

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**UE 319**  
General Rate Case Filing  
For Prices Effective January 1, 2018

**PORTLAND GENERAL ELECTRIC COMPANY**

**Executive Summary**

**February 28, 2017**

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**UE 319**

In the Matter of	)	
	)	
PORTLAND GENERAL ELECTRIC COMPANY	)	<b>EXECUTIVE SUMMARY OF PORTLAND GENERAL ELECTRIC COMPANY</b>
	)	
Request for a General Rate Revision	)	

## I. INTRODUCTION

Portland General Electric Company (“PGE”) is an electric company and public utility pursuant to ORS 757.005. The Public Utility Commission of Oregon has jurisdiction over the price and terms of service for PGE’s customers. PGE is filing this request to revise its tariff schedules pursuant to ORS 757.205 and ORS 757.220. This executive summary is submitted to meet the requirements of OAR 860-022-0019.

PGE’s last general rate case was filed two years ago. That case, and the case that preceded it, were driven by the addition of new generating plants. The request in this case is largely centered on meeting customers’ expectations for quality service in a safe and reliable manner. PGE’s mission is to be a company on which customers and communities can depend for electric service provided in a safe, sustainable and reliable manner, with excellent customer service, at reasonable prices. To that end, this case includes investments in technology and infrastructure improvements in several areas including:

- 1) Strengthening the power grid against earthquakes, cyberattacks, and other potential threats.
- 2) Enhancing our cyber security program using risk-based prioritization of enterprise-wide initiatives recommended by outside consultants.
- 3) Continuing to follow our business continuity and emergency management roadmap, with the goal to achieve a level of preparedness and resilience appropriate for a provider of a critical public service.
- 4) As part of the Customer Engagement Transformation program (“CET”) that has been discussed in PGE’s last three rate cases, PGE is replacing its outdated Customer Information System (“CIS”) and Meter Data Management System (“MDMS”). This will

improve the way we interact with customers, enable better business processes, and provide more efficient billing through automation. These systems are expected to be placed in service in the second quarter of 2018 and represent the culmination of CET efforts over many years.

- 5) Participation in the Western Energy Imbalance Market (“Western EIM”), beginning October 1, 2017. This will enable the most efficient use of regional power plants and provide lower costs to customers.
- 6) Adding necessary infrastructure to support new customers and making strategic capital improvements to the Transmission and Distribution system to reduce reliability risk.

An additional driver is lower forecasted energy sales. PGE has long supported efficiency measures, and on average residential customers are decreasing their electric consumption. An additional factor in reduced projected residential use is the trend in heating and cooling degree days. The change in load forecast does impact the recovery of fixed costs which is a factor in this case.

PGE has taken a number of steps to reduce the requested price increase in this case. PGE’s benchmarking and continuous improvement cycle implemented in the past several years has yielded savings and decreased upward pressure on costs. PGE also reduced its request in this docket by: 1) removing 100% of Officer Long-term Incentive Program costs and 50% of all other incentive plan costs, 2) removing 50% of the costs of certain layers of directors and officer insurance, 3) requesting a return on equity in the lower portion of the range supported by its expert witness, and 4) excluding the CIS and MDMS investments described above from the revenue requirement in this case. PGE will seek alternatives to incorporate these investments into customer prices after they are in-service.

The overall request is an increase in revenues of approximately \$99.9 million, or 5.60% relative to currently approved prices.

## **II. SUMMARY OF THIS CASE**

As described below, fourteen pieces of testimony discuss the basis for our request in this case. The witnesses are all, with the exception of the witness on the appropriate return on equity, PGE officers and/or employees. The testimony discusses the cost drivers in each area and the projected 2018 costs incorporated into this case.

This case is based on a normalized future test period of calendar year 2018, except that for rate base we use the balance as of December 31, 2017. In order to comply with IRS normalization requirements, we base depreciation expense on 2017 rate base. PGE seeks a schedule in this docket that will allow for a Commission order by December and revised tariff schedules implemented on January 1, 2018. The dollar amounts of the changes are discussed above.

