Update. This estimate is approximate because the workpapers provided by PGE do not contain all billing determinants necessary to calculate revenue. I recommend that PGE identify the precise impact in its Rebuttal Testimony. My calculations are summarized in Exh. AWEC / 203.

b. <u>Residential Forecast Should Reflect Greater Levels of Work-from-Home</u>

Q. HOW HAVE WORK-FROM-HOME POLICIES ASSOCIATED WITH COVID-19 AFFECTED PGE'S RESIDENTIAL ENERGY USE?

A. Covid-19 and the associated work-from-home activity has increased PGE's residential energy use-per customer.[9/] PGE models this increased energy use through a residential COVID indicator variable that has full effect from May 2020 to August 2021 and reduces to a 30 percent impact after September 2021.[10/]

9/ PGE / 1000 Riter / 6:1-10.
10/ PGE / 1012.

Q. IS THERE ANY QUANTITATIVE EVIDENCE THAT THE IMPACT OF COVID ON RESIDENTIAL ENERGY USE WILL REDUCE TO 30 PERCENT DURING THE TEST YEAR?

A. No, there is no data supporting PGE's assumption. PGE calculates 30 percent under the assumption that 50 percent of employees will return to work full time in September 2021 and that 50 percent of employees will continue to work from home three days a week.[11/] PGE points to business literature indicating that working from home will continue into 2022 and beyond.[12/]

Q. DO YOU BELIEVE THAT PGE'S 30 PERCENT VALUE IS SUFFICIENTLY DATA DRIVEN TO BE CONSIDERED KNOWN AND MEASURABLE?

A. No, PGE's number is not based on known or measurable data. PGE does not rely on historic energy use patterns, survey data, or other grounded methodologies to select 30 percent. While there is a large degree of uncertainty surrounding how work-from-home policies will evolve in 2022, the available data suggest that PGE is under-estimating the level of on-going work from home employment. PGE's citations supporting ongoing work-from-home only include one material data point, a survey of Portland business.[13/] This survey indicates that 75 percent of executives expect their companies to remain mostly work-from-home.

PGE's analysis also fails to account for multi-worker households. If a household has two workers and the probability of ongoing work-from-home is not perfectly correlated, PGE's methodology will underestimate ongoing work-from-home even if PGE accurately predicts

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[11/] Exh. AWEC/202 (PGE Response to CUB DR 14). Thirty percent is calculated as 0.5 * 0/5 (zero days per week working from home) + 0.5 * 3/5 (three days per week working from home.)

[12/] Exh. AWEC/202 (PGE Response to CUB DR 14).

[13/] Exh. AWEC/202 (PGE Response to CUB DR 14). The survey is referenced in https://www.bizjournals.com/portland/news/2020/12/01/profocus-tech-staffing-survey.html. The remaining articles cited by PGE are consistent with a high level of ongoing work from home, but they are more speculative and not data-driven.

that 50 percent of workers will return to work full time. To understand this, consider two coins flipped at the same time. Each coin represents a worker, and a head represents ongoing work-from-home for one worker. The probability of at least one head is 75 percent, calculated as $1 - 0.5^2$.

Finally, PGE's forecast was produced in March 2021, during the height of vaccination rollout, a low point in Oregon COVID infections, and optimism about the resolution of COVID. Incomplete vaccination rates,[14/] wanning effectiveness of the Pfizer vaccine,[15/] and the Delta variant[16/] have led to record levels of active COVID cases in September 2021 and record deaths in October 2021 in Oregon. The Oregon Health Authority attribute the September and October spike in COVID deaths in part to the state "reopening" in July, 2021.[17/]

[14/] Sun, Y, Monnat, SM. Rural-urban and within-rural differences in COVID-19 vaccination rates. J Rural Health. 2021; 00 1- 7 (Sep. 23, 2021) available at: https://doi.org/10.1111/jrh.12625.

[15/] Mahase E. Covid-19 booster vaccines: What we know and who's doing what BMJ (Aug. 20, 2021) available at: https://www.bmj.com/content/374/bmj.n2082.

[16/] Id.

[17/] Rapid Status Update: Covid-19 Epidemic Trends And Scenario Projections In Oregon Results as of 10-20-2021, 6pm (Oct. 20, 2021) available at: https://www.oregon.gov/oha/covid19/Documents/DataReports/Epidemic-Trends-and-Projections.pdf.

Figure 2: Oregon COVID-19 Hospitalizations Peak in September 2021[18/]

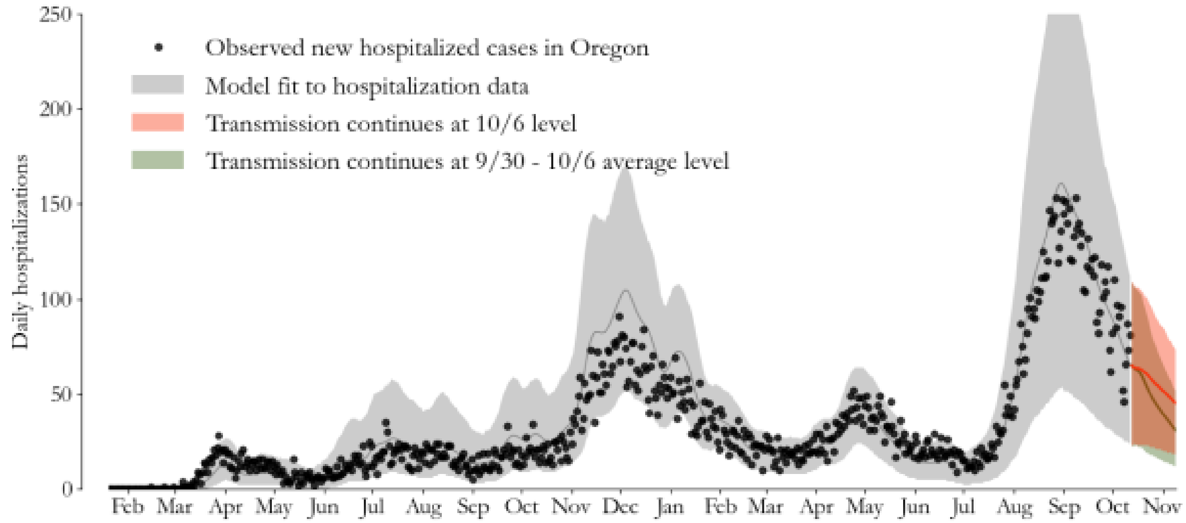
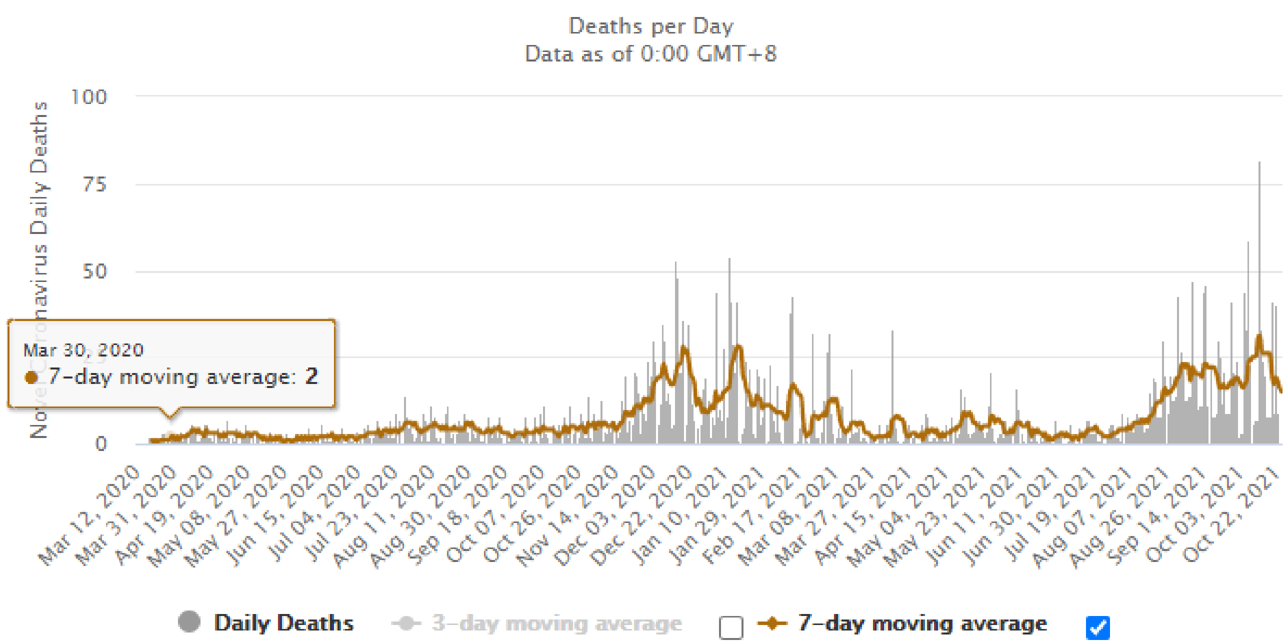


Figure 3: Oregon COVID-19 Related Deaths Peak in October 2021[19/]



18/ Rapid Status Update: Covid-19 Epidemic Trends And Scenario Projections In Oregon Results as of 10-20-2021, 6pm (Oct. 20, 2021) available at: https://www.oregon.gov/oha/covid19/Documents/DataReports/Epidemic-Trends-and-Projections.pdf.

19/ WorldOMeter, Oregon Coronavirus Data (last updated October 25, 2021) available at: https://www.worldometers.info/coronavirus/usa/oregon/.

Q. WHAT IS YOUR RECOMMENDATION REGARDING PGE'S RESIDENTIAL COVID PARAMETER?

A. It is certainly likely that work-from-home behavior, and COVID-related residential energy use will evolve over time. However, PGE's approach is not data-driven and does not constitute a known and measurable change. PGE's approach is essentially an arbitrary adjustment to residential energy use. The actual outcome depends heavily on how COVID transmission continues to evolve in Oregon and on how employees and employers adjust to the new workplace standards. I recommend the residential COVID parameter be set at 75 percent throughout the test period consistent with the ProFocus survey of Portland executives.[20] This recommendation increases retail sales under current rates by $27.9 million. Exhibit AWEC / 203 summarizes this adjustment.

Q. DO YOU RECOMMEND ANY ADJUSTMENT TO COMMERCIAL COVID PARAMETERS?

A. I do not currently recommend any changes to the commercial COVID parameters. PGE's revised forecast for the primary commercial schedules, Schedules 32 and 83, increased as part of the September Update, while the Residential forecast also increased. This is consistent with Commercial energy use resuming while Residential energy use remains high. It is reasonable to expect commercial energy use to resume under prolonged work-from-home as workplaces tend not to have zonal control of space heating or lighting. AWEC will continue to monitor commercial energy use and make appropriate recommendations if necessary, in Reply Testimony.

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[20] Portland Business Journal, Tech staffing 2021 survey finds remote work in Oregon to stay, companies plan to hire (Dec. 20, 2020) available at: https://www.bizjournals.com/portland/news/2020/12/01/profocus-tech-staffing-survey.html.

c. Hillsboro Load Forecast is Not Consistent with Planning Documents

Q. WHAT DOES PGE CLAIM IS DRIVING ITS RATE REQUEST?

A. PGE states that transmission and distribution ("D&T") facility investment is the primary driver of this rate case.[21/] PGE has added $1.6 billion in distribution and transmission, primarily poles, wires, and substations, since it's last rate case.[22/] This investment constitutes a phenomenal 34 percent increase in T&D gross plant since 2019.[23/] Energy deliveries over the same period, however, are projected to increase by less than 5.8 percent.

Q. WHAT CONCERNS DO YOU HAVE WITH PGE'S T&D INVESTMENT?

A. I am concerned that there is a mismatch between the planned load used to justify PGE's T&D buildout and the forecasted load used to set rates. PGE appears to be building capacity ahead of need and failing to secure sufficient customer contributions and minimum load agreements to support this early and excessive buildout.

Q. WHY ARE YOU CONCERNED WITH HILLSBORO SPECIFICALLY?

A. A large portion of PGE's recent investment has occurred in Hillsboro as part of the Hillsboro Reliability Project.[24/] The Hillsboro Reliability Project documents a projected load growth of [redacted] between 2019 and 2022. In the project whitepaper, PGE's T&D Planning department recommends building or expanding the following substations and connecting transmission in 2023:

- Evergreen

21/ PGE / 100 Pope – Sims / 16:12-19.

22/ PGE / 100 Pope – Sims / 17:Table 1.

23/ Docket No. UM 2152 Initial Filing Page VI-12 and 13 show $4.7 billion in Transmission plant at year end 2019. This figure likely includes a portion of the 1.6 billion increase.

24/ Exh. AWEC/202 (PGE Response to AWEC DR 81, Confidential Attachment A Hillsboro_Brookwood_CONFIDENTIAL_Redacted.pdf).

- Brookwood
- Main
- Orenco
- Shute
- St. Mary's

The T&D department also recommended the Horizon Substation be expanded in 2021. PGE has begun construction for most of these projects, ahead of the 2023 need date. In addition to the [redacted] of load driving the Hillsboro Reliability Project, PGE has constructed two substations, Butler and Helvetia, to serve a dedicated load growth of [redacted].[25] Despite these investments, PGE's load forecast for this rate case projects a much lower load growth for Hillsboro than that relied on by planning documents.

I am concerned that PGE is sufficiently confident in this load growth to initiate the Hillsboro Reliability Project ahead of the recommended 2023 date but is not sufficiently confident to include the projected loads in rates.

Q. ISN'T IT REASONABLE TO HAVE A PLANNING FORECAST THAT EXCEEDS EXPECTED GROWTH?

A. When planning is based on general system load growth, it may be reasonable to over-project load, or to anticipate load during abnormal events, such as 1 in 10 or 1 in 20-year weather events. However, when constructing facilities for load associated with specific customers, PGE should only make investments when the customer has financially committed to the planned

[25] Exh. AWEC/202 (PGE Response to OPUC DR 198 Confidential Attachment A P36693 Funding Justification.pdf and P36708 Funding Justification.pdf).

load. If a customer has financially committed to the planned load, it is sufficiently certain to be included in a load forecast.

Q. WHAT LOAD FORECAST DID PGE USE TO SUPPORT THE HILLSBORO RELIABILITY INVESTMENT?

A. PGE initially developed the Hillsboro Reliability Project in December 2018 and relied on the load projections in the table below ("2018 Planning Forecast"). The T&D Planning Department's recommendation to implement the Hillsboro Reliability Project in 2023 was based on a 2019 to 2022 cumulative growth of [redacted]. All this load is related to identifiable large customers. The Butler and Helvetia substation builds are not included in the Hillsboro Reliability Project and constitute an additional [redacted] of load.

Confidential Table 1: 2019 Planning Forecast[26]

[redacted]

[26] Exh. AWEC/202 (PGE Response to AWEC DR 143 Confidential Attachment B).

The Horizon VWR3 Project, which was one part of the Hillsboro Reliability Project, was implemented in 2021. Before implementing the Horizon VWR3 Project component of the Hillsboro Reliability Project, PGE refreshed its planning forecast. The refreshed planning forecast, produced in November 2020, is provided below ("2020 Planning Forecast").[27] The 2020 Planning Forecast projects [redacted] of load growth from 2021 to 2022 in the base case.

Confidential Table 2: 2020 Planning Forecast

[redacted]

The updated load forecast shows slightly lower medium case load growth for 2021 and 2022, but the high case matches the 2018 Planning Forecast.

Q. HOW MUCH LOAD GROWTH IN HILLSBORO DOES PGE INCLUDE IN THE LOAD FORECAST FOR THIS CASE?

A. PGE's Hillsboro load growth large customer forecast used for rates is provided in the table below.

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[27] Exh. AWEC/202 (PGE Response to AWEC DR 141).

Confidential Table 3: PGE March 2021 Rate Case Forecast [28/]

[redacted]

The rate case forecast shows 2019 to 2022 cumulative growth of [redacted] less than half of the 2018 Planning Forecast. The rate case forecast shows 2021 to 2022 cumulative growth forecast is [redacted] compared to the 2020 Planning Forecast of [redacted]. The rate case forecast was produced only 4 months after the 2020 planning forecast and should have similar results. However, the rate case forecast includes only [redacted] percent of the planned load.[29/]

[28/] Exh. AWEC/202 (PGE Response to AWEC Data Request 140 Confidential Attachment A).

[29/] It is unclear what portion of the rate case load should be associated with the Butler and Helvetia substations and which part should be associated with the Hillsboro Reliability Project. If some of the rate case forecast is actually attributable to customers served by Butler and Helvetia, there may be even larger variance between the planning and rate case forecasts.

Q. WHAT EXPLAINS THIS DISCREPANCY?

A. There are two explanations for this discrepancy. First, PGE's minimum load agreements may not be sufficient to cover the level of investment being made. Second, PGE may be failing to incorporate all expected load growth in its rate case forecast.

Q. WHY SHOULD PGE BE SECURING MINIMUM LOAD AGREEMENTS FOR THE HILLSBORO INVESTMENTS?

A. The Hillsboro investments are being made in response to specific customers. This means that the Hillsboro Reliability Project, the Butler substation, and the Helvetia substation should be treated as line extensions.

PGE's line extension rule is designed to protect existing customers from rate pressure associated with new customers. The line extension rule excludes substation line extensions from the prescriptive formula described in the rule. Instead, substation line extensions are to be addressed through special contracts. While the characteristics of the special contracts are not spelled out in the line extension rule, PGE's special contract line extensions should protect existing ratepayers in a similar manner as the prescriptive line extension rule.

Q. WHAT COMMITMENTS DID PGE SECURE FROM CUSTOMERS PRIOR TO INVESTING IN HILLSBORO?

A. PGE obtained minimum load agreements from the majority of new load projected in Hillsboro.[30/] However, these commitments appear to have been insufficient to protect customers. For example, Customer LC44 signed a minimum load agreement and planned to bring [redacted] on-line in 2022. This customer alone exceeds PGE's 2021 and 2022 rate case load forecast. Given the size of the 2021 load

[30/] Exh. AWEC/202 (PGE Response to AWEC Data Request 142 and 143).

commitment, PGE should be receiving revenue associated with its minimum load agreement. PGE had not received minimum load agreement revenue from any customer on its system for the most recent month available, August 2021.[31]

Q. HOW COULD PGE HAVE PROTECTED CUSTOMERS AGAINST THE RISK THAT FORECASTED LOAD DID NOT MATERIALIZE?

A. The minimum load agreements that PGE secured should have provisions to recover the incremental cost of the Hillsboro Reliability if the load did materialize.[32]

Q. WHAT EVIDENCE IS THERE THAT PGE'S RATE CASE FORECAST IS NOT FULLY ACCOUNTING FOR HILLSBORO LOAD GROWTH?

A. PGE's own internal 2020 planning forecast for a base case scenario is nearly double the rate case forecast. PGE dismisses planning forecasts as produced years ahead of load additions.[33] However, the 2020 planning forecast was only produced four months before PGE's rate case forecast.

In addition to PGE's internal forecasts, there is public evidence of new large customers in Hillsboro:

- Facebook and QTS data centers are planning 250 MW of load additions in Hillsboro.[34]
- QTS's new 250 MW campus's first phase opened in October 2020.[35]

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[31] Exh. AWEC/202 (PGE Response to AWEC Data Request 83(c)).

[32] Pacific Power's Oregon Tariff Rule 13 provides a formulaic approach to protecting existing customers by requiring Contract Minimum Billing that includes Line Extension Facilities Charges. Schedule 300 sets these charges at 0.4 percent per month for facilities constructed at the customers expense (for O&M) and 1.2% per month for facilities constructed at the company's expense (for O&M and capital costs).

[33] Exh. AWEC/202 (PGE Response to AWEC Data Request 81 part f).

[34] See Data Center Frontier, Facebook Eyes Major Data Center Expansion in Hillsboro, Oregon (Sep. 22, 2021) available at: https://datacenterfrontier.com/facebook-eyes-major-data-center-expansion-in-hillsboro-oregon/.

[35] See QTS, QTS Opens New Mega Data Center in Hillsboro, Oregon (Oct. 1, 2020) available at: https://investors.qtsdatacenters.com/2020-10-01-QTS-Opens-New-Mega-Data-Center-in-Hillsboro-Oregon.

- Stack is developing a 28-acre data center in Hillsboro with the 24 MW first phase opening third quarter of 2021.[36/]
- Flexential broke ground on a 36 MW, 20-acre data center in Hillsboro in the summer of 2020.[37/]
- Digital Reality is currently mid-construction of a 48 MW facility in Hillsboro.[38/]
- Hitachi will open a 219,000 square foot semi-conductor facility in Hillsboro in 2022.[39/]
- JRS Micro is developing a 25-acre semiconductor facility in Hillsboro that began commercial production in 2021.[40/]

All these loads, totaling over 358 MW, are for new customer facilities that have completed construction or are near completion.

