## **Goldman Sachs**

6<sup>th</sup> Annual Clean Energy and Power Conference December 8-9, 2011





# **Cautionary Statement**

#### Information Current as of November 3, 2011

Except as expressly noted, the information in this presentation is current as of November 3, 2011 — the date on which PGE filed its Quarterly Report on Form 10-Q for the quarterly period ending September 30, 2011 — 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**

This presentation contains statements that are "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 regarding the future impact of Senate Bill 408; statements regarding future capital expenditures; statements regarding future financings and PGE's access to capital and cost of capital; statements regarding PGE's future liquidity and anticipated collateral roll-off; statements regarding the cost, completion and benefits of capital projects; statements regarding future generation and transmission projects, including those set forth in the Company's Integrated Resource Plan; statements concerning future operation of the Company's Boardman coal plant; as well as other statements containing words such as "anticipates," "believes," "intends," "estimates," "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 and the sale of excess energy during periods of 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; the costs of compliance with environmental laws and regulations, including those that govern emissions from thermal power plants; changes in weather, hydroelectric and energy market 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; unforeseen problems or delays in completing capital projects, resulting in the failure to complete such projects on schedule or within budget; 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 statements, except as required by law. 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.

# Portland General Investment Highlights

"Pure-play" electric utility

Attractive service territory and constructive regulatory environment

Operational excellence

Diversified, high-performing plants and well maintained T&D system

Excellent overall customer satisfaction

Low-risk growth plan

Regulated capital investment opportunities in generation, renewables, and transmission

Prudent financial strategy

Investment grade ratings of BBB and Baa2

Stability:

**Dividend Yield** 

Attractive total return proposition

**Growth:** 

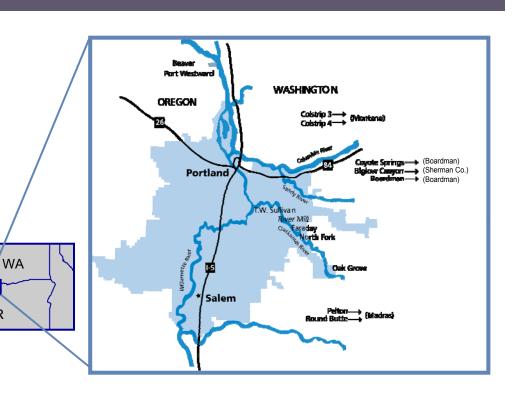
**Earnings Per Share** 

# **Attractive Regulated Business Profile**

- Vertically integrated electric utility
  - Single state jurisdiction
  - 100% regulated business
  - No holding company structure
- Attractive, compact service territory with 825,000 retail customers<sup>(1)</sup>
- Opportunities for investment in core utility assets
- Diversified and growing customer base
- Core business strategy

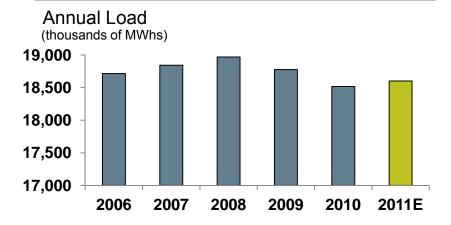


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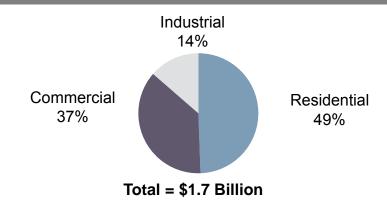


# **Attractive Service Territory**

#### Weather Adjusted Annual Load (1)



#### 2010 Retail Revenues by Customer Group



#### **Forecasted Load Growth**

- 2011 loads are forecast to increase approximately one-half percent compared to 2010 loads<sup>(1)</sup>
- Long-term annual load growth forecast, net of energy efficiency, of 1.7% through 2030<sup>(2)</sup>

#### Key Driver:

- Economy continues to improve
  - Intel building D1X project
  - Growth in other high-tech manufacturing
  - Construction employment growing 2.6% YTD Q3 2011 compared to a 0.2% decline for the US.
  - Continued in-migration

<sup>1)</sup> Adjusted for weather and certain industrial customers; September 2011 forecast with history through September 30, 2011.

<sup>5 2)</sup> Per the 2011 IRP Update: PGE's forecasted 1.8% long-term annual load growth does not reflect future incremental energy efficiency (EE) activities. Including all EE activities, PGE's forecasted long-term annual load growth is 1.7%.

## **Operational Excellence**

#### **Operational Efficiency**

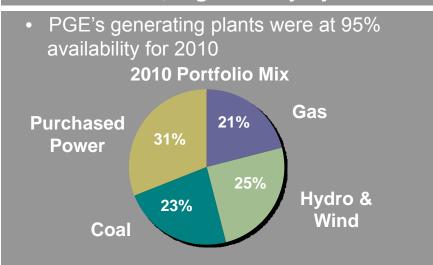
- Ongoing capital investments in technology to improve service and reduce costs
- Coyote Springs CCGT Upgrade
- Boardman Coal Plant Emissions Controls
- Smart Meter Program
- Smart Grid Demonstration Project

