

# Investor Presentation

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Portland General Electric

April 2018



# Cautionary Statement

## Information Current as of April 27, 2018

Except as expressly noted, the information in this presentation is current as of April 27, 2018 — the date on which PGE filed its quarterly report on Form 10-Q for the quarter ended March 31, 2018 — and should not be relied upon as being current as of any subsequent date. PGE undertakes no duty to update this presentation, except as may be required by law.

## Forward-Looking Statements

Statements in this news release that relate to future plans, objectives, expectations, performance, events and the like may constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include statements regarding earnings guidance; statements regarding future load, hydro conditions and operating and maintenance costs; statements concerning implementation of the company’s integrated resource plan; statements concerning future compliance with regulations limiting emissions from generation facilities and the costs to achieve such compliance; as well as other statements containing words such as “anticipates,” “believes,” “intends,” “estimates,” “promises,” “expects,” “should,” “conditioned upon,” and similar expressions. Investors are cautioned that any such forward-looking statements are subject to risks and uncertainties, including reductions in demand for electricity; the sale of excess energy during periods of low demand or low wholesale market prices; operational risks relating to the company’s generation facilities, including hydro conditions, wind conditions, disruption of fuel supply, and unscheduled plant outages, which may result in unanticipated operating, maintenance and repair costs, as well as replacement power costs; failure to complete capital projects on schedule or within budget, or the abandonment of capital projects, which could result in the company’s inability to recover project costs; the costs of compliance with environmental laws and regulations, including those that govern emissions from thermal power plants; changes in weather, hydroelectric and energy markets conditions, which could affect the availability and cost of purchased power and fuel; changes in capital market conditions, which could affect the availability and cost of capital and result in delay or cancellation of capital projects; the outcome of various legal and regulatory proceedings; and general economic and financial market conditions. As a result, actual results may differ materially from those projected in the forward-looking statements. All forward-looking statements included in this news release are based on information available to the company on the date hereof and such statements speak only as of the date hereof. The company assumes no obligation to update any such forward-looking statement. Prospective investors should also review the risks and uncertainties listed in the company’s most recent annual report on form 10-K and the company’s reports on forms 8-K and 10-Q filed with the United States Securities and Exchange Commission, including management’s discussion and analysis of financial condition and results of operations and the risks described therein from time to time.

# PGE Value Drivers

Clear focus: 100%  
regulated utility

High-growth  
service area

Investing in a  
reliable and clean  
energy future

Focusing on  
operational  
effectiveness and  
efficiency

Delivering  
exceptional  
customer  
experiences

Building a smarter  
more resilient grid

# The Company

**Strong  
Platform for  
Stakeholder  
Value**





# PGE at a Glance

## Quick Facts

- Vertically integrated energy company encompassing generation, transmission and distribution
- 877,000 customers<sup>(1)</sup>
- Serves 46 percent of Oregonians, 51 incorporated cities
- Service area covers majority of Oregon's commercial and industrial activity

## Financial Snapshot

- Revenue: \$2.0 billion
- Non-GAAP earnings per share: \$2.29<sup>(2)</sup>
- Net utility plant assets: \$6.7 billion

1) As of 3/31/2018

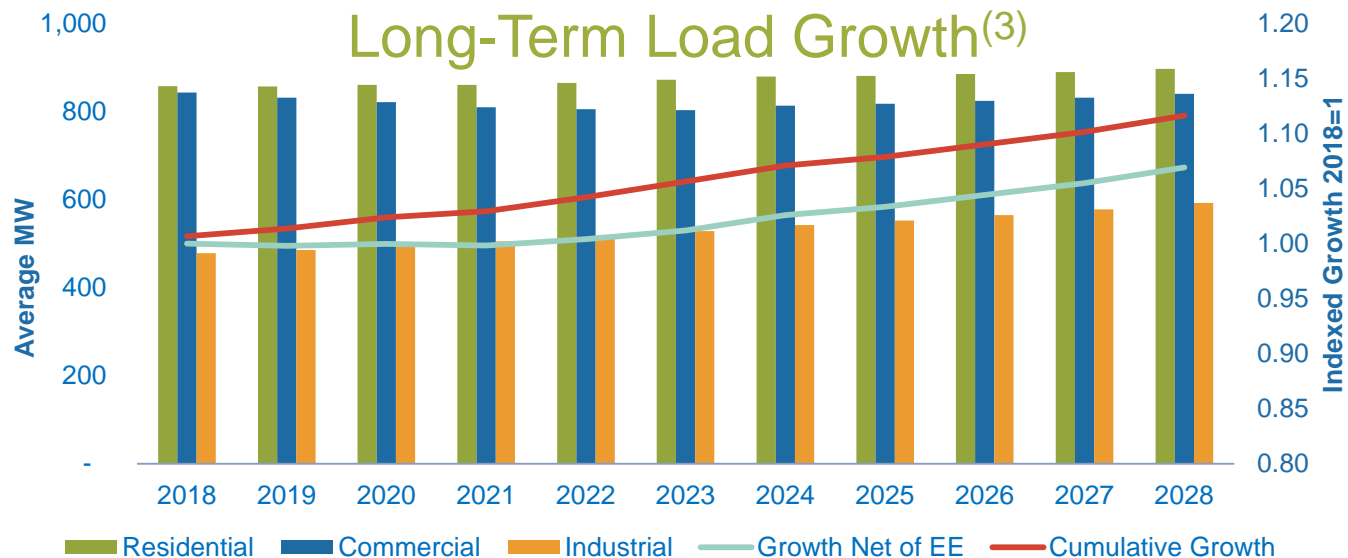
2) Non-GAAP earnings per share reflect an adjustment of \$0.19 for the impact of the Tax Cuts and Jobs Act. Reported GAAP earnings per share for 2017 are \$2.10.

3,800+ MWs of generation



# Attractive, Growing Service Area

- 1%+ average annual customer growth
- Above-average population growth due to in-migration
- Oregon's annual GDP growth averaged 3.3% over the past two decades<sup>(1)</sup>
- Industrial segment growth driven by high tech and data centers
- Unemployment in our service area remains stable at 3.5%, lower than the U.S. and Oregon rate of 4.1%<sup>(2)</sup>



1) U.S. Bureau of Economic Analysis

2) Oregon Office of Economic Analysis

3) Sector load growth shown is net of energy efficiency

# Constructive Regulatory Environment and 2019 General Rate Case

## Regulatory Construct

- Oregon Public Utility Commission
- Forward test year
- Integrated Resource Planning (IRP)
- Renewable Portfolio Standard (RPS)
- Proven track record of achieving reasonable settlements

## Regulatory Mechanisms

- Net variable power cost recovery
  - Annual Power Cost Update Tariff (AUT)
  - Power Cost Adjustment Mechanism (PCAM)
- Decoupling through 2019
- Renewable Adjustment Clause (RAC)

## Regulatory Body

- Governor-appointed three member commission serving 4-year terms

Lisa Hardie [D] (Chair) <sup>(1)</sup>  
Megan Decker [D]  
Stephen Bloom [R]

Term Expiration
May 2020
Mar 2021
Nov 2019

## 2019 General Rate Case

- Rate Base: \$4.86 billion
- 9.5% allowed return on equity
- 50% debt and 50% equity capital structure
- Requested customer price increase: 4.8%
- Expect Commission order December 2018

1) Lisa Hardie's resignation is effective May 23 and Megan Decker will become chair. Governor's office has initiated search to fill the vacancy.

