





# Investor Presentation May 2016



# Cautionary Statement



#### Information Current as of April 29, 2016

Except as expressly noted, the information in this presentation is current as of April 29, 2016 — the date on which PGE filed its Annual Report on Form 10-Q for the quarter ended March 31, 2016 — 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 presentation 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 presentation 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-O 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 territory

Progressive environmental and renewable position

Focus on operational efficiency

Strong financial position

Generation and T&D investment opportunities

# STRONG PLATFORM FOR STAKEHOLDER VALUE



### **The Company**

**The Strengths** 

**The Execution** 







### PGE at a Glance



### **Quick Facts:**

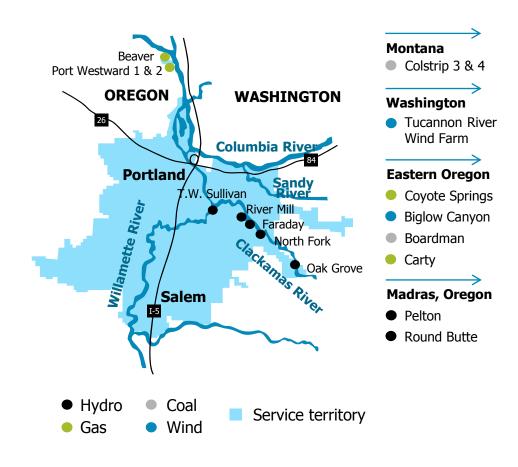
- Vertically integrated generation, transmission and distribution
- 855,573 customers<sup>(1)</sup>
- 46% of Oregonians
- Majority of Oregon's commercial and industrial activity

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

Revenue: \$1.9 billion

Earnings per share: \$2.04

Net Utility Plant Assets: \$6.0 billion



# 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



#### Load Growth<sup>(1)</sup>

- 2016E load growth of approximately 1%
- Driven by industrial delivery growth and strong economic conditions

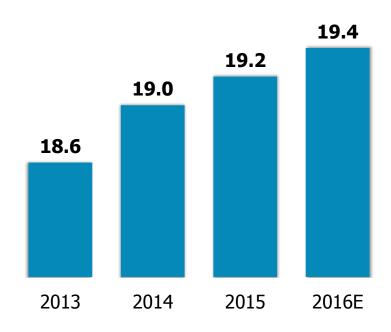
#### **Industrial Sector Growth**

- Growth in high-tech
  - Intel's expansion
  - Data centers

#### **Energy Efficiency**

Incremental EE expected in 2016E is equivalent to approximately
 1.5% in load growth

# Retail Load<sup>(1)</sup> (Million MWhs Rounded)



Long-term forecast ~1% annually through 2030

# 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)

#### Regulatory Mechanisms

- Net variable power cost recovery
  - Annual Power Cost Update Tariff (AUT)
  - Power Cost Adjustment Mechanism (PCAM)
- Decoupling through 2016<sup>(2)</sup>
- Renewable Adjustment Clause

Governor-appointed three-member commission<sup>(1)</sup>

Chair: Susan Ackerman [D] Mar 2016
John Savage [D] Mar 2017
Stephen Bloom [R] Nov 2015



<sup>(1)</sup> Susan Ackerman is not seeking reappointment and will remain with the commission until the end of May 2016. The governor has nominated Lisa Hardie to the commission to fill the open seat and re-nominated Stephen Bloom. A vote for confirmation of the nominees will likely occur at the end of May. The assignment of the role of chairperson will be at the discretion of the governor.

<sup>(2)</sup> PGE filed for a three year extension of the decoupling mechanism on March 1, 2016 under docket UE-306

# STRONG PLATFORM FOR STAKEHOLDER VALUE



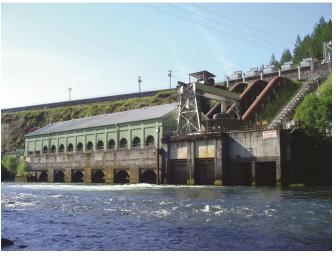
### **The Company**

### **The Strengths**

### **The Execution**







# Key Strengths



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

# 1. High Customer Satisfaction





Top Quartile System Reliability

Edison Electric Institute



Top Quartile Customer Satisfaction, Key Customers TQS Research, Inc.