Q. WHAT EVIDENCE IS THERE THAT PGE IS UNDER FORECASTING LARGE LOADS BEYOND YOUR HILLSBORO ANALYSIS?

A. PGE opened queuing to the New Load Direct Access program on April 15, 2019. Program participation was limited to energizing on or after April 15, 2020. PGE had a load limit of 119

[36/] See Hosting Journalist, STACK Breaks Ground on Construction of New Data Center Campus in Oregon (Oct. 11, 2020) available at: https://hostingjournalist.com/stack-breaks-ground-on-construction-of-new-data-center-campus-in-oregon/.

[37/] See Flexential, Flexential Announces its Largest Data Center Expansion to Date, Meeting IT Infrastructure Needs During the Pandemic and Beyond (May 7, 2020) available at: https://www.flexential.com/resources/press-release/flexential-announces-its-largest-data-center-expansion-date-meeting-it.

[38/] See Data Center Hawk, About OR2 Data Center, available at: https://www.datacenterhawk.com/colo/digital-realty/6675-ne-62nd-ave/or2. In September 2021 a review posted a review of the facility noting that it was under construction. Satellite imagery shows the building is complete.

[39/] MSN, Hitachi will build large semiconductor engineering facility in Hillsboro (June 15, 2021) available at: https://www.msn.com/en-us/travel/news/hitachi-will-build-large-semiconductor-engineering-facility-in-hillsboro/ar-AAKVgMX.

[40/] See Oregon Live, Japanese chip industry supplier plans $100 million Hillsboro factory (Aug. 8, 2019). https://www.oregonlive.com/silicon-forest/2019/08/japanese-chip-industry-supplier-plans-100-million-hillsboro-factory.html ; JSR Micro, JSR Micro Opens New Hillsboro, Oregon Facility Providing Advanced Clean Solutions (March 22, 2021) available at: https://www.jsrmicro.com/news/jsr-micro-opens-new-hillsboro-oregon-facility-providing-advanced-cleans-solutions.

MWa and the que exceeded the cap by many multiples.[41/] Many multiples can reasonably be interpreted as more than three times the limit, or 360 MWa. PGE's New Load Direct Access program was fully subscribed in April 15, 2019. It is reasonable to expect that a large portion of this load will be online by the end of the test year because this will allow new customers nearly four years to ramp-up load. However, PGE only includes 4.3 MWa of load under this schedule in the 2022 load forecast. This is 3.6 percent of the program cap. It is unclear what portion of the more than 360 MWa of load that applied to the New Load Direct Access program was in Hillsboro or how much of this load was included in either the planning forecasts or the rate case forecasts. Direct Access load is included in PGE's retail load forecast.

Q. IS THERE EVIDENCE THAT PGE IS ADDING DISTRIBUTION CAPACITY IN ADVANCE OF NEED?

A. Yes, PGE's planning document for the Shute substation notes:

[redacted]

According to the planning document, the Shute capacity expansion is not necessary until 2023. However, the Shute substation expansion was transferred to plant in 2021[43/] and included in

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[41/] Docket No. UE 358, NLDA Customer Queue Update (Apr. 29, 2019).

[42/] Exh. AWEC/202 (PGE Response to AWEC Data Request 81 Confidential Attachment A Shute_CONFIDENTIAL_Redacted.pdf) (emphasis added).

[43/] Exh. AWEC/202 (PGE Response to AWEC Data Request 104 Attachment A).

rates in this case, indicating the project was constructed at least two years earlier than necessary.

More generally, PGE has executed the Hillsboro Reliability Project ahead of need. PGE's planning document for the Hillsboro area states "T&D Planning recommends implementing Option 2, the Hillsboro Reliability Project, by June 2023 for the greatest benefit to the T&D system." This recommendation relies on the 2018 planning forecast of [redacted] of load growth from 2019 to 2022. PGE's rate forecast assumes far less than this amount of growth, and yet PGE is accelerating the T&D Planning recommendation of a June 2023 date. PGE is requesting cost recovery for six of the seven substation expansions identified in the Hillsboro Reliability Project, and two additional Hillsboro substations not included in this project.

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE HILLSBORO DISTRIBUTION INVESTMENTS?

A. I recommend adopting the November 2020 Planning Forecast's medium case forecast for PGE's Hillsboro large customer load. This increases retail sales under current rates by approximately $21 million. A more accurate estimate is not available because PGE did not provide the forecasted Hillsboro large customer load with enough detail to identify load growth by schedule.

Q. IF PGE PROVIDES PERSUASIVE EVIDENCE THAT THE 2022 HILLSBORO LOAD WILL BE BELOW THE MEDIUM CASE FORECAST, WILL THAT CHANGE YOUR RECOMMENDATION?

A. No, even if PGE persuades the Commission that its rate case forecast is correct, the Commission should still rely on the November 2020 medium case planning forecast. This is because PGE's rates should be calculated as if PGE had prudently secured sufficient load commitments by new and growing customers prior to implementing the build-out. The alternative would be to find that PGE imprudently constructed these facilities ahead of need. This result would be similar to the Commission's decision in Docket UG 221, in which it disallowed two phases of Northwest Natural's Mid-Willamette Valley Feeder project.[44/] There, the Commission found that "the project is not justified at this time on grounds that it is needed to meet load," noting that Northwest Natural's own data showed that load growth would not make the project necessary until 2020 (approximately eight years later at the time).[45/] The Commission also found that the project was not needed to meet reliability issues.[46/]

d. <u>Facility Capacity Billing Determinants May be Calculated Incorrectly</u>

Q. WHAT IS FACILITY CAPACITY?

A. According to PGE Tariff Rule B, "[t]he Facility Capacity is the average of the two greatest non-zero monthly Demands established anytime during the 12-month period which includes and ends with the current Billing Period." Schedules for loads greater than 30 kW have a monthly charge based on Facility Capacity.

Facility Capacity charges recover distribution feeder main lines and tap lines. Main lines and tap lines are sized to accommodate a customer's annual peak load as measured by the Facility Capacity.

[44/] Docket No. UG 221, Order No. 12-437 at 10-18 (Nov. 16, 2012).
[45/] <u>Id.</u> at 16.
[46/] <u>Id.</u>

Q. WHAT CONCERNS DO YOU HAVE REGARDING FACILITY CAPACITY?

A. I have identified two inconsistencies in PGE's Facility Capacity billing determinants. First, the Facility Capacity billing determinants used in PGE's rate design model do not match the results of PGE's load forecast. Second, the most recent Facility Credit data available to AWEC, from August 2021, are not consistent with PGE's projected load growth.

Q. HOW DOES PGE'S LOAD FORECAST COMPARE TO THE FACILITY CAPACITY USED IN PGE'S RATE DESIGN MODEL?

A. The table below compares PGE's revenue forecast with PGE's load forecast for Facility Capacity. AWEC is continuing to investigate the source of this discrepancy.

Confidential Table 4: PGE Load and Revenue Facility Capacity Forecast [47]

[redacted]

Q. HOW ARE PGE'S MOST RECENT FACILITY CAPACITY BILLS INCONSISTENT WITH PGE'S LOAD FORECAST?

A. PGE's August 2021 facility capacity charges, when annualized and projected to 2022 using PGE's forecasted growth, exceed the projected facility capacity for the test year. Facility Capacity should grow with demand and energy, but this is not apparent from Table 4 below. The 2021 facility capacity for Schedules 89 and 90 are much greater than the energy and

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[47] Exh. AWEC/203.

demand forecast indicate. In fact, the rate case forecast for Schedule 89 Facility Capacity is lower than 2021 actuals, despite the fact that Schedule 89 load is expected to grow in 2022. It should be noted that annualizing August 2021 values introduces some error in the comparison. However, the comparison is sufficient to indicate a potential inconsistency in how PGE projects Facility Capacity.

Confidential Table 4: PGE March 2021 Rate Case Forecast [48]

[redacted]

[48] Calculated from Exh. AWEC/202 (PGE Response to AWEC Data Request 83 Attachment C Corrected).

Q. WHAT IS YOUR RECOMMENDATION FOR FACILITY CAPACITY?

A. I recommend that billing determinants used for Facility Capacity be consistent with PGE's load forecast and that PGE's load forecast for facility capacity be consistent with forecasted demand growth. I also recommend that PGE be required to include workpapers in its compliance filing for this case reconciling actual load, load forecast, and rate design model Facility Capacity. These workpapers should include, at a minimum:

- anonymized meter level data for the most recent 12-month period with customer rate schedule, monthly non-coincident peak demand, and monthly energy,
- load forecast data in the format of PGE's Response to AWEC DR 83 Confidential Attachment A,
- Workpapers reconciling actual recent load with projected Facility Credit in load forecast, and
- Workpapers reconciling load forecast Facility Credit with rate design facility credit.

Reconciling PGE's facility capacity in its load forecast workpapers with PGE's rate design model increases retail revenue under current rates by $4.7 million.

Q. WHAT IS YOUR REVISED RETAIL REVENUE FORECAST?

A. My revised retail revenue forecast is $2,090 million. This is an increase of $65.6 million over the September Update. Most of this revenue increase, $60.1 million, is associated with greater retail load and may necessitate an increase in forecasted net power costs. The ratio of power costs to revenue from the September Update was 52.3%. If this ratio holds for my recommended revenue, then net power costs will increase by $33.7 million. PGE intends to set

Schedule 125 rates to zero on the rate effective date, therefore no adjustment outside this case is necessary.[49]

III. WORLD TRADE CENTER LEASE

Q. WHAT IS THE WORLD TRADE CENTER?

A. The World Trade Center (WTC) is a three-building complex in downtown Portland with approximately 500,000 rentable square feet. PGE currently occupies 317,000 square feet in the WTC under a lease with PGE affiliate 121 SW Salmon Street Corporation ("121 SW Salmon").[50] The WTC buildings were constructed between 1975 and 1978 as PGE's corporate headquarters.[51] As an affiliate, PGE's lease with 121 SW Salmon is subject to the Commission's lower of cost or market affiliate interest standards. 121 SW Salmon recently purchased the WTC for 26 percent of its market value. This discounted purchase was only available to 121 SW Salmon because of its affiliation with PGE and because of the nature of PGE's pre-existing long term lease of the WTC. The highly discounted purchase price, along with the additional square footage available from PGE's relocation to the Integrated Operations Center ("IOC"), have greatly reduced 121 SW Salmon's costs since PGE's last rate case. I recommend reducing the transfer price for the rent of the WTC to a level that sets the Affiliate's expected return on investment to PGE's cost of capital, consistent with the lower of cost or market standard for transfer of goods and services from an affiliate to a utility.

[49] Exh. AWEC/202 (PGE Response to AWEC Data Request 197).
[50] Exh. AWEC/202 (PGE Response to AWEC Data Request 16 and 80).
[51] World Trade Center Portland, Frequently Asked Questions, available at: https://wtcpdx.com/about-us/#faqs.

Q. WHAT IS FUNCTION OF THE LOWER OF COST OR MARKET STANDARD??

A. The lower of cost or market standard is a regulatory standard that goods and services provided by an affiliate or the non-utility operations of a regulated company should be transferred at the lower of the cost of providing the service or the prevailing market rate. A corollary standard is that goods and services provided by regulated operations to non-utility or affiliates should be provided at the higher of cost or the prevailing market rate. These standards are described in the NARUC Guidelines for Cost Allocations and Affiliate Transactions. These standards are also proscribed in OAR 860-027-0048 and PGE's Affiliated Master Services Agreement.[52/] NARUC Guidelines state:

> The objective of the affiliate transactions' guidelines is to lessen the possibility of subsidization in order to protect monopoly ratepayers and to help establish and preserve competition in the electric generation and the electric and gas supply markets. It provides ample flexibility to accommodate exceptions where the outcome is in the best interest of the utility, its ratepayers and competition. As with any transactions, the burden of proof for any exception from the general rule rests with the proponent of the exception.[53/]

Q. WHAT IS THE HISTORY OF THE WTC OWNERSHIP?

A. According to the Staff report in Docket No. UI 405, PGE's affiliated interest application for the WTC lease:

> PGE was the original owner of the property, having purchased the property upon which the WTC is now located from US Bank on November 17, 1975. PGE conveyed the property to 121 SW Salmon the same day and 121 Salmon subsequently constructed the WTC. In September 1978, 121 SW Salmon sold the property and then rented back the

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52/ Docket No. UI 248, Application for Approval of an Affiliated Master Service Agreement (March 24, 2006).

53/ National Association of Regulatory Utility Commissioners, Guidelines for Cost Allocations and Affiliate Transactions, Exh. AWEC/202.

> property from the new owners subject to a 65-year lease. PGE guaranteed the obligations of 121 Salmon's lease with the new owners.
>
> 121 SW Salmon entered into a purchase agreement for the WTC on May 29, 2018, for a confidential amount. This amount is substantially below the market value for the building. One reason the purchase amount is below the market value is that there remains 25 years on the existing lease with PGE, and the lease price is below the market price for similar rental space.

PGE's affiliate, 121 SW Salmon, is the current owner of the property.[54] 121 SW Salmon purchased the at [redacted] percent of the market value, a severely discounted value due to the burden of the existing Master Lease.[55]

Q. HOW DID YOU DETERMINE THAT THE DISCOUNTED PRICE WAS DUE TO THE MASTER LEASE?

A. In September 2018, the Master Lease had 25 years remaining at an annual rent of $2.5 million with no escalation for the duration of the lease. The Master Lease also allowed for multiple purchase options. PGE Commissioned an independent appraisal of the WTC in September 2018. This appraisal found that the below market rents burdened the value of the property.[56] Based on comparable sales the appraisal determined that the unburdened value of the property was [redacted].[57] WTC's actual purchase price of [redacted] percent of the unburdened appraised value.

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[54] Exh. AWEC/202 (PGE Response to AWEC Data Request 016).

[55] Exh. AWEC/202 (PGE Response to AWEC Data Request 016 Confidential Attachment A, PGE Response to Staff IR 4 Attachment D 004-D.1 WTC Finance Committee Presentation 04-24-2018.pdf page 4.).

[56] Exh. AWEC/202 (PGE Response to AWEC Data Request 016 Confidential Attachment A, PGE Response to Staff IR 5 Attachment F page 104).

[57] Id. at 150.

Q. WHAT IS THE SIGNIFICANCE OF THE WTC'S HISTORY?

A. The WTC only exists due to PGE. PGE purchased the property, caused the building to be constructed, and provided financial guarantees for loans against the WTC.[58/] PGE's need for and intent to use the WTC as a general headquarters is clearly the driving factor behind the 65-year Master Lease. The presence of the 65-year lease at below market rates severely impinged the market value of the WTC and caused the owners of the WTC to sell the property at an extremely discounted value. This is important because there is a fundamental question for the Commission is whether a financial windfall for 121 SW Salmon from the discounted purchase should be factored into a lower of cost or market analysis. Because this financial windfall was only available to 121 SW Salmon as a result of its affiliation with WTC, it is appropriate to factor the discounted purchase price, and future gain on sale, when evaluating the transfer price for PGE's use of the property.

Q. WHAT ARE THE TERMS OF THE WORLD TRADE CENTER LEASE?

A. Under the current lease, PGE's rent has three components:

1. A Base Rent of $2,486,549 times PGE's Proportionate Share of lease space, (PGE occupied square footage divided by 506,710),
2. Additional rent for the Proportionate Share of the difference between 2018-2019 property tax and current year property tax,[59/] and

[58/] Exh. AWEC/202 (PGE Response to AWEC Data Request 016 Confidential Attachment A, PGE Response to OPUC Information Request No. 011).

[59/] Docket No. UI 405, Application for Approval of Affiliated Interest Transactions with 121 SW Salmon Street Corporation, Attachment 1 Section 19.1 (June 6, 2018).

3. Additional rent for the Proportionate Share of the difference between 2018-2019 operating expense and current year operating expense.[60]

Q. HOW DID PGE'S LEASE EXPENSE CHANGE AFTER 121 SW SALMON PURCHASED THE WTC?

A. In 2017, the last full year prior to the purchase, PGE's lease expense for the WTC was $4,973,098.[61] In 2019, the first full year after the WTC purchase was complete, PGE's lease expense increased to $8,933,735.[62] In Docket UI 405, PGE represented that the annual lease expense would not change because of the purchase.[63] One factor that caused PGE's lease expense to increase is that PGE is now paying for the depreciation expense of the WTC.

Q. WHAT CONCERNS DO YOU HAVE REGARDING THE WTC LEASE EXPENSE?

A. As noted by Staff in UI 405, purchase of the property by PGE would have been a more prudent decision relative to the current lease. In addition, PGE's transfer price under the current lease does not meet the lower-of-cost-or-market standard for affiliated transactions.[64]

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[60] Id. at Section 19.3. Operating expense is defined as "costs of operating, maintaining, and repairing the Building as determined by standard real estate accounting practice, including, but not limited to: all water and sewer charges; the cost of natural gas and electricity provided to the Building; janitorial and cleaning supplies and services; administration costs and management fees; superintendent fees; security services, if any; insurance premiums; licenses; and permits for the operation and maintenance of the Building and all its component elements and mechanical systems; ordinary and emergency repairs and maintenance, and the annual amortized capital improvement cost (amortized over such a period as Landlord may select but not shorter than the period allowed under the Internal Revenue Code and at a current market interest rate) for any capital improvements to the Building required by any governmental authority or those that have a reasonable probability of improving the efficiency of the Building. 'Operating expenses' shall also include all assessments under recorded covenants or master plans and/or by owners' associations."

[61] Docket No. RE 64, PGE 2017 Affiliated Interest Report, Section II-VII, at 3 (May 30, 2018).

[62] Docket No. RE 64, PGE 2019 Affiliated Interest Report, Sections II-VII, at 2 (July 27, 2020).

[63] Exh. AWEC/202 (PGE Response to AWEC DR 16, Confidential Attachment A, UI 405 PGE Response to OPUC Information Request No. 009).

[64] OAR 860-027-0048(3)(e)("When services or supplies (except for generation) are transferred or provided to a regulated activity by a nonregulated activity, transfers shall be recorded in regulated accounts at the nonregulated activity's cost or the market rate, whichever is lower. The nonregulated activity's cost shall be calculated using the energy utility's most recently authorized rate of return."); National Association of Regulatory Utility Commissioners, Guidelines for Cost Allocations and Affiliate Transactions, available at: https://pubs.naruc.org/pub.cfm?id=539BF2CD-2354-D714-51C4-0D70A5A95C65 ("The affiliate transactions pricing guidelines are based on two assumptions. First, affiliate transactions raise the concern of self-dealing

Q. DID PGE HAVE THE OPTION OF PURCHASING THE PROPERTY DIRECTLY?

A. Yes, PGE's sublease with 121 Salmon Street provided PGE all purchase rights granted to 121 Salmon in the Master Lease.[65/]

Q. DID PGE ANALYZE PURCHASING THE FACILITY DIRECTLY AS A UTILITY ASSET RATHER THAN THROUGH AN AFFILIATE?

A. Yes, PGE's analysis included consideration of purchasing the building as a utility asset. In UI 405 Staff IR 10, Staff asked PGE to provide "analysis performed by PGE to ensure that the rental rate in the lease is at or below the cost of owning and operating the property." PGE provided an extremely simplistic analysis consisting of a single formula calculating the payment amount for a 25-year loan equal to the purchase price.[66/] PGE concluded that because the loan amount exceeded the lease payment, the levelized cost of ownership exceeded the proposed affiliate leasing arrangement.

Q. WAS PGE'S LEVEL OF ANALYSIS FOR UTILITY OWNERSHIP SUFFICIENT GIVEN SIZE OF THE PROJECT?

A. No, PGE's analysis was too simplistic and grossly insufficient for a transaction that represented over $8 million in on-going annual rental expense for utility customers. PGE

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where market forces do not necessarily drive prices. Second, utilities have a natural business incentive to shift costs from non-regulated competitive operations to regulated monopoly operations since recovery is more certain with captive ratepayers. … Generally, the price for services, products and the use of assets provided by a non-regulated affiliate to a regulated affiliate should be at the lower of fully allocated cost or prevailing market prices."); OAR 860-027-0048(4)(e) ("When services or supplies (except for generation) are sold to an energy utility by an affiliate, sales shall be recorded in the energy utility's accounts at the approved rate if an applicable rate is on file with the Commission or with FERC. If services or supplies (except for generation) are not sold pursuant to an approved rate, sales shall be recorded in the energy utility's accounts at the affiliate's cost or the market rate, whichever is lower.").

65 Exh. AWEC/202 (PGE Response to AWEC DR 16, Confidential Attachment A, UI 405 PGE Response to OPUC Information Request No. 12 Attachment C Paragraph 4).

66/ Exh. AWEC/202 (PGE Response to AWEC DR 16, Confidential Attachment A, UI 405 PGE Response to OPUC Information Request No. 10 Attachment A).

should have performed a full cash flow analysis with all expected expenses and revenues to ensure accurate accounting of costs to rate payers under both scenarios.

In addition to being too simplistic, the analysis is subject to two fatal flaws: lack of terminal value and other revenue. PGE's analysis assumes that the property is purchased for the full purchase price, [redacted] PGE should have included, at a minimum, a terminal value for the property after the [redacted]. PGE's internal analysis performed to vet the affiliate purchase indicates an assessed tax value of [redacted] The Multnomah County Tax Assessor's office estimates the current market value at $219 million. PGE's third-party appraisal estimated the 2018 market value at [redacted].[67] The third-party appraisal also concluded that "[redacted] The Multnomah County Tax Assessor's office's current market value represents a conservatively low terminal value because it does not account for appreciation in real property values. Adding the current market value as a terminal value makes utility ownership more economical relative to the affiliate lease [redacted]

[67] Exh. AWEC/202 (PGE Response to AWEC DR 16, Confidential Attachment A, UI 405 PGE Response to OPUC Information Request No. 5 Attachment F page 8).