PGE requests an authorized return on equity (“ROE”) of 9.75% with a forecasted capital structure of 50% equity and 50% debt. The projected test year results show that without a price increase, PGE will earn an ROE of approximately 7.23%. That is significantly below PGE’s currently authorized ROE, and below the level needed to maintain PGE’s credit and attract capital.

As set forth in the testimony in this docket, PGE is making significant infrastructure and technological investments to meet our customers’ needs for safe, reliable service. Prices need to be set to allow PGE the opportunity to earn a return on invested capital that is commensurate with similar companies, allowing it to maintain its credit and attract capital on terms that will

ultimately be beneficial to customers.

**Accounting Orders.** PGE also requests that as part of this rate case the Commission approve the following:

An accounting order for pension expense necessary to mitigate an increase that would otherwise occur due to a change in FASB accounting standards. This is discussed in PGE Exhibit 400.

An accounting order related to CET costs to authorize 2018 CET program development O&M costs be booked to a regulatory asset along with all remaining balances from prior CET expense deferrals, and that the remaining balance of all 2014-2018 deferrals be amortized in base prices over ten years beginning in 2018. This proposal is discussed in PGE Exhibit 900.

Implementation of a major maintenance accrual for the Colstrip power plant similar to the accruals for the Port Westward 1, Coyote Springs, Port Westward 2, and Carty generating plants. This proposal is discussed in PGE Exhibit 700.

Changing the major storm accrual to a balancing account similar to that used for major maintenance accruals. This is discussed in PGE Exhibit 800.

**Net Variable Power Costs.** Each year under Schedule 125, PGE's prices are adjusted to reflect projected net variable power costs ("NVPC") for the coming year, and transition charges or credits for those customers opting for an alternate electricity supplier are calculated. Schedule 125 requires PGE to file estimates of the adjustments on or before April 1. In addition to the NVPC forecast and Minimum Filing Requirements ("MFRs") with this filing, PGE intends to file an update, with additional MFR documentation, by April 1. PGE requests a schedule that will allow for a Commission decision of NVPC issues by mid-October consistent with the requirements of PGE's Tariff Schedules 125 and 128, and the November 2017 direct access

window.

**Compliance with OAR 860-022-0019.** Attached as Exhibit 1 is the information required by OAR 860-022-0019. That exhibit shows the impact of the proposed price change on each customer class. The impact on residential customers of the requested price change is an increase of 7.1%, and the increase for an average residential customer using 820 kWh per month is \$7.30.

### III. TESTIMONY

PGE's testimony and exhibits demonstrate that the Commission should approve this Application. The prices and tariffs proposed result in prices that are just and reasonable. PGE is introducing fourteen pieces of testimony sponsored by the following witnesses:

<u>EXHIBIT NO.</u>	<u>TITLE</u>	<u>WITNESSES</u>
100	Policy	James J. Piro and Jim Lobdell
200	Revenue Requirement	Alex Tooman and Rebecca Brown
300	Net Variable Power Costs	Mike Niman, Terri Peschka and Aaron Rodehorst
400	Total Compensation	Anne Mersereau and Jardon Jaramillo
500	Information Technology and Cyber Security	Cam Henderson, Behzad Hosseini and Travis Anderson
600	Corporate Support/A&G	Jim Lobdell and Alex Tooman
700	Production O&M	Brad Jenkins and Aaron Rodehorst
800	Transmission and Distribution	Bill Nicholson and Larry Bekkedahl
900	Customer Service	Kristin Stathis and Carol Dillin
1000	Cost of Capital	Patrick Hager and Chris Liddle
1100	Return on Equity	Bente Villadsen

1200	Load Forecast	Sarah Dammen and Amber Riter
1300	Marginal Cost of Service	Marc Cody and Robert Macfarlane
1400	Pricing	Marc Cody and Robert Macfarlane

#### IV. SUMMARY OF TESTIMONY

Exhibit 100. James J. Piro, President and Chief Executive Officer (“CEO”) and Jim Lobdell, Sr. Vice President, Finance, Chief Financial Officer (“CFO”), and Treasurer present the opening testimony. They explain the business context for this filing including the investments being made to strengthen the power grid against physical and cyber threats, support for and participation in the Western EIM, new infrastructure required for new customers, and other key proposals. They continue describing the efficiency efforts PGE has successfully implemented, and measures proposed to mitigate the price increase requested in this docket. As the CEO and CFO, Messrs. Piro and Lobdell explain the policy drivers behind PGE’s requests in this case, and why they are in the interests of customers. Messrs. Piro and Lobdell also introduce the other testimony in this docket.

