

# Investor Presentation

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Portland General Electric  
May 2017



# Cautionary Statement

## Information Current as of April 27, 2017

Except as expressly noted, the information in this presentation is current as of April 27, 2017 — the date on which PGE filed its Annual Report on Form 10-Q for the year ended March 31, 2017 — and should not be relied upon as being current as of any subsequent date. PGE undertakes no duty to update the 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 the expected capital costs for the Carty Generating Station and the recovery of those costs; 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

Attractive service  
area

Progressive  
environmental and  
renewable position

Focus on  
operational  
effectiveness and  
efficiency

Strong financial  
position

Generation, T&D  
and IT resiliency  
initiatives  
strengthen  
infrastructure



# The Company

**Strong  
Platform for  
Stakeholder  
Value**



# PGE at a Glance

## Quick Facts:

- Vertically integrated energy company encompassing generation, transmission and distribution
- ~865,000 customers<sup>(1)</sup>
- Serve 46 percent of Oregonians, 52 incorporated cities
- Service area covers majority of Oregon's commercial and industrial activity

## Financial Snapshot<sup>(2)</sup>:

- Revenue: \$1.9 billion
- Earnings per share: \$2.16
- Net Utility Plant Assets: \$6.4 billion

(1) As of 3/31/2017

(2) As of 12/31/2016



# Strategic Direction

**Mission:** To be a company our customers and communities can depend upon to provide electric service in a safe, sustainable and reliable manner, with excellent customer service, at a reasonable price.

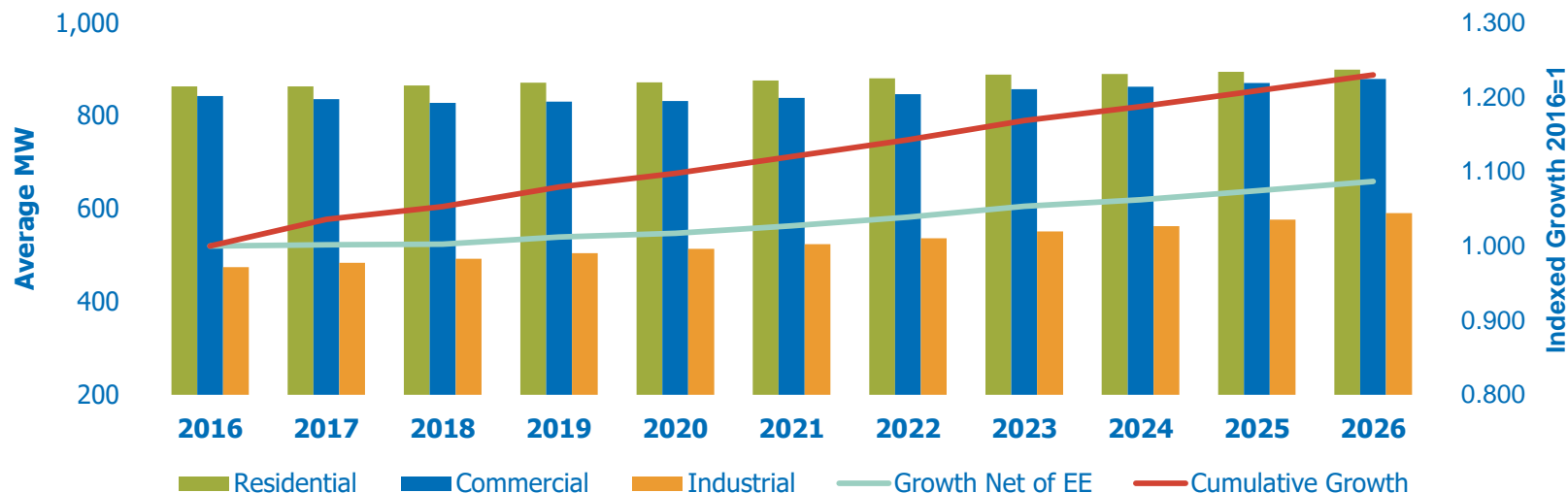
The path forward is guided by:

- Strong relationships with customers and community
- Empowering employees
- Opportunity to grow the business
- Delivering value to all stakeholders



# Attractive, Growing Service Area

## Long-Term Load Growth (1)



### Residential

- 1% average annual customer growth
- Above-average population growth due to in-migration
- Declining use-per-customer

### Commercial

- Employment growth drives increasing demand
- Weather response driven by cooling needs

### Industrial

- Fastest growth rate of all three customer classes
- 5-year growth trajectory driven by high-tech expansion and new data centers

(1) Sector load growth shown is net of Energy Efficiency

# Constructive Regulatory Environment

## Regulatory Construct

- Oregon Public Utility Commission
- 9.6% allowed return on equity
- 50% debt and 50% equity capital structure
- Forward test year
- Integrated Resource Planning (IRP)
- Renewable Portfolio Standard (RPS)

Governor-appointed three member commission

Chair: Lisa Hardie [D]<sup>(1)</sup> May 2020

Megan Decker [D]<sup>(2)</sup> Mar 2021

Stephen Bloom [R] Nov 2019

## Regulatory Mechanisms

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



(1) Newly appointed at the end of May 2016

(2) Newly appointed in March 2017

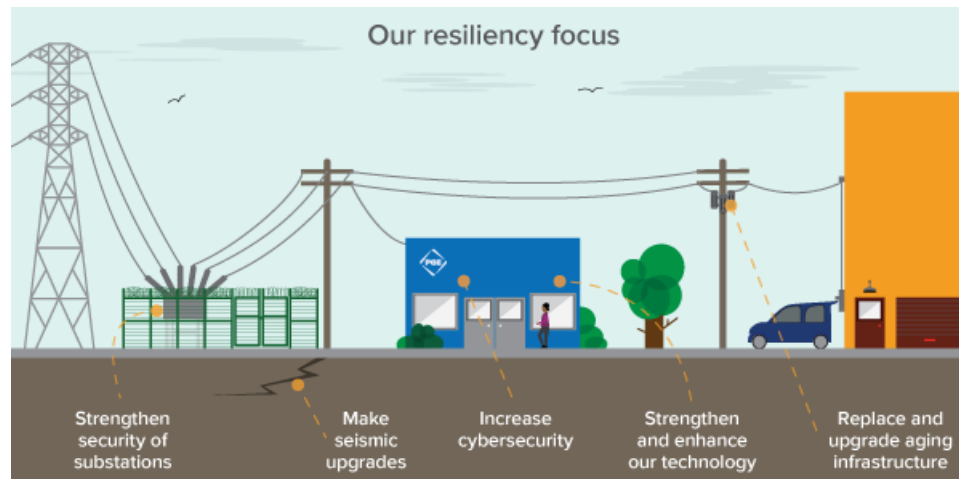


# 2018 General Rate Case

Seeking Approval from the Oregon Public Utility Commission

For investments in the system to keep it safe, reliable and secure

- Filed Feb. 28, 2017
- 2018 Forward Test Year
- Expected Commission order by Dec. 2017
- New customer prices will be effective Jan. 1, 2018
- Return on Equity: 9.75%
- Rate Base: \$4.6 billion
- Capital Structure: 50% debt, 50% equity
- Cost of Capital: 7.46%
- Annual revenue requirement increase: \$100 million
- Overall increase in customer prices: 5.6%



# The Strengths

## Strong Platform for Stakeholder Value



# Key Strengths

- 1 Our focus on customers
- 2 Diverse generation and customer base
- 3 High-quality utility operations
- 4 Solid financial performance
- 5 Strong financial position

# Focus on customers



Top Quartile System Reliability

Edison Electric Institute



Top Quartile Customer Satisfaction

TQS Research, Inc.