Including terminal value in the analysis has a second critical component. PGE's affiliate lease is limited to a 25-year term.[68] This means that at the end of the 25-year term PGE's affiliate may dispose of the building or attempt to raise PGE's lease rate. If PGE had purchased the building, PGE would not be exposed to the risk of the building being sold, the lease not being renewed, or rent increasing. Including a terminal value at market rates addresses this concern.

PGE's analysis in IR 10 also fails to account for offsetting revenue from renting unoccupied space at the WTC. In 2018, PGE justified the construction of the Integrated Operations Center in part through [redacted].[69] This demonstrates PGE was aware of the potential value associated with leasing excess WTC office space. A more sophisticated financial model is needed to incorporate rental of unoccupied space.

Q. YOU MENTIONED THAT PGE IS CURRENTLY PAYING FOR THE DEPRECIATION EXPENSE OF THE WTC. IS THAT RELEVANT TO PGE'S "UTILITY PURCHASE" ANALYSIS?

A. Yes. PGE asserts that WTC "operating costs" are identical under utility and affiliate ownership.[70] By operating expenses, PGE refers to the "Additional Rent" components of the lease. PGE uses this assertion to justify the simplified model for evaluating utility purchase. However, PGE failed to account for depreciation. 121 SW Salmon financial records show that PGE is paying its Proportionate Share of depreciation expense. Total depreciation expense for

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[68] Docket No. UI 405, Application for Approval of Affiliated Interest Transactions with 121 SW Salmon Street Corporation, Attachment 1 Section 1.4 (June 6, 2018).

[69] Exh. AWEC/202 (PGE Response to OPUC DR 657 Confidential Attachment A page 19 identifies financial benefits include the "opportunity to lease space vacated at 1WTC at market rates.").

[70] Exh. AWEC/202 (PGE Response to AWEC DR 16, Confidential Attachment A, UI 405 PGE Response to OPUC Information Request No. 10).

2020 for the WTC was [redacted], and [redacted] of this expense was included in PGE's 2020 rent[71/] in addition to PGE's Base Rent and constitutes a portion of the Additional Rent, or "operating expense". Recall that PGE's test of utility ownership compared the Base Rent against the purchase price expensed (i.e. depreciated) over 25 years plus carrying cost. Thus, PGE's utility ownership model double counts depreciation expense, once directly through the 25 expensing of the purchase price, and once through the omitted "operating costs". This provides a third reason for analyzing utility purchase with a full-fledged financial model.

Q. WHAT MODEL DID PGE USE TO EVALUATE THE AFFILIATE PURCHASE?

A. PGE relied on a more robust model that considered other rent, taxes, interest, depreciation, and interim capital expenditures to justify affiliate purchase.[72/] This more robust model reveals that the affiliate will earn a substantial return on investment under the current lease, indicating that the lease is above cost and that PGE's analysis of utility ownership was flawed. PGE's internal model require a few modifications to be used to evaluate the complete financial impacts of the lease, however. Specifically, the more robust model does not account for terminal value or the impact of the Integrated Operations Center, or PGE's proportional share of the purchased assets' depreciation expense.

Q. HOW DO YOU RECOMMEND ACCOUNTING FOR TERMINAL VALUE?

A. I recommend projecting a sale at the market on the final year of lease with all extension options. Market value is based on the market value from the 2018 independent appraisal,

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71/ Exhibit AWEC/204 provides all 121 SW Salmon transaction with "Depreciation" cost elements.

72/ Exh. AWEC/202 (PGE Response to AWEC DR 16, Confidential Attachment A, UI 405 PGE Response to OPUC Information Request No. 3 Attachment A).

escalated by the ten-year national average growth rate in central business district property values, [redacted].[73/] The 2018 appraised value is $174 million.

Q. HOW DO YOU RECOMMEND ACCOUNTING FOR THE INTEGRATED OPERATIONS CENTER?

A. The project justification for the Integrated Operations Center relies on the financial value of sub-leasing the vacated WTC location.[74/] However, affiliate lease and the proposed revenue requirement in this case do not appear to include the value of subleasing the vacated WTC tower. I recommend accounting for this by modifying the financial model to include PGE's reduced square footage use of the WTC in 2022.

PGE's cash flow model includes functionality to make annual adjustments to PGE's occupied square footage. The fact that this functionality exists suggest PGE evaluated sensitivities with varying levels of PGE building occupation. PGE began planning for the IOC in October 2017.[75/] PGE issued a funding request to purchase property for the IOC prior to completing the purchase of the WTC and can reasonably have been expected to account for this transition in their analysis of the WTC purchase.[76/]

Q. HOW DO YOU RECOMMEND ACCOUNTING FOR THE INCLUSION OF DEPRECIATION EXPENSE IN PGE'S RENTAL CHARGES?

A. When analyzing the rate of return to 121 SW Salmon it is appropriate to include PGE's Proportionate Share as additional revenue. When used to analyze a cost-based rate it is not

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73/ Exh. AWEC/202 (PGE Response to AWEC Data Request 016 Confidential Attachment A PGE Response to Staff IR 5 Attachment F page 49).

74/ Exh. AWEC/202 (PGE Response to OPUC DR 657 Confidential Attachment A). Page 19 identifies financial benefits include the "opportunity to lease space vacated at 1WTC at market rates."

75/ Exh. AWEC/202 (PGE Response to OPUC DR 657 Confidential Attachment A page 13).

76/ Exh. AWEC/202 (PGE Response to OPUC DR 657 Confidential Attachment A page 16).

necessary to account for this because the cost-based rate is exclusive of a proportionate share of depreciation expense.

Q. WHAT IS THE FINANCIAL VALUE OF THE AFFILIATE LEASE USING PGE'S INTERNAL MODEL?

A. The internal model, as is, projects an internal rate of return of [redacted]. The revised model after adding terminal value in year 25, correcting square footage related to the IOC, and updating PGE rental revenue to reflect Proportionate Share of the purchased assets, increases the IRR to [redacted].[77/] This is substantially higher than PGE's 2018 stipulated cost of equity of 9.5 percent (which will remain at the same level following this case if the stipulation on cost of capital is approved).[78/]

Q. WHAT ADJUSTMENT DO YOU PROPOSE?

A. I recommend modified rate treatment of the lease that is consistent with an internal rate of return equal to PGE's cost of equity, 9.5%.[79/] I recommend identifying a hypothetical fixed annual rent such that the projected internal rate of return from PGE's modified financial model is equal to PGE's cost of equity.[80/] This hypothetical rent constitutes a cost-based price that should be the transfer price used in every year for the duration of the lease. Due to the windfall profits associated with the purchase, the cost-based transfer price negative, at [redacted] If the Commission is reluctant to set a transfer price at a negative value under the lower-of-cost-or-market standard, the Commission could set the transfer price at zero and treat the negative

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77/ There are some discrepancies between PGE's actual 2019 and 2020 transactions and the modeled revenues and expenses. PGE's financial model may have over-estimated operating expenses. AWEC will continue to review this issue and may revise the predicted IRR in Reply Testimony.

78/ Docket No. UE 335, Order No. 19-129, at 4 (Apr. 12, 2019).

79/ UE 394 / Stipulating Parties / 100 Muldoon – Gehrke – Mullins – Bieber – Chriss – Ferchland / 2:14-15 (Sep. 30, 2021).

80/ Actual PGE rental expense is used for 2018 through 2021 in the financial model and the fixed rent amount is used in subsequent years.

component as a prudence disallowance. This reduces PGE's 2022 lease expense from $6.2 million to [redacted]) PGE includes 92 percent of WTC rental in rates.[81] My recommendation reduces rate case lease expense from $5.7 million to [redacted]. I recommend that this treatment be applied through the terminal date of PGE's lease, 2043. The calculations underlying my adjustment are included in Exhibit AWEC / 204.

Q. WAS PGE AWARE OF THE POTENTIAL RECOMMENDATION FOR ALTERNATIVE RATE TREATMENT PRIOR TO FINALIZING THE PURCHASE OF THE WTC?

A. Yes, in the Staff Report for Docket No. UI 405 Staff states that "Staff's analysis demonstrates that the transfer price may not satisfy OAR 860-027-0048(4)(e). Staff notes that the Commission can determine an appropriate transfer price for ratemaking purposes in the proceeding in which rate recovery is sought."

Q. DOES PGE'S SUBLEASE RECOGNIZE THAT THE LOWER OF COST OR MARKET STANDARD DOMINATES THE PRICING TERMS OF THE LEASE?

A. Yes. Section 6.1.3 of the sublease states "Notwithstanding the foregoing or anything else to the contrary contained herein, Tenant's Proportionate Share of Landlord's operating expenses shall accrue and be paid in accordance with that certain PGE/Affiliates Master Services Agreement dated April 3, 2006 (as may be amended)." The PGE Affiliated Master Services Agreement states at section 4.b "[a]ll billings by an Affiliated Interest to PGE will be at the lower of cost or market, unless otherwise specified and approved by the OPUC."[82] Section 4.c.ii.b states "[f]or services provided by an Affiliated Interest, the return on tangible assets

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[81] Exh. AWEC/202 (PGE response to AWEC DR 79).

[82] Docket No. UI 248, Portland General Electric Company Application for Approval of an Affiliated Master Service Agreement, at 7 (March 24, 2006).

employed, if any, will be no more than the authorized rate of return of PGE on its investment serving its Oregon electric ratepayers." The Master Services Agreement clearly supports application of the lower of cost or market standard.

Q. IS PGE'S AUTHORIZED RATE OF RETURN COMMENSURATE WITH A MARKET RATE OF RETURN FOR ASSETS SIMILAR TO THE WTC?

A. Yes. The independent property appraisal of the WTC performed a thorough national and regional market analysis. This report found the internal rate of return for the national net lease market to range from 6 to 10 percent and averaged 8 percent.[83] Internal rate of return in this context is calculated net of interest expense, and thus reflects a return on equity. PGE's authorized rate of return is above average for this market but within the range.

Q. HOW DO YOU RECOMMEND FUTURE CHANGES IN PGE'S OCCUPIED SQUARE FOOTAGE BE ADDRESSED?

A. If PGE increases square footage, PGE should pay the prevailing market rate calculated as the average price per square foot charged to other WTC occupants. If PGE decreases square footage PGE should retain the incremental revenue associated with releasing the space to other entities. This treatment will maintain the affiliates transfer price at cost for the duration of the lease.

IV. BEAVER PLANT CONVERSION

Q. WHAT IS THE BEAVER PLANT CONVERSION?

A. PGE intends to convert the Beaver plant from dual fuel to natural gas from 2022 to 2025.[84] This conversion is part of a "voluntary commitment" by PGE to reduce Regional Haze

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[83] Exh. AWEC/202 (PGE Response to AWEC Data Request 016 Confidential Attachment A PGE Response to Staff IR 5 Attachment F page 153).

[84] UE 391 PGE/100 Vhora – Outama – Batzler / 48:15-16.

pollutants.[85] The conversion to natural gas only will reduce emissions and increase capacity and heat rate for Beaver units.[86] PGE included $10 million in plant related with the Beaver plant conversion in its filed case but provided no supporting testimony.[87]

Q. WHAT DO YOU RECOMMEND WITH RESPECT TO THIS COST?

A. I recommend that it be excluded from rates. As discussed in Mr. Mullins' testimony, PGE provided an updated capital budget through September 2021.[88] That budget now excludes the Beaver conversion project. Accordingly, this project will not be used and useful during the rate effective period and should not be included in rates. Furthermore, PGE's decision to invest in the Beaver conversion project is not justified, harms customers, and is imprudent.

Q. WHAT ARE THE DUAL FUELS THAT BEAVER RUNS ON?

A. Beaver can currently be fired with either natural gas or diesel. PGE maintains [redacted] on site for the Beaver plant.[89]

Q. HOW DOES CONVERSION FROM DUAL FUEL TO NATURAL GAS AFFECT THE RELIABILITY OF PGE'S SYSTEM?

A. The conversion will make PGE's system less reliable. Three factors will decrease reliability. First, PGE currently does not have sufficient firm gas supply to simultaneously operate Beaver, Port Westward, and Port Westward II.[90] PGE's gas constraint prevents its power cost model MONET from economically dispatching Beaver and increases net power costs. The gas constraint also means that Beaver can only provide capacity if non-firm gas transportation is available or if diesel fuel is available.

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[85] Id. at 48:6-8.
[86] Id. at 48:12-13;18-19.
[87] Exh. AWEC/202 at (PGE Response to AWEC DR 104 Attachment A).
[88] See Exh. AWEC/100 Section X.
[89] Exh. AWEC/202 at (UE 391 PGE Response to AWEC DR 12 Confidential Attachment B).
[90] UE 377 PGE / 100 Seulean – Kim – Batzler / 21:18-19.

Second, dual fuel capacity at Beaver protects PGE customers in the event of a gas pipeline outage such as the 2018 Enbridge pipeline explosion in British Columbia which caused natural gas shortages and curtailments through the Pacific Northwest for three weeks.

Third, the Oregon Legislature's recent passage of House Bill 2021 requires PGE to reduce its emissions to 80% below "baseline" levels by 2030, increasing to 100% by 2040. The operation of Beaver with biodiesel may qualify Beaver as a non-emitting or low-emitting resource. The natural gas conversion eliminates PGE's ability to fire Beaver with renewable fuel and will make Beaver an unreliable resource after 2030.

Q. HOW WILL CONVERSION OF BEAVER AFFECT PGE'S ABILITY TO PRODUCE CARBON FREE ENERGY?

A. Dispatchable flexible generation is currently one of the main constraints to transitioning to a carbon free electric system. Because Beaver can operate on biodiesel, Beaver can support PGE's transition to carbon free generation. However, if Beaver is converted to single fuel Beaver will no longer be capable of producing carbon free flexible generation.

Q. HOW WILL THE CONVERSION IMPACT RATES?

A. PGE expects the complete conversion of unit 6, the first unit to be converted, to cost [redacted].[91] The after-tax capital carrying cost for the unit 6 investment is approximately [redacted] per year and depreciation expense is approximately [redacted] per year. Replacement capacity resources will result in additional capital investment. The conversion will reduce net power costs by only $60,000.[92] The

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[91] Exh. AWEC/202 (PGE Response to AWEC Data Request 147); Exh. AWEC/202 (UE 391 PGE Response to AWEC DR 12 Confidential Attachment A).

[92] UE 391 PGE/100 Vhora – Outama – Batzler / 48:21-23.

annual cost of approximately [redacted] greatly exceeds the NPC benefit. This project is highly uneconomic and will increase rates.

Q. IS THE BEAVER CONVERSION PROJECT REQUIRED BY STATE OR FEDERAL LAW?

A. No, as stated above, this was a "voluntary" commitment by PGE. As with its SmartBurn investment at Colstrip, discussed by Mr. Mullins, PGE has not identified any State or Federal rule or law that requires the Beaver conversion project. Furthermore, PGE has not provided any documentation to demonstrate that PGE's decision was least-cost and least-risk. When requested to provide "any cost-benefit analyses associated with" the Beaver conversion project, PGE provided nothing and merely stated that "[i]n evaluating its options, PGE reviewed what would be required at Beaver to meet and manage [air quality] requirements for the current facility."[93] PGE does not explain what its options were or provide any documentation demonstrating how it evaluated them. What is known is that the option PGE chose increases capacity risk to customers and is highly uneconomic.

Q. HOW COULD PGE ACHIEVE THE VOLUNTARY EMISSIONS REDUCTIONS WITH ALTERNATIVE MEANS?

A. PGE could commit to operate Beaver as a reserve resource rather than an economic resource during periods of regional visibility reductions. This would achieve regional haze reductions without additional capital investment or capacity loss. There may be some cost associated with lost energy; however, if DEQ makes progress on mandatory regional haze compliance there should be fewer days per year where Beaver's dispatch would be limited.

[93] Exh. AWEC/202 (PGE Response to AWEC DR 238(a)).

Q. WHAT COSTS IS PGE INCLUDING IN THIS CASE RELATED TO THE BEAVER CONVERSION?

A. PGE is requesting $10 million in capital additions for the Beaver conversion be included in rates for this case.[94/] However, PGE does not plan to begin the upgrade until the spring 2022 Beaver maintenance outage, which occurs from 3/6/2022 to 5/22/2022. Because the maintenance outage extends beyond the rate effective date the Beaver conversion may not be in service by the rate effective date. In its revised capital budget PGE removed the Beaver conversion project.[95/]

Q. IF THE COST OF VOLUNTARY EMISSIONS REDUCTIONS EXCEEDS THE BENEFITS, SHOULD THE NET COST BE BORN BY RATE PAYERS?

A. No. Because this is a voluntary compliance decision, the costs of compliance should be treated as a donation. If PGE were to donate funds to a non-profit that sought to reduce regional haze, these donations would be excluded from rates.[96/] Because this investment is uneconomic and voluntary, the net costs should be borne by PGE shareholders similar to other donations.

Q. WHAT IS YOUR RECOMMENDATION REGARDING THIS CONVERSION?

A. I recommend the Commission exclude the Beaver plant conversion costs in this case because the plant will not be used and useful by the rate effective date. I also recommend the Commission direct PGE to prepare a full economic, risk, and needs analysis prior to the investment, and that PGE submit this analysis in any future case requesting capital recovery of the Beaver conversion or other capacity investments.

94/ Exh. AWEC/202 (PGE Response to AWEC Data Request 104 Attachment A).
95/ Exh. AWEC/202 (PGE Response to AWEC DR 194 Attachment A).
96/ Docket UE 197, Order No. 09-020 at 21 (Jan. 22, 2009).

My recommendation reduces rate base by $10.2 million and depreciation expense by $761,000. PGE's revised capital budget removed the Beaver conversion project, and AWEC Witness Bradley Mullins presents an adjustment updating rate base to the revised budget. Therefore, my adjustment is included within Mr. Mullins' budget update adjustment and is not incremental to Mr. Mullins' adjustments.

V. MARGINAL COST STUDY

Q. PLEASE SUMMARIZE YOUR ADJUSTMENTS TO PGE'S MARGINAL COST MODEL.

A. I recommend two modifications to PGE's marginal cost model. 1) Additional customer costs should be included in the allocation of other consumer costs. 2) Renewable capacity should be accounted for in the marginal generation cost.

a. Customer Marginal Cost Model Allocates too Few Costs

Q. WHAT IS YOUR CONCERN WITH PGE'S CUSTOMER MARGINAL COST MODEL?

A. PGE recently modified its unbundling methodology.[97/] The new methodology more than doubles the unbundled "Other Consumer Services" costs.[98/] However, PGE does not appear to have updated the customer marginal cost study to reflect these changes. The Customer Marginal Cost workpapers in this case are largely unchanged from UE 335. Consequently, the Customer Marginal Cost model severely under-allocates other consumer services costs. This is apparent in PGE's 581 percent gross-up of allocated other consumer revenue requirement.[99/]

97/ PGE Response to AWEC Data Request 154(d).
98/ UE 335 / PGE / 200 Tooman – Espinoza / 23:5; UE 394 / PGE / 200 Tooman – Batzler / 26:5.
99/ UE 394 / PGE / 1204 Macfarlane - Tang / 14.

Q. WHAT IS AN EXAMPLE OF A COST THAT IS UNBUNDLED TO OTHER CONSUMER SERVICES, BUT IS NOT ALLOCATED IN THE OTHER CUSTOMER COST MODEL?

A. Customer Contact Operations is a PGE department that is charged to both FERC account 9030001 and 9050001. PGE's filed model accounts for the $7 million charged to 9050001 by allocating based on the number of customers under up to 200 kW. This allocation is reasonable because larger customers contact PGE through Key Customer Managers, and those costs are allocated only to larger customers. However, PGE's model does not allocate $6 million in Customer Contact Operations that are charged to 9030001, despite these dollars being unbundled to the same function and having similar cost drivers. As a result, the $6 million are assigned to customer classes through the general 581 percent gross-up factor for customer revenue requirement. This gross-up spreads the $6 million to all customers, including large customers, even though large customers neither cause nor benefit from the costs.