Exhibit 200. Project Manager Alex Tooman and Senior Analyst Rebecca Brown summarize the overall 2018 test year revenue requirement and compare the request with 2016 costs. Their testimony also discusses PGE’s rate base at year end 2017, associated depreciation and amortization, and unbundled results.

Exhibit 300. PGE Managers Mike Niman and Terri Peschka, and Senior Analyst Aaron Rodehorst present PGE’s NVPC. The initial NVPC forecast for 2018 is \$353.6 million. This is a decrease of about \$29.3 million from the 2017 NVPC determined in PGE’s recent Annual Update Tariff proceeding, Docket UE 308.

As stated above, PGE requests that a schedule be implemented in this docket to allow for



a Commission decision of NVPC issues by mid-October consistent with the requirements of PGE's Tariff Schedules 125 and 128, and the November 2017 direct access window.

Exhibit 400. Anne Mersereau, Vice President of Human Resources, Diversity and Inclusion, and Jardon Jaramillo, previously the Director of Compensation and Benefits and currently Controller and Assistant Treasurer, testify on compensation and human resource issues. These witnesses describe compensation costs for 2018, changes to PGE compensation policies and plans, and a proposed pension cost recovery and pension investment strategy.

Exhibit 500. Cam Henderson, Vice President of Information Technology and Chief Information Officer ("CIO"), and Behzad Hosseini, Director of the Office of CIO, and Travis Anderson, Information Security Director and Manager of IT Risk Management, explain the costs and drivers related to information technology and cyber security.

Exhibit 600. Jim Lobdell, Senior Vice President, Finance, CFO and Treasurer, and Alex Tooman, Project Manager, explain PGE's costs related to corporate support including business continuity and emergency management, safety, insurance, research and development and environmental services.

Exhibit 700. PGE's long-term power supply resources and associated costs are presented by Bradley Jenkins, Vice President of Power Supply Generation, and Aaron Rodehorst, Senior Analyst. These witnesses discuss plant performance and PGE's proposal to create a major maintenance accrual for the Colstrip generating plant.

Exhibit 800. Bill Nicholson, Senior Vice President of Customer Service, Transmission and Distribution, and Larry Bekkedahl, Vice President of Transmission and Distribution, testify regarding PGE's transmission and distribution ("T&D") system. These witnesses explain the test-year costs necessary to provide service, capital improvement efforts, and how they support

PGE's goal of operational excellence. These witnesses also present PGE's proposal for a balancing account for major storm restoration costs.

Exhibit 900. Kristin Stathis, Vice President of Customer Service Operations, and Carol Dillin, Vice President of Customer Strategies and Business Development, address PGE's Customer Service functions and costs for 2018. They explain customer service O&M costs, details regarding the CET program, and initiatives that support the customer experience.

Exhibit 1000. Patrick Hager, Manager of Regulatory Affairs, and Chris Liddle, Assistant Treasurer and Manager of Corporate Finance and Investor Relations, present PGE's testimony on cost of capital and capital structure for 2018. On behalf of PGE, these witnesses request a 7.46% weighted average cost of capital for PGE. This includes an ROE of 9.75% and long-term debt cost of 5.17%. The witnesses address the impact of the Commission's decision regarding ROE on PGE's credit quality and the future cost of raising capital.

These witnesses also address PGE's current and proposed test-year capital structure. In this docket PGE proposes the same capital structure for ratemaking as was approved in immediately previous rate cases, 50% equity and 50% debt. Finally, the witnesses address some of the specific risks PGE encounters that are relevant to PGE's cost of capital and to the appropriate ROE to be used in this docket.