Top Quartile Customer Satisfaction, Residential and Business

Market Strategies International



Top Ranked Renewable Energy Program
National Renewables Energy Laboratory

All customer satisfaction and reliability measures consistently top quartile

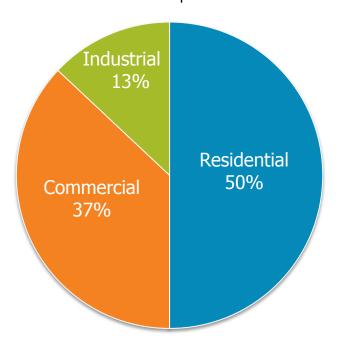
### 2. Diverse Generation and Customer Base



# **Retail Revenues by Customer Class**

(2015)

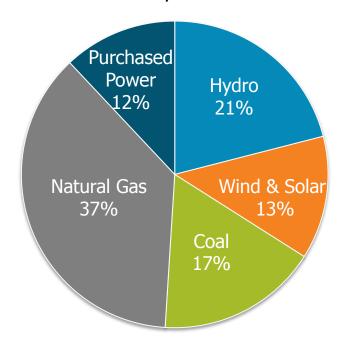
Total = \$1.78B



### Power Sources as a Percent of Retail Load

(2016 AUT)<sup>(1)</sup>

Total = 2,120 MWa



# 3. High Quality Utility Operations



- Highly dependable PGE generation portfolio with five-year average availability of 92%<sup>(1)</sup>
- Strong power supply operations to stabilize and optimize power costs
- Progressive approach to reduce coal generation – Boardman 2020 Plan
- T&D investment to ensure high reliability and customer satisfaction
- Ongoing investment in technology to improve service and capture efficiencies

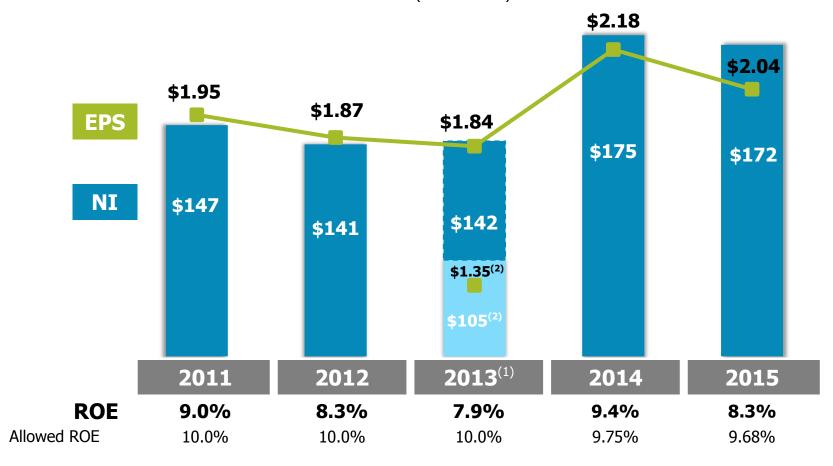


## 4. Solid Financial Performance



# Net Income, Earnings per Share, and ROE 2011 - 2015

(NI in millions)