Q. WHAT IS YOUR RECOMMENDATION FOR OTHER CUSTOMER COSTS?

A. I recommend adding $44 million in other customer costs to the Customer Marginal Cost model. Incorporating these costs reduces the gross-up factor to 262 percent. Exhibit AWEC/205 summarizes the additional costs and allocators used.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. My recommendation increases the marginal cost for other consumer costs for all rate schedules:

SCHEDULE	DESCRIPTION	PGE	AWEC
Schedule 7	Residential	$ 19.61	$ 55.07
Schedule 15	Residential - Area Lights	$ 9.43	$ 44.32
Schedule 15	Commercial - Area Lights	$ 9.43	$ 40.55
Schedule 32	Small Non-Residential (< 30 kW)	$ 20.93	$ 52.57
Schedule 38	Large Non-Residential Time-of-Use	$ 24.59	$ 58.54
Schedule 47	Small Irrigation	$ 18.75	$ 50.32
Schedule 49	Large Irrigation	$ 18.96	$ 53.13
Schedule 83	Large Non-Residential (31-200 kW)	$ 129.63	$ 164.19
Schedule 85	Large Non-Residential (201-1,000 kW)	$ 1,052.74	$ 1,087.33
Schedule 89	Large Non-Residential (> 4,000 kW)	$ 6,918.81	$ 6,957.21
Schedule 90	Large Non-Residential (>4,000 kW and Aggregate to >100 aMW)	$ 42,702.19	$ 42,736.17
Schedule 91 & 95	Street and Highway Lighting	$ 9.43	$ 49.97
Schedule 92	Traffic Sign. & Comm. Dev.	$ 9.43	$ 47.84

b. Marginal Generation Model Does Not Accurately Reflect Renewable Transition

Q. IN WHAT WAYS DOES THE MARGINAL GENERATION MODEL FAIL TO REFLECT THE TRANSITION TO RENEWABLE AND NON-EMITTING RESOURCES?

A. PGE's testimony describes how PGE accounts for the addition of renewable energy by modeling a generic wind resource.[100/] In PGE's model the cost of energy is weighted between the energy cost for a combined cycle combustion turbine ("CCCT") and a generic wind farm. However, PGE's model does not reflect capacity value of wind in the same manner as capacity value of a CCCT. PGE's model also fails to reflect the fact that PGE and other utilities are adding both energy- and capacity-related renewable resources. In PGE's case, PGE's 2019 IRP has selected pumped hydro storage to meet its capacity need. It has also recently issued its 2021 All-Source Request for Proposals, seeking between 400 MW and 500 MW of new renewable and non-emitting resources.[101/] This action is in direct response to the Legislature's

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100/ UE 394 PGE / 1100 Macfarlane – Pleasant / 3:3-8 (internal citations omitted).
101/ Docket No. UM 2166, PGE's 2021 All-Source RFP - Final Draft, (Oct. 15, 2021).

recent passage of House Bill 2021, which requires PGE to reduce its emissions to 80% below "baseline" levels by 2030, increasing to 100% by 2040.[102] That bill also imposed a ban on new natural gas-fired generation in Oregon.[103] This means there is no scenario under current Oregon law where a new CCCT or simple cycle combustion turbine ("SCCT") will be constructed. I recommend that PGE's marginal generation model be modified to remove the capacity value of wind when calculating energy costs and include the capacity cost of pumped hydro when calculating demand cost.

Q. WHY DOES PGE ASSIGN A CAPACITY VALUE TO THE CCCT?

A. In general, the Commission uses long-run marginal costs to allocate a utility's unbundled costs. Thus, unbundled generation costs are allocated based on the long-run marginal cost of serving each schedule's energy and demand needs. The long-run marginal cost approach is a forward-looking approach that calculates the cost of serving load with new resources, rather than existing resources. Because marginal cost is a forward-looking analysis, it evaluates costs based on resources that would be built in the current environment, and considers current technologies, capital costs, fuel prices, and regulatory constraints. This means that existing resources, such as coal facilities, are not considered in the cost model.

PGE's basic model, without renewable considerations, assumes that demand is served by a SCCT and that energy is served by the *incremental* cost of a CCCT. A CCCT provides both energy value and capacity value. If the entire cost of a CCCT is used to measure the cost of energy, the cost of capacity will be double counted, through the $ per kW cost of an SCCT, and once through the energy cost of the CCCT. The *incremental* energy component of a CCCT

[102] Or. H.B. 2021 § 3(a)-(c).
[103] See Id. § 28.

is calculated by removing the capacity value of a CCCT from the levelized cost of energy for a CCCT.

Q. PLEASE EXPLAIN WHY PGE ADDS ENERGY COST ASSOCIATED WITH WIND TO THE MARGINAL COST MODEL.

A. PGE must serve its load with enough renewable energy to meet Renewable Portfolio Standard ("RPS") requirements. A marginal cost model that only included SCCT and CCCT would not meet RPS requirements. PGE addresses this issue by calculating the levelized cost of energy for both a CCCT and a generic wind plant. The marginal cost of energy is the average of these two costs, weighted by the annual REC requirement.

Q. WHY DO YOU RECOMMEND MODIFYING PGE'S MODEL TO REMOVE THE CAPACITY VALUE OF WIND?

A. The capacity value of wind should be removed from the levelized cost of wind for the same reason that it is removed from the levelized cost of a CCCT. Without removing capacity value, PGE's model double counts the marginal cost of capacity, once through the SCCT and once through the wind energy cost.

Q. HOW DO YOU RECOMMEND MODIFYING PGE'S MODEL TO CALCULATE ONLY THE INCREMENTAL ENERGY COST OF WIND?

A. I recommend adopting the same method used by PGE to for a CCCT, with a modification to account for the effective load carrying capacity ("ELCC") of wind. PGE calculates the capacity value of CCCT energy by dividing the real levelized capital carrying costs of an SCCT by the annual energy production of a CCCT. The same approach can be used for a wind plant; however, wind plants have a lower ELCC than gas plants. ELCC is the ability for a resource to meet capacity needs relative to an SCCT. PGE's 2019 IRP finds that the ELCC for Montana wind is 37 percent. This means a 100 MW wind farm provides the same capacity value as a 37

MW SCCT. The modified calculation for capacity value of wind generation is therefore the real levelized capital carrying costs of an SCCT multiplied by the ELCC of Montana wind divided by the annual energy production of Montana wind.

Q. DOES PGE'S MODEL ACCURATELY ACCOUNT FOR THE IMPACT OF A LOW CARBON FUTURE ON DEMAND COSTS?

A. No, PGE's model makes no adjustments to account for the elevated demand costs of low carbon generation. As PGE's recent RFP shows, utilities that are transitioning to low carbon generation and securing both low carbon energy resources and low-carbon capacity resources. For example, PGE's Wheatridge facility includes battery storage, and PGE's 2019 IRP selected pumped hydro storage to meet capacity needs.

Q. HOW DO YOU RECOMMEND ACCOUNTING FOR THE ELEVATED DEMAND COSTS OF LOW CARBON GENERATION?

A. I recommend replicating PGE's approach for to low carbon energy for demand costs. Demand costs should be the weighted average of demand served by an SCCT and demand served by pumped hydro. This is appropriate because PGE has recently acquired battery storage and PGE plans to acquire pumped storage to meet capacity needs. PGE's 2019 Integrated Resource Plan ("IRP") shows battery storage has similar costs as pumped hydro[104/] and lower ELCC.[105/]

Q. HOW ARE OTHER UTILITIES ACCOUNTING FOR THE ELEVATED DEMAND COSTS OF LOW CARBON GENERATION?

A. The Washington Utilities and Transportation Commission ("WUTC") recently adopted rules requiring that cost allocations be based on a renewable future peak credit. This approach uses

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104/ Docket No. LC 73, PGE 2019 Integrated Resource Plan, at 170 Figure 6-11 (July 19, 2019).
105/ Id. at 167 Table 6-6.

low carbon resources to evaluate both demand and energy costs. Avista's recent implementation of the Washington rules resulted in a 67.17% demand and 32.83% energy allocation.[106] My recommendations result in a 42.6 percent demand and 57.4 percent energy allocation. This allows a gradual transition toward high demand cost future that 100 percent renewable generation produces.

Q. DOES A FULL RENEWABLE MARGINAL COST MODEL, SUCH AS THE RENEWABLE FUTURE PEAK CREDIT, MAKE SENSE FOR OREGON ALSO?

A. Yes. With the passage of HB 2021, Oregon is similarly situated to Washington, which previously passed the Clean Energy Transformation Act, requiring utilities to serve 100% of their load with renewable and carbon-free generation by 2045.[107]

Q. WHY, THEN, ARE YOU NOT PROPOSING A FULL RENEWABLE METHOD IN THIS CASE?

A. While AWEC believes adoption of this method in this case would be reasonable, HB 2021's requirements do not begin until 2030. Thus, my proposal is a more gradual approach to incorporating a full renewable method. In future cases, however, AWEC will likely advocate for transition to a full renewable peak credit cost of service method.

Q. WHAT IS THE IMPACT OF REMOVING THE CAPACITY VALUE OF WIND FROM ENERGY?

A. Removing capacity value of wind from the cost of energy reduces the real levelized cost of energy from $34.38 to $31.89 per MWh.

[106] Washington Utilities and Transportation Commission Docket No. UE-200900, Exh. TLK-1T, at 16:2-21.
[107] RCW 19.405.050(1).

Q. WHAT IS THE IMPACT OF INCORPORATING LOW CARBON CAPACITY COSTS?

A. Incorporating low carbon capacity costs increases the real levelized cost of capacity from $87.5 per kW-year to $133.9 per kW-year.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATIONS ON ALLOCATION OF GENERATION COSTS?

A. My recommendations increase the cost of capacity and decreases the cost of energy. This results in higher allocation of generation costs to schedules with lower load factors. The table below compares the allocation of generation costs by schedule.

	Allocated Generation Costs ($000)		
Schedules	**PGE**	**AWEC**	**Change**
Schedule 7	$482,597	$495,673	$13,076
Schedule 15	$691	$668	($23)
Schedule 32	$90,382	$89,584	($797)
Schedule 38	$1,670	$1,601	($69)
Schedule 47	$1,321	$1,333	$11
Schedule 49	$4,053	$4,123	$71
Schedule 83	$159,345	$157,094	($2,252)
Schedule 85	$149,081	$146,049	($3,032)
Schedule 89/75	$32,309	$31,108	($1,201)
Schedule 90	$139,864	$134,143	($5,721)
Schedule 91/95	$2,024	$1,968	($56)
Schedule 92	$131	$126	($6)
TOTAL	$1,063,469	$1,063,469	$0

VI. SCHEDULE 90 SUBTRANSMISSION RATE

Q. WHAT IS A SUBTRANSMISSION RATE?

A. Subtransmission is a distribution delivery voltage that large customers typically consider when obtaining distribution service. Subtransmission delivery typically bypasses distribution substations. Energy is metered at the subtransmission level and therefore metered energy use has fewer line losses than primary and secondary service. A sub-transmission rate typically excludes substation costs and adjusts other charges to account for lower line losses. PGE offers a sub-transmission rate for Schedule 89, but not for Schedule 90.

Q. IS IT REASONABLE TO INCLUDE A SUBTRANSMISSION RATE IN SCHEDULE 90?

A. Yes. Currently, Schedule 90 has only one customer taking service under it, thus a subtransmission rate was unnecessary. However, PGE has proposed to lower the eligibility threshold for Schedule 90 from 100 aMW to 30 aMW (which AWEC does not oppose) in order to make this schedule available to more customers. It is reasonable to expect some eligible customers to be interested in a subtransmission rate. Moreover, Schedule 90's delivery charges are tied to the charges developed for Schedule 89. Schedule 89 includes a subtransmission rate, so there is no reason why Schedule 90 should not also include this rate.

Q. HAVE YOU CALCULATED A SUBTRANSMISSION RATE FOR SCHEDULE 90?

A. Yes, the table below presents a subtransmission rate for Schedule 90. This rate is calculated using identical methodology to PGE's method of calculating the Schedule 89 subtransmission rate. These rates should be recalculated once PGE's final revenue requirement is approved.

	Billing Determinants		Rate		Annual Revenue
	Amount	Unit	Rate	Unit	($000)
Schedule 90 Subtransmission					
Functional Costs					
Primary Basic Charge	0	Customers	$20,900.00	per cust, per mo.	$0
Primary Trans. & Rel. Serv. Charge	0	kW on-peak	$1.81	per kW on-peak demand	$0
Distribution Charges					
Primary Facilities Charge					
First 4,000 kW	0	kW faccap	$1.69	per kW faccap	$0
Over 4,000 kW	0	kW faccap	$1.38	per kW faccap	$0
Primary Demand Charge	0	kW on-peak	$0.50	per kW on-peak demand	$0
Primary System Usage Charge Calc					
COS Franchise Fees & Other	0	MWh	0.95	mills/kWh	$0
Cust Impact Offset	0	MWh	0.00	mills/kWh	$0
COS System Usage Charge	0	MWh	0.95	mills/kWh	$0
Primary Energy Charge					
On-peak	0	MWh	52.79	mills/kWh	$0
Off-peak	0	MWh	37.79	mills/kWh	$0
Reactive Demand Charge	0	kVar	$0.50	kVar	$0
					$0

VII. NEW LARGE LOAD COST OF SERVICE

Q. WHAT DOES PGE PROPOSE FOR A NEW LOAD COST OF SERVICE CONCEPT?

A. PGE includes a section in Exhibit 1200 of its Direct Testimony that describes "a concept we have been developing" that would establish a new large load cost of service tariff.[108] This tariff would apply to customers 30 aMW or larger (to align with PGE's proposed changes to the threshold size for Schedule 90).[109] It would allow eligible customers to purchase their energy and capacity requirements (including resource adequacy) at the cost of new resources, rather than the embedded cost of PGE's entire generation portfolio.[110] PGE states that it intends to file a new large load cost of service tariff in the future, but does not provide more specific timing.[111]

Q. WHAT BENEFITS DOES A NEW LARGE LOAD COST OF SERVICE TARIFF PROVIDE, ACCORDING TO PGE?

A. PGE identifies two benefits. First, it can attract new large customers to PGE's system, and second, it can help decarbonize PGE's generation portfolio systematically and cost-effectively.[112]

Q. DOES AWEC SUPPORT PGE'S NEW LARGE LOAD COST OF SERVICE CONCEPT?

A. Yes, though AWEC emphasizes that PGE has only described this concept at a very high level, so many details remain to be determined. Additionally, AWEC does not agree with PGE's proposal to limit eligibility for the tariff to customers 30 aMW or larger. PGE proposes to

[108] UE 394 PGE/1200, Macfarlane-Tang/37:2-4.
[109] Id. at 37:6-8.
[110] Id. at 37:5-6.
[111] Id. at 37:1-4.
[112] Id. at 37:21-38:3.

align all other eligibility criteria with Schedule 689, its New Load Direct Access tariff, and AWEC sees no reason why the size threshold should not also align across the programs. This change would reduce the eligibility threshold to 10 aMW.

Overall, however, AWEC agrees with PGE that a new large load cost of service tariff could be a compelling option for new customers that would potentially provide significant benefits to PGE's system overall. These customers will contribute substantially to PGE's fixed costs, reducing those costs for all other customers. They will also increase economic activity in PGE's service territory, which will lead to further cost-of-service load growth. These customers are sophisticated energy users, and the more options they have, the more likely they are to site a facility in PGE's service territory. AWEC supports optionality for customers, including direct access, green tariffs, demand response opportunities, and a new load cost of service tariff, so long as they are structured to insulate non-participating customers from adverse impacts. Other utilities have tariffs similar to what PGE has proposed here, demonstrating that this option can be successful.

Q. DOES AWEC HAVE ANY RECOMMENDATIONS FOR HOW TO STRUCTURE PGE'S NEW LARGE LOAD COST OF SERVICE TARIFF?

A. Yes. AWEC recommends PGE model its tariff on NV Energy's Large Customer Market Price Energy Tariff ("LCMPE"). A copy of this tariff is attached as Exhibit AWEC/206. While there are several aspects of this tariff that would not be applicable to PGE, its general framework is consistent with how PGE has described its new large load cost of service concept and it has proven to be successful. In essence, the customer pays an energy rate that is determined by a separate agreement between the customer and NV Energy (which is also subject to approval by the Public Utilities Commission of Nevada ("PUCN")) and pays standard distribution and transmission charges as well as several non-bypassable charges. Importantly, when reviewing the energy supply agreement between the customer and NV Energy, the PUCN must find that it is in the public interest and "consider whether non-participating customers of the utility [will] experience increased costs for electric service or forgo the benefit of a reduction of costs for electric service as a result of the Energy Supply Agreement."[113/] The PUCN has approved this tariff for two customers in Nevada – LV Stadium Events Company, LLC (the Las Vegas Raiders stadium) and Google.[114/] Another application from Resorts World is pending.[115/]

Q. WHEN SHOULD PGE FILE ITS PROPOSED NEW LARGE LOAD COST OF SERVICE TARIFF?

A. AWEC recommends PGE file it as soon as possible. Because this tariff will only apply to new customers, the longer PGE waits, the more likely it is that interested customers will not be able to participate.

VIII. DIRECT ACCESS COST ALLOCATION

Q. PLEASE DESCRIBE THIS ISSUE.

A. PGE has proposed a new cost allocation method for several programs in order to assign a portion of those programs' costs to direct access customers. Specifically, PGE has proposed a new allocation method for Schedule 137, its Solar Payment Option, and is proposing two new rate schedules, Schedules 138 and 150, applicable to energy storage costs and transportation electrification costs, respectively, which would apply to direct access customers. Finally, PGE

113/ AWEC/206 at 3.

114/ Nevada Public Utilities Commission, Docket No. 19-10012, Order (Jan. 30, 2020); Nevada Public Utilities Commission, Docket No. 19-12017, Order (Dec. 29, 2020).

115/ See Nevada Public Utilities Commission, Docket No. 21-0600.

includes its Flexible Load Plan as Exhibit 601 to Mr. Salmi-Klotz's Direct Testimony. That plan indicates PGE's intention to propose recovery of FLP costs from direct access customers; however, PGE is not including these costs in this rate case.[116]

Q. WHAT IS AWEC'S POSITION ON THESE PROPOSALS?

A. AWEC opposes PGE's proposals because they are not rational, evidence-based, or cost-based.

Q. HOW SHOULD COSTS BE ASSIGNED TO CUSTOMER CLASSES?

A. Costs should be assigned based on principles of cost-causation and benefits received. Thus, AWEC agrees that if direct access customers are receiving benefits from a particular program, they should be allocated the costs of that program in proportion to the benefits. PGE, however, has not identified any benefits direct access customers receive from any of the programs identified above, and if any do exist, PGE has not rationally allocated the associated costs.

Q. PLEASE EXPLAIN.

A. For the Solar Payment Option, Schedule 137, PGE proposes to allocate these costs based on energy, and price direct access customers as if they were cost-of-service customers. PGE testifies that this is appropriate because the Solar Payment Option was mandated by statute and analogizes to the Community Solar Program, where the Commission approved an agreement between PGE, AWEC, and others to allocate the above-market costs to all customers based on total revenues.

There are several important distinctions between the Community Solar Program and the Solar Payment Option, however. First, the costs of the Community Solar Program allocated to direct access are exclusively the "above-market costs." The Commission explicitly designed

[116] UE 394 PGE/601 at 92; PGE/600, Salmi-Klotz/17:2-3.

the credit for participants in the Community Solar Program to encourage participation and knowing that it would result in cost-shifting to other customers. Thus, these costs are more akin to a tax where no particular customer class benefits over any other. That is why they were allocated based on total revenues (as taxes are), rather than based on energy. By contrast, the Commission has never made any similar determinations with respect to the Solar Payment Option. This is an energy-related program that benefits cost-of-service customers exclusively. PGE attempts to sidestep this fact by claiming that "[t]o the extent that the SPO elicits any system benefits that accrue to LTDA and NLDA customers, those direct access customers are bypassing the associated costs."[117] Maybe so, but as PGE's statement makes clear, it has failed to provide any evidence of these system benefits.

Q. DO THESE CONCERNS APPLY TO PGE'S OTHER DIRECT ACCESS ALLOCATION PROPOSALS?

A. Yes. Schedule 138 would recover the costs of PGE's Residential Battery Energy Storage Pilot. As with the Solar Payment Option, PGE has spread the costs of this pilot based on generation revenues to all customers, including direct access customers priced at their cost-of-service equivalent rate.[118] The Company, however, does not identify what benefits have accrued from this pilot program; thus, its cost allocation proposal is unsupported. Indeed, unlike with the Solar Payment Option, PGE does not even attempt an argument in favor of its proposal to assign direct access customers a portion of these costs.[119]

When PGE first proposed the Residential Battery Energy Storage Pilot, in UM 1856, it identified three potential benefits: (1) distribution benefits through localized demand response

[117] UE 394 PGE/1200, Macfarlane-Tang/44:4-5.
[118] Id. at PGE/1201, Macfarlane-Tang/74-75.
[119] Id. at PGE/1200, Macfarlane-Tang/45:4-9.

and Volt/Var support; (2) generation benefits through capacity, resource optimization, and ancillary services; and (3) participant benefits through outage mitigation.[120] Meanwhile, in its most recent compliance filing in UM 1856, PGE identified two benefits it had realized from this pilot to date: generation capacity (through demand response) and frequency response.[121] Both of these are generation-related benefits that do not accrue to direct access customers.