Exhibit 1100. Bente Villadsen, economist and principal at The Brattle Group, addresses PGE's equity costs. Dr. Villadsen concludes that PGE's required return on equity falls in a range of 9.3% to 10.3%, with a recommendation that PGE's authorized ROE be no less than 9.75%.

Exhibit 1200. Sarah Dammen, Manager of Financial Forecasting and Economic Analysis, and Amber Riter, Economist and lead Load Forecasting Analyst, present PGE's load forecast for 2018 and explain the method in forecasting 2018 load, including: 1) a change in

methodological approach to forecasting peak demand to a proposed regression-based model; and 2) a change in forecast modeling from assuming normal weather to a proposed trended weather approach. As has been done in previous cases, PGE will update the load forecast during this case as updated economic and customer data become available.

Exhibit 1300. Marc Cody and Robert Macfarlane, Senior Analysts, present PGE's marginal cost studies for generation, transmission, distribution, and customer service. Those studies are then used in determining rate spread, rate design, and proposed prices in this docket, as explained in Exhibit 1400.

Exhibit 1400. Marc Cody and Robert Macfarlane, Senior Analysts, testify on pricing. These witnesses discuss how they develop prices for the price schedules, a proposed one dollar change to the residential basic charge, and the changes to various supplemental schedules.

## **V. COMMUNICATIONS**

PGE requests that communications regarding this filing be addressed to:

Jay Tinker  
Director, Rates and Regulatory Affairs  
121 SW Salmon Street, 1WTC0306  
Portland, OR 97204  
[pge.opuc filings@pgn.com](mailto:pge.opuc filings@pgn.com)

Doug Tingey  
Associate General Counsel  
121 SW Salmon Street, Suite 1301  
Portland, OR 97204  
[doug.tingey@pgn.com](mailto:doug.tingey@pgn.com)

## **VI. REQUEST FOR APPROVALS**

PGE requests that the Commission issue an order:

- (1) Approving the requested price changes;
- (2) Approving the proposed tariffs;
- (3) Approving the requested accounting order for pension expense;
- (4) Approving the requested accounting order for CET costs;

- (5) Approving a major maintenance accrual for the Colstrip power plant; and
- (6) Approving a balancing account mechanism for major storms.

Dated: this 28<sup>th</sup> day of February, 2017.

Respectfully submitted,



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DOUGLAS C. TINGEY, OSB No. 044366  
Portland General Electric Company  
121 SW Salmon Street, 1WTC1301  
Portland, OR 97204  
Telephone: 503-464-8926  
Fax: 503-464-2200  
E-Mail: [doug.tingey@pgn.com](mailto:doug.tingey@pgn.com)

**Exhibit 1**  
Case Summary  
(\$000)

	Total Revenue Requirement	\$1,883,332	
	Change in Revenues Requested		
	Total Change in Revenues Requested	\$99,897	
	Total Change net of RPA	\$99,897	
	Percent Change in Base Revenues Requested	5.60%	
	Percent Change net of RPA	5.81%	
	Test Period	2018	
	Requested Rate of Return on Capital (Rate Base)	7.46%	
	Requested Rate of Return on Common Equity	9.75%	
	Proposed Rate Base	\$4,594,052	
	Results of Operation		
	A. Before Price Change		
	Utility Operating Income	\$284,665	
	Rate Base	\$4,592,534	
	Rate of Return on Capital	6.20%	
	Rate of Return on Common Equity	7.23%	
	B. After Price Change		
	Utility Operating Income	\$342,716	
	Rate Base	\$4,594,052	
	Rate of Return on Capital	7.46%	
	Rate of Return on Common Equity	9.75%	
	Base Rate Effect of Proposed Price Change		
	A. Residential Customers	7.08%	
	B. Small Non-residential Customers	5.66%	
	C. Large Non-residential Customers	3.39%	
	D. Lighting & Signal Customers	2.14%	
	Note: Percent Changes are on a cycle basis for Cost of Service Customers		