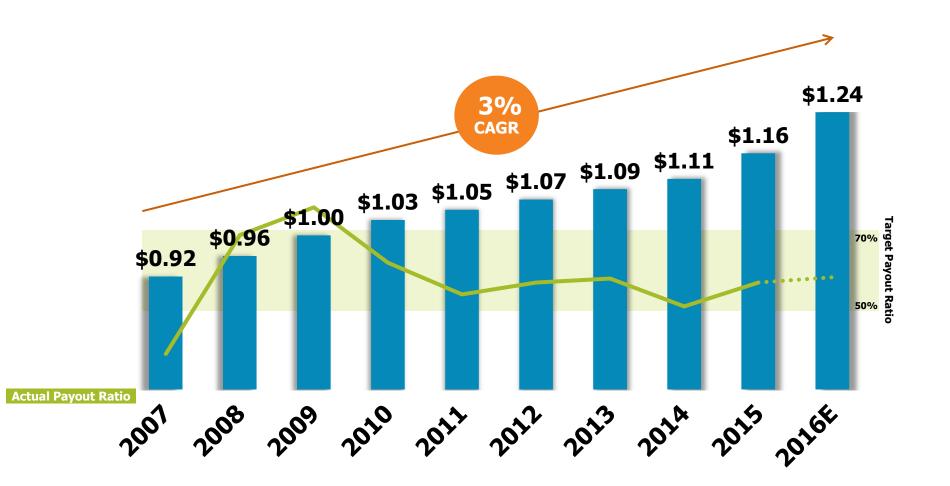


<sup>(1) 2013</sup> displays full-year non-GAAP adjusted operating earnings, which excludes the negative impact of the Cascade Crossing expense (\$0.42 EPS) and the customer billing refund (\$0.07 EPS)

<sup>(2)</sup> GAAP earnings for year-end 2013 were \$105 million or \$1.35 per diluted share

### 4. Consistent Dividend Growth





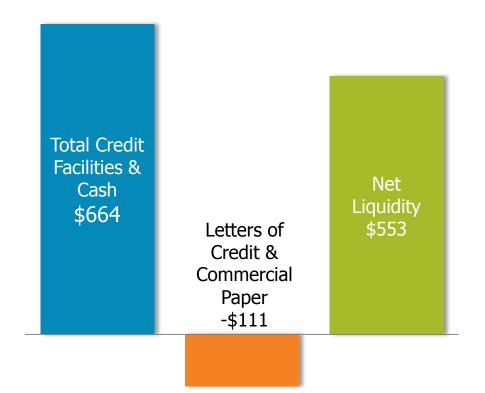
Annual dividend increases expected to be in the 5-7% range(1)

Note: Represents annual dividends paid

# 5. Strong Liquidity Position for Growth



# Revolving Credit Facilities (1) (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 3/31/2016

# STRONG PLATFORM FOR STAKEHOLDER VALUE



**The Company** 

**The Strengths** 

**The Execution** 







# Executing on New Generation



### **Tucannon River Wind Farm**

Capacity: 267 MW

In-service date: Dec. 2014

Project cost: \$525 M







### Port Westward Unit 2

Capacity: 220 MW

Fuel: Natural Gas Reciprocating Engines

In-service date: Dec. 2014

Project cost: \$311 M

### **Under Construction**



### **Carty Generating Station**



A 440 MW natural gas baseload plant under construction near Boardman, OR

### Carty Project update:

- March 9, 2016: Sureties denied full liability under the performance bond
- March 23, 2016: PGE filed a lawsuit against sureties for breach of contract damages
- April 15, 2016: Sureties filed a motion to stay the proceedings, alleging PGE claims should be addressed in the arbitration proceeding initiated by Abengoa.
- Systems required for first fire are being completed
- First fire scheduled for beginning of June