Thus, several evidence-based options for cost allocation of the Residential Battery Storage pilot appear to exist, but none of them include PGE's proposal. One would be to allocate the costs commensurately with the benefits actually realized thus far from the pilot. That would allocate costs to cost-of-service customers based on generation, with no costs allocated to direct access. Another option would be to allocate the costs based on the expected benefits PGE identified when it first proposed the pilot. That could require a complex allocation method where the costs are apportioned to different functions and allocated accordingly. For simplicity purposes, though, AWEC would not oppose allocating the costs based on distribution revenues. This would accomplish several goals. First, it would recognize the distribution-level benefits PGE identified as a goal of the pilot. Second, it would allocate a greater proportion of the costs to residential customers, which include the participants in the pilot that receive targeted benefits. Third, it would allocate a portion of the costs to direct access, which would recognize that these customers at least theoretically could receive benefits in the future from this pilot by virtue of their continued use of PGE's distribution system.

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[120] Docket No. UM 1856, Portland General Electric Company's Revised Residential Storage Pilot Proposal, Attachment A, at 12-13 (March 12, 2021).

[121] Docket No. UM 1856, PGE Compliance Filing at 5-6 of the pdf (note the filing lacks page numbers) (Sept. 2, 2021).

Q. DO SIMILAR CONCERNS EXIST FOR SCHEDULE 150?

A. Yes. This tariff would recover costs associated with transportation electrification. Like Schedule 138, PGE has once again failed to identify a single benefit or rationale for its cost allocation proposal. Unlike the Solar Payment Option and battery storage, however, PGE proposes to allocate electric vehicle costs on total revenues rather than generation, but still proposes to price direct access as cost-of-service for allocation purposes.[122] PGE's most recent compliance filing in UM 1811 does not discuss in detail the benefits of PGE's EV pilot programs.[123] Accordingly, without an explanation for why PGE has proposed the allocation method it has and how that method is consistent with the costs and benefits from the program, AWEC cannot support PGE's proposal, or indeed any allocation method, at this time. PGE should provide a provide a basis for its proposal in its Rebuttal Testimony.

Q. ARE THERE OTHER REASONS TO REJECT PGE'S COST ALLOCATION PROPOSALS FOR DIRECT ACCESS?

A. Yes. These proposals appear to be arbitrary. PGE has not identified any systematic or rational basis for why these costs should apply to direct access but not other costs. Given that, in some cases, PGE has not even offered a justification for its cost allocation proposal, there is no way to analyze or test PGE's reasoning to understand why direct access customers should pay certain costs but not others. Approval of PGE's proposals could serve as precedent for further arbitrary decisions on this issue, which does not lead to just and reasonable rates and is not in the public interest.

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[122] UE 394 PGE/1200, Macfarlane-Tang/45:5-9.
[123] See Docket No. UM 1811, PGE Compliance Filing (Oct. 7, 2021).

Q. IF THE COMMISSION IS INCLINED TO CONSIDER ANY OF PGE'S PROPOSALS TO ALLOCATE COSTS FROM SCHEDULES 137, 138, OR 150 TO DIRECT ACCESS, WHAT IS YOUR PROPOSAL?

A. I propose that the Commission reject PGE's proposals in this case, but address them holistically with similar policy issues in Docket UM 2024. The Commission has recently modified the schedule in this docket to include a Phase I rulemaking that would specifically address non-bypassability of costs.[124/]

IX. CUSTOMER IMPACT OFFSET

Q. WHAT IS THE CUSTOMER IMPACT OFFSET ("CIO")?

A. PGE uses the CIO to limit the rate impact to certain customers. It has done this in a variety of ways in previous rate cases; in this case, it proposes to limit the rate increase to Schedule 7 and 32 customers to twice the average rate impact by decreasing the distribution charges for these rate schedules.[125/] PGE recoups its total revenue requirement by increasing the system usage charges for Schedules 85 and 89, along with their direct access equivalents.[126/] The consequence of this is that, under PGE's filed revenue requirement, Schedules 85 and 89 see no revenue change, despite the fact that cost-based rates for these schedules would result in a rate decrease.

Q. WHAT DO YOU RECOMMEND FOR THE CIO IN THIS CASE?

A. I recommend that PGE eliminate the effects of the CIO. This adjustment moves the affected customer classes farther from cost-based rates. Furthermore, with the adjustments identified in

124/ Docket No. UM 2024, Memorandum, at 2 (Oct. 1, 2021).
125/ PGE/1200, Macfarlane-Tang/35:4-5.
126/ Id.

my testimony as well as Mr. Mullins', all customer classes will realize a rate decrease in this case. Consequently, the CIO is not needed to protect any customer class from rate shock.

Q. DOES THIS CONCLUDE YOUR OPENING TESTIMONY?

A. Yes.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/201

QUALIFICATION STATEMENT OF DR. LANCE D. KAUFMAN

CURRICULUM VITAE

LANCE KAUFMAN
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EDUCATION:

University of Oregon	Ph.D.	Economics	2008 – 2013
University of Oregon	M.S.	Economics	2006 – 2008
University of Anchorage Alaska	B.B.A.	Economics	2001 – 2004

CERTIFICATIONS:

Certified Depreciation Professional	Society of Depreciation Professionals	2018

PROFESSIONAL EXPERIENCE:

Principal Economist	Aegis Insight	2014 – Present
Senior Economist	Oregon Public Utility Commission	2015 – 2018
Public Utility Advocate	Alaska Department of Law	2014 – 2015
Senior Economist	Oregon Public Utility Commission	2013 – 2014
Instructor	University of Oregon	2008 – 2012
Research Assistant	University of Alaska Anchorage	2003 – 2008

PROFESSIONAL MEMBERSHIPS:

Society of Depreciation Professionals	2015 – Present
American Economics Association	2017 – Present

RESEARCH, CONSULTING, AND ECONOMETRIC ANALYSIS:

- Cable Huston, LLP, Portland, OR 2020
  Retained as an expert witness for Alliance of Western Energy Consumers regarding revenue requirement, rate spread and rate design in Cascade Natural Gas Corporation Request for General Rate Revision, Public Utility Commission of Oregon, Docket No. UG 390.
- Davison Van Cleve, PC, Portland, OR 2020
  Retained as an expert witness for Alliance of Western Energy Consumers regarding net power costs in Portland General Electric Company 2021 Annual Power Cost Update Tariff, Public Utility Commission of Oregon, Docket No. UE 377.
- Davison Van Cleve, PC, Portland, OR 2020
  Retained as an expert witness for Alliance of Western Energy Consumers regarding net power costs in Portland General Electric Company 2021 Annual Update Tariff, Public Utility Commission of Oregon, Docket No. UE 381.
- Davison Van Cleve, PC, Portland, OR 2020

Retained as an expert witness for Alliance of Western Energy Consumers regarding revenue requirement, rate spread and rate design in Nevada Power Company 2021 General Rate Case, Public Utility Commission of Nevada, Docket No. 20-06003

- Frank & Salahuddin LLC, Denver, Colorado, 2020
  Retained as an expert witness for plaintiffs regarding calculation of lost earnings.
- Level Development Group, LLC, Denver, Colorado, 2020
  Develop real estate valuation model for establishing sale price of newly constructed residential housing.
- Hagens Berman Sobol Shapiro LLP, Phoenix, Arizona, 2020
  Deposed as an expert witness for plaintiffs re calculation of economic harm due to breach of contract in Jeff Olberg v. Allstate Insurance Company, Case No. C18-0573-JCC, United States District Court, Western District of Washington at Seattle.
- Hagens Berman Sobol Shapiro LLP, Phoenix, Arizona, 2020
  Deposed as an expert witness for plaintiffs re calculation of economic harm due to breach of contract in re Cameron Lundquist v. First National Insurance Company of America, Case No. 18-cv-05301-RJB, United States District Court, Western District of Washington at Tacoma.
- Killmer, Lane, and Newman, LLP, Denver, Colorado, 2020
  Deposed as expert witness for plaintiff re racial disparities in police use of force re Brandon Washington V. City Of Aurora, Colorado, Case No. 1:19-cv-01160-RM-MEH, United States District Court, District of Colorado.
- Davison Van Cleve, PC, Portland, OR 2020
  Retained as an expert witness for Alliance of Western Energy Consumers regarding coal plant pollution control investments, coal plant decommissioning costs, rate spread and rate design re PacifiCorp 2020 Request for a General Rate Revision, Public Utility Commission of Oregon Docket No. UE 374.
- Davison Van Cleve, PC, Portland, OR and Washington Attorney General, 2020
  Retained as an expert witness for Packaging Company of America and Washington Public Council regarding decommissioning costs and rate design re PacifiCorp 2020 Request for a General Rate Revision, Washington Utility and Transportation Commission.
- Sanger Law, PC, Portland, OR, 2019
  Retained as a consultant for Renewable Energy Coalition and for Northwest & Intermountain Power Producers Coalition to provide analysis of PacifiCorp avoided costs in a Utility PURPA Compliance Filing at the Washington Utility and Transportation Commission Docket, No. UE-190666.
- Sanger Law, PC, Portland, OR, 2019
  Retained as a consultant for Northwest & Intermountain Power Producers Coalition to provide analysis of Portland General Electric avoided costs in support of testimony to the Oregon Legislature.
- Powder River Basin Resource Council, Laramie, Wyoming, 2019.
  Testified as an expert witness for Powder River Basin Resource Council regarding coal plant closures re PacifiCorp 2019 Integrated Resource Plan, Wyoming Public Service Commission Docket No. 90000-147-XI-19.
- The Law Office of Ralph Lamar, Arvada, CO 2019

Deposed as an expert witness for plaintiffs regarding lost profits of a Farmers insurance agency

- Jester, Gibson & Moore, Denver, CO 2019
  Retained as an expert witness for plaintiffs regarding lost earnings in an ADEA wrongful termination matter.
- Albrechta & Coble, Ltd. Fremont, OH 2019
  Retained as an expert witness for plaintiff regarding lost earnings in a race related wrongful termination matter.
- Conrad Law, PC, Salt Lake City, UT 2019
  Retained as an expert witness for Ellis-Hall Consultants, LLC. regarding economic damages in Ellis-Hall Consultants, LLC. et. al. v. George B. Hofmann IV, United States District Court, District of Utah, Central Division.
- Davison Van Cleve, PC, Portland, OR 2019
  Retained as an expert witness for Alliance of Western Energy Consumers regarding net variable power cost calculations in PORTLAND GENERAL ELECTRIC COMPANY, 2020 Annual Power Cost Update Tariff Public Utility Commission of Oregon Docket No. UE 359.
- Sanger Law, PC, Portland, OR, 2019
  Testified as an expert witness for Renewable Energy Coalition and Rocky Mountain Coalition for Renewable Energy regarding Qualified Facility avoided costs in Application of Rocky Mountain Power for a Modification of Avoided Cost Methodology and Reduced Term of PURPA Power Purchase Agreements Public Service Commission of Wyoming Docket No. 20000-545-ET-18
- Sanger Law, PC, Portland, OR, 2019
  Retained as an expert witness for Cafeto Coffee Company regarding the necessity, design, and location of transmission lines in SPRINGFIELD UTILITY BOARD Petition for Certificate of Public Convenience and Necessity Public Utility Commission of Oregon Docket No. PCN 3.
- Baumgartner Law, LLC, Denver, CO, 2018
  Retained as an expert witness for plaintiffs re calculation of economic harm due to injury in re Eric Bowman, v. Top Tier Colorado, LLC,, Case No. 18CV31359, United States District Court, District of Colorado.
- Cohen Milstein Sellers & Toll PLLC, Washington DC, 2018
  Retained as an expert witness for plaintiffs re calculation of economic harm due to breach of contract in re Isaac Harris et al. v. Medical Transportation Management, Inc., Civil Action No. 17-1371, United States District Court, District of Columbia.
- Davison Van Cleve, PC, Portland, OR 2020
  Retained as an expert witness for Alliance of Western Energy Consumers regarding depreciation rates in re PacifiCorp Application for Authority to Implement Revised Depreciation Rates, Public Utility Commission of Oregon Docket No. UM 1968.
- Davison Van Cleve, PC, Salem, OR and Washington Attorney General, OR 2020
  Retained as an expert witness for Packaging Company of America and Washington Public Council regarding depreciation rates in re Pacific Power 2018 Depreciation Study, Washington Utility and Transportation Commission, Docket No. UE-180778.
- Hagens Berman Sobol Shapiro LLP, Phoenix, Arizona, 2018

Deposed as an expert witness for plaintiffs re calculation of economic harm due to breach of contract in re Vicky Maldonado and Carter v. Apple Inc., AppleCare Services Company, Inc., and Apple CSC, Inc., Case No. 3:16-cv-04067-WHO, United States District Court, District of California.

- Hagens Berman Sobol Shapiro, LLP, Phoenix, Arizona, 2018
  Deposed and testified as an expert witness for plaintiffs re calculation of unpaid mileage for truck drivers in re Swift Transportation Co., Inc., Civil Action No. CV2004-001777, Superior Court of the State of Arizona, County of Maricopa.
- Killmer, Lane, and Newman, LLP, Denver, Colorado, 2018
  Retained as expert witness for plaintiffs re reasonable attorney fees in re Jeanne Stroup and Ruben Lee, v. United Airlines, Inc., Case No. 15-cv-01389-WYD-STV, United States District Court, District of Colorado.
- Klein and Frank, PC, Denver, Colorado, 2018
  Retained as expert witness for plaintiffs re potential jury bias in re Gail Goehrig and Chris Goehrig v. Core Mountain Enterprises, LLC, Case No. 2016CV030004, San Juan County District Court.
- Robert Belluso, Pennsylvania, 2017
  Retained as expert witness for plaintiff re lost profit in re Robert Belluso D.O. v Trustees of Charleroi Community Park, PHRC Case No. 201505365, Pennsylvania Human Relations Commission.
- Lowery Parady, LLC, Denver, Colorado, 2017
  Analyzed payroll data and calculated unpaid overtime and unpaid hours for plaintiff class action in re Violeta Solis, et al. v. The Circle Group, LLC, et al., Case No. 1:16-cv-01329-RBJ, United States District Court, District of Colorado.
- Sawaya & Miller Law Firm, Denver, Colorado, 2017
  Provided data processing and analysis of employment records.
- Financial Scholars Group, Orinda, California, 2017
  Provided analysis of risk profile in bundled real estate and personal loans in re Old Republic Insurance Company v. Countrywide Bank et al., Circuit Court of Cook County, Illinois, Chancery Division.
- Financial Scholars Group, Orinda, California, 2017
  Provided consultation and analysis of financial market transactions in preparation of settlement claims filings in re Laydon v. Mizuho Bank, Ltd., et al. and Sonterra Capital Master Fund Ltd., et al v. UBS AG et al.
- Clean Energy Action, Boulder, Colorado, 2016 – 2017
  Provided consultation on the appropriate discounting methodology used in energy resource planning in the Public Service Company of Colorado application for approval of the 2016 Electric Resource Plan, Proceeding No. 16A-0396E, Public Utilities Commission of the State of Colorado.
- Confidential Client, 2016
  Provided analysis and report on the probability that distinct crimes are independent events based on geographical analysis of crime rates.
- Christine Lamb and Kevin James Burns, Denver, Colorado, 2016

Provided data analysis for defendant of the impact of ethnicity on termination decisions in re Aragon et al v. Home Depot USA, Inc., Case No. 1:15-cv- 00466-MCA-KK, United States District Court, District of New Mexico.

- Steptoe & Johnson LLP, Washington, DC, 2015 – 2016
  Programmed analysis of internet traffic data for plaintiffs applying a proprietary probability model developed to identify and verify accounts responsible for repeated infringements of asserted copyrights by defendants' internet subscribers in re BMG Rights Management (US) LLC, and Round Hill Music LP v. Cox Enterprises, Inc., et al., Case No. 1:14-cv-1611(LOG/JFA), United States District Court Eastern District of Virginia, Alexandria Division.
- Padilla & Padilla, PLLC, Denver, Colorado, 2014 – 2016
  Provided research and analysis for plaintiffs re the impact on minority applicants from use of the AccuPlacer Test by the City and County of Denver, and estimated damages in re Marian G. Kerner et al. v. City and County of Denver, Civil Action No. 11-cv-00256-MSK-KMT, United States District Court, District of Colorado.
- U.S. Equal Employment Opportunity Commission, 2013
  Provided statistical analysis of EEOC filings.

OTHER REGULATORY PROCEEDINGS:

- Portland General Electric 2016 Annual Power Cost Variance Docket No. UE 329.
- PacifiCorp 2016 Power Cost Adjustment Mechanism Docket No. UE 327.
- Public Utility Commission of Oregon Staff Investigation into the Treatment of New Facility Direct Access Charges Docket No. UM 1837
- PacifiCorp Oregon Specific Cost Allocation Investigation Docket No. UM 1824.
- PacifiCorp 2018 Transition Adjustment Mechanism Docket No. UE 323.
- Portland General Electric 2018 General Rate Case Docket No. UE 319.
- Avista Corp. 2017 General Rate Case Docket No. UG 325.
- Portland General Electric Affiliated Interest Agreement with Portland General Gas Supply Docket No. UI 376.
- Portland General Electric 2017 Automated Update Tariff Docket No. UE 308
- PacifiCorp 2017 Transition Adjustment Mechanism Docket No. UE 307
- Portland General Electric 2017 Reauthorization of Decoupling Adjustment Docket No. UE 306
- Northwest Natural Gas Investigation of WARM Program Docket No. UM 1750.
- PacifiCorp Investigation into Multi-Jurisdictional Allocation Issues Docket No. UM 1050.
- Idaho Power Company 2015 Power Supply Expense True Up Docket No. UE 305
- Homer Electric Association 2015 Depreciation Study U-15-094
- Submitted prefiled testimony regarding the depreciation study.
- Chugach Electric Association 2015 Rate Case U-15-081
- Developed staff position regarding margin calculations.
- ENSTAR 2014 Rate Case U-14-111
- Submitted prefiled testimony regarding sales forecast.
- Alaska Pacific Environmental Services 2014 Rate Case U-14-114/115/116/117/118
  Submitted prefiled testimony regarding cost allocations, cost of service, cost of capital, affiliated interests, and depreciation.

- Alaska Waste 2014 Rate Case U-14-104/105/106/107
  Submitted prefiled testimony regarding cost of service study, cost of capital, operating ratio, and affiliated interest real estate contracts.
- Fairbanks Natural Gas 2014 Rate Case U-14-102
  Submitted prefiled testimony regarding cost of service study and forecasting models.
- Avista 2015 Rate Case U-14-104
  Submitted analysis supporting OPUC Staff settlement positions regarding Avista's sales and load forecast, decoupling mechanisms and interstate cost allocation methodology. Represented Staff in settlement conferences on November 21, November 26, and December 4, 2013.
- Portland General Electric 2015 Rate Case
  Submitted pre-filed opening testimony addressing PGE's sales forecast, printing and mailing budget forecast, mailing budget, marginal cost study, line extension policy and reactive demand charge. Represented OPUC Staff in settlement conferences on May 20, May 27, and June 12, 2014.
- Portland General Electric 2014 General Rate Case
  Submitted analysis supporting OPUC Staff settlement positions regarding PGE's sales and load forecast, revenue decoupling mechanism, and cost of service study. Represented OPUC Staff in settlement conferences on May 29, June 3, June 6, July 2, and July 9 of 2013. Submitted testimony in support of partial stipulation, pre-filed opening testimony addressing PGE's decoupling mechanism, and testimony in support of a second partial stipulation.
- PacifiCorp 2014 General Electric Rate Case
  Submitted analysis supporting OPUC Staff settlement positions regarding PacifiCorp's sales and load forecast and cost of service study. Represented Staff in settlement conferences on June 12 through June 14, 2013.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/202

PGE RESPONSES TO DATA REQUESTS

May 24, 2021

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers

FROM: Jaki Ferchland
Manager, Revenue Requirement

PORTLAND GENERAL ELECTRIC COMPANY
UE 391
PGE Response to AWEC Data Request No. 012
Dated May 10, 2021

Request:

Please refer to PGE / 100, Vhora – Outama – Batzler / 48 lines 20 to 23.

a. Is the $60,000 impact the combined impact of both the outage for upgrades and the capacity and heat rate changes? If not, please provide the impact for both the outage and the upgrades separately and provide all supporting workpapers.
b. Please provide the estimated capital cost for the unit 6 upgrade.
c. Please provide the estimated capital cost for all planned unit upgrades.
d. Please provide PGE's fuel oil inventory available to the Beaver plant by month from 2016 to present.
e. When was the Beaver plant most recently fueled with fuel oil?

Response:

a. Yes. The approximatly $60,000 impact is the combined impact of both the planned outage during the upgrade period and the capacity and heat rate changes associated with the upgrade of Beaver Unit 6.
b. Attachment 012-A provides estimated capital costs associated with the upgrades planned to the Beaver plant units (including Unit 6) from 2021 to 2025. Please note that the estimated costs directly associated with unit upgrades to reduce Beaver's allowable emissions are referenced as "combustor upgrades." However, all the other planned upgrades listed in Attachment 12-A are also necessary to ensure continued plant reliability and are prudent to perform at the same time to support the operational changes associated with the combustion upgrades.
c. See part b.
d. Attachment 012-B provides fuel oil inventory available to Beaver from 2016 to present.
e. The Beaver plant was most recently operated using fuel oil during March, 2019. However, PGE conducts periodic Readiness Testing of the Combustion Turbines on fuel

oil to insure they can reliabily start and run on fuel oil, in case of a system contingency/emergency. Each Readiness Test consumes approximately 900 to 1000 gallons of fuel oil.