Most Trusted Brand & No. 1 for Dedication to the Environment

Market Strategies International



Top Ranked Renewable Energy Program

National Renewables Energy Laboratory

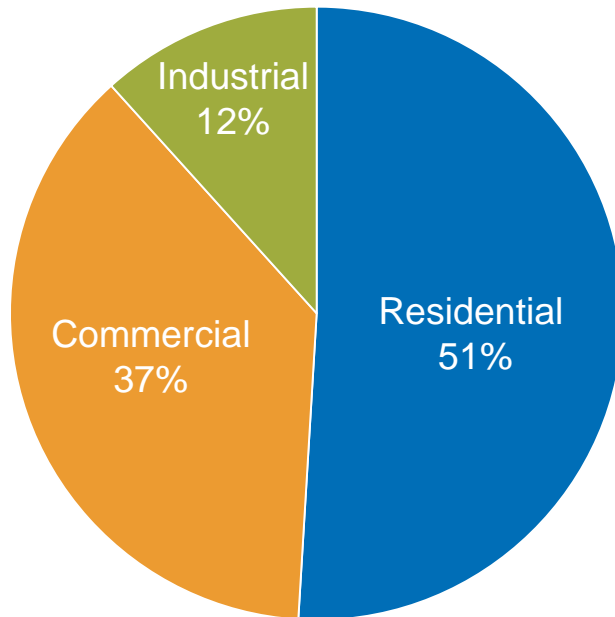
All customer satisfaction and reliability measures consistently top quartile

# Diverse Generation & Customer Base

## Retail Revenues by Customer Class

(2016)

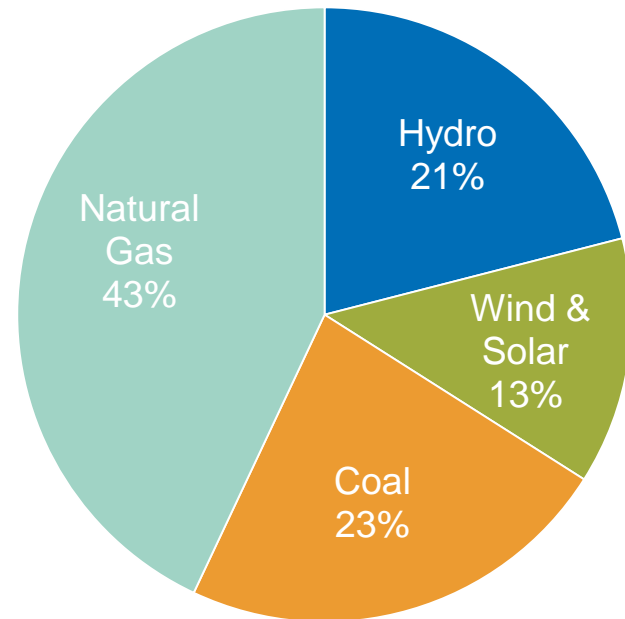
Total = \$1.78B



## Power Sources as a Percent of Retail Load

(2017 AUT)<sup>(1)</sup>

Total = 2,103 MWa



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



# High Quality Utility Operations

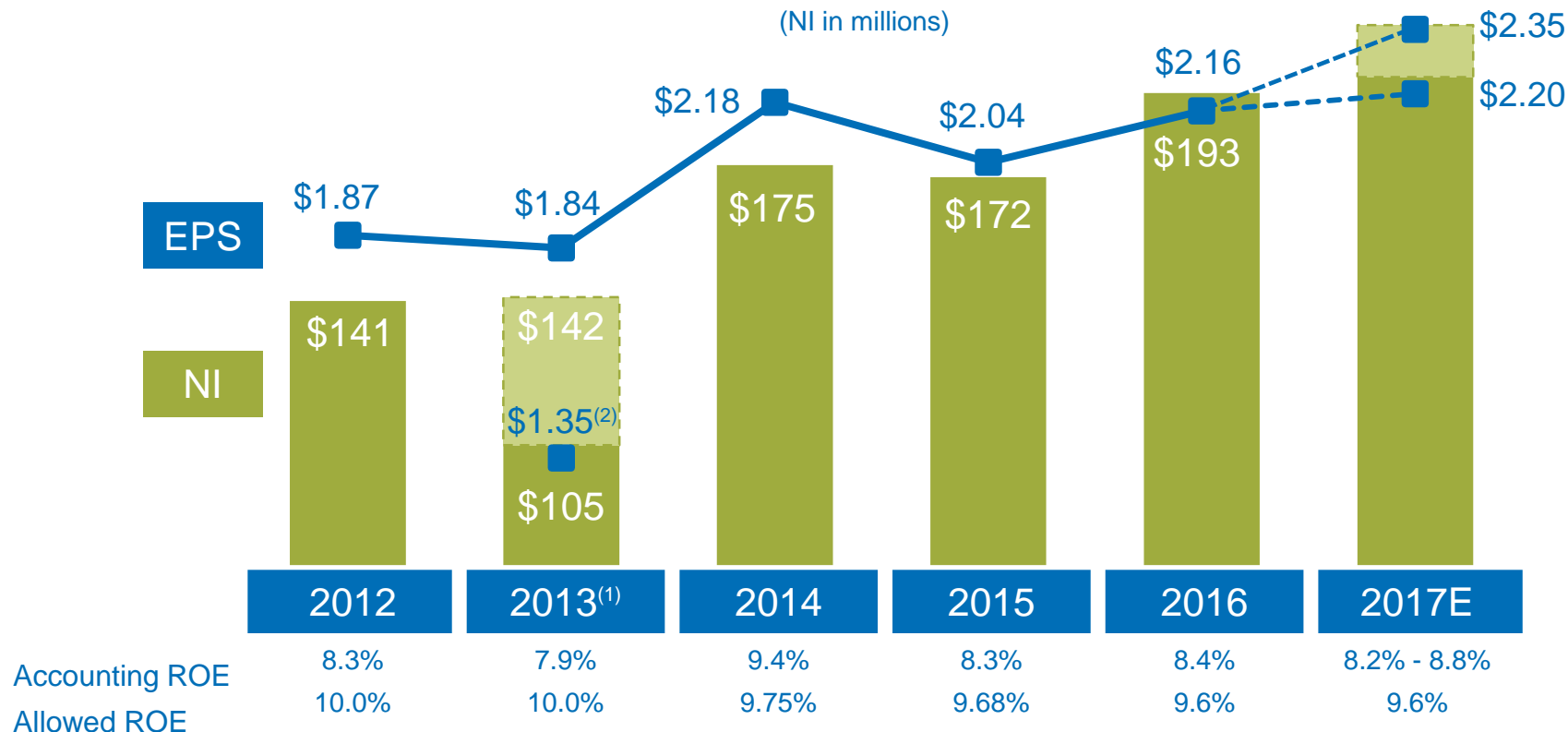
- Highly dependable PGE generation portfolio with five-year average availability of 92 percent<sup>(1)</sup>
- Strong power supply operations to stabilize and optimize power costs
- Progressive approach to reduce coal generation – Boardman 2020 Plan and Colstrip 2035 Plan
- Generation, T&D and IT initiative focused on improving efficiency, reliability and resiliency to meet customer needs and expectations
- Ongoing investment in technology to improve service and capture efficiencies