Capital costs, including AFDC, approved in 2016 GRC: \$514M

Total estimated cost, including AFDC, for completion<sup>(1)</sup>: \$635-\$670M

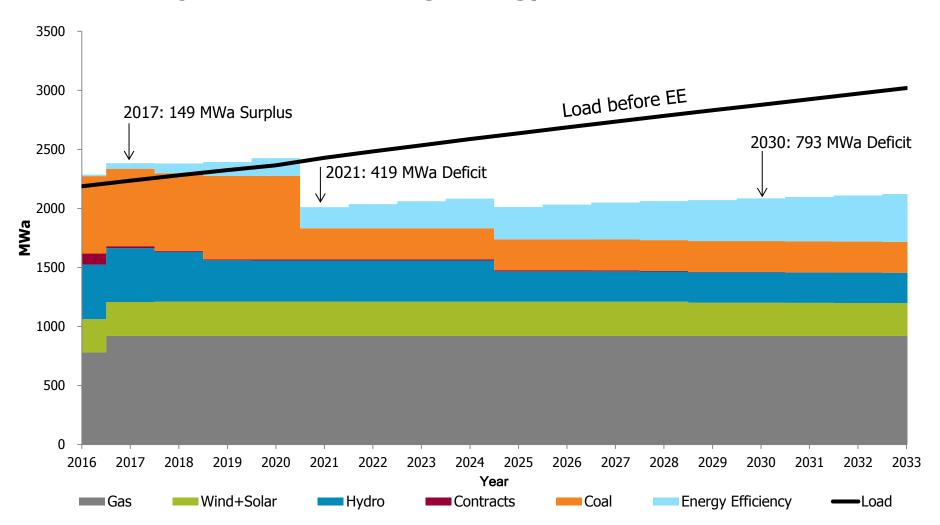
Deadline for plant-in-service in 2016 GRC: July 31, 2016

Current targeted date for plant-in-service: July 31, 2016

### Load-Resource Forecast



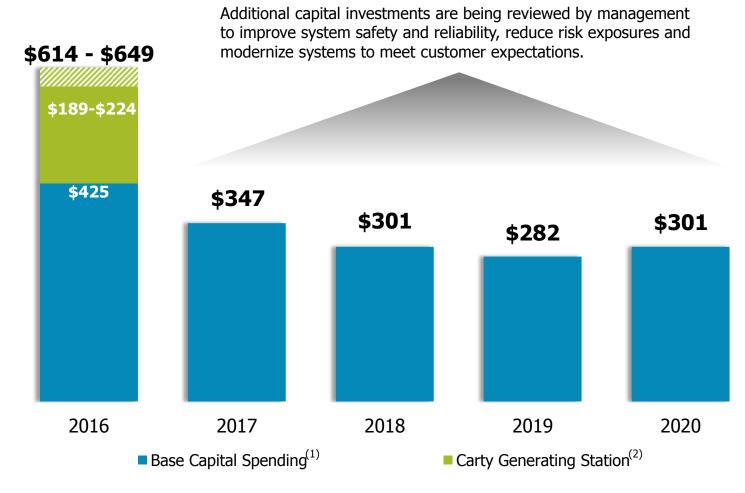
### **Projected Annual Average Energy Load-Resource Balance**(1)



# Forecasted Capital Expenditures







Note: Amounts do not include AFDC

<sup>(1)</sup> Consists of board-approved ongoing Cap Ex and hydro relicensing per the Form 10-Q filed on April 29, 2016

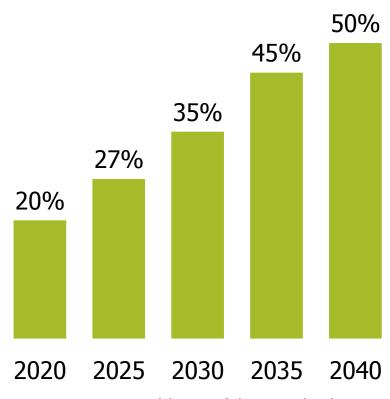
<sup>(2)</sup> Total estimated cost does not consider any amounts received from sureties under the performance bond

# Clean Electricity Plan and Coal Transition Plan



### 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



New renewable portfolio standards

# Request For Proposal for Renewables



#### Accelerated RFP Timeline:



### Key Elements of Accelerated RFP for Renewables

- Accelerated renewable RFP process intended to capture available renewable resource tax benefits for customers
- Participation of Independent Evaluator
- Project size of approximately 175 MWa to help meet Oregon's 2020 and a portion of the 2025 Renewable Portfolio Standard
- Types of projects to be considered:
  - Asset-Ownership Options
  - Purchase Power Agreements
- Accelerated RFP contingent on OPUC approval

# 2016 Integrated Resource Plan



#### Standard IRP Process Timeline:



### Areas of focus

- Energy efficiency and demand side actions
- Evaluation of carbon and the Clean Power Plan
- Energy and capacity needs
- Boardman replacement
- 2020 RPS requirement of 20%