Attachment 012-A and 012-B are protected information subject to Protective Order No. 21-099.

Page 3 of Exhibit AWEC/202 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

August 23, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 014
Dated August 10, 2021

Request:

Please refer to Docket No. UE 215, PGE / 1400, Nguyen / 3 at lines 22 and 23. In PGE's load forecast for UE 215, did PGE's energy efficiency adjustment include energy efficiency funded through SB 1149? If no, why not?

Response:

No. PGE's energy efficiency adjustment included in UE 215 did not include savings funded through SB 1149. The long history of pursuing cost-effective energy efficiency programs dating back to the early 1990's, prior to establishment of the Energy Trust, with relatively consistent levels of annual savings from year-to-year, lead PGE to believe that the impacts of these trends were embedded in its regression based forecast model. Savings associated with SB 838, on the other hand, were considered incremental given rapid ramping in the late 2000's and continued volatile nature of savings from year-to-year.

August 24, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 015
Dated August 10, 2021

Request:

Please refer to PGE / 1000, Riter / 8. Please provide PGE's incremental energy efficiency savings by year from 1999 to present separately for SB 1149 and SB 838 savings.

Response:

PGE objects to this request given this data is publicly available on the Energy Trust's website, in Appendix 10 of its Annual Report to the OPUC and Energy Trust Board of Directors:

(https://www.energytrust.org/about/reports-financials/documents/?type=annual-reports&keyword).

Updates to savings estimates are occasionally made by the Energy Trust and PGE may not have captured these updates. Nevertheless, PGE has provided a summary compilation of what it believes to be the most up-to-date data in Attachment 015-A.

August 24, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 016
Dated August 10, 2021

Request:

Please refer to PGE's initial application for affiliated interest transaction in Docket No. UI 405.

a. Please provide all filings, workpapers and discovery prepared by PGE as part of Docket No. UI 405.
b. Did PGE or a PGE affiliate complete the purchase described in Docket No. UI 405? If no, why not? If yes, please provide the purchase agreement and other closing documents.
c. Please provide PGE's current lease for the World Trade Center Complex.

Response:

a. PGE objects to this request on the basis that it is unduly burdensome and that some of this information is publicly available. Without waiving its objection, PGE responds as follows:

   Confidential Attachment 016-A provides UI 405 Information Request Nos. 1 – 12.

   For PGE's initial application and reply comments, see:

   https://apps.puc.state.or.us/edockets/docket.asp?DocketID=21450

b. Yes. PGE's affiliate 121 SW Salmon Street Corporation purchased the World Trade Center Complex. See confidential Attachment 016-B for the purchase agreement, the final settlement statement, and the special warranty deed.

c. Confidential Attachment 016-C provides PGE's current lease for the WTC Complex.

Confidential Attachments 016-A, 016-B, and 016-C contain protected information and are subject to General Protective Order No. 21-206.

July 6, 2018

TO: Lance Kaufman
Public Utility Commission of Oregon

FROM: Stefan Brown
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UI 405
PGE Response to OPUC Information Request No. 003
Dated June 22, 2018

Request:

Please provide all financial analysis of 121 SW Salmon's purchase of the WTC.

Response:

PGE objects to this request as overly broad and unduly burdensome. Subject to and without waiving its objection, PGE responds as follows:

Attachment 003-A provides the financial model for 121 SW Salmon's purchase of the WTC. Attachment 003-A is protected information and subject to Protective Order 18-261.

UI 405

Attachment 003-A

Provided in Electronic Format only

Protected Information Subject to Protective Order 18-261

Pages 9-33 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

July 6, 2018

TO: Lance Kaufman
Public Utility Commission of Oregon

FROM: Stefan Brown
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UI 405
PGE Response to OPUC Information Request No. 004
Dated June 22, 2018

Request:

Please list all presentations made to Portland General Electric Company (PGE) and PGE affiliate boards related to 121 SW Salmon's purchase of the WTC, including in the list the date of each presentation, and provide copies of all presentation materials for each presentation.

Response:

Presentations made to PGE and PGE affiliate boards related to the purchase of the WTC by 121 SW Salmon are provided in attachments 004-A through 004-D.

Attachments 004-A through 004-D are protected information and subject to Protective Order 18-261.

UI 405

Attachment 004-D

Provided in Electronic Format only

Protected Information Subject to Protective Order 18-261

PGE Finance Committee Presentation and Draft Resolutions
April 24, 2018

Pages 36-45 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

July 6, 2018

TO: Lance Kaufman
Public Utility Commission of Oregon

FROM: Stefan Brown
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UI 405
PGE Response to OPUC Information Request No. 005
Dated June 22, 2018

Request:

Please provide all due diligence studies related to 121 SW Salmon's purchase of the WTC.

Response:

The due diligence studies and a description of the studies related to 121 SW Salmon's purchase of the WTC are provided in attachments 005-A through 005-F.

Attachments 005-A through 005-F are protected information and subject to Protective Order 18-261.

UI 405

Attachment 005-F

Provided in Electronic Format only

Protected Information Subject to Protective Order 18-261

Value

Pages 48-62 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

July 6, 2018

TO: Lance Kaufman
Public Utility Commission of Oregon

FROM: Stefan Brown
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UI 405
PGE Response to OPUC Information Request No. 009
Dated June 22, 2018

Request:

Are the cost impacts of 121 SW Salmon's purchase of WTC included in PGE's current rate case Docket No. UE 335? If yes, please explain how. If no, please explain why not.

Response:

No. PGE has not included any cost impacts from 121 Salmon's purchase of the World Trade Center (WTC) in the UE 335 general rate case for two reasons:

- The purchase transaction is not expected to be complete until November 2018, prior to which PGE will require Commission approval of the new lease agreement in this proceeding (UI 405).
- The transaction would have no impact on PGE's 2019 forecasted costs because the new rental agreement would maintain the same rental cost as the prior rental agreement for PGE.

July 6, 2018

TO: Lance Kaufman
Public Utility Commission of Oregon

FROM: Stefan Brown
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UI 405
PGE Response to OPUC Information Request No. 010
Dated June 22, 2018

Request:

Please provide all analysis performed by PGE to ensure that the rental rate in the lease is at or below the cost of owning and operating the property.

Response:

Attachment 010-A provides the analysis of the rental rates versus the cost of owning the property. The amount in cell D6 represents the levelized cost of owning the property, which is higher than the $2.5 million annual rent for the WTC. Operating costs are not included as part of this analysis because PGE would incur the same operating costs regardless of whether the building is leased or owned.

Attachment 010-A is protected information and subject to Protective Order 18-261.

UI 405

Attachment 010-A

Provided in Electronic Format only

Protected Information Subject to Protective Order 18-261

Theoretical Principal and Interest Payments

Page 66 of Exhibit AWEC/202 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

July 6, 2018

TO: Lance Kaufman
Public Utility Commission of Oregon

FROM: Stefan Brown
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UI 405
PGE Response to OPUC Information Request No. 011
Dated June 22, 2018

Request:

Please confirm whether PGE has ever previously owned the WTC. If it has not, please explain PGE's understanding of the history of the ownership of the WTC. If it has, please explain the WTC's ownership history and include in your explanation all reasons for PGE's past divestiture of the WTC.

Response:

PGE acquired the property upon which the World Trade Center (WTC) is now located (generally Blocks 5, 6 and 12, CITY OF PORTLAND, Portland, Multnomah County, Oregon) from US National Bank on November 17, 1975. The WTC property was conveyed by PGE to 121 SW Salmon the same day. The three buildings comprising the WTC were constructed by 121 SW Salmon thereafter.

In March 1977, 121 SW Salmon Street Corporation obtained financing from Travelers Insurance Company using the WTC as security. PGE guaranteed the obligations of 121 SW Salmon with respect to the Travelers financing. The proceeds of the loan were used to enable PGE to redeploy capital to its core business functions including the expansion of its generation capacity such as the Trojan Nuclear Facility.

In September 1978, 121 SW Salmon Street Corporation sold WTC to American Leased Premises Investors VIII ("API"), a California Limited Partnership, subject to the existing mortgage in favor of Travelers Insurance Company, which was assumed and eventually satisfied by API and 121 SW Salmon then rented the WTC back from API pursuant to a lease dated September 11, 1978. PGE guaranteed the obligations of 121 SW Salmon to API under the lease. At no time was the WTC included in PGE retail rates.

July 6, 2018

TO: Lance Kaufman
Public Utility Commission of Oregon

FROM: Stefan Brown
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UI 405
PGE Response to OPUC Information Request No. 012
Dated June 22, 2018

Request:

Please provide the current lease agreement between 121 SW Salmon and the current owner(s) of the WTC.

Response:

Attachment 012-A provides a copy of the current lease agreement between 121 SW Salmon Street Corporation and the owner of the WTC (currently IEH Portland LLC) dated September 11, 1978. Attachment 012-B provides the first amendment to the lease, effective December 5, 1997. Attachment 012-C provides the related sublease agreement 121 Salmon Street Corporation and Portland General Electric Corporation.

Attachments 012-A through Attachment 012-C are protected information and subject to Protective Order 18-261

UI 405

Attachment 012-C

Provided in Electronic Format only

Protected Information Subject to Protective Order 18-261

121 SW Salmon Sublease Agreement

Pages 70-72 of Exhibit AWEC/202 contains Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

September 10, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 076
Dated August 27, 2021

Request:

Please refer to PGE's response to AWEC DR 14. Does PGE agree that if energy efficiency savings are consistent from year to year over the entire period of historic data used to forecast energy, the impact of energy efficiency trends will be embedded within the base forecast model? If no, why not?

Response:

In response to AWEC Data Request No. 014, PGE described its reasoning behind the assumptions made in the load forecast which adjusts for incremental savings associated with SB 838 but not with SB 1149.

There is not a clear line to define what is and what is not embedded within the base forecast model. If energy efficiency savings were consistent year over year in the historic period and the forecast period, it would be reasonable to assume the trend was embedded within the forecast model. However, the forecasted energy efficiency savings associated with SB 838 are not consistent year over year in either period, so PGE has assumed the savings are not embedded.

September 10, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 079
Dated August 27, 2021

Request:

Please provide the total lease expense included in the test year for the WTC.

Response:

The total World Trade Center (WTC) rent expense included in PGE's 2022 general rate case is $5,683,069.[1] This does not include amounts allocated to non-utility accounts, construction work in progress (CWIP) accounts, or amounts allocated to non-PGE tenants. The total WTC rent PGE is forecast to incur for 2022 is $6,164,518.

[1] This amount includes PGE's proportionate share of expenses for operating and maintaining the WTC complex.

September 10, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 080
Dated August 27, 2021

Request:

Please provide the total square feet leased by PGE for the WTC from 2015 to present.

Response:

The following table provides the requested information.

Year	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021 (Budget)**	**2022 (Forecast)**
PGE Leased Ft^2	352,388	333,436	336,896	336,891	336,151	331,363	317,778	232,636

September 10, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 081
Dated August 27, 2021

Request:

Please refer to the response to AWEC DR 5 and the attachments to the response to OPUC DR 334.

a. Please provide versions of these attachments with greater resolution.

b. For Blue Lake Phase II_CONFIDENTIAL_Redacted.pdf, please provide the amount and date of the redacted load identified on page 3.

c. Please reconcile the substation costs identified in the attachments with the "$130.6 million on new substations" and "$32.7 million on substation expansions to address additional capacity needs" referenced in AWEC DR 5.

d. Does the redacted value on page 25 of Hillsboro_Brookwood_CONFIDENTIAL_Redacted.pdf refer to new load? If yes, please provide the amount and date of the new load and indicate if it is duplicative of load referenced in other documents attached to OPUC DR 334.

e. Please provide the demand factor for the large customers in the referenced attachments. Such data may be provided in aggregate or individually.

f. Please explain how the load forecast in Exhibit 1000 accounts for the load additions in the referenced attachments.

Response:

a. Confidential Attachment 081-A and Highly Confidential Attachment 081-B provide the requested information.

b. PGE does not disclose specific customer load amounts as that is protected customer-specific information. The Blue Lake Phase II whitepaper was written in 2017. Note that two of the three Blue Lake feeders approach or exceed their planning guideline for non-contingent operation. Based on operational data, without the addition of the second distribution power transformer, the Blue Lake transformer would have encountered loading levels beyond nameplate.

c. The substation costs identified in the attachments are primarily incurred costs and do not include overhead allocations and AFUDC. The "$130.6 million on new substations" and "$32.7 million on substation expansions to address additional capacity needs" represent fully loaded, fully allocated costs for projects closed to plant between January 2019 and April 2022.

d. Yes, page 25 of Hillsboro_Brookwood_CONFIDENTIAL_Redacted.pdf refers to a new load. PGE does not disclose specific customer load amounts as that is protected customer information. The referenced load is not included in the other whitepapers provided in PGE's response to OPUC Data Request No. 334. This referenced new load is *not* the primary driver for the Hillsboro Reliability Project; the project is needed to address existing problems serving load and ensure compliance with NERC standards for transmission.

e. The majority of the new load referenced in these whitepapers is associated with customers that have a high demand factor given the nature of their operations. PGE must be able to serve the peak load for customers; the facilities being installed allows us to do this. Planning for peak load also ensures compliance with NERC Standards for transmission.

f. Given long lead times and reliability requirements, PGE's Transmission and Distribution Planning teams study scenarios anywhere from one year to 10 years from the current time. The whitepapers are, by necessity, written years in advance of construction. To the extent the load assumptions in the whitepapers change, such adjustments are made via regular reviews of the capital portfolio and are documented in the project justification forms.

   PGE's load forecast as presented in PGE Exhibit 1000 considers load additions in two primary ways: embedded growth and individual customer growth. PGE's sector-level forecast does not consider each customer individually. Instead, embedded within each forecast group's growth trend is both loss of load due to closure or downsizing and growth due to new entrants and expansion. For a subset of PGE's large customers, an individual customer forecast is created based on experiences with similar facilities, conversations with PGE's key customer management team, and risk assessment. Several of the customer loads discussed in the referenced attachments have been accounted for in this way.

Attachment 081-A contains protected information and is subject to General Protective Order No. 21-206.

Highly Confidential Attachment 081-B contains protected information and is subject to Modified Protective Order No. 21-237.

Pages 78-111 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

September 16, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 083
Dated August 27, 2021

Request:

Please refer to PGE Exhibit 1203 sheet "1203 pg 3-10".

a. Please provide workpapers demonstrating how 2022 billing determinants are derived from the 2022 load forecast.

b. For each pricing line, please provide the actual units included in bills in 2018, 2019, and 2020.

c. Please provide Facility Capacity billed for each schedule with a facility capacity charge for the most recent month available. Please indicate if this amount includes minimum monthly facility capacity charges, and if not, please identify any additional facility capacity billed for monthly minimums.

Response:

a. Attachment A and Attachment B provide the requested information. Attachment A contains the raw load forecast billing determinates by customer class. Attachment B contains the same load forecast summarized on a monthly and annual basis by customer class. Attachment B is also provided with the load forecasting workpapers included in Exhibit 1000 as '26-Net System COS VPO ESS Tables.xlsx". PGE uses this attachment to ensure the energy for each customer class ties out. These attachments also tie out to the billing determinates used in PGE Exhibit 1203 sheet "1203 pg 3-10".

b. Attachment 3 (columns J-L) contains actual units used in monthly billing from 2018 to 2020 for all large non-residential rate schedules, structured to align with PGE Exhibit 1203 sheet "1203 pg 3-10". Per a conversation with AWEC, PGE is including only customer counts and total energy consumption for small nonresidential and residential accounts to provide context to the year-over-year changes, particularly in light of the COVID-19 pandemic.

c. Attachment 3 (column M) details August 2021 facility capacity amounts billed to customers. No additional minimum facility capacity charges were billed in this month.

Pages 113-115 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 097
Dated August 30, 2021

Request:

Reference PGE's response to AWEC Data Request 31: Please provide PGE's understanding of the Commission's policy towards Allowance for Funds Used During Construction ("AFUDC"), and explain how AFUDC has been included in revenue requirement.

Response:

The following provide the requested information:

- PGE's response to OPUC Data Request No. 190
- PGE's response to OPUC Data Request No. 192
- PGE's response to OPUC Data Request No. 193
- PGE's response to OPUC Data Request No. 194
- PGE's response to OPUC Data Request No. 195
- PGE's response to OPUC Data Request No. 196
- PGE's response to OPUC Data Request No. 513
- PGE's response to OPUC Data Request No. 514

September 13, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 104
Dated August 30, 2021

Request:

Reference workpaper "Exhibit Support 2022", tab "Rate Base Data": Please provide project-by-project detail supporting forecast transfers to plant, on a monthly basis, over the period December 31, 2020, through December 31, 2022, used to derive the gross plant value of 11,631,763,539 in the referenced workpaper

Response:

Attachment 104-A provides the requested information. Because PGE established UE 394 rate base as of April 30, 2022 (see PGE Exhibit 200, page 3, line 21), Attachment 104-A provides detail only through April 2022.

Pages 118-119 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

October 7, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 140
Dated September 23, 2021

Request:

Please refer to the response to AWEC DR 82, Attachment A.

a. Does this load represent metered load or generation load?

b. Please provide the demand-related billing determinants for the load associated in this attachment.

c. Please reconcile the load in this Attachment with the load forecasted in response to AWEC DR 81, highly confidential attachment B, figure 2.

Response:

a. The load represented in PGE's response to AWEC Data Request No. (DR) 082, Attachment A, reflects metered load, or energy deliveries.

b. See Attachment 140-A for demand related billing determinates. This attachment also provides an update to Attachment 082-A to reflect correction for a formula error in data provided previously. Attachment 140-A provides three data elements. First, the energy deliveries subset as provided in Attachment 082-A, then revised energy deliveries subset, and finally the associated demand-related billing determinates as requested here.

c. The representation of load provided in PGE's response to AWEC DRs 081 and 082 reflect two distinct planning needs.
The transmission planning documents referenced in DR 081 reflect customer capacity needs for reliability. The timing associated with these needs reflects customer facility online dates, customer requests, and facilities design processes. Capacity values reflect reliability needs anticipated for peaking events at the site level.
Load data provided in DR 082 reflects a subset of customers that are included in the individual customer forecast rather than PGE's regression-based models. The data reflects average energy usage and aims to capture the midpoint expectation for actual, billed, customer usage in each month. Customer loads are reliant on many factors specific to each customers' unique business operations each year. PGE uses the best information available to develop forecast assumptions given limited per view into customer operations.

Pages 121 of Exhibit AWEC/202 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

October 7, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 141
Dated September 23, 2021

Request:

Please refer to the response to AWEC DR 81, highly confidential attachment B.

a. Please provide date of the forecast that underlies figure 2.
b. Please provide the values in figure 2 in the same format as table 1 of Hillsboro_Brookwood_CONFIDENTIAL_Redacted.pdf.

Response:

a. The referenced whitepaper was finalized on November 20, 2020. Please note that Figure 2 shows *potential* Hillsboro area load growth.
b. Confidential Attachment 141-A provides the requested information.

Attachment 141-A contains protected information and is subject to General Protective Order No. 21-206.

Page 123 of Exhibit AWEC/202 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

October 7, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 142
Dated September 23, 2021

Request:

Please refer to the response to AWEC DR 81, confidential attachment A, Hillsboro_Brookwood_CONFIDENTIAL_Redacted.pdf.

a. For each customer identified in this table, indicate whether the customer is subject to a minimum load agreement associated with the load in table 1.

b. For each customer that is not subject to a minimum load agreement, why not?

c. Please refer to page 4. Please provide the alternative service agreement and explain what is required to reserve capacity on a feeder

Response:

a.

Customer	MLA In Place?
1	Yes
2	No
3	No
4	No
5	Yes
6	Yes
7	Not applicable; this is existing load
8	Yes
9	No
10	Yes
11	No
12	No

b. PGE's response to OPUC Data Request No. 876, part b. provides the requested information.

c. Highly Confidential Attachment 142-A provides the Alternate Service agreement. Alternate Service is described in PGE Tariff, Rule L, Section 4.[1]

Attachment 142-A contains protected information and is subject to Modified Protective Order No. 21-237.

[1] Tariff - Regulatory Documents | PGE (portlandgeneral.com)

October 7, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 143
Dated September 23, 2021

Request:

Please refer to the attachments to PGE's response to AWEC DR 81, the attachment to PGE's response to AWEC DR 82, and the Exhibit 1000 workpaper "13-Large Customer Forecast Mar2021.xls."

a. For the attachment to PGE's response to AWEC DR 82, and the Exhibit 1000 workpaper "13-Large Customer Forecast Mar2021.xls", please provide these amounts by customer, with an anonymized customer ID.

b. For all attachments to PGE's response to AWEC DR 81, please provide the anonymized customer ID that matches to data provided in part a. above. Please also provide unredacted values for loads.

Response:

a. Confidential Attachment 143-A provides the requested information.

b. PGE objects to this request given the nature of confidential customer information included in referenced attachments. Notwithstanding this objection, PGE has provided selected documents to provide linkage between the two sets of information in Confidential Attachment 143-B. Note that not all customers referenced in Attachment 143-B are included in Attachment 143-A and vice versa.