## UE 319 PGE ACRONYMS

401k – Portland General Electric 401(k) Plan  
4-CP or 4-Coincident Peak – The monthly peak hours contained in the months of January, July, August, and December  
A&G – Administrative and General  
A/P – Accounts Payable  
ACC – Arizona Corporation Commission  
ACH – Automated Clearing House  
ACI – Annual Cash Incentive  
AFDC/AFUDC – Allowance for Funds Used during Construction  
AGC – Automatic Generation Control  
AMI – Advance Metering Infrastructure  
AOP – Annual Operating Plan  
ARM – Asset and Resource Manager  
ASC – Accounting Standards Codification  
ATWACC – After-Tax Weighted Average Cost of Capital  
AUT – Annual Update Tariff  
B – Base  
BA – Balancing Authority  
BAA – Balancing Authority Area  
BAL – Bank of America Leasing LLC  
BCEM – Business Continuity and Emergency Management  
Bcf – Billion Cubic Feet  
BETC – Business Energy Tax Credits  
BI – Business Intelligence Reporting Tool  
BPA – Bonneville Power Administration  
Brattle – The Brattle Group  
BVPS – Book Value per Share  
CAISO – California Independent System Operator  
CAPM – Capital Asset Pricing Model  
CCCT – Combined Cycle Combustion Turbine  
CC&B – Customer Care and Billing  
CE – Cost Element  
CEI – Critical Energy Infrastructure  
CEO – Chief Executive Officer  
CET – Customer Engagement Transformation  
CFA – Chartered Financial Analyst  
CFO – Chief Financial Officer  
CIAC – Contributions in Aid of Construction  
CIP – Critical Infrastructure Protection  
CIS – Customer Information System  
CMC – Customer Marginal Costs  
CME – Chicago Mercantile Exchange  
CMS – Centers for Medicare and Medicaid Services  
COS – Cost of Service  
CPP – Critical Peak Pricing

## UE 319 PGE ACRONYMS

CRPC – Columbia River Power Constructors  
CRRA – Certified Rate of Return Analyst  
CS&BD – Customer Strategies and Business Development  
CSI – Centralization, Standardization and Integration  
CSO – Customer Service Operations  
CTG – Combustion Turbine Generator  
CVR – Conversation Voltage Reduction  
CWIP – Construction Work in Progress  
D&O – Directors and Officers  
DCF – Discounted Cash Flow  
DDP – Dynamic Dispatch Program  
DEQ – Department of Environmental Quality  
DOE – Department of Energy  
DNV-GL – Garrad Hassan America, Inc.  
DP – Dynamic Programming  
DPS – Dividends per Share  
DR – Demand Response  
DR – Data Request  
DRA – Division of Ratepayer Advocates  
DSG – Dispatchable Standby Generation  
DSI – Dry Sorbent Injection  
DTH – Decatherm  
E – Post Price-Effect  
EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortization  
EDD – Employment Development Department  
EDI – Electronic Data Interchange  
EE – Energy Efficiency  
EEI – Edison Electric Institute  
EFSC – Energy Facility Siting Council  
EIA – Energy Information Administration  
EIM – Energy Imbalance Market  
ELS – Environmental Licensing Services  
EOH – Equivalent Operating Hours  
EPA – Environmental Protection Agency  
EPRI – Electric Power Research Institute  
EPS – Earnings per Share  
ERISA – Employee Retirement Income Security Act  
ERPs – Equity Risk Premiums  
ES – Environmental Service  
ES – Energy Storage  
ESS – Energy Service Supplier  
ETO – Energy Trust of Oregon  
EU – European Union  
EV – Electric Vehicle  
F&A – Finance and Accounting  
FAS – Financial Accounting Standards