# Key Strengths

**Strong  
Platform for  
Stakeholder  
Value**





# Focus on Customers



## Top Quartile System Reliability

Edison Electric Institute



## Top Quartile Customer Satisfaction

TQS Research, Inc. and Market Strategies International



## Most Trusted Brand & Environmental Champion

Market Strategies International



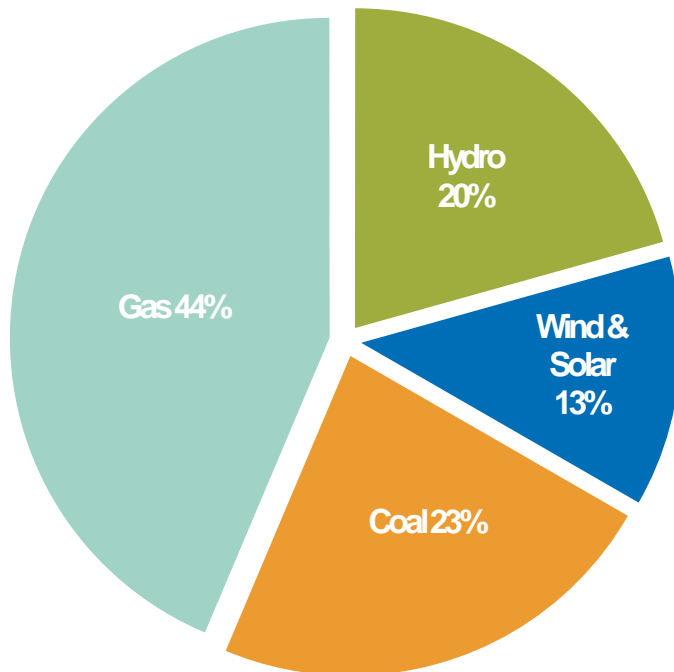
## No.1 Renewable Energy Program in the Nation

National Renewables Energy Laboratory

# Diverse Generation & Customer Base

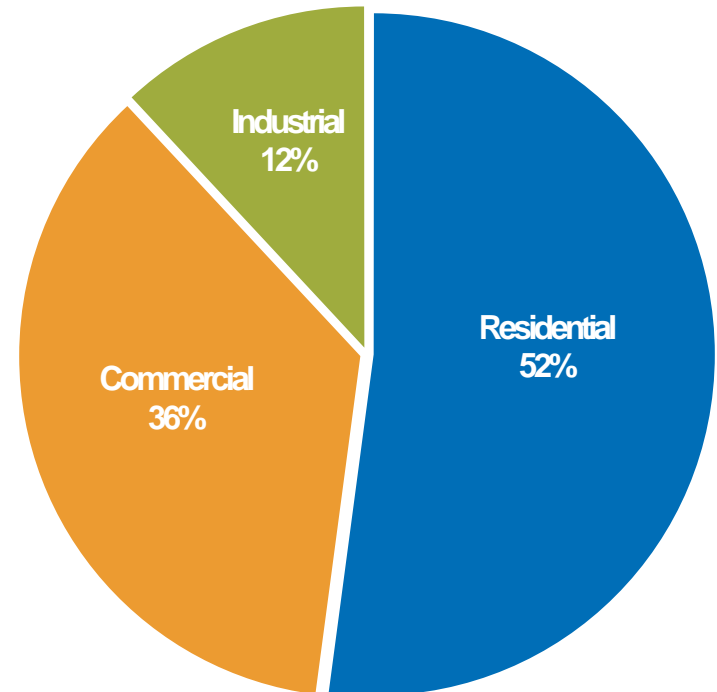
**Power Sources as a  
Percent of Retail Load**  
(2018 AUT)<sup>(1)</sup>

Total = 2,095 MWa



**Retail Revenues  
by Customer Class**  
(2017)

Total = \$1.9B

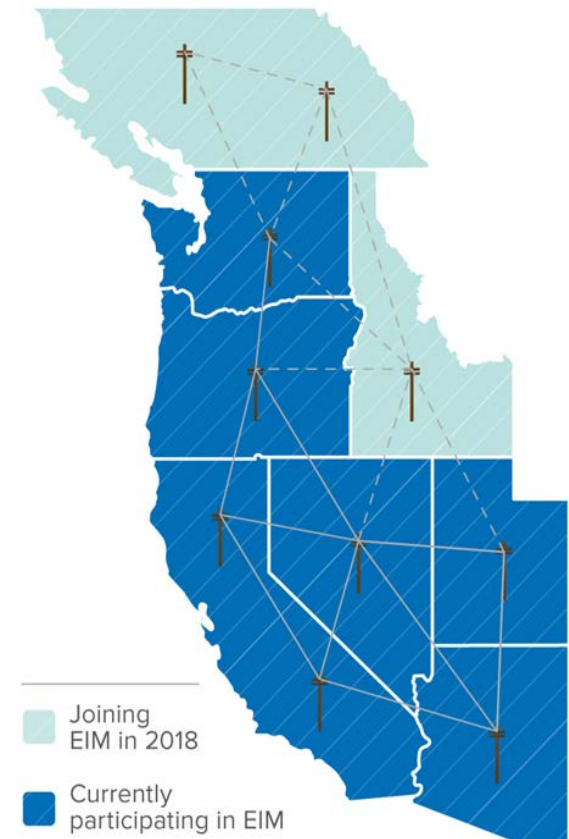


1) Hydro and wind/solar include PGE owned and contracted resources; purchased power includes long-term contracts

# High-Quality Utility Operations

- Highly dependable generation fleet with six-year average availability of 92%<sup>(1)</sup>
- Strong power supply portfolio management and western EIM integration to enhance reliability and optimize resources
- Progressive approach to reduce coal generation – Boardman 2020 Plan and Colstrip 2030 Plan
- Investment plans to provide a safer and more reliable service to our customers, as well as new customer information system and technology
- Smart grid opportunities to incorporate more renewables, decarbonize, power the transportation network and integrate demand side resources