(1) Represents 2012 through 2016

# Solid Financial Performance

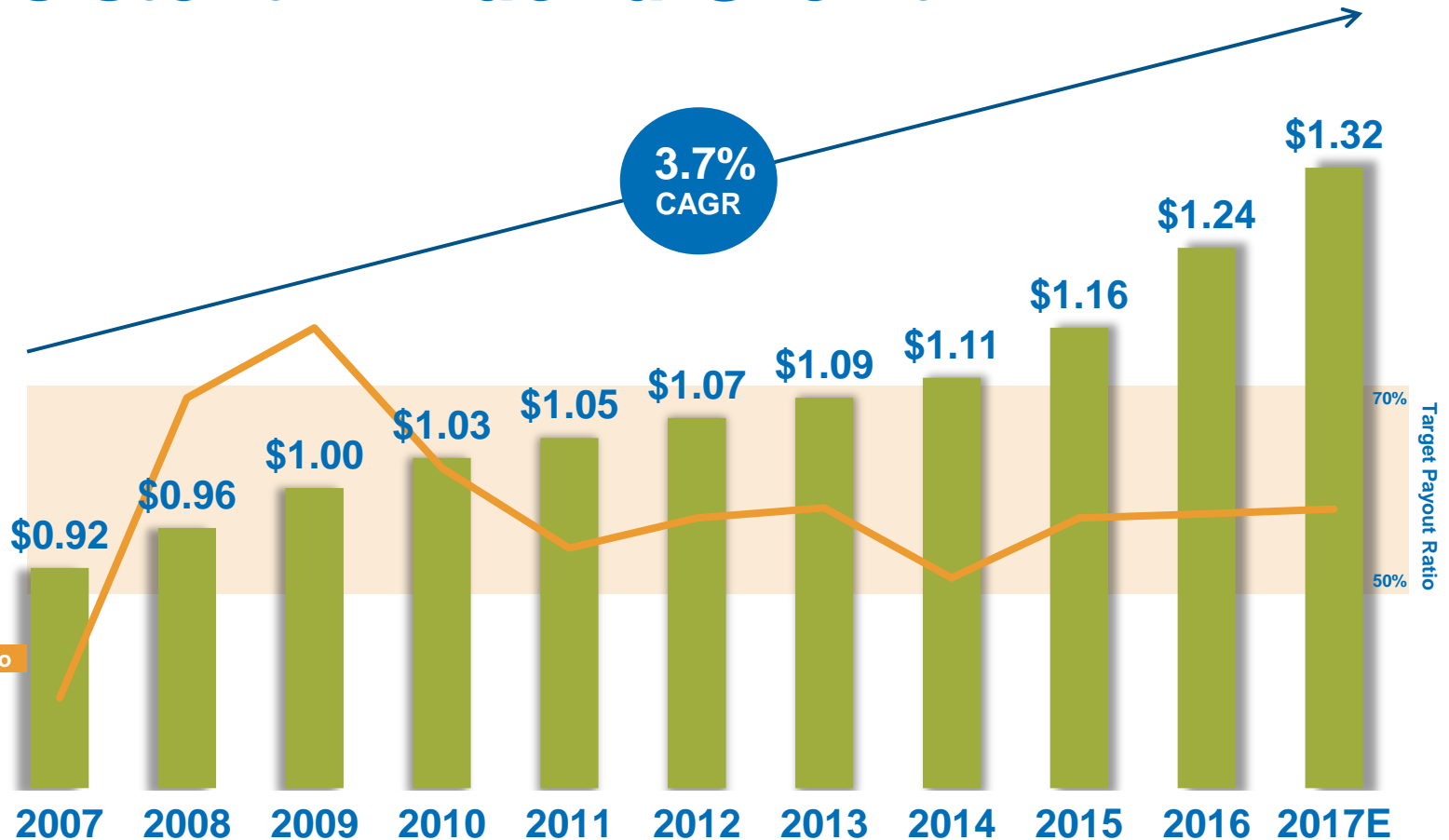
Net Income, Earnings per Share, and ROE  
2012 – 2017E  
(NI in millions)



(1) 2013 displays full-year non-GAAP adjusted operating 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

# Consistent Dividend Growth



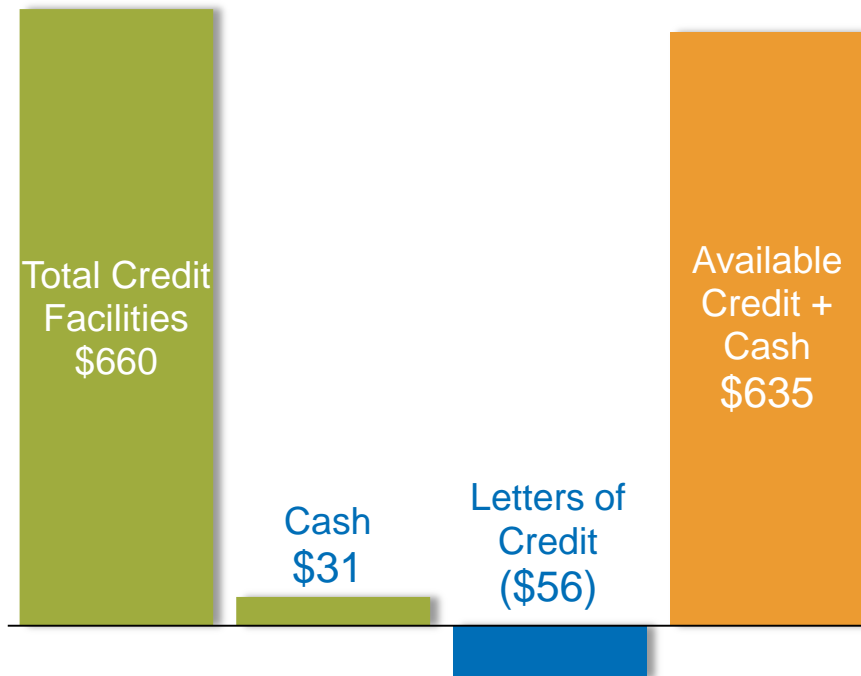
Future dividend increases expected to be in the 5-7% range<sup>(1)</sup>