# **PGE Value Proposition**



High quality utility operations

Attractive service territory

Strong financial position

Progressive renewable position

Generation and T&D investment opportunities

New investments drive rate-base growth

Strong Platform
executing
Sustained Long

Sustained Long Term Growth

## PGE Investor Relations Team



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# Portland General Electric

Appendices



### Diversified Resource Mix



#### **Resource Capacity**

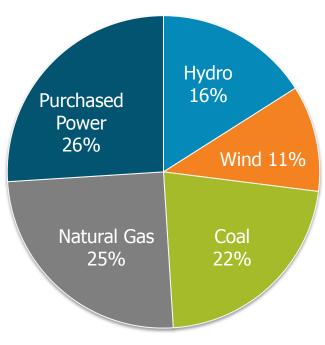
as of 12/31/15

	Capacity in MW	% of Total Capacity
Hydro <sup>(1)</sup>		
Deschutes River Projects	303	7%
Clackamas/Willamette River Projects	192	4%
Hydro Contracts	592	13%
	1,087	24%
Natural Gas/Oil <sup>(1)</sup>		
Beaver Units 1-8	508	11%
Coyote Springs	243	5%
Port Westward Unit 1	395	9%
Port Westward Unit 2	225	5%
	1,371	30%
Coal <sup>(1)</sup>		
Boardman	518	11%
Colstrip	296	6%
	814	18%
Wind		
Biglow Canyon (3)	450	10%
Tucannon River (3)	267	6%
Wind and Solar Contracts	52	1%
	769	17%
Purchased Power	568	12%
Total	4,609	100%

### Power Sources as a Percent of Retail Load

(2015 Actuals)

Total = 18,831,000 MWh



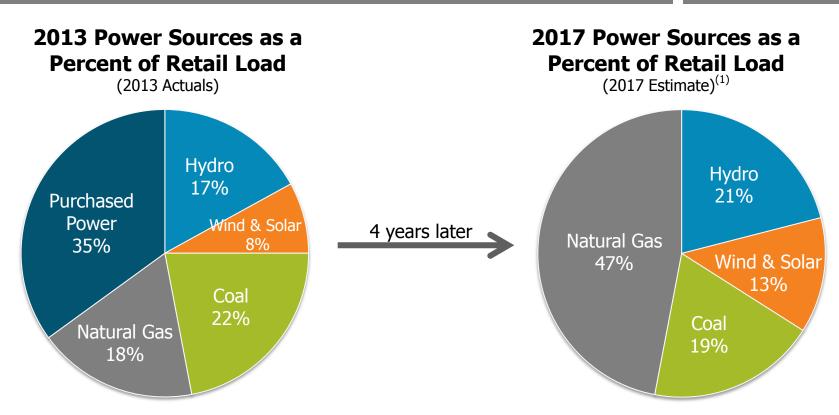
<sup>(1)</sup> Capacity of a given plant represents the megawatts the plant is capable of generating under normal operating conditions, net of electricity used in the operation of the plant.

<sup>(2)</sup> With respect to Biglow Canyon, capacity represents nameplate and differs from expected energy to be generated, which was a 26% capacity factor in 2015.

<sup>(3)</sup> With respect to Tucannon River Wind Farm, capacity represents nameplate and differs from expected energy to be generated, which was a 32% capacity factor in 2015.

# Changing Generation Portfolio





#### **Changes driven by:**

- New generation: Port Westward Unit 2 (natural gas, Q4 2014), Tucannon River (wind, Q4 2014), and Carty Generating Station (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 and 25% by 2025

# Financing Activity



### **Equity Issuances**

**Equity Over-Allotment** 

Equity Forward Sale Agreement

Draw pursuant to forward

Draw pursuant to forward

Net remaining shares available for issuance:

Date	Shares	Net Proceeds
June 2013	11.1 million	
August 2013	0.7 million	\$20 million
June 2015	10.4 million	\$271 million
	0	
June 2013	1.7 million	\$46 million