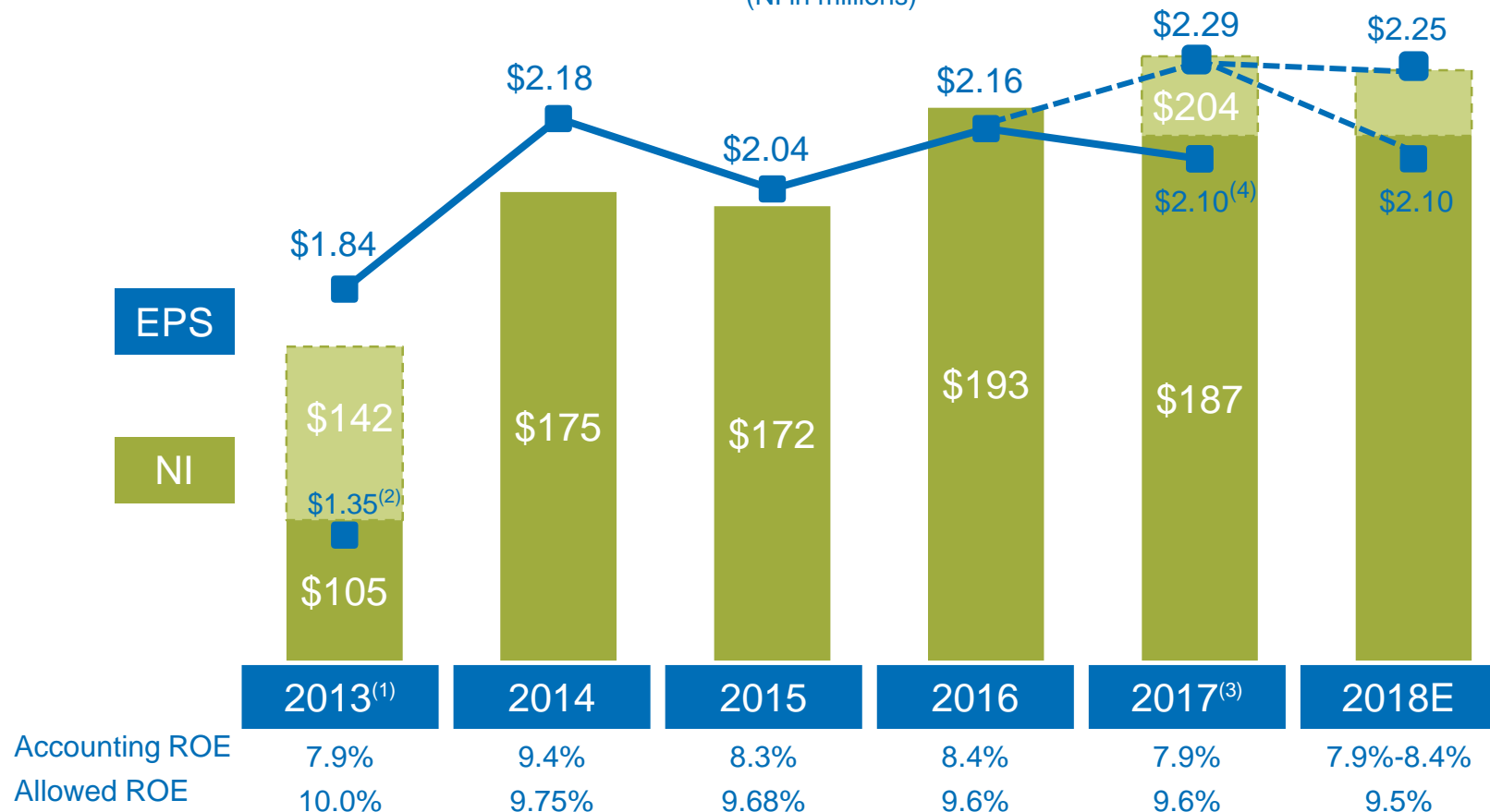
## Western EIM



1) Represents 2012 through 2017

# Solid Financial Performance

## Net Income, Earnings per Share, and ROE (NI in millions)



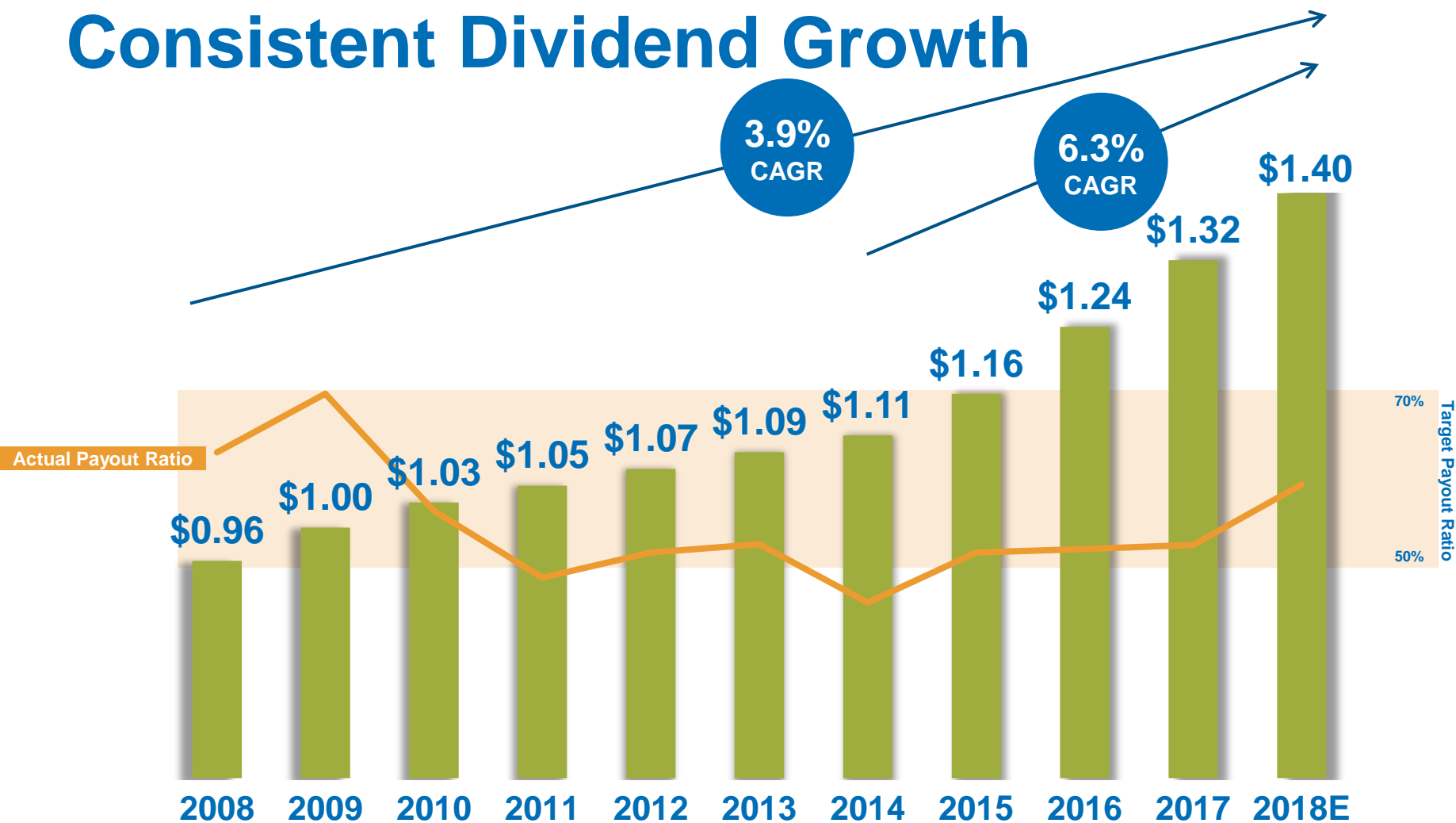
1) 2013 displays full-year non-GAAP adjusted earnings, which excludes the negative impact of the Cascade Crossing expense (\$0.42 EPS) and the customer billing refund (\$0.07 EPS)

2) GAAP earnings for year-end 2013 were \$105 million or \$1.35 per diluted share

3) 2017 displays full-year non-GAAP adjusted earnings, which excludes the negative impact of the Tax Cuts and Jobs Act expense (\$0.19 EPS)

4) GAAP earnings for year-end 2017 were \$187 million or \$2.10 per diluted share