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

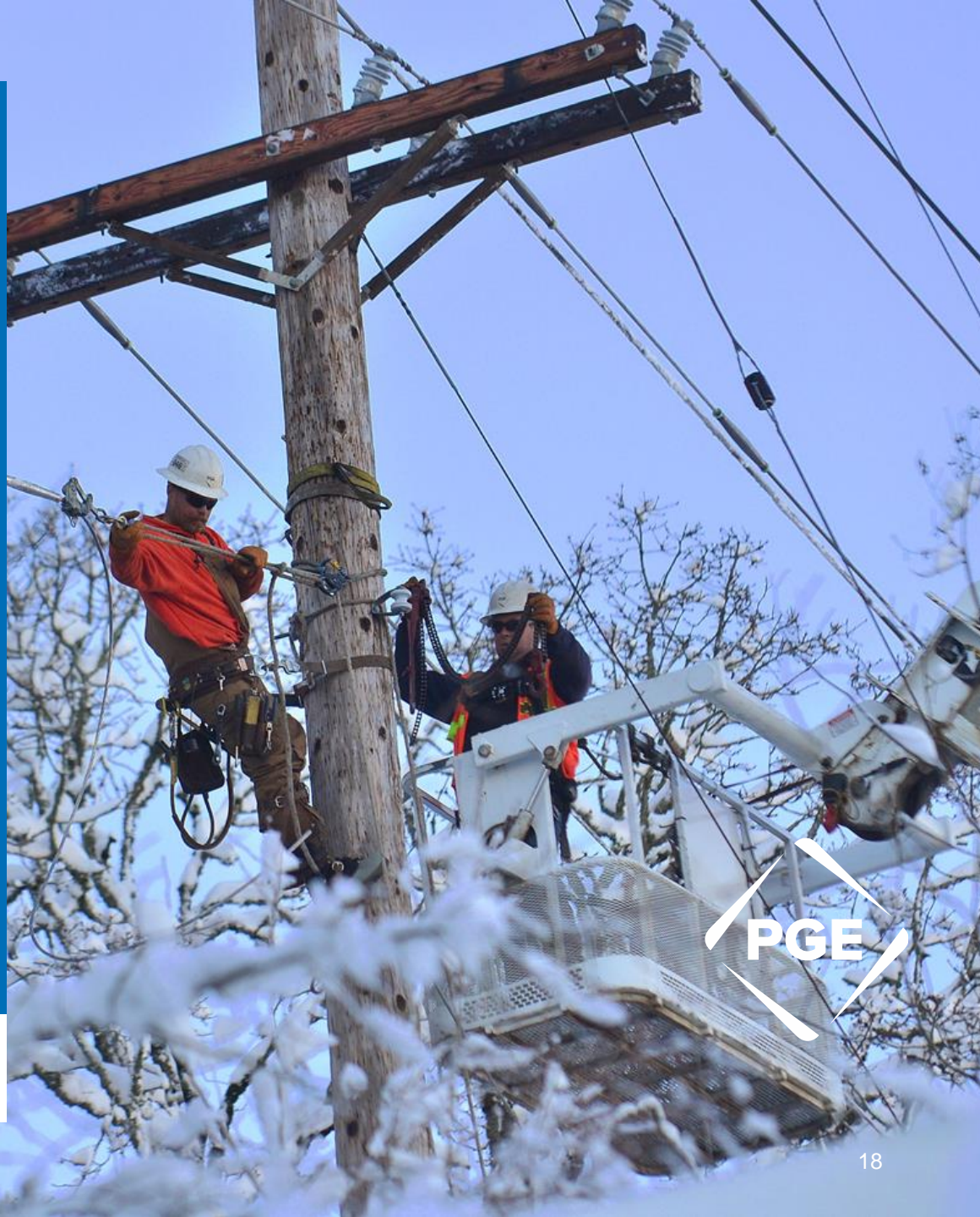
- Investment grade credit ratings
- Manageable debt maturities
- Target capital structure of 50% debt and 50% equity

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

(1) All values as of 03/31/2017

# The Execution

## Strong Platform for Stakeholder Value





# New 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
Total estimated cost, including AFDC, for completion:	\$640M <sup>(1)</sup>
Carty plant in-service as of 03/31/2017:	\$636M
Estimated time frame to complete litigation:	2-4 years

(1) Total estimated cost does not reflect any amounts that may be received from sureties under the performance bond, the original contractor, or contractor's parent company

# 2016 Integrated Resource Plan



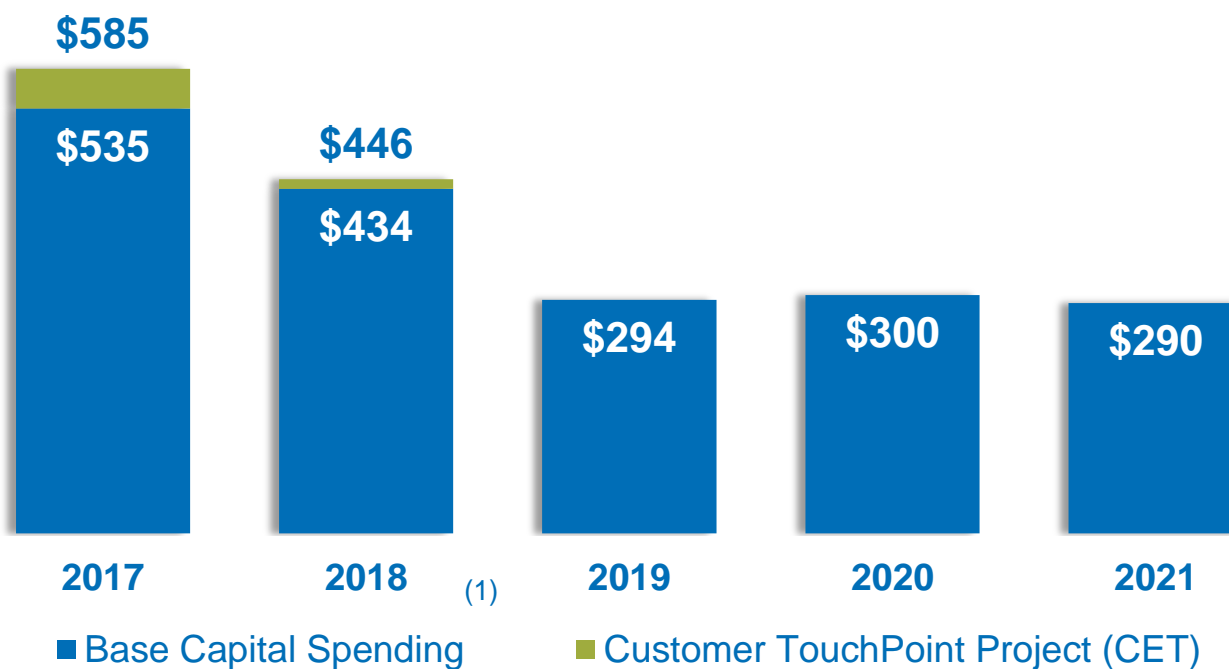
- Reflects PGE's shift to more renewables in keeping with Oregon Clean Electricity Plan
- Process includes continuing dialog with OPUC staff and stakeholders
- RFPs will be open to a variety of resource options

## Areas of Focus

- Energy efficiency (135 MWa) and demand-side actions (77 MW)
- Investment / acquisition of renewables (175 MWa) to meet Oregon Clean Electricity Plan: IRP will position PGE to comply with 27% RPS requirement by 2025
- Filling up to 561 MW capacity deficit to ensure reliability

# Forecasted Capital Expenditures

\$ millions



## Outlook

Annually the board of directors will review the need for additional investments focused on improving the efficiency, reliability and resiliency of PGE's infrastructure to meet customer needs.