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

#### **Issued:**

issucu.			
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

#### 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
PGE Thermal Plants	90%	92%	84%	89%	89%
PGE Hydro Plants	100%	99%	100%	100%	99%
PGE Wind Farm	97%	98%	98%	94%	97%
PGE Wtd. Average	93%	94%	89%	92%	93%
Colstrip Unit 3 & 4	84%	93%	66%	83%	93%

#### 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

# 2013 Integrated Resource Plan



- 2013 IRP was acknowledged by the OPUC on 12/2/14 and PGE received written confirmation on stipulations to incorporate into the 2016 IRP development
- PGE filed a 2013 IRP update in December 2015

#### **Action Plan Resource Additions through 2017**

- No new long-term supply side resources proposed in this IRP
- Hydro contract renewals
- Proceed with demand side resource procurement
- Energy Efficiency: 124 MWa by 2017
- Dispatchable Standby Generation (DSG): additional 23 MW (total of 116 MW)
- Demand Response (DR): additional 25 MW (total of 45 MW)
- Short and mid-term market purchases & sales to balance portfolio

#### **Action Plan Studies and Initiatives to Inform 2016 IRP**

- Operational flexibility assessment
- Third party load forecast methodology assessment/study
- Assessment of emerging EE, in conjunction with Energy Trust of Oregon (ETO)
- Dynamic dispatch requirement / capabilities assessment, and review of new analytical tools for optimizing portfolio commitment and dispatch
- Distributed generation evaluation
- Boardman biomass technical & economic assessments (continuation of current plan)
- Assessment of longer-term gas supply alternatives to address price volatility

#### **Transmission Requirements**

Retain and/or acquire required service under Bonneville Transmission Administration's Open Access Transmission Tariff

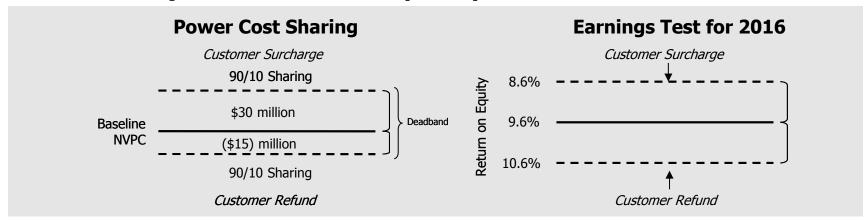
# Recovery of Power Costs



#### **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 prudency 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%

### 2016 General Rate Case



### Oregon Public Utility Commission Order

Overall increase in customer prices: 0.7%

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: July 31, 2016<sup>(2)</sup>

#### Customer price changes:

- Base business reduction of 2.5%
- Carty increase of 3.2%

<sup>(1)</sup> Includes Carty at \$514 million

<sup>(2)</sup> This date represents the in-service deadline included in the 2016 General Rate Case

### Current 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. To help meet this standard PGE built Tucannon River Wind Farm, a 267 megawatt, 116 turbine wind resource located in southeastern Washington.

	RPS Target
2011	5%
2015	15%
2020	20%
2025	27%

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

#### 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 January 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 (LRRA), 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 2015 general rate case. The SNA mechanism applies to approximately 61% of 2015 base revenues.
- The LRRA is based on the difference between actual energy-efficiency savings (as reported by the ETO) and those incorporated in the applicable load forecast. The LRRA mechanism applies to approximately 26% of 2015 base revenues.

In PGE's 2014 General Rate Case, PGE and parties stipulated to the extension of the decoupling mechanism for three years, through the end of 2016. In addition, the use-per-customer baseline was adjusted for new connects with lower energy usage. There were no changes or extensions to the decoupling mechanism in the either the 2015 or 2016 General Rate Cases. PGE filed for another 3-year extension of the decoupling mechanism on March 1, 2016 under docket UE 306.