# Consistent Dividend Growth



Future dividend increases expected to be in the 5-7% range<sup>(1)</sup>

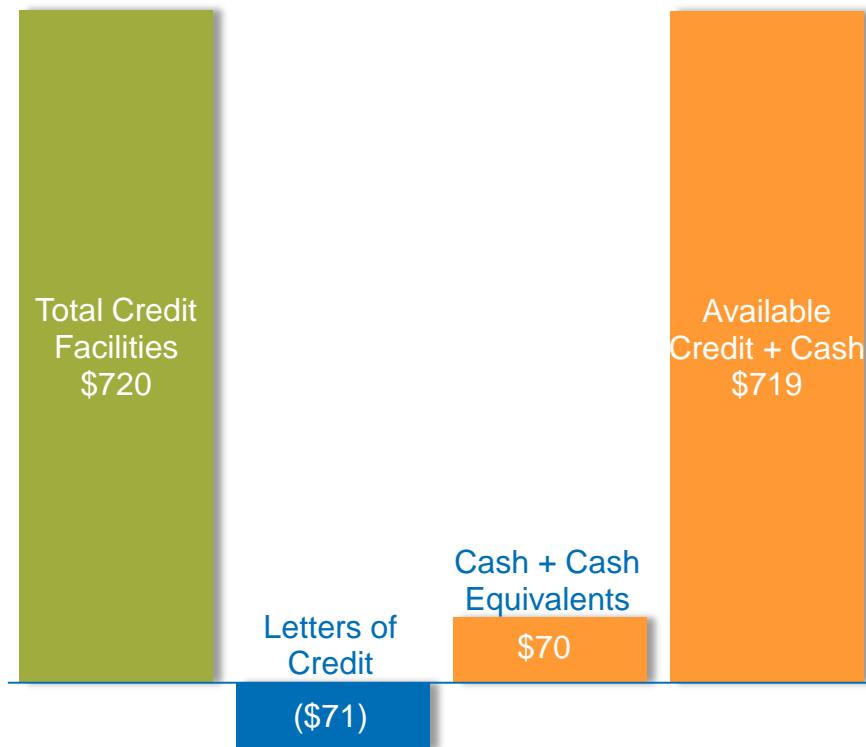
Note: Represents annual dividends paid

1) Based on the company achieving earnings and cash flow estimates and other factors influencing dividends and subject to approval of the Board of Directors



# Strong Liquidity Position for Growth

## Revolving Credit Facilities<sup>(1)</sup> (in millions)



## Financial Resources

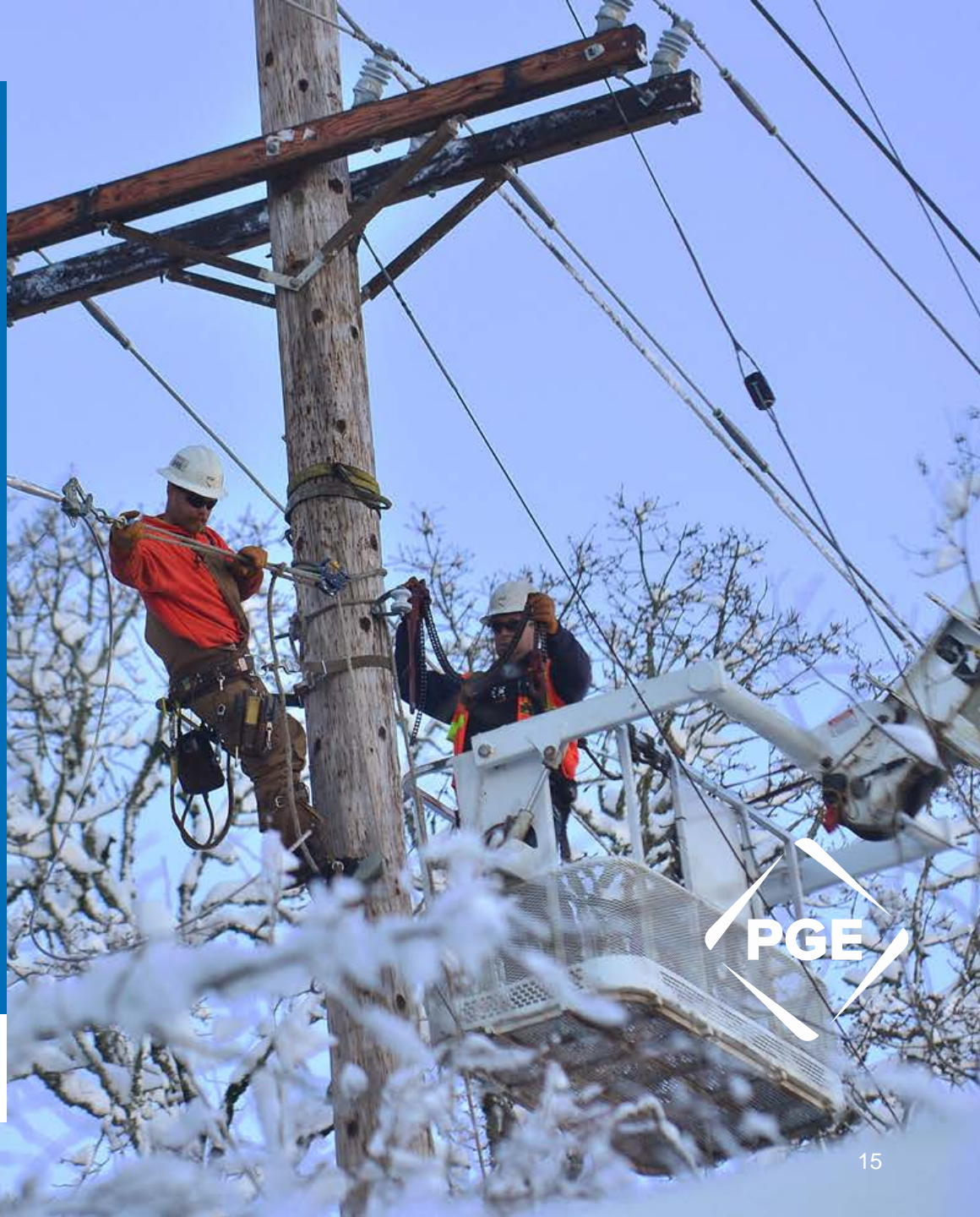
- Investment grade credit ratings
- Manageable debt maturities
- Target capital structure of 50% debt and 50% equity