Confidential Attachments 143-A and 143-B contain protected information and are subject to General Protective Order No. 21-206.

Page 127 of Exhibit AWEC/202 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

October 7, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 147
Dated September 23, 2021

Request:

Please provide AWEC permission to use Docket No. UE 391 discovery and workpapers in UE 394.

Response:

AWEC has permission from PGE to use discovery in Docket UE 391, and workpapers in Docket UE 394.

Confidential information in docket UE 391 is subject to General Protective Order 21-099.

Confidential information in docket UE 394 is subject to General Protective Order 21-206.

October 8, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 154
Dated September 24, 2021

Request:

Please refer to Attachment A to this discovery request. This attachment contains rows from Exhibit 200 workpaper "2022 Unbundled ROO Initial_Separate Colstrip.xlsx".

a. For rows 2 through 17 regarding Account "1860039: Customer Billings (Non L&P)", please explain generally why these costs are appropriately unbundled to consumer rather than distribution.

b. For rows 18 through 75, please explain separately for each row the consumer related activities and services that the cost supports.

c. For cell I18, please explain what the MBC Labor allocator is.

d. Please refer to the UE 335 workpaper "2019 Exp and Rev Data.xls" sheet "Ledger Detail" row 311 "CustAcct-CustRecords&Collect". Please explain why PGE unbundled the majority of this account to Billing in 2019 and why PGE changed to unbundling the majority of this account to Consumer in 2022.

Response:

a. Account 18600039 is a clearing account representing costs and reimbursements for non-light and power work. It is not included in PGE's rate base or revenue requirement as clearing accounts are expected to have a zero balance.

b. Lines 18-43 represent the various departments in PGE that perform work associated with account 9030001 – Customer Accounts; Customer Records and Collections. This activity includes the cost of labor, materials used, and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints. See column F for a description of each department that contributed costs to this account.

   Lines 44-48 represent the various departments in PGE that perform work associated with account 9050001 – Customer Accounts; Miscellaneous Customer Accounts Expense. This activity includes labor and expenses associated with answering residential and non-residential general account questions (e.g., open/close orders, name changes, account balances, outages, etc.). It also includes labor and expenses associated with special needs customer assistance such as social agency referrals and interventions. See column F for a description of each department that contributed costs to this account.

Lines 49-75 represent the various departments in PGE that perform work associated with account 9080001 – Customer Service; Customer Assistance Expense. This activity includes labor and non-labor expenses associated with market research, promoting safe, efficient and economical use of electricity, managing Energy Efficiency programs, managing Energy Service Supplier (ESS) relationships and maintaining and enhancing Customer Program technology systems. See column F for a description of each department that contributed costs to this account.

Please see attachment 154-A for further information in column "M".

c. The MBC allocator represents an allocation factor that is based on labor related only to the Metering, Billing, and Other Consumer functional areas, as opposed to the overall labor allocator that relates to all functional areas. The MBC allocator has limited use as applied to Customer Service O&M accounts where a direct assignment is not practicable and Customer Service-related labor provides a reasonable basis for allocation.

d. In UE 335, the overall approach to unbundle O&M expenses was based on: 1) the account for primary function; and 2) the operating unit, to specifically identify Production function costs. At that time, account 9030001 was unbundled primarily to Billing based on the understanding that account 9030001 related primarily to the Billing function whereas account 9080001 related primarily to the Other Consumer function. Subsequent to UE 335 but prior to UE 394, PGE implemented software to develop a more systematic and automated approach to calculating and presenting PGE's integrated and unbundled revenue requirement. Implementing this system required a detailed review of each department within each O&M account and allowed for a more granular approach to functionalize costs based on 1) account, 2) operating unit, and 3) department. Based on both the review and the more granular approach, it was determined that 9080001 still relates primarily to the Other Consumer function, while 9030001, depending on the department costs are forecast in, relates to Metering, Billing, and/or Other Consumer functions.

October 14, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 194
Dated September 30, 2021

Request:

Reference PGE's response to AWEC Data Request 104, Attachment A: Please provide an updated version of the referenced report based on actual transfers to plant through September 30, 2021, and including PGE's most recent projections for transfers to plant through the rate effective date.

Response:

Attachment 194-A provides the requested information.

Pages 132-133 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and have been redacted in their entirety.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 197
Dated October 5, 2021

Request:

Please explain how PGE intends to coordinate this filing with the AUT filing, given the different rate effective dates. For example, will power costs continue to be billed on Schedule 125 following the rate effective date of this proceeding?

Response:

PGE will include all functionalized generation revenues in base prices for the various schedules when it implements prices for the GRC. Schedule 125 prices will be set to zero and net variable power costs will not be updated.

October 19, 2021

To: Jesse O. Gorsuch
Alliance of Western Energy Consumers

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to AWEC Data Request 238
Dated October 5, 2021

Request:

Reference PGE's response to AWEC Data Request 104, Attachment A, Funding Project P36836, BR: Beaver Modernization:

a. Please provide any cost-benefit analyses associated with the referenced project.
b. Please provide the most recent construction update for the referenced project.
c. Please identify the most recent estimate for the in-service date and the capital budget for the reference project.
d. Please identify the current Construction Work in Progress Balance for the referenced project, including any Allowance for Funds Used During Construction includible in rate base.
e. Please identify the increase in capacity and energy associated with the referenced project.
f. Please identify the net power cost benefits associated with the referenced project.
g. Were the benefits associated with the referenced project considered in the 2022 Annual Update Tariff Filing?

Response:

a. The combustor upgrade project at PGE's Beaver facility is being driven primarily by air quality requirements. In evaluating its options, PGE reviewed what would be required at Beaver to meet and manage those requirements for the current facility. The combustor upgrades allow PGE and customers to make continued use of the Beaver facility and bring the facility into alignment with current air quality requirements, which also aligns with PGEs goals for a clean energy future. PGE anticipates the significantly reduced NOx emissions will meet the limits in current EPA performance standards and, with a more modern emissions profile, prepare the site for future regulatory changes.
b. Construction for the first unit upgrade is currently scheduled to start March 8, 2022. It is anticipated that the first unit construction would be completed by June 30, 2022. The construction schedule for subsequent units will be determined closer to the date of the construction.
c. See part b for the expected in-service date. Attachment 238-A provides estimated capital costs associated with the upgrades planned to the Beaver plant units (including Unit 6)

from 2021 to 2025. Please note that the estimated costs directly associated with unit upgrades to reduce Beaver's allowable emissions are referenced as "combustor upgrades." However, all the other planned upgrades listed in Attachment 238-A are also necessary to ensure continued plant reliability and are prudent to perform at the same time to support the operational changes associated with the combustion upgrades.

d. The Construction Work in Progress balance is $0.
e. The Beaver Unit 6 capacity is expected to slightly increase by approximately 1.8MW under a specific set of ambient conditions pursuant to the combustor upgrade. The potential energy output is proportional to the capacity increase, but actual energy output is dependent on dispatch decisions in the MONET model, when it is economic to run. The unit heat rate is also expected to increase slightly with the upgrade.
f. The power cost impact associated with the Beaver parameter update resulting from the upgrade is not material, representing approximately $60,000 decrease to the 2022 NVPC forecast.
g. Yes.

August 11, 2021

To: William Gehrke
Citizens Utility Board

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to CUB Data Request 014
Dated July 28, 2021

Request:

Refer to UE 394 / PGE / 1000 / Riter / 7 / Lines 8 – 12, the Company states "While there is significant uncertainty surrounding what a 'new normal' looks like, based on announcements from regional employers, we expect to see a sustained uptick in work from home following the pandemic. In addition to the policy-based assumptions described above, we include an input assumption that 1/3 (or 33%) of the estimated increase in residential usage related to COVID-19 will continue in perpetuity."

a. Please provide the evidence PGE used, along with any underlying workpapers, to create the assumption that 33% of the estimated residential usage increase will continue.
b. Please provide the evidence used to predict that this increase will continue in perpetuity.

Response:

We note a correction to the text above to state "approximately 1/3 (or 30%)" consistent with the actual figure included in our forecast model.

a. PGE's input assumption reflecting a continued increase in residential usage associated with increased hybrid and work from home schedules is not intended to be a precise estimate and no workpapers are included. Rather, this input reflects a high-level assessment of available information.

   The basis for our estimate is that we assume 50% of workers currently working from home will not return to the office full time. Of this subset, a range of hybrid and fully remote schedules will be implemented. We assume an average of three days a week working remotely. Combining these two estimates (50% * 3/5) results in the 30% input assumption. PGE intends to continue to monitor the increase in residential usage as the situation evolves and adjust its model to best capture related changes.

b. Announcements from local and national employers provide evidence that increased work from home will be sustained. A compilation of select evidence from the period during which the March 2021 load forecast was developed is provided below:

December 2020
https://www.bizjournals.com/portland/news/2020/12/01/profocus-tech-staffing-survey.html
https://www.bizjournals.com/portland/news/2020/12/15/office-remote-work-coronavirus-portland.html
https://www.peoplemattersglobal.com/article/c-suite/reimagining-the-way-we-work-intels-cpo-27831

January 2021
https://fortune.com/2021/01/31/how-offices-will-change-after-coronavirus-return-to-office-after-covid-19/
https://www.seattletimes.com/explore/careers/6-ways-your-office-will-be-different-in-2021-if-you-ever-go-back-to-it/

February 2021
https://www.kgw.com/article/news/local/portland-experts-share-perspective-on-what-the-office-will-look-like-when-you-go-back-to-work/283-c618bc75-5b54-4cd9-a044-9ca3087d57da

August 12, 2021

To: John Fox
Public Utility Commission of Oregon

From: Jaki Ferchland
Manager, Revenue Requirement

Portland General Electric Company
UE 394
PGE Response to OPUC Data Request 198
Dated July 29, 2021

Request:

Regarding the responses to Staff Data Requests 142 and 143, please provide the project justification forms for each funding project number listed in UE 394_OPUC DR 142_Attach A.xlsx and UE 394_OPUC DR 143_Attach A.xlsx.

Response:

Attachment 198-A provides the requested information.

Attachment 198-A contains protected information subject to Protective Order No. 21-206.

Pages 140 – 178 of Exhibit AWEC/202 contain Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/203

LOAD FORECAST ADJUSTMENTS

AWEC Forecast Adjustments
ESTIMATED EFFECT ON CONSUMERS' TOTAL ELECTRIC BILLS
2022

TOTAL ELECTRIC BILLS
w/ Sch. 125, 122, 131, 146

CATEGORY	RATE SCHEDULE	PGE Filed	PGE September EE Forecast	PGE September Base Forecast	AWEC Residential COVID Adj	AWEC Large Cust. Hillsboro Adj	AWEC Facilities Charge Adj
Residential	7	$1,018,311,934	$1,020,069,425	$1,023,425,049	$1,051,346,286	$1,051,346,286	$1,051,346,286
Employee Discount		($1,134,426)	($1,134,426)	($1,134,426)	($1,165,375)	($1,165,375)	($1,165,375)
Subtotal		$1,017,177,508	$1,018,934,999	$1,022,290,623	$1,050,180,911	$1,050,180,911	$1,050,180,911
Outdoor Area Lighting	15	$3,231,235	$3,106,716	$3,106,717	$3,106,717	$3,106,717	$3,106,717
General Service <30 kW	32	$194,110,195	$195,964,504	$198,242,173	$198,242,173	$198,242,173	$198,242,173
Opt. Time-of-Day G.S. >30 kW	38	$4,332,435	$3,777,957	$3,821,868	$3,821,868	$3,821,868	$3,821,868
Irrig. & Drain. Pump. < 30 kW	47	$4,169,700	$4,028,637	$4,028,637	$4,028,637	$4,028,637	$4,028,637
Irrig. & Drain. Pump. > 30 kW	49	$9,325,546	$9,442,136	$9,442,136	$9,442,136	$9,442,136	$9,442,136
General Service 31-200 kW	83	$272,880,844	$282,173,850	$285,411,049	$285,411,049	$285,411,049	$287,066,489
General Service 201-4,000 kW							
Secondary	85-S	$181,066,170	$177,327,853	$179,362,221	$179,362,221	$179,362,221	$182,623,320
Primary	85-P	$49,110,419	$45,156,161	$45,289,793	$45,289,793	$45,289,793	$45,557,896
Schedule 89 > 4 MW							
Secondary	89-S	$0	$6,635,784	$6,711,912	$6,711,912	$7,220,934.08	$6,711,912
Primary	89-P	$38,196,001	$43,519,988	$43,648,778	$43,648,778	$46,959,043.08	$46,759,757.71
Subtransmission	89-T/75-T	$4,360,519	$4,259,583	$4,271,496	$4,271,496	$4,595,440.69	$4,580,010.11
Schedule 90	90-P	$176,594,338	$177,027,286	$177,551,169	$177,551,169	$191,016,410.70	$191,499,779.60
Street & Highway Lighting	91/95	$9,397,870	$9,856,127	$9,856,127	$9,856,127	$10,403,269.76	$9,856,127
Traffic Signals	92	$225,812	$225,812	$225,812	$225,812	$238,347.75	$225,812

COS TOTALS		$1,964,178,591	$1,981,437,392	$1,993,260,511	$2,021,150,798	$2,039,318,950	$2,043,703,545
Direct Access Service 201-4,000 kW							
Secondary	485-S	$12,703,868	$12,032,279	$12,170,318	$12,170,318	$12,845,927.99	$12,829,912.38
Primary	485-P	$8,280,395	$7,487,635	$7,509,794	$7,509,794	$7,926,684.33	$8,055,057.54
Direct Access Service > 4 MW							
Secondary	489-S	$278,982	$0	$0	$0	$0.00	$0.00
Primary	489-P	$18,518,467	$20,776,193	$20,837,676	$20,837,676	$22,417,977.63	$22,619,764.85
Subtransmission	489-T	$1,436,608	$1,647,503	$1,652,110	$1,652,110	$1,777,404.32	$1,749,430.72
New Load Direct Access Service > 10MW							
Primary	689-P	$639,003	$589,893	$591,639	$591,639	$636,508.08	$636,881.46
DIRECT ACCESS TOTALS		41,857,322	42,533,503	$42,761,537	$42,761,537	$45,604,502	$45,891,047
COS AND DA CYCLE TOTALS		$2,006,035,913	$2,023,970,895	$2,036,022,048	$2,063,912,335	$2,084,923,452	$2,089,594,592
Revenue Adjustment				$12,051,153	$27,890,287	$21,011,117	$4,671,140
Cumulative Rev Adj				$12,051,153	$39,941,441	$60,952,557	$65,623,698
NPC Adjustment				$6,306,788	$14,595,958	$10,995,848	
Cumulative NPC Adj				$6,306,787.90	$20,902,745.80	$31,898,594.25	$31,898,594.25
Net Impact				$5,744,365.49	$13,294,329.55	$10,015,268.21	$4,671,140.00
Cumulative Net Impact				$5,744,365.49	$19,038,695.04	$29,053,963.24	$33,725,103.25

NPC Impact Ratio Estimate	
September Current Rev Increase	17,934,982
September Load Related NPC Increase	9,386,000
Cost to Rev	52.3%

EE to Base Forecast Gross Up Factor

	EE Forecast	Base Forecast	Relative Size (Base / EE)	
SCHEDULE 7	7569.3	7594.2	100.33%	1.005189
RESIDENTIAL LIGHTING	1.6	1.6		
TOTAL RESIDENTIAL	7571.0	7595.9		
COMMERCIAL RATE SCH				
SCH 15C	12.3	12.3	100.00%	0.960938
SECONDARY SERVICE	7149.7	7232.8	101.16%	1.022347
SCH 47 & 49	81.5	81.5	100.00%	1
COMMERCIAL RATE SCH	7243.5	7326.6	101.15%	1.021998
ST & OTHER LIGHTING	46.5	46.5	100.00%	1.047297
TOTAL COMMERCIAL	7290.0	7373.0	101.14%	1.022125
INDUSTRIAL				
PRIMARY SERVICE	5474.2	5490.4	100.30%	1.011198
TRANSMISSION SERVICE	318.1	318.1	100.00%	1.069244
TOTAL INDUSTRIAL	5792.2	5808.4	100.28%	1.014196
TOTAL ENERGY	20653.2	20777.4	100.60%	1.01367

Base to COVID Adjustment
19-SSEP21B Tables (2019-2022).pdf - YEAR = 2022

Customers Total	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
SF HEAT	125877	125923	125977	126032	126089	126148	126204	126267	126322	126388	126440	126486	126179
SF NON-HEAT	370554	370820	371119	371428	371752	372078	372396	372744	373053	373424	373714	373975	372255
MF HEAT	213396	213521	213657	213833	214010	214318	214600	214855	215155	215483	215781	216014	214552
MF NON-HEAT	57472	57541	57615	57710	57805	57968	58118	58253	58412	58585	58743	58867	58091
MH HEAT	30690	30683	30676	30669	30663	30656	30649	30642	30635	30629	30622	30615	30652
MH NON-HEAT	4193	4193	4193	4193	4193	4193	4193	4193	4193	4193	4193	4193	4193
OTHER	2280	2287	2295	2303	2311	2319	2326	2334	2342	2349	2357	2364	2322
TOTAL CUSTOMERS	804462	804968	805532	806167	806824	807679	808487	809289	810112	811051	811849	812514	808244

Use Per Customer in kWh

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
SF HEAT	1724	1468	1304	1080	903	860	887	921	884	839	1050	1546	13464
SF NON-HEAT	1000	852	785	702	661	699	799	870	802	664	713	930	9475
MF HEAT	968	839	738	596	493	459	455	461	455	437	554	855	7306
MF NON-HEAT	637	556	506	435	398	412	451	479	463	392	426	585	5738
MH HEAT	1751	1497	1312	1063	869	804	830	864	821	807	1068	1603	13292
MH NON-HEAT	1332	1154	1024	843	714	682	717	751	711	678	854	1228	10689
OTHER	834	746	659	535	433	380	401	436	409	384	497	728	6432

Covid parameter

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1
	57.7	57.7	57.7	57.7	57.7	57.7	57.7	57.7	57.7	57.7	57.7	57.7
	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2
	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3

Covid Adjustment = Covid Parameter * (0.75 - 0.4)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
SF HEAT	25	25	25	25	25	25	25	25	25	25	25	25	
SF NON-HEAT	26	26	26	26	26	26	26	26	26	26	26	26	
MF HEAT	14	14	14	14	14	14	14	14	14	14	14	14	
MF NON-HEAT	14	14	14	14	14	14	14	14	14	14	14	14	
MH HEAT	8	8	8	8	8	8	8	8	8	8	8	8	
MH NON-HEAT	20	20	20	20	20	20	20	20	20	20	20	20	
OTHER	180	180	180	180	180	180	180	180	180	180	180	180	

Use Per Customer in kWh , Revised Residential COVID Variable

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
	1749	1493	1329	1105	928	885	912	946	909	864	1075	1571	
	1026	878	811	728	687	725	825	896	828	690	739	956	
	982	853	752	610	507	473	469	475	469	451	568	869	
	651	570	520	449	412	426	465	493	477	406	440	599	
	1759	1505	1320	1071	877	812	838	872	829	815	1076	1611	
	1352	1174	1044	863	734	702	737	771	731	698	874	1248	
	1014	926	839	715	613	560	581	616	589	564	677	908	

Total Customers times Revised Use Per Customer in 1000s of MWh

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
SF HEAT	220	188	167	139	117	112	115	119	115	109	136	199	1736
SF NON-HEAT	380	326	301	270	255	270	307	334	309	258	276	358	3644
MF HEAT	210	182	161	130	109	101	101	102	101	97	123	188	1604
MF NON-HEAT	37	33	30	26	24	25	27	29	28	24	26	35	343
MH HEAT	54	46	40	33	27	25	26	27	25	25	33	49	410
MH NON-HEAT	6	5	4	4	3	3	3	3	3	3	4	5	46
OTHER	2	2	2	2	1	1	1	1	1	1	2	2	20
Total Res	909	782	706	604	536	537	580	616	582	517	599	836	7803
September Base	892	764	688	587	519	519	563	599	565	500	582	819	7596
													102.7%

Hillsboro Individual Customer Forecast Sub-Set (Associated Billing Demand)

Billing MW	**2020**	**2021**	**2022**
January	324	370	387
February	337	411	468
March	333	341	399
April	333	397	460
May	344	404	465
June	372	417	478
July	376	399	458
August	381	424	485
September	384	447	512
October	400	412	474
November	390	476	545
December	379	434	498
Annual Max	400	476	545
Annual Growth MW		76	69
Planning forecast MW Growth		122	235
Shortfall		46	166
Adj Factor			6.925