#### **Recent Decoupling Results**

(in millions)	2014	2015	Q1 2016
Sales Normalization Adjustment	\$(6.6)	\$(6.9)	\$3.0
Lost Revenue Recovery Adjustment	\$1.4	\$(1.9)	\$0.0
Total adjustment	\$(5.2)	\$(8.8)	\$3.0

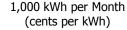
Note: refund = (negative) / collection = positive

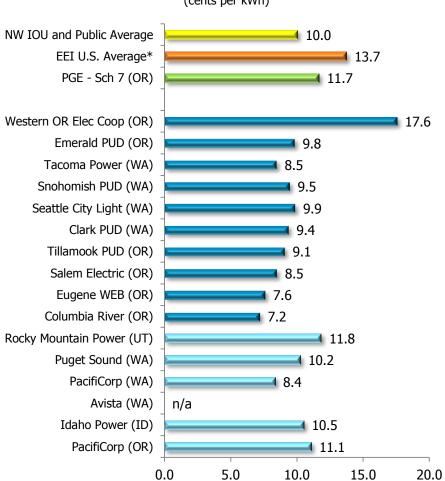
## Average Retail Price Comparison

Residential and Commercial – Summer 2015



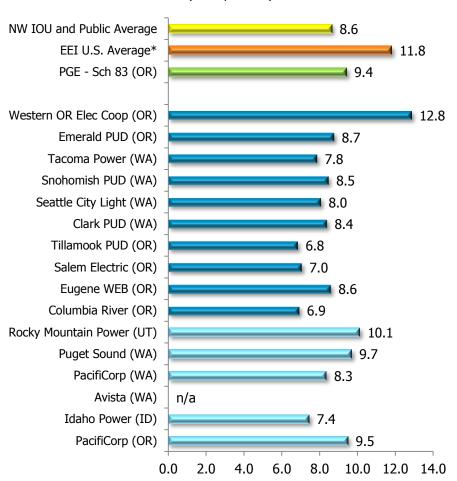






# Commercial Electric Service Prices Northwestern Investor-Owned and Public Utilities

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



<sup>\*</sup> This average is based on Investor-owned utilities only.

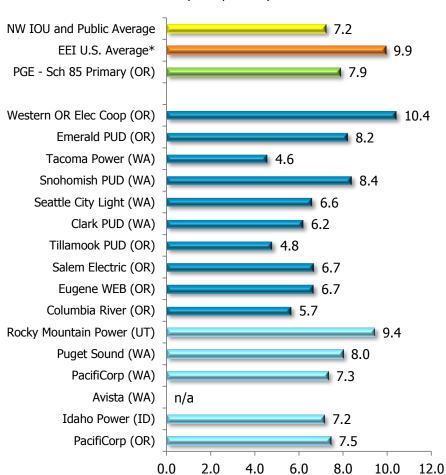
## Average Retail Price Comparison

Small and Large Industrial – Summer 2015



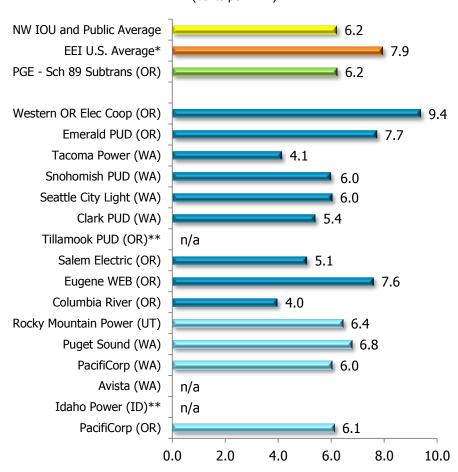
#### Small Industrial Electric Service Prices Northwestern Investor-Owned and Public Utilities

1,000 kW Demand - 400,000 kWh per Month, Primary Voltage (cents per kWh)



#### Large Industrial Electric Service Prices Northwestern Investor-Owned and Public Utilities

50,000 kW Demand - 32,500,000 kWh per Month, Subtransmission Voltage (cents per kWh)



<sup>\*</sup> This average is based on Investor-owned utilities only.

<sup>\*\*</sup> Idaho Power does not report a price to EEI for large industrial customers at this usage and demand level. Tillamook PUD does not offer a large general service tariff on their web site.