	S&P	Moody's
Senior Secured	A-	A1
Senior Unsecured	BBB	A3
Outlook	Positive	Stable

1) All values as of 3/31/2018

# Looking Forward

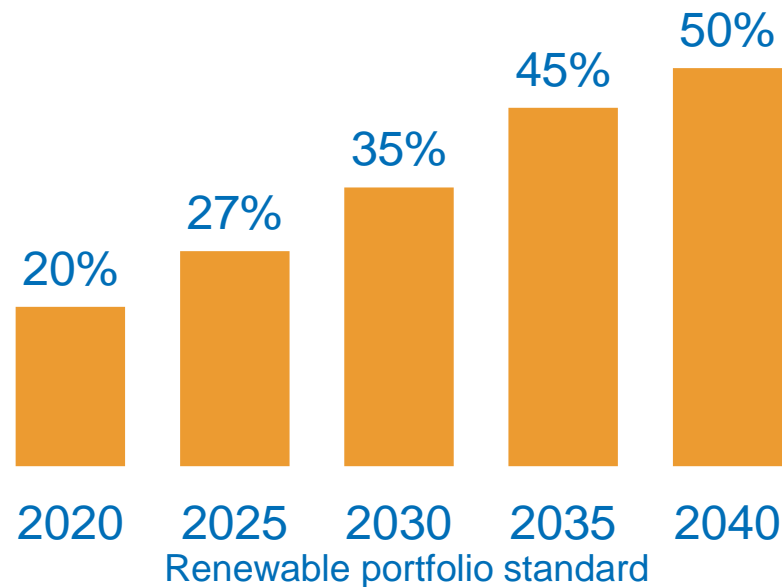
# Strong Platform for Stakeholder Value



# Clean and Reliable Energy Future

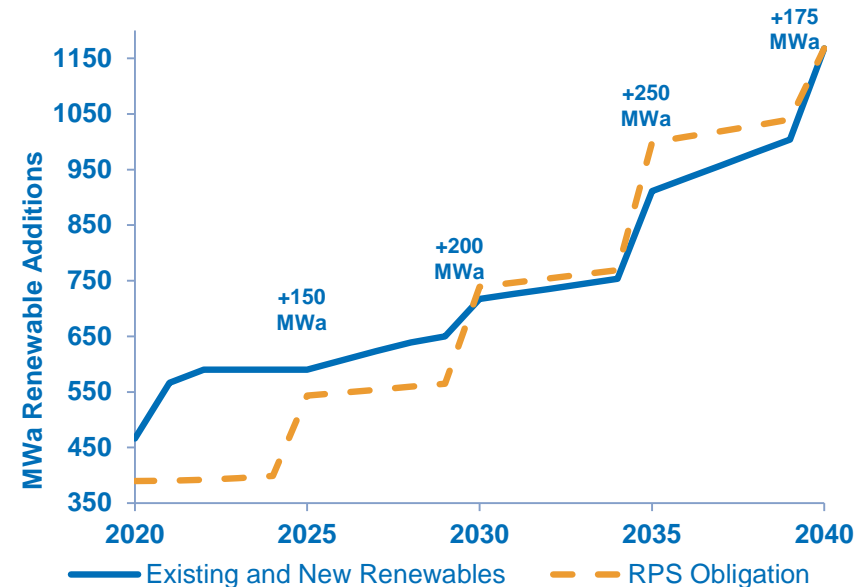
## Key Elements

- Transition Oregon off coal-fired generation by 2030
- Production Tax Credits included in annual power cost filings beginning with 2017
- Pursue transportation electrification



## Long-Term Strategy

- Layered approach balances near-term and long-term risks and benefits for customers
- Incremental renewable actions by 2021 reduces near-term carbon emissions and puts PGE on track to meet Oregon's carbon reduction goal



# 2016 Integrated Resource Plan

A flexible, balanced plan that reflects our commitment to a low-carbon future and pursuant to the Oregon Clean Electricity Plan

## Renewable Procurement

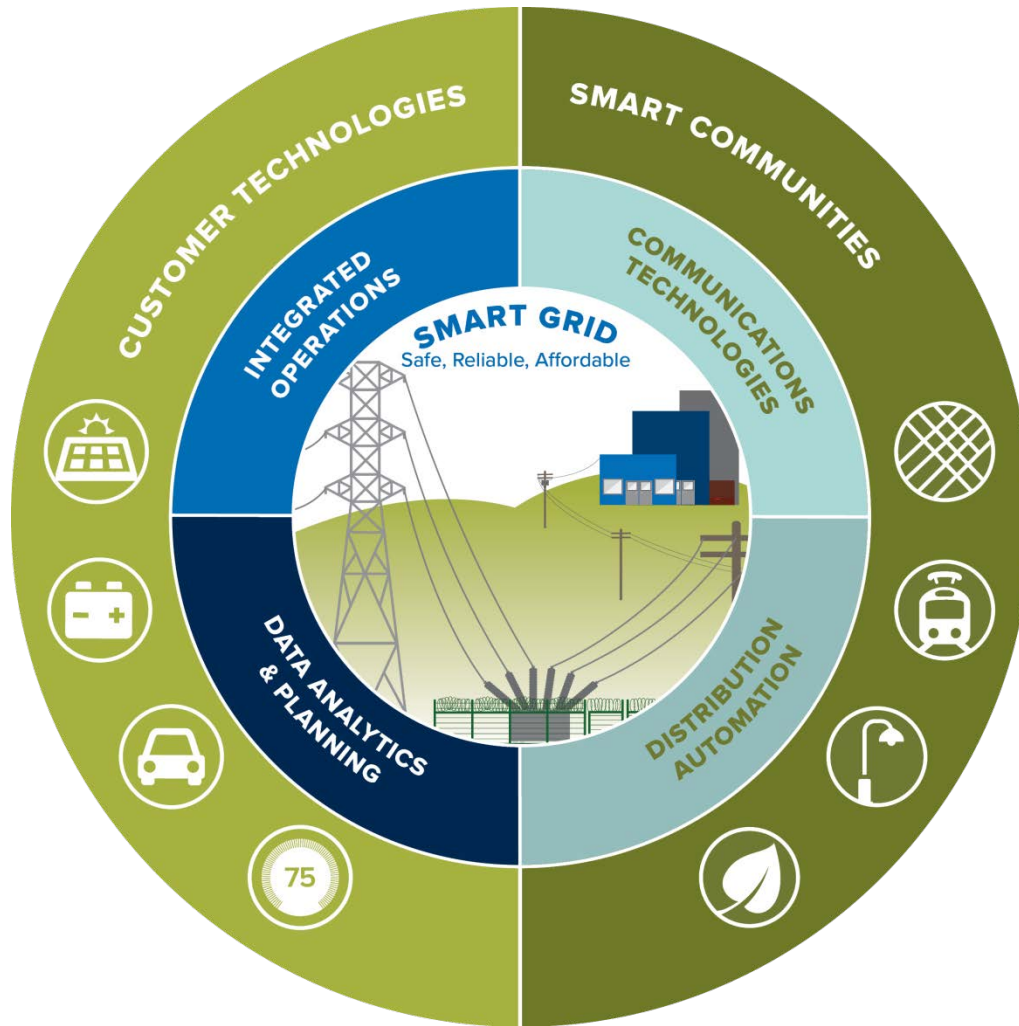
- Procurement of renewables (100 MWa) to meet Oregon Clean Electricity Plan
- Potential benchmark resource identified
- Timeline:
  - December 2017: IRP acknowledged
  - March 2018: Submit final draft of RFP to OPUC
  - May 2018: OPUC expected to approve RFP, issuance to bidders
  - June 2018: RFP proposals due
  - End of 2018: Completion of RFP process, issue Notice To Proceed

## Capacity Need

Executed contracts for 300 MWs through bilateral procurement processes:

- 200 MW of annual-capacity with five-year terms beginning 2021
- 100 MW of seasonal peak capacity during summer and winter periods with a five-year term beginning 2019

# Smart Grid Strategies



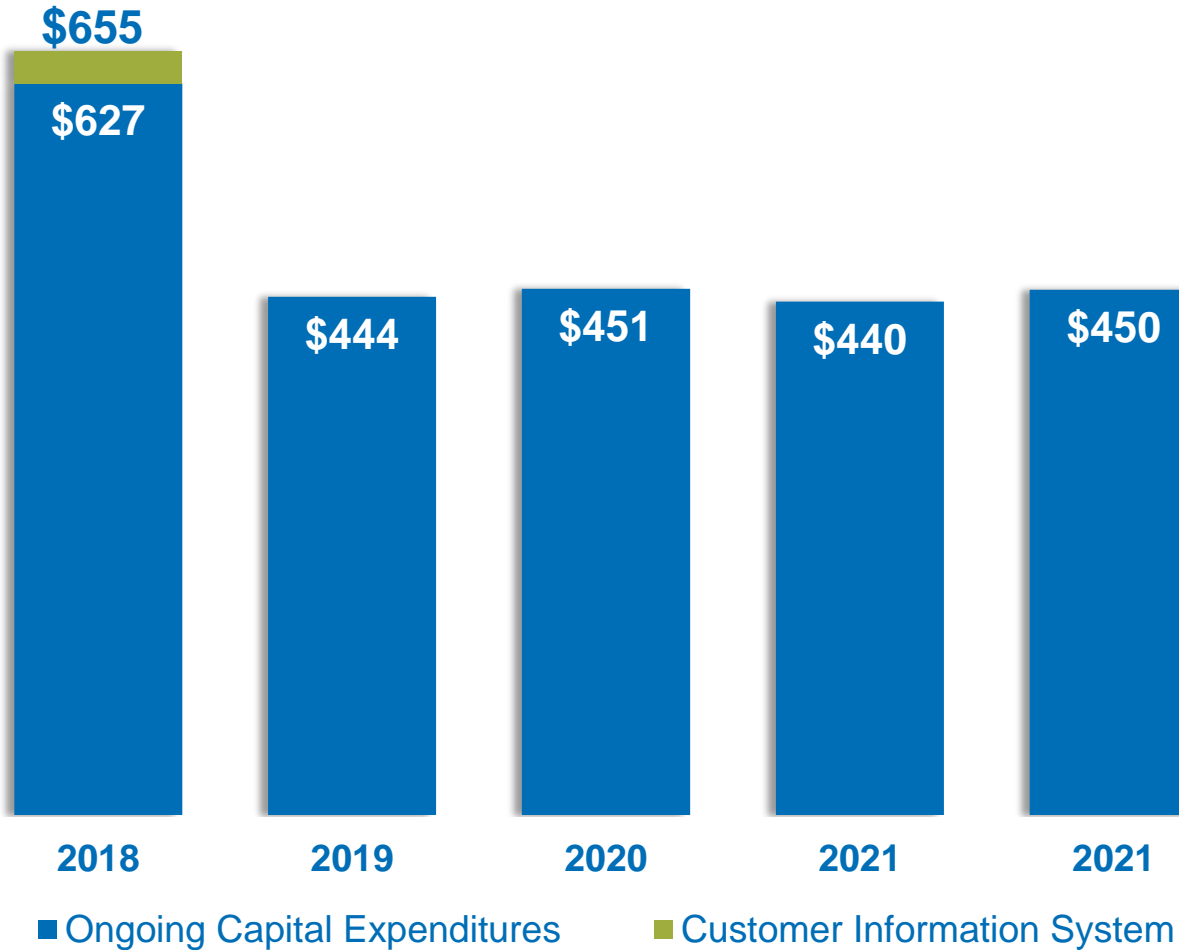
## Building a smarter more resilient grid:

- New communication systems
- Distributed automation systems
- Data analytics
- Integrate customers' energy resources
- Utility-scale battery storage
- New customer information system



# Forecasted Capital Expenditures

in millions<sup>(1)</sup>



## Outlook

- Support continued customer growth
- Upgrade and replacement of aging generation, transmission and distribution equipment
- Strengthening the power grid for earthquakes, cyberattacks and other potential threats
- New customer information system and technology tools

1) Does not include any capital related to the 2016 Renewable RFP or energy storage

# PGE Investor Relations Team

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# Portland General Electric Appendices



# Tax Reform

On December 29, 2017 PGE filed a deferral application with the OPUC

- Defer regulatory items with a 2017 and 2018 financial impact into future years
- Proposed that any refund be subject to an earnings test, tied to regulated ROE
- PGE is working with Commission to determine appropriate method to return benefits
- Current estimate is a range of \$25 to \$30 million

Impacts of the Tax Cuts and Jobs Act was incorporated into the 2019 test year General Rate Case

- Prices beginning in 2019 will reflect lower tax rate

Company cash flow and credit metrics remain strong

# Generation: Baseload Resource

Carty Generating Station: Placed in-service on July 29, 2016



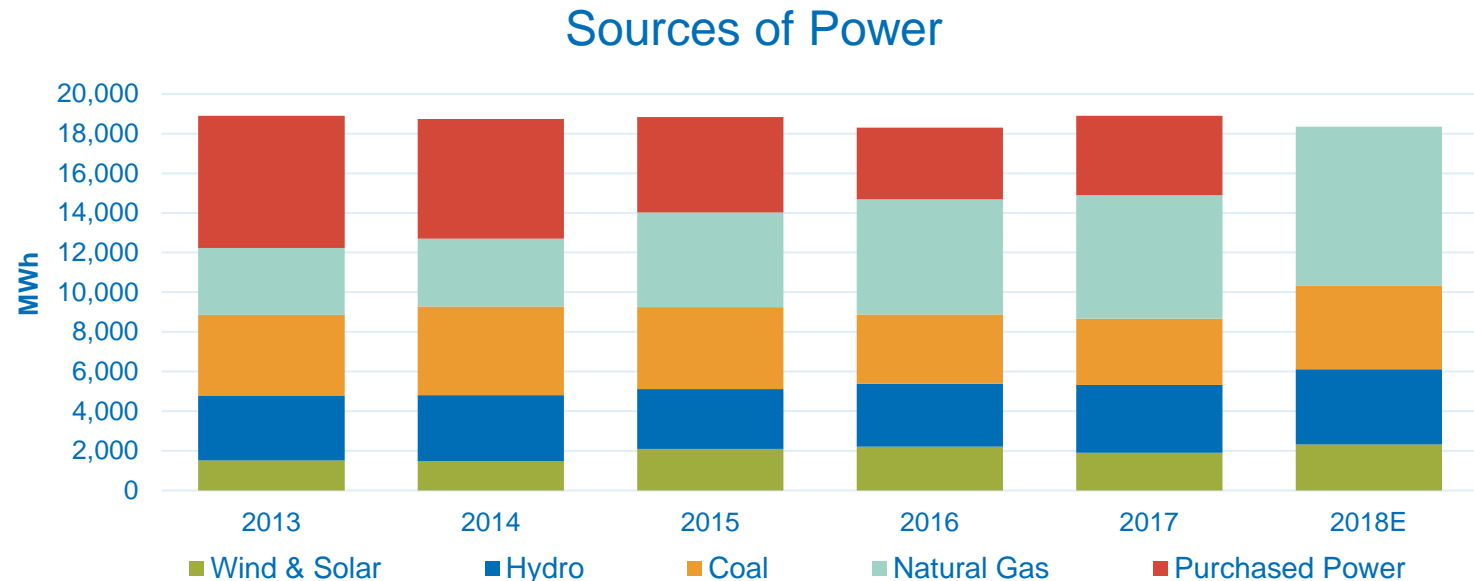
*Carty Generating Station, a 440 MW natural gas baseload plant near Boardman, OR*

Capital costs, including AFDC, approved in 2016 GRC:	\$514M
Carty plant in-service as of 03/31/2018:	\$637M
Estimated time frame to complete litigation:	2-4 years



# Changing Generation Portfolio

PGE's evolving generation portfolio now enables PGE to meet 100% of its customers' energy needs



## Changes driven by:

- New generation: Port Westward Unit 2 (natural gas, Q4 2014), Tucannon River (wind, Q4 2014), and Carty (natural gas, July 2016)
- Next requirements under Oregon's RPS (requiring a portion of PGE's retail load to be serviced by renewable resources): 20% by 2020, 27% by 2025, 35% by 2030, 45% by 2035 and 50% by 2040

Note: Hydro and wind/solar include PGE owned and contracted resources

1) Based on forecasts in PGE's Annual Update Tariff filing.