## UE 319 PGE ACRONYMS

FASB – Financial Accounting Standards Board  
Fed – Federal Reserve  
FERC – Federal Energy Regulatory Commission  
FICA – Federal Insurance Contributions Act  
FITNES – Facility Inspections and Treatment to the National Electric Safety Code  
FMBs – First Mortgage Bonds  
FS – Feasibility Study  
FSEC – Financial Systems Effectiveness Committee  
FSRP – Financial Systems Replacement Project  
FTE – Full Time Equivalent  
GAAP – Generally Accepted Accounting Principles  
GAC – G-Class Air Cooled  
GAWE – Guaranteed Availability and Warranty Extension  
GDP – Gross Domestic Product  
GECC – General Electric Credit Corporation  
GF – General Foreman  
GIS – Geospatial Information System  
GRC – General Rate Case  
GTN – Gas Transmission Northwest, LLC  
GWD – Graphic Work Design  
HDHP – High Deductible Health Plan  
HP/IP – High Pressure and Intermediate Pressure turbine  
HPS – High pressure sodium  
HR – Human Resources  
HRA – Health Reimbursement Account  
HRSG – Heat Recovery Steam Generator  
I&C – Instrument and Control  
IBEW – International Brotherhood of Electrical Workers  
IC – Industrial Composite  
ICE – IntercontinentalExchange  
IE – Independent Evaluator  
IPC – Idaho Power Company  
IRP – Integrated Resource Plan  
ISFSI – Independent Spent Fuel Storage Installation  
ISO – Independent System Operator  
IT – Information Technology  
ITC – Investment Tax Credits  
IVR – Interactive Voice Response  
kW - Kilowatt  
kWh – Kilowatt hours  
kV – Kilovolt  
kvar – Kilovolt ampere reactive  
LEA – Line Extension Allowance  
LED – Light-emitting diode  
LGIA – Large Generator Interconnection Agreement  
LRRRA – Lost Revenue Recovery Adjustment



## UE 319 PGE ACRONYMS

LSR – Lower Snake River  
LTSA – Long-term Service Agreement  
MAIFI – Momentary Average Interruption Frequency Index  
MAP-21 – Moving Ahead for Progress in the 21st Century Act  
MRP – Market Risk Premium  
MBA – Masters of Business Intelligence  
MDCP – Managers Deferred Compensation Plan  
MDMS – Meter Data Management System  
MFRs – Minimum Filing Requirements  
MH – Metal Halide  
MHPSA – Mitsubishi Hitachi Power Systems America  
Mid-C – Mid-Columbia  
MMS – Maximo, Mobile and Scheduling  
MONET – Multi-area Optimization Network Energy Transaction model  
MPPS – Market Price per Share  
MSI – Market Strategies International  
MT – Magnetic Particle Testing  
MV – Mercury Vapor  
MWa – Megawatt average  
MWh – Megawatt hours  
NAICS – North America Industry Classification System  
NCP – Non-coincident peak  
NDE – Non-Destructive Examination  
NDT – Nuclear Decommissioning Trust  
NEPA – National Environmental Policy Act  
NERC – North American Electric Reliability Corporation  
NGTL – NOVA Gas Transmission, Ltd (TransCanada)  
NIST – National Institute of Standards and Technology  
NNMREC – Northwest National Marine Renewable Energy Center  
NRC – Nuclear Regulatory Commission  
NRSS – Non-running Station Service  
NTTG – Northern Tier Transmission Group  
NVPC – Net Variable Power Cost  
NWN – Northwest Natural  
NWPP MC – Northwest Power Pool Members Market Assessment and Coordination Committee  
O&M – Operations and Maintenance  
OATT – Open Access Transmission Tariff  
OBI – Oracle Business Intelligence  
OCIO – Office of the Chief Information Officer  
ODEQ – Oregon Department of Environmental Quality  
OE – Operational Efficiency  
OEA – Office of Economic Analysis  
OMB – Office of Management and Budget  
OMS – Outage Management System  
OMSI – Oregon Museum of Science and Industry  
OOA – Ownership and Operation Agreement