Hillsboro Load Adjustment

	Linear Trend	2022 Adj	2022 AWEC	2022 Factor	PGE Large Cust Forecast March	September	Factor	PGE Hillsboro Energy Forecast March	September	Forecast Hillsboro Energy	AWEC Adjustment MWh
January	13	90.025	460	1.19	371,512	383,359	1.03	283,227	292,259	336904	44645
February	14	96.95	508	1.09	372,273	382,687	1.03	285,585	293,575	309882	16307
March	15	103.875	445	1.11	359,416	367,231	1.02	274,780	280,755	306312	25557
April	16	110.8	508	1.10	375,619	385,857	1.03	292,262	300,228	322231	22003
May	17	117.725	522	1.12	377,445	386,282	1.02	292,315	299,159	327763	28604
June	18	124.65	542	1.13	391,138	399,119	1.02	303,222	309,409	343565	34156
July	19	131.575	530	1.16	388,563	398,063	1.02	302,828	310,232	350682	40450
August	20	138.5	562	1.16	400,468	412,658	1.03	313,233	322,768	362932	40164
Septembe	21	145.425	593	1.16	409,415	420,495	1.03	320,465	329,138	371136	41999
October	22	152.35	565	1.19	401,729	413,870	1.03	316,421	325,984	376776	50792
Novembe	23	159.275	636	1.17	403,484	417,198	1.03	319,003	329,846	371951	42105
Decembe	24	166.2	600	1.21	407,708	420,534	1.03	319,353	329,399	384981	55582
Total					4658770	4787353	1.03	3622695	3722750	4165116	442366

Total Load of Customers with Facility Charge

CATEGORY	PGE September Forecast MWh EE	Base
Schedule 89 > 4 MW		
Secondary	95806.8	96905.93
Primary	639544.5	641437.1
Subtransmission	51498.9	51642.94
Schedule 90	2827139	2835506
Direct Access Service 201-4,000 kW		
Secondary	493315.2	498974.7
Primary	341815.1	342826.7
Direct Access Service > 4 MW		
Secondary	0	0
Primary	1057666	1060796
Subtransmission	266568.6	267314.2
New Load Direct Access Service > 10MW		
Primary	37472.9	37583.79
Total Large Customer	5810827	5832987
AWEC Large Customer Adj		442365.9
Grossup Factor		1.076

	Facility Capacity kW in Load Forecast			Facility Capacity kW in PGE Rate Model			Difference		
Row Labe	Block 1	Block 2	Block 3	Block 1	Block 2	Block 3	Block 1	Block 2	Block 3
83									
S	4264680	7004542	0	4,263,960	6,539,765	0	720	464777	0
85									
P	426596	1741692	0	424,196	1,592,597	0	2400	149095	0
S	3124714	5194282	0	3,129,000	3,516,279	0	-4286	1678003	0
89									
P	132000	386066	472471	144,000	422,066	548,586	-12000	-36000	-76115
T	60000	161528	104798	60,000	161,528	117,102	0	0	-12304
90									
P	72000	216000	4422405	72,000	216,000	4,078,656	0	0	343749
485									
P	134400	813070	0	134,400	742,490	0	0	70580	0
S	550671	807227	0	551,424	814,056	0	-753	-6829	0
489									
P	168000	504000	1466692	168,000	504,000	1,326,619	0	0	140073
S	12000	22364	13397	12,000	47,436	13,397	0	-25072	0
T	36000	108000	334544	36,000	108,000	353,544	0	0	-19000
689									
P	12000	36000	39615	12,000	36,000	39,300	0	0	315

Facility Capacity Current Rate			Revenue Adjustment			
Block 1	Block 2	Block 3	Block 1	Block 2	Block 3	Total
3.50	3.40	0.00	2520	1580243	0	1582763
$3.10	$1.90	$0.00	7440	283280.2	0	290720.2
$3.17	$1.97	$0.00	-13586.6	3305666	0	3292080
$1.49	$1.49	$1.19	-17880	-53640	-90576.7	-162097
$1.49	$1.49	$1.19	0	0	-14641.8	-14641.8
$1.61	$1.61	$1.30	0	0	446873.7	446873.7
$3.10	$1.90	$0.00	0	134101.6	0	134101.6
$3.17	$1.97	$0.00	-2385.62	-13452.9	0	-15838.5
$1.49	$1.49	$1.19	0	0	166687.2	166687.2
$1.53	$1.53	$1.23	0	-38359.9	0.576547	-38359.3
$1.49	$1.49	$1.19	0	0	-22610	-22610
$1.49	$1.49	$1.19	0	0	374.85	374.85

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

In the Matters of	)
	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
	)
Request for a General Rate Revision.	)
	)

EXHIBIT AWEC/204

WORLD TRADE CENTER ADJUSTMENT

(REDACTED)

Exhibit AWEC/204 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 394

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	)
PORTLAND GENERAL ELECTRIC COMPANY,	)
	)
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EXHIBIT AWEC/205

MARGINAL COST ADJUSTMENT

(REDACTED)

Exhibit AWEC/205 contains Protected Information Subject to Order No. 21-206 and has been redacted in its entirety.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

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EXHIBIT AWEC/206

NV ENERGY'S LARGE CUSTOMER MARKET PRICE ENERGY TARIFF

Schedule No. LCMPE
LARGE CUSTOMER MARKET PRICE ENERGY

APPLICABLE

This large customer market price energy rate schedule is applicable to all non-Residential Service Customers demonstrating that they will have an average annual hourly load of ten megawatts or more, are not a fully bundled retail customer of the Utility, and have not been approved by the PUCN to purchase energy, capacity and ancillary services from a provider of new electric resource under NRS Chapter 704B; or have been approved by the PUCN to purchase energy, capacity and ancillary services from a new provider of new electric resource under NRS Chapter 704B, have an average annual hourly load of ten megawatts or more, and have paid in full any impact fee the PUCN assessed pursuant to provisions of NRS Chapter 704B. (D, T) (N) (N)

TERRITORY

Entire Nevada service territory, as specified.

RATES

A. A Customer receiving service under this schedule that has not yet achieved the ten megawatt load threshold, based upon an average monthly hourly usage, shall take service under the otherwise applicable rate schedule until such time that the ten megawatt threshold has been achieved.

B. A Customer receiving service under this schedule that has achieved the ten megawatt load threshold will pay the following rates and charges:

1. The BTGR of the otherwise applicable rate schedule of the Customer, with the cost of generation capacity and energy supply removed through bill credits.

2. A demand charge, if applicable, under the otherwise applicable rate schedule.

3. A facilities charge, if applicable, under the otherwise applicable rate schedule.

4. The BSC of the otherwise applicable rate schedule.

5. The UEC as described in Special Condition 1.

6. Franchise Fees, Taxes and Mill Assessment that are assessed under the otherwise applicable rate schedule.

(Continued)

Schedule No. LCMPE
LARGE CUSTOMER MARKET PRICE ENERGY
(Continued)

RATES (continued)

7. Public Program Costs unless exempted by any applicable law or order of the PUCN.

8. An energy charge as specified in an Energy Supply Agreement between the Utility and the Customer. (D,T) (T)

C. A Customer receiving service under this schedule that has achieved the ten megawatt load threshold will not pay the following rates and charges:

1. A Customer taking service under this schedule shall not be subject to the Net-BTER, DEAA.

D. Unless otherwise described in the Energy Supply Agreement, a Customer receiving service under this schedule that subsequently falls below the ten megawatt threshold, based on a twelve-month rolling average, shall pay the otherwise applicable rate schedule of the Customer until the Customer's twelve-month rolling average once again achieves a ten megawatt load threshold. (T)

SPECIAL CONDITIONS

1. **UEC.** The Universal Energy Charge (UEC), pursuant to NAC 702.150 through 702.450, will go to fund the Nevada fund for energy assistance and conservation. Under certain circumstances, Customers will be refunded amounts paid in excess of $25,000 per calendar quarter. The Commission will administer the collection of the UEC, certify exemptions, and administer refunds. Exemptions are generally kWh sold to:
   a) Any governmental agency, including the State of Nevada and any political subdivision thereof, and
   b) Any Customer using electrolytic-manufacturing processes.

Except as provided above, all kWh sold are subject to the charge. The UEC is not subject to the charges applicable under the Special Supplementary Tariff.

2. **Rights and Obligations.** The rights and obligations of the parties with respect to the supply of energy will be specified in an Energy Supply Agreement. (D,T)

(Continued)

Issued: **06-16-21**	Issued By:	
Effective: **06-29-21**	John P. McGinley	
Advice No.: **513**	Vice President, Regulatory	

(N)

Schedule No. LCMPE
LARGE CUSTOMER MARKET PRICE ENERGY
(Continued)

SPECIAL CONDITIONS (continued)

3. **Energy Supply Agreement.** The Energy Supply Agreement must be approved by the Commission. In considering whether the Energy Supply Agreement is in the public interest, the Commission will consider whether non-participating customers of the utility experience increased costs for electric service or forgo the benefit of a reduction of costs for electric service as a result of the Energy Supply Agreement.

   The Energy Supply Agreement shall:
   a. Be in the public interest;
   b. Provide for payment by the Customer of the Utility's cost in procuring the energy for the Customer;
   c. Provide for a payment by the Customer for its portion of the Utility's transmission and distribution costs;
   d. Not impair the reliability of the Utility's system or the Utility's ability to provide electric service to its other customers;
   e. Include other terms and conditions related to the respective rights and obligations of the Utility and Customer to take service under this schedule;
   f. Identify the basis for the calculation of the price of energy;
   g. Be the same term as the underlying renewable resource unless otherwise specified and explained in the Energy Supply Agreement.

4. **Termination.** The termination rights of the Customer and the Utility are governed by the terms of the applicable Energy Supply Agreement.

5. **RPS Compliance.** For every Customer that takes service under this schedule, the Utility shall retire or transfer to the Customer to retire portfolio energy credits in compliance with the RPS. The Utility shall retain the difference between the amount of portfolio energy credits procured pursuant to the Energy Supply Agreement and the RPS, unless as specified otherwise under the terms and conditions of the Energy Supply Agreement between the Customer and the Utility.

DEFINITIONS

For purposes of this Schedule No. LCMPE, the following definitions apply.

A. BSC: The Basic Service Charge, which is approved by the Commission.

B. BTER: A rate consisting of the base tariff energy rate which is approved by the Commission.

(Continued)

(N)

(N)

Schedule No. LCMPE
LARGE CUSTOMER MARKET PRICE ENERGY
(Continued)

DEFINITIONS (Continued)

C. BTGR: A rate consisting of the base tariff general rate which is approved by the Commission.

D. DEAA: A rate consisting of the deferred energy accounting adjustment, which is approved by the Commission.

E. Energy resources: energy used to supply the Customer with energy pursuant to the terms of the Energy Supply Agreement, including market purchases made on behalf of the eligible customer, and energy from the Utility's other generation and purchased power that was not procured on behalf of the eligible customer, but is available to be sold into the market.

F. Energy Supply Agreement: Is the contract approved by the Commission that is executed by the Customer and Utility pursuant to terms of Schedule No. LCMPE.

G. Net-BTER: A rate consisting of the BTER less the cost of the out-of-the-money long-term renewable energy contracts that the Utility has entered into.

H. Public Program Costs: Are all costs that the Utility incurs in implementing legislatively-mandated programs.

I. PUCN: Is the Public Utilities Commission of Nevada.

J. Renewable Energy: As defined in NRS 704.7811, Renewable Energy means biomass, geothermal, solar, waterpower, and wind.

K. RPS: As defined in NRS 704.7805, Portfolio Standard means a portfolio standard for Renewable Energy and energy from a qualified energy recovery process established by the Commission pursuant to NRS 704.7821. The Portfolio Standard provides for increasing minimum amounts of Renewable Energy to be added annually to the Utility's mix of resources required to meet its load requirements.

L. UEC: A rate consisting of the universal energy charge, which is approved by the Commission.

(N)

(Continued)

BEFORE THE

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EXHIBIT AWEC/207

NARUC GUIDELINES

Guidelines for Cost Allocations and Affiliate Transactions:

The following Guidelines for Cost Allocations and Affiliate Transactions (Guidelines) are intended to provide guidance to jurisdictional regulatory authorities and regulated utilities and their affiliates in the development of procedures and recording of transactions for services and products between a regulated entity and affiliates. The prevailing premise of these Guidelines is that allocation methods should not result in subsidization of non-regulated services or products by regulated entities unless authorized by the jurisdictional regulatory authority. These Guidelines are not intended to be rules or regulations prescribing how cost allocations and affiliate transactions are to be handled. They are intended to provide a framework for regulated entities and regulatory authorities in the development of their own policies and procedures for cost allocations and affiliated transactions. Variation in regulatory environment may justify different cost allocation methods than those embodied in the Guidelines.

The Guidelines acknowledge and reference the use of several different practices and methods. It is intended that there be latitude in the application of these guidelines, subject to regulatory oversight. The implementation and compliance with these cost allocations and affiliate transaction guidelines, by regulated utilities under the authority of jurisdictional regulatory commissions, is subject to Federal and state law. Each state or Federal regulatory commission may have unique situations and circumstances that govern affiliate transactions, cost allocations, and/or service or product pricing standards. For example, The Public Utility Holding Company Act of 1935 requires registered holding company systems to price "at cost" the sale of goods and services and the undertaking of construction contracts between affiliate companies.

The Guidelines were developed by the NARUC Staff Subcommittee on Accounts in compliance with the Resolution passed on March 3, 1998 entitled "Resolution Regarding Cost Allocation for the Energy Industry" which directed the Staff Subcommittee on Accounts together with the Staff Subcommittees on Strategic Issues and Gas to prepare for NARUC's consideration, "Guidelines for Energy Cost Allocations." In addition, input was requested from other industry parties. Various levels of input were obtained in the development of the Guidelines from the Edison Electric Institute, American Gas Association, Securities and Exchange Commission, the Federal Energy Regulatory Commission, Rural Utilities Service and the National Rural Electric Cooperatives Association as well as staff of various state public utility commissions.

In some instances, non-structural safeguards as contained in these guidelines may not be sufficient to prevent market power problems in strategic markets such as the generation market. Problems arise when a firm has the ability to raise prices above market for a sustained period and/or impede output of a product or service. Such concerns have led some states to develop codes of conduct to govern relationships between the regulated utility and its non-regulated affiliates. Consideration should be given to any "unique" advantages an incumbent utility would have over competitors in an emerging market such as the retail energy market. A code of conduct should be used in conjunction with guidelines on cost allocations and affiliate transactions.

A. DEFINITIONS

1. Affiliates - companies that are related to each other due to common ownership or control.

2. Attestation Engagement - one in which a certified public accountant who is in the practice of public accounting is contracted to issue a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party.

3. Cost Allocation Manual (CAM) - an indexed compilation and documentation of a company's cost allocation policies and related procedures.

4. Cost Allocations - the methods or ratios used to apportion costs. A cost allocator can be based on the origin of costs, as in the case of cost drivers; cost-causative linkage of an indirect nature; or one or more overall factors (also known as general allocators).

5. Common Costs - costs associated with services or products that are of joint benefit between regulated and non-regulated business units.

6. Cost Driver - a measurable event or quantity which influences the level of costs incurred and which can be directly traced to the origin of the costs themselves.

7. Direct Costs - costs which can be specifically identified with a particular service or product.

8. Fully Allocated costs - the sum of the direct costs plus an appropriate share of indirect costs.

9. Incremental pricing - pricing services or products on a basis of only the additional costs added by their operations while one or more pre-existing services or products support the fixed costs.

10. Indirect Costs - costs that cannot be identified with a particular service or product. This includes but not limited to overhead costs, administrative and general, and taxes.

11. Non-regulated - that which is not subject to regulation by regulatory authorities.

12. Prevailing Market Pricing - a generally accepted market value that can be substantiated by clearly comparable transactions, auction or appraisal.

13. Regulated - that which is subject to regulation by regulatory authorities.

14. Subsidization - the recovery of costs from one class of customers or business unit that are attributable to another.

B. COST ALLOCATION PRINCIPLES

The following allocation principles should be used whenever products or services are provided between a regulated utility and its non-regulated affiliate or division.

1. To the maximum extent practicable, in consideration of administrative costs, costs should be collected and classified on a direct basis for each asset, service or product provided.

2. The general method for charging indirect costs should be on a fully allocated cost basis. Under appropriate circumstances, regulatory authorities may consider incremental cost, prevailing market pricing or other methods for allocating costs and pricing transactions among affiliates.

3. To the extent possible, all direct and allocated costs between regulated and non-regulated services and products should be traceable on the books of the applicable regulated utility to the applicable Uniform System of Accounts. Documentation should be made available to the appropriate regulatory authority upon request regarding transactions between the regulated utility and its affiliates.

4. The allocation methods should apply to the regulated entity's affiliates in order to prevent

subsidization from, and ensure equitable cost sharing among the regulated entity and its affiliates, and vice versa.

5. All costs should be classified to services or products which, by their very nature, are either regulated, non-regulated, or common to both.

6. The primary cost driver of common costs, or a relevant proxy in the absence of a primary cost driver, should be identified and used to allocate the cost between regulated and non-regulated services or products.

7. The indirect costs of each business unit, including the allocated costs of shared services, should be spread to the services or products to which they relate using relevant cost allocators.

C. COST ALLOCATION MANUAL (NOT TARIFFED)

Each entity that provides both regulated and non-regulated services or products should maintain a cost allocation manual (CAM) or its equivalent and notify the jurisdictional regulatory authorities of the CAM's existence. The determination of what, if any, information should be held confidential should be based on the statutes and rules of the regulatory agency that requires the information. Any entity required to provide notification of a CAM(s) should make arrangements as necessary and appropriate to ensure competitively sensitive information derived therefrom be kept confidential by the regulator. At a minimum, the CAM should contain the following:

1. An organization chart of the holding company, depicting all affiliates, and regulated entities.

2. A description of all assets, services and products provided to and from the regulated entity and each of its affiliates.

3. A description of all assets, services and products provided by the regulated entity to non-affiliates.

4. A description of the cost allocators and methods used by the regulated entity and the cost allocators and methods used by its affiliates related to the regulated services and products provided to the regulated entity.

D. AFFILIATE TRANSACTIONS (NOT TARIFFED)

The affiliate transactions pricing guidelines are based on two assumptions. First, affiliate transactions raise the concern of self-dealing where market forces do not necessarily drive prices. Second, utilities have a natural business incentive to shift costs from non-regulated competitive operations to regulated monopoly operations since recovery is more certain with captive ratepayers. Too much flexibility will lead to subsidization. However, if the affiliate transaction pricing guidelines are too rigid, economic transactions may be discouraged.

The objective of the affiliate transactions' guidelines is to lessen the possibility of subsidization in order to protect monopoly ratepayers and to help establish and preserve competition in the electric generation and the electric and gas supply markets. It provides ample flexibility to accommodate exceptions where the outcome is in the best interest of the utility, its ratepayers and competition. As with any transactions, the burden of proof for any exception from the general rule rests with the proponent of the exception.

1. Generally, the price for services, products and the use of assets provided by a regulated entity to its non-regulated affiliates should be at the higher of fully allocated costs or prevailing market prices. Under appropriate circumstances, prices could be based on incremental cost, or other pricing mechanisms as determined by the regulator.

2. Generally, the price for services, products and the use of assets provided by a non-regulated affiliate to a regulated affiliate should be at the lower of fully allocated cost or prevailing market prices. Under appropriate circumstances, prices could be based on incremental cost, or other pricing mechanisms as determined by the regulator.

3. Generally, transfer of a capital asset from the utility to its non-regulated affiliate should be at the greater of prevailing market price or net book value, except as otherwise required by law or regulation. Generally, transfer of assets from an affiliate to the utility should be at the lower of prevailing market price or net book value, except as otherwise required by law or regulation. To determine prevailing market value, an appraisal should be required at certain value thresholds as determined by regulators.

4. Entities should maintain all information underlying affiliate transactions with the affiliated utility for a minimum of three years, or as required by law or regulation.

E. AUDIT REQUIREMENTS

1. An audit trail should exist with respect to all transactions between the regulated entity and its affiliates that relate to regulated services and products. The regulator should have complete access to all affiliate records necessary to ensure that cost allocations and affiliate transactions are conducted in accordance with the guidelines. Regulators should have complete access to affiliate records, consistent with state statutes, to ensure that the regulator has access to all relevant information necessary to evaluate whether subsidization exists. The auditors, not the audited utilities, should determine what information is relevant for a particular audit objective. Limitations on access would compromise the audit process and impair audit independence.

2. Each regulated entity's cost allocation documentation should be made available to the company's internal auditors for periodic review of the allocation policy and process and to any jurisdictional regulatory authority when appropriate and upon request.

3. Any jurisdictional regulatory authority may request an independent attestation engagement of the CAM. The cost of any independent attestation engagement associated with the CAM, should be shared between regulated and non-regulated operations consistent with the allocation of similar common costs.

4. Any audit of the CAM should not otherwise limit or restrict the authority of state regulatory authorities to have access to the books and records of and audit the operations of jurisdictional utilities.

5. Any entity required to provide access to its books and records should make arrangements as necessary and appropriate to ensure that competitively sensitive information derived therefrom be kept confidential by the regulator.

F. REPORTING REQUIREMENTS

1. The regulated entity should report annually the dollar amount of non-tariffed transactions

associated with the provision of each service or product and the use or sale of each asset for the following:

a. Those provided to each non-regulated affiliate.

b. Those received from each non-regulated affiliate.

c. Those provided to non-affiliated entities.

2. Any additional information needed to assure compliance with these Guidelines, such as cost of service data necessary to evaluate subsidization issues, should be provided.