# Generation Plant Operations

## Track record of high availability

	2012	2013	2014	2015	2016	2017
PGE Thermal Plants	92%	84%	89%	89%	92%	88%
PGE Hydro Plants	99%	100%	100%	99%	99%	95%
PGE Wind Farms	98%	98%	94%	97%	95%	96%
<b>PGE Wtd. Average</b>	<b>94%</b>	<b>89%</b>	<b>92%</b>	<b>93%</b>	<b>93%</b>	<b>90%</b>
Colstrip Unit 3 & 4	93%	66%	83%	93%	85%	86%

## Generation Reliability and Maintenance Excellence Program

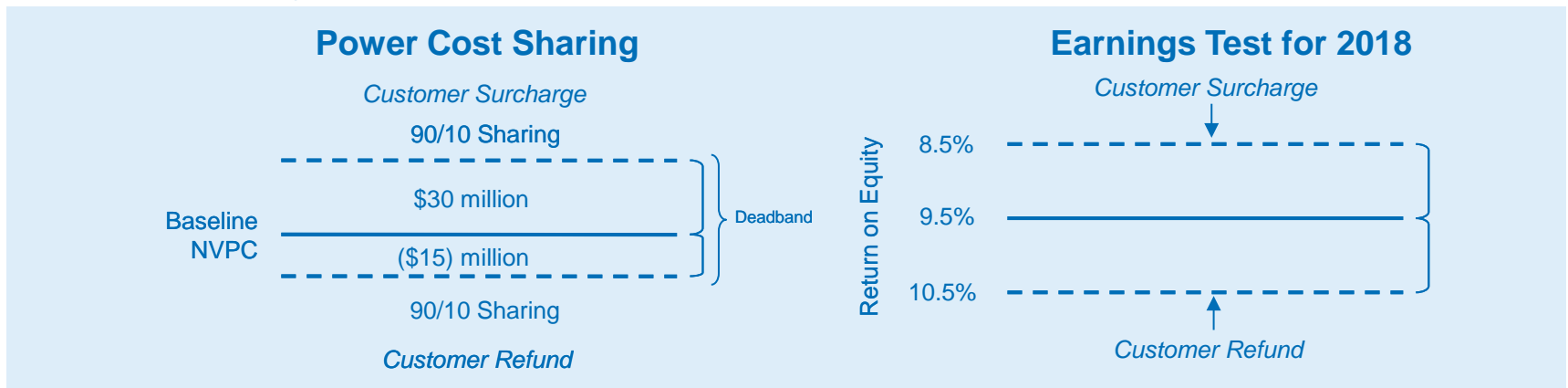
- Corporate strategy started in 2007 to increase availability of PGE's generation plants and increase predictability of plant dispatch costs for power operations
- Key Elements:
  - Reliability Centered Maintenance (RCM) modeling for PGE's generating plants and incorporation of models into PGE's maintenance management system (Maximo)
  - Root Cause Analysis (RCA) for unplanned generation outages, which expedites communication across PGE's fleet on both resolution and prevention actions

# Recovery of Power Costs

## Annual Power Cost Update Tariff

- Annual reset of prices based on forecast of net variable power costs (NVPC) for the coming year
- Subject to OPUC prudence review and approval, new prices go into effect on or around January 1 of the following year

## Power Cost Adjustment Mechanism (PCAM)



- PGE absorbs 100% of the costs/benefits within the deadband, and amounts outside the deadband are shared 90% with customers and 10% with PGE
- An annual earnings test is applied, using the regulated ROE as a threshold
- Customer surcharge occurs to the extent it results in PGE's actual regulated ROE being no greater than 8.5%; customer refund occurs to the extent it results in PGE's actual regulated ROE being no less than 10.5%

# Renewable Portfolio Standard

## Additional Renewable Resources

- As of 2016, PGE had the following qualifying renewable resources:

Type of Resource	% of Retail Load
Wind	11.5%
Low-Impact Hydro	3.0%
Solar & Other	0.5%

## Renewable Portfolio Standard:

2011	2015	2020	2025	2030	2035	2040
5%	15%	20%	27%	35%	45%	50%

- Renewable Portfolio Standard qualifying resources supplied approximately 10% of PGE's retail load in 2012, 2013, & 2014, and approximately 15% of retail load in 2015 and 2016

## Renewable Adjustment Clause (RAC)

- Renewable resources can be tracked into prices, through an automatic adjustment clause, without a general rate case. A filing must be made to the OPUC by the sooner of the online date or April 1 in order to be included in prices the following Jan. 1. Costs are deferred from the online date until inclusion in prices, and are then recovered through an amortization methodology

# Decoupling Mechanism

The decoupling mechanism is intended to allow recovery of margin lost due to a reduction in sales of electricity resulting from customers' energy efficiency and conservation efforts.

This includes a Sales Normalization Adjustment (SNA) mechanism for residential and small nonresidential customers ( $\leq 30$  kW) and a Lost Revenue Recovery Adjustment (LRRRA), for large nonresidential customers (between 31 kW and 1 MWa).

- The SNA is based on the difference between actual, weather-adjusted usage per customer and that projected in PGE's 2018 general rate case. The SNA mechanism applies to approximately 62% of 2018 base revenues
- The LRRRA is based on the difference between actual energy-efficiency savings (as reported by the ETO) and those incorporated in the applicable load forecast. The LRRRA mechanism applies to approximately 26% of 2018 base revenues

In PGE's 2016 rate case, PGE and parties stipulated to the extension of the decoupling mechanism for three years, through the end of 2019. In addition, the use-per-customer baseline was adjusted for new connects with lower energy usage.

## Recent Decoupling Results

(in millions)	2014	2015	2016	2017
Sales Normalization Adjustment	\$(6.6)	\$(8.8)	\$1.9	\$11.2
Lost Revenue Recovery Adjustment	\$1.4	\$(0.5)	\$(0.8)	-
<b>Total adjustment</b>	<b>\$(5.2)</b>	<b>\$(9.3)</b>	<b>\$1.1</b>	<b>\$11.2</b>