## UE 319 PGE ACRONYMS

OPIS – Oil Price Information Service  
OPUC – Public Utility Commission of Oregon  
OSHA – Occupational Safety and Health Administration  
OTC – Over-the-Counter  
P – Price-Effect  
PAC – PacifiCorp  
PAS – Publicly Available Specification  
PBO – Pension Benefit Obligation  
PCAM – Power Cost Adjustment Mechanism  
PCB – Polychlorinated  
PDL – Polynomial Distributed Lag  
PEAK – PEAK Reliability  
P/E – Price-to-Earnings  
PG&E – Pacific Gas and Electric  
PGE – Portland General Electric  
PIC – Performance Incentive Compensation  
PNCA – Pacific Northwest Coordination Agreement  
PPA – Pension Protection Act  
PPA – Prepaid Pension Asset  
PPA – Power Purchase Agreement  
PPC – Public Purpose Charges  
PRB – Pelton and Round Butte plants  
PRC – Power Resources Cooperative  
PRPs – Potentially Responsible Parties  
PSC – Portland Service Center  
PSE – Puget Sound Energy  
PSES – Power Supply Engineering Services  
PSU – Portland State University  
PT – Liquid penetrant method  
PTCs – Production Tax Credits  
PTP – Point-to-Point  
PTSA – Precedent Transmission Service Agreement  
PUD – Public Utility District  
PwC – Price Waterhouse Coopers  
PW1 – Port Westward 1  
PW2 – Port Westward 2  
R&D – Research and Development  
R&ME – Reliability and Maintenance Excellence  
RAP – Remedial Action Report  
RC – Responsibility Center  
RCA – Root Cause Analysis  
RCM – Reliability Centered Maintenance  
RE – Regional Entity  
RES – Renewable Energy Standard  
RFP – Request for Proposals  
RI – Remedial Investigation  
RLCOE – Real Levelized Cost of Energy

## UE 319 PGE ACRONYMS

ROE – Return on Equity  
ROM – Resource Optimization Model  
RROE – Required Return on Equity  
RP – Risk Premium  
RP – Renewable Power  
RPS – Renewable Portfolio Standard  
RRMP – Recreation Resources Management Plan  
RSP – Retirement Savings Plan  
RTDT – Real Time Dispatch Tool  
RTO – Regional Transmission Organization  
S&P – Standard & Poor's  
SAIDI – System Average Interruption Duration Index  
SAIFI – System Average Interruption Frequency Index  
SB – Senate Bill  
SCADA – Supervisory Control and Data Acquisition  
SCCT – Simple Cycle Combustion Turbine  
SCD – Scheduling Control and Dispatch  
SCED – Security Constrained Economic Dispatch  
SEC – Securities Exchange Commission  
SEDC – Safe and Efficient Design Construction  
SEI – Siemens Energy  
SEM – Scanning Electron Microscope  
SERP – Supplemental Executive Retirement Plan  
SFAS – Statement of Financial Accounting Standards  
SG – Smart Grid  
SHARP – Safety and Health Achievement Recognition Program  
SIP – Strategic Investment Program  
SITF – Supervisor in the Field  
SMA – Service and Maintenance Agreement  
SME – Soy Methyl Ester  
SNA – Sales Normalization Adjustment  
SQM – Service Quality Measure  
SR – System Reliability  
SSPC – Salem Smart Power Center  
STD – Short-term Disability  
SY – System Resiliency  
T&D – Transmission and Distribution  
TCC – Tualatin Contact Center  
TID – Turlock Irrigation District  
TIV – Total Insured Value  
TOU – Time-of-Use  
TQS – TQS Research, Inc.  
TSRs – Transmission Service Requests  
UAM – Utility Asset Management  
UG – Underground  
USWC – US West Communications

## UE 319 PGE ACRONYMS

UT – Ultrasonic testing  
VER – Variable Energy Resource  
VERBS – Variable Energy Resource Balancing Service  
VIE – Variable Interest Entities  
VoIP – Voice over Internet Protocol  
VPP – Voluntary Protection Program  
W&S – Wages and Salaries  
WACC – Weighted Average Cost of Capital  
WECC – Western Energy Coordinating Council  
WIES – Western Interconnected Electric Systems  
WMS – Work Management System  
WNA – Wärtsilä North America  
WSATA – Western States Association of Tax Administrators  
WSPWE – Warm Spring Power and Water Enterprises  
WTG – Wind Turbine Generators