Capital additions that could result from the Request For Proposal following acknowledgment of the Integrated Resource Plan have not been estimated and are not shown.

Note: Amounts do not include AFDC

(1) Includes approximately \$300 million of ongoing capital plus Board approved investments in resiliency for 2017 and 2018. PGE continues to evaluate its need for additional resiliency investments and will update this forecast as appropriate

# PGE Value Proposition

**Strong platform  
executing  
sustained long-  
term growth**



High quality utility operations

Attractive service territory

Strong financial position

Generation and T&D resiliency initiatives

Progressive reduction in carbon footprint & intensity

Future infrastructure investment opportunities

# PGE Investor Relations Team



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# Portland General Electric Appendices



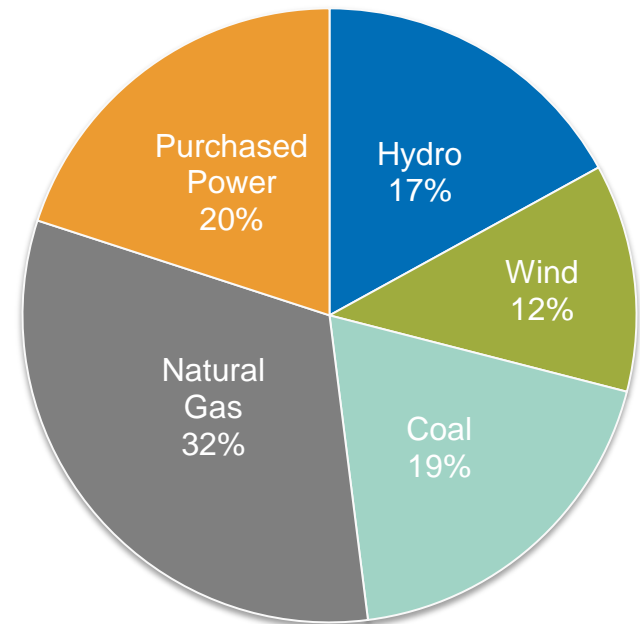
# Diversified Resource Mix

## Resource Capacity as of 12/31/2016

	Capacity in MW	% of Total Capacity
<b>Hydro<sup>(1)</sup></b>		
Deschutes River Projects	303	6%
Clackamas/Willamette River Projects	192	4%
Hydro Contracts	534	11%
	<b>1,029</b>	<b>22%</b>
<b>Natural Gas/Oil<sup>(1)</sup></b>		
Beaver Units 1-8	508	11%
Coyote Springs	243	5%
Port Westward Unit 1	395	8%
Port Westward Unit 2	225	5%
Carty	434	9%
	<b>1,805</b>	<b>38%</b>
<b>Coal<sup>(1)</sup></b>		
Boardman	518	11%
Colstrip	296	6%
	<b>814</b>	<b>17%</b>
<b>Wind</b>		
Biglow Canyon <sup>(2)</sup>	450	10%
Tucannon River <sup>(3)</sup>	267	6%
Wind and Solar Contracts	52	1%
	<b>769</b>	<b>17%</b>
<b>Additional Purchased Power</b>	<b>313</b>	<b>7%</b>
<b>Total</b>	<b>4,730</b>	<b>100%</b>

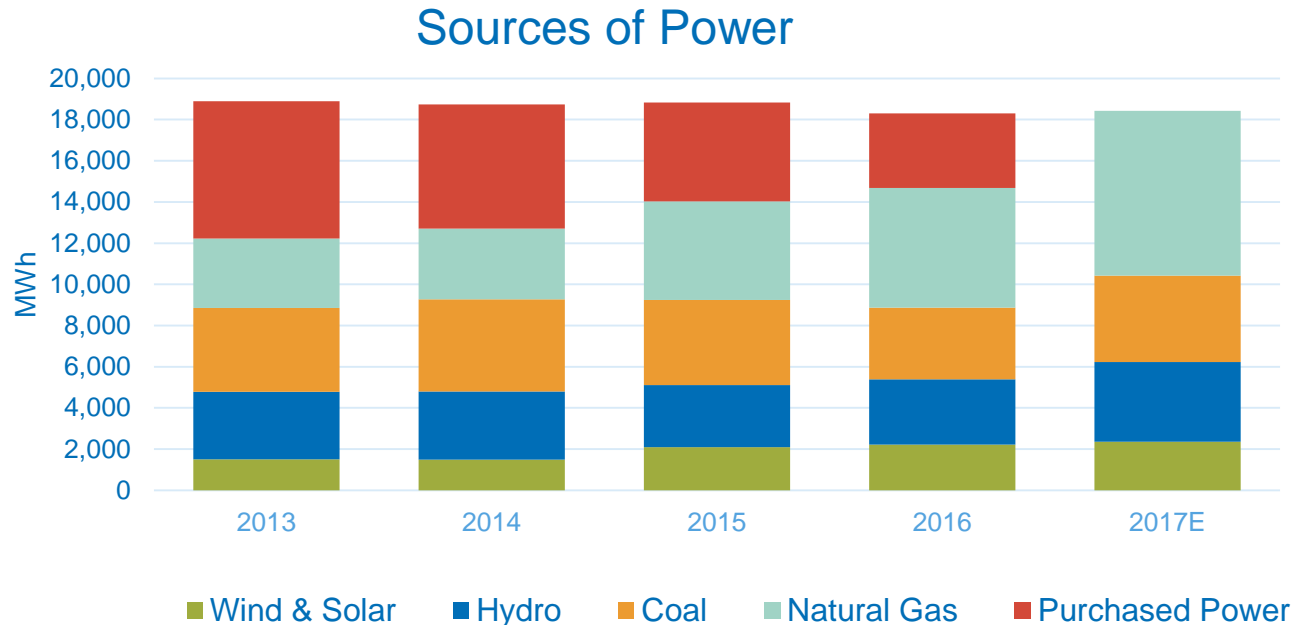
## Power Sources as a Percent of Retail Load (2016 Actuals)

Total = 18,295,000 MWh



- (1) Capacity of a given plant represents the megawatts the plant is capable of generating under normal operating conditions, net of electricity used in the operation of the plant.  
 (2) With respect to Biglow Canyon, capacity represents nameplate and differs from expected energy to be generated, which was a 23% capacity factor in 2016.  
 (3) With respect to Tucannon River Wind Farm, capacity represents nameplate and differs from expected energy to be generated, which was a 28% capacity factor in 2016.