Note: refund = (negative) / collection = positive

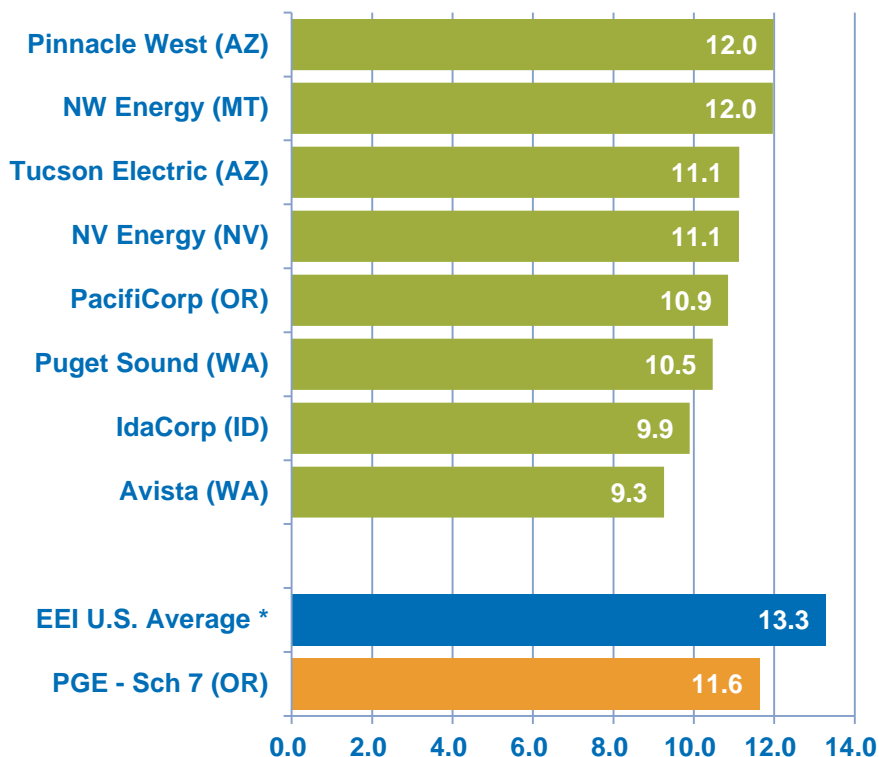


# Average Retail Price Comparison

## Residential & Commercial – Winter 2017

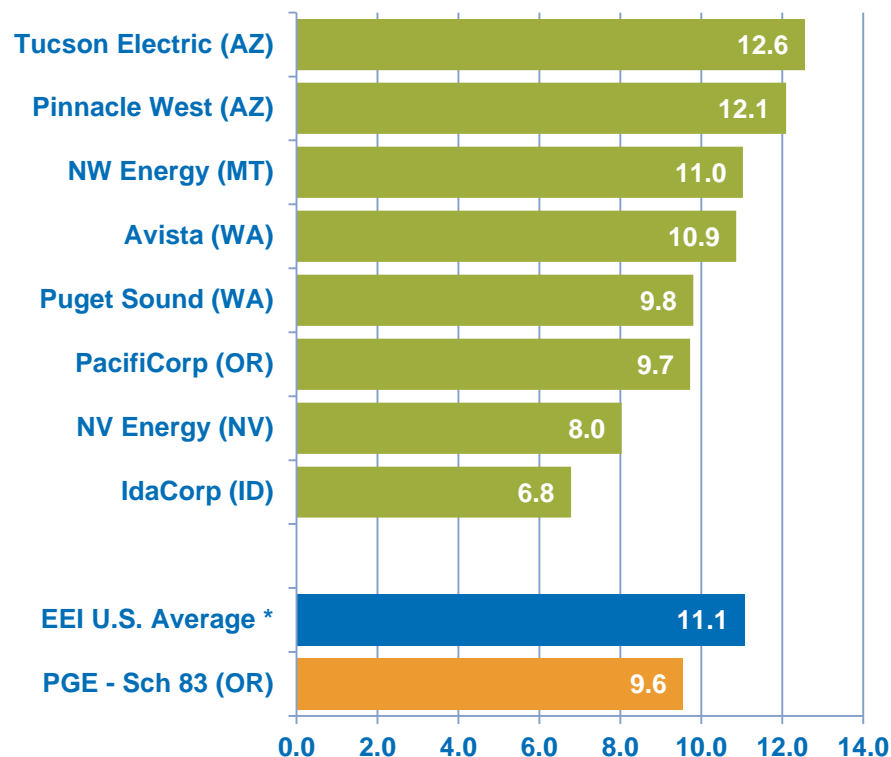
### Residential Electric Service Prices:

1,000 kWh monthly consumption.  
(Prices in cents per kWh)



### Commercial Electric Service Prices:

40 kW demand and 14,000 kWh monthly consumption.  
(Prices in cents per kWh)



\* This average is based on Investor-owned utilities only.

\*\* Idaho Power does not report a price to EEI for large industrial customers at this usage and demand level.

Source: EEI Typical Bills and Average Rates Report for Prices in effect January 1, 2017.

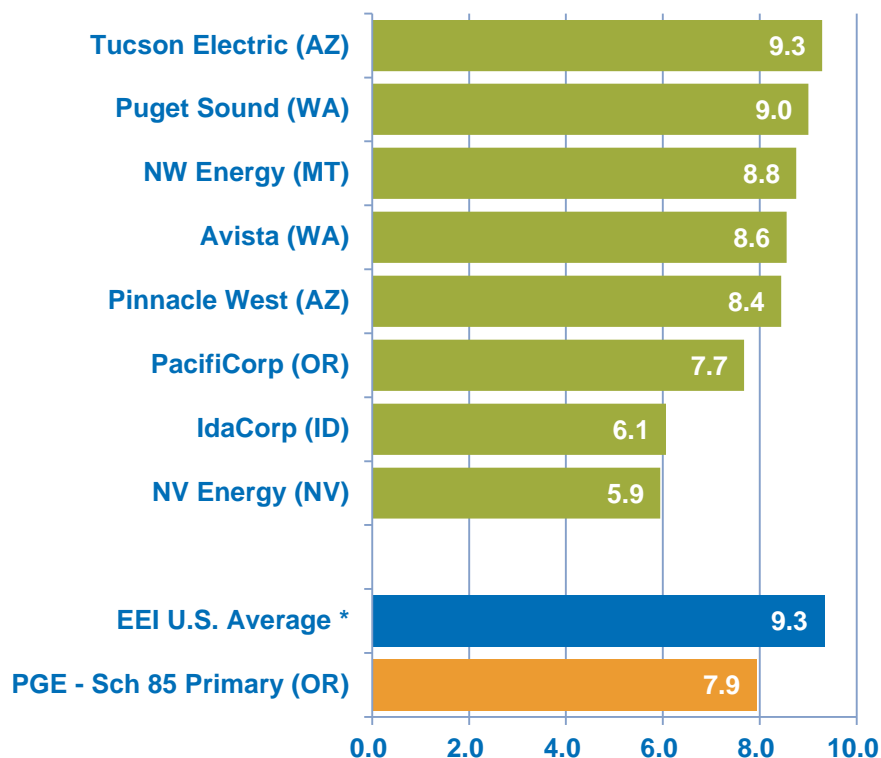
Note: EEI U.S. Average is based on Investor-owned utilities only.

# Average Retail Price Comparison

## Small & Large Industrial – Winter 2017

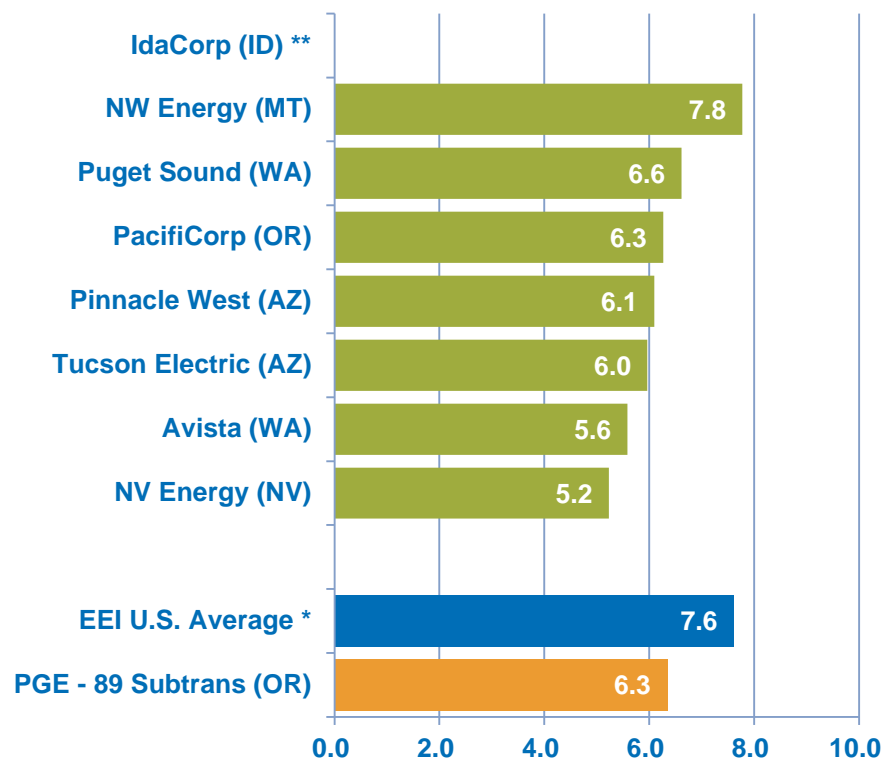
### Industrial Electric Service Prices

1,000 kW peak demand and 400,000 kWh monthly consumption.  
(Prices in cents per kWh)



### Large Industrial Electric Service Prices

50,000 kW peak demand and 32,500,000 kWh monthly consumption.  
(Prices in cents per kWh)



\* This average is based on Investor-owned utilities only.

\*\* Idaho Power does not report a price to EEI for large industrial customers at this usage and demand level.

Source: EEI Typical Bills and Average Rates Report for Prices in effect Jan. 1, 2017.

Note: EEI U.S. Average is based on Investor-owned utilities only.