# Changing Generation Portfolio



## 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: For both charts, hydro and wind/solar include PGE owned and contracted resources

(1) Based on an estimated forecast which includes new generation from Carty

# Financing Activity

## Equity Issuances

	Date	Shares	Net Proceeds
Equity Forward Sale Agreement	June 2013	11.1 million	--
Draw pursuant to forward	August 2013	0.7 million	\$20 million
Draw pursuant to forward	June 2015	10.4 million	\$271 million
Net remaining shares available for issuance:			
Equity Over-Allotment	June 2013	1.7 million	\$46 million

## Long-term Debt (\$ in millions)

### Issued:

Amount	Issuance Date	Coupon	Maturity
\$100	8/15/14	4.39%	2045
\$100	10/15/14	4.44%	2046
\$80	11/17/14	3.51%	2024
\$75	1/15/15	3.55%	2030
\$70	5/19/15	3.50%	2035
\$140	1/6/16	2.51%	2021
\$50	5/4/16	1.6%	Nov 2017
\$75	6/15/16	1.6%	Nov 2017
\$25	10/31/16	1.6%	Nov 2017

### Matured/Redeemed:

Amount	Date
\$70	Matured – Jan 2015
\$67	Redeemed – May 2015
\$75	Redeemed – Jan 2016
\$58	Redeemed – Jan 2016

# Generation Plant Operations

- Track record of high availability

	2011	2012	2013	2014	2015	2016
PGE Thermal Plants	90%	92%	84%	89%	89%	92%
PGE Hydro Plants	100%	99%	100%	100%	99%	99%
PGE Wind Farm	97%	98%	98%	94%	97%	95%
<b>PGE Wtd. Average</b>	<b>93%</b>	<b>94%</b>	<b>89%</b>	<b>92%</b>	<b>93%</b>	<b>93%</b>
Colstrip Unit 3 & 4	84%	93%	66%	83%	93%	85%

- **Generation Reliability and Maintenance Excellence Program**

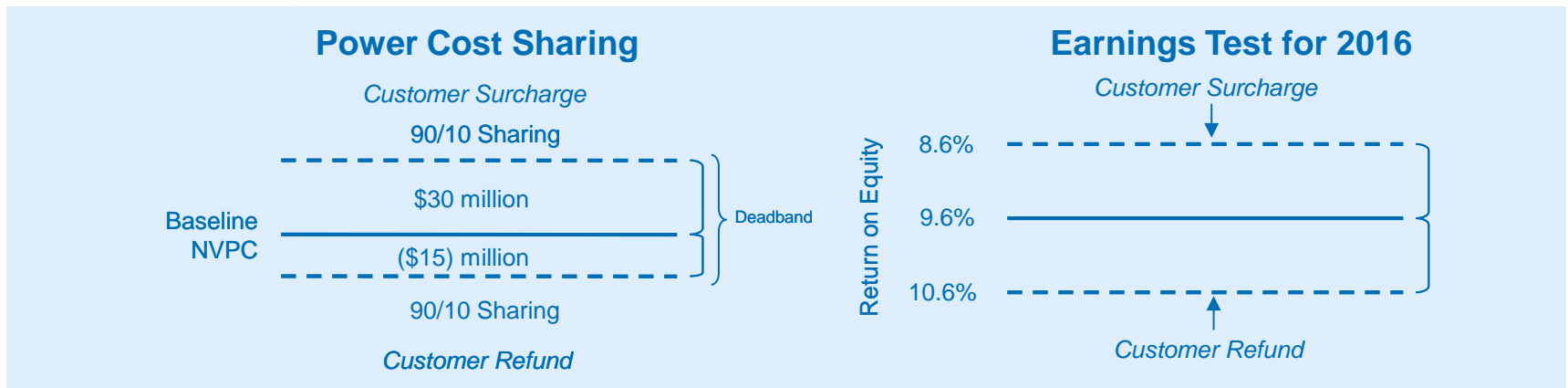
- Corporate strategy started in 2007 to increase availability of PGE's generation plants and increase predictability of plant dispatch costs for power operations
- Key Elements
  - Reliability Centered Maintenance (RCM) modeling for PGE's generating plants and incorporation of models into PGE's maintenance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

# 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 8.6%; customer refund occurs to the extent it results in PGE's actual regulated ROE being no less than 10.6%

# 2018 General Rate Case - Key Dates

Date	Event
April 7 <sup>th</sup>	Deadline to file petitions to Intervene
May 5 <sup>th</sup>	Staff Workshop
June 16 <sup>th</sup>	Staff and Intervenors file opening testimony
July 18 <sup>th</sup>	PGE files Reply Testimony
August 3 <sup>rd</sup> - 4 <sup>th</sup>	Settlement Conferences
August 17 <sup>th</sup>	Staff and Intervenors file Cross-Answering and Rebuttal Testimony
September 5 <sup>th</sup>	PGE files Surrebuttal Testimony
September 12 <sup>th</sup>	All Parties file Joint Issues List, Cross-examination settlement, and Exhibit lists
October 24 <sup>th</sup> (tentative)	Oral arguments
December 21 <sup>st</sup>	Target date for Commission Order
January 1 <sup>st</sup> , 2018	Effective Date



# 2016 General Rate Case

## Oregon Public Utility Commission Order

- Overall increase in customer prices: 0%
- Return on Equity: 9.6%
- Capital Structure: 50% debt, 50% equity
- Cost of Capital: 7.51%
- Rate Base: \$4.4 billion<sup>(1)</sup>
- Annual revenue requirement increase: \$12 million

## Customer Prices

- Base Business: January 1, 2016
- Carty: August 1, 2016

Customer price changes:

- Base business reduction of 2.5%
- Carty increase of 2.5%

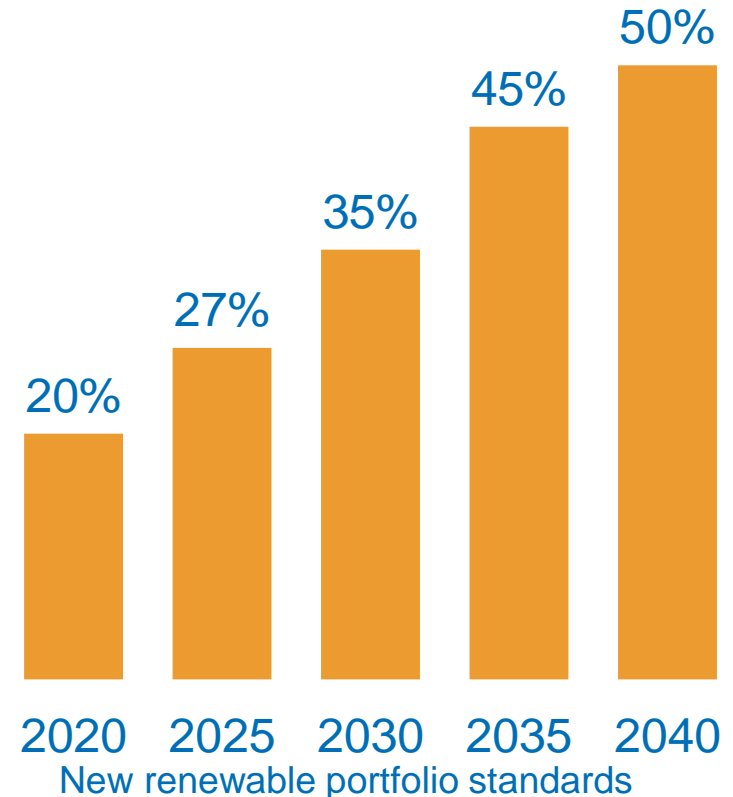
(1) Includes Carty at \$514 million

# Oregon Clean Electricity Plan

## Oregon Senate Bill 1547

### Key Elements of Plan

- Increase the renewable portfolio standard to 50 percent in 2040
- Transitions Oregon off coal-fired generation by 2035
- Includes PTCs in power costs, beginning with AUT filing for 2017
- Reaffirms state's commitment to energy efficiency programs
- Encourages transportation electrification
- Increases access to solar energy for more Oregonians
- Flexibility to achieve goals while working with the Oregon Public Utility Commission



# Renewable Portfolio Standard

## Additional Renewable Resources

- PGE's 2009 Integrated Resource Plan addressed procurement of renewable resources to meet the 2015 requirement of Oregon's Renewable Portfolio Standard (RPS). As of 2016, PGE had the following qualifying renewable resources:

Type of Resource	% of Retail Load
Wind	11.6%
Low Impact Hydro	3%
Solar & Other	0.3%

## 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 percent of PGE's retail load in 2012, 2013, & 2014, and approximately 15 percent 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.

# Executing on New Generation

## Tucannon River Wind Farm

Capacity: 267 MW

In-service date: Dec. 2014

Project cost: \$525 M



On time  
On budget



## Port Westward Unit 2

Capacity: 220 MW

Fuel: Natural Gas  
Reciprocating Engines

In-service date: Dec. 2014

Project cost: \$311 M

# 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 2016 general rate case. The SNA mechanism applies to approximately 61% of 2016 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 27% of 2016 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
Sales Normalization Adjustment	\$(6.6)	\$(8.8)	\$1.9
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>

Note: refund = (negative) / collection = positive

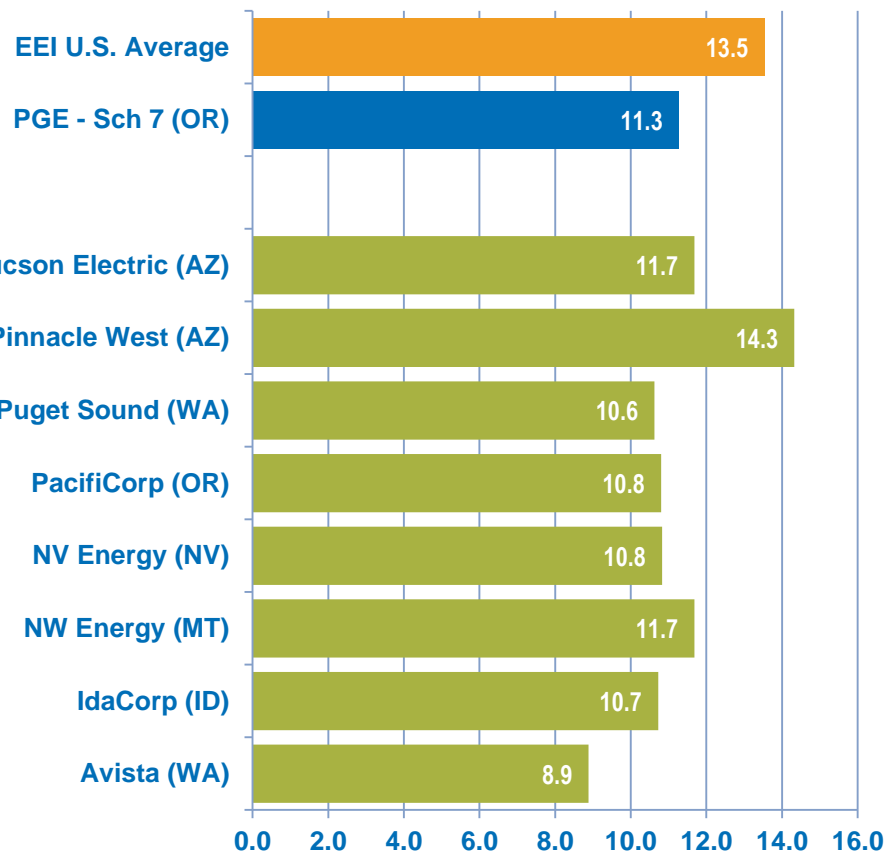
# Average Retail Price Comparison

## Residential and Commercial – Summer 2016

### RESIDENTIAL Electric Service Prices

#### Investor Relations Northwest Regional Peer Group

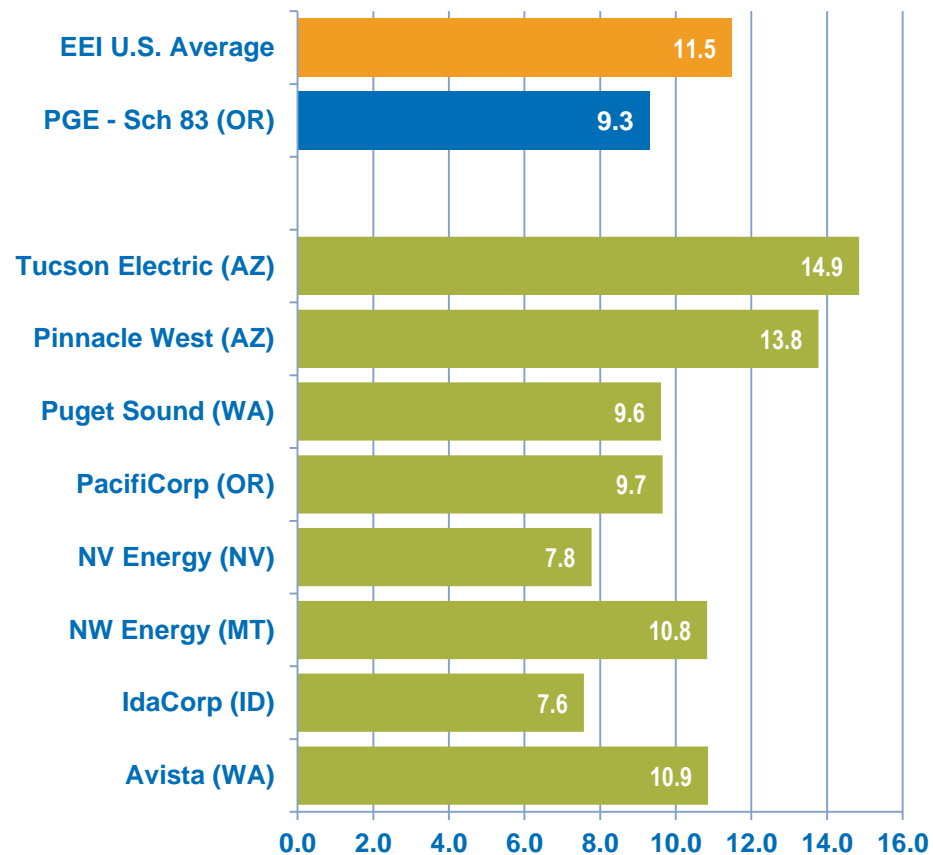
1000 kWh Monthly Consumption  
(cents per kWh)



### COMMERCIAL Electric Service Prices

#### Investor Relations Northwest Regional Peer Group

40 kW Demand - 14,000 kWh Monthly Consumption  
(cents per kWh)



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

Source: EEI Typical Bills and Average Rates Report for Prices in effect July 1, 2016

# Average Retail Price Comparison

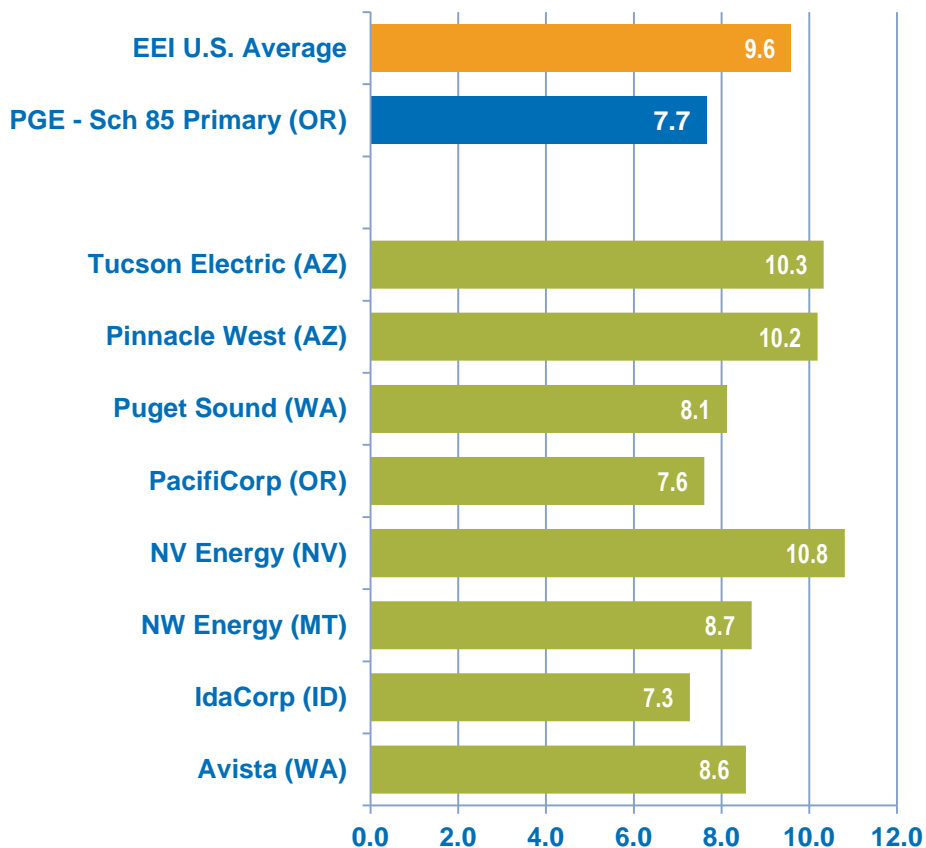
## Small and Large Industrial – Summer 2016

### INDUSTRIAL Electric Service Prices

#### Investor Relations Northwest Regional Peer Group

1000 kW Peak Demand - 400,000 kWh Monthly Consumption

Primary Voltage (cents per kWh)

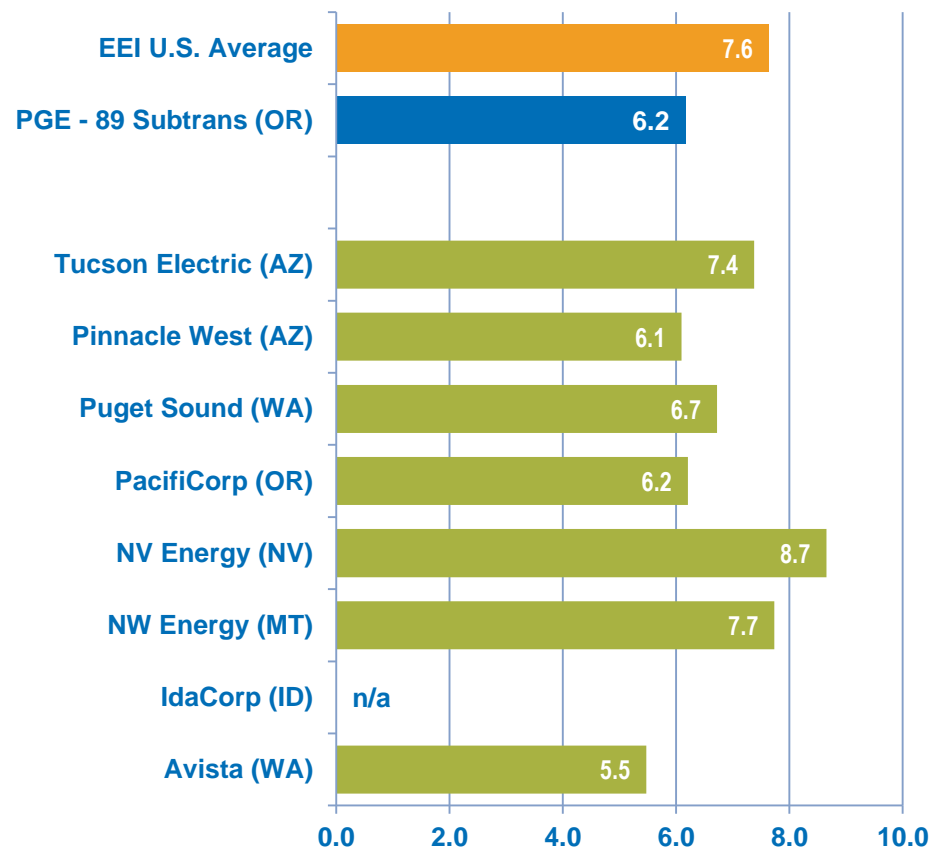


### LARGE INDUSTRIAL Electric Service Prices

#### Investor Relations Northwest Regional Peer Group

50,000 kW Peak Demand - 32,500,000 kWh Monthly Consumption

Subtransmission Voltage (cents per kWh)



Source: EEI Typical Bills and Average Rates Report for Prices in effect July 1, 2016