#### **High Customer Satisfaction**

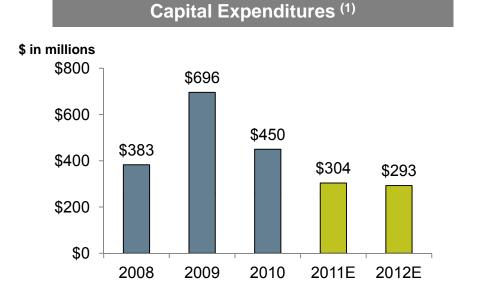
- TQS Key Customer Survey for Q3 2011 ranked PGE in top decile for overall satisfaction for large industrial customers
- J.D. Power for 2011 ranked PGE in the top quartile for overall satisfaction among residential customers
- U.S. Department of Energy's Utility
   Green Power Program of the Year Award

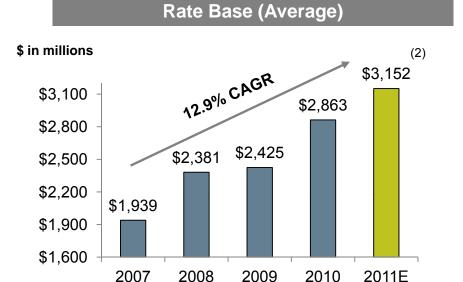
#### **Diversified, High-Quality System**

PGE



## **Business Growth**





- 2011 and 2012 base capital expenditures are expected to be funded by cash from operations
- Significant new capital investments are expected to be funded through cash from operations and issuances of debt and equity, with a targeted capital structure of 50/50
- Attractive regulated growth opportunities through capital investment focused on renewable resources and core utility assets

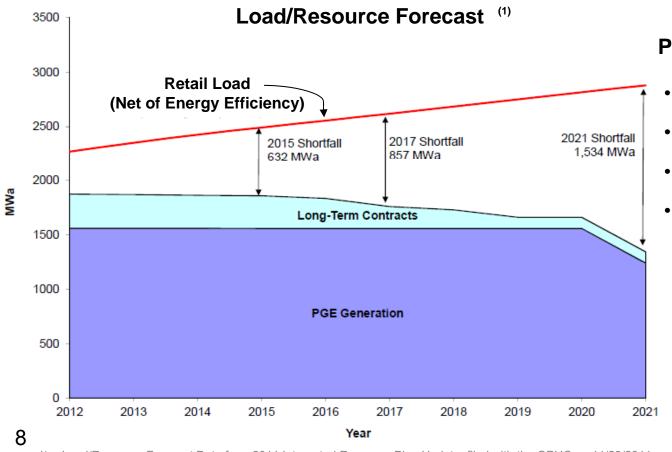
<sup>1)</sup> Capital Expenditure forecasts for 2011 and 2012 do not include any of the RFP generation projects outlined in PGE's 2009 IRP Action Plan

<sup>2)</sup> Represents the average rate base in PGE's 2011 General Rate Case

## **Business Growth**

#### **Load Growth**

- PGE's long-term retail load is expected to grow consistently while certain long-term power purchase contracts expire, increasing PGE's current open market purchase position
- In 2015, PGE projects an energy shortfall of 632 MWa and winter and summer capacity shortfalls of 1,409 MW and 1,085 MW, respectively



#### **Potential Capital Projects**

- Flexible peaking supply
- Renewable resources
- Base load energy resource
- Cascade Crossing Transmission Project

1) Load/Resource Forecast Data from 2011 Integrated Resource Plan Update, filed with the OPUC on 11/23/2011

## **Business Growth: RFPs**

PGE plans to implement its 2009 Integrated Resource Plan by conducting RFPs for capacity, energy, and renewables.

#### RFP #1: Capacity & Energy Resources

Combined RFP expected to be issued in 2012

#### **Capacity Resource**

- 200 MW year-round flexible and peaking resources
  - Approximate capital cost: \$1,100 1,400/kw
- Two purchased power agreements
  - Approximately 200 MW of bi-seasonal (winter and summer) peaking supply
  - Approximately 150 MW of winter-only peaking supply
- Resources available between 2013 and 2015

#### **Energy Resource**

- 300 500 MW base load energy resources
- Approximate capital cost: \$1,300 1,400/kw
- Resources available between 2015 and 2017

#### RFP #2: Renewables Resource

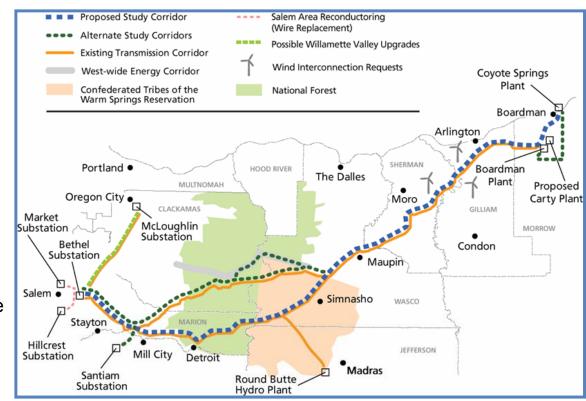
Renewables RFP expected to be issued in 2012

- 100 MWa of renewable energy<sup>(1)</sup>
- Wind/Solar/Biomass/Other
- Approximate capital cost: \$2,200 4,100/kw
- Resources available to meet PGE's 2015 requirement under Oregon's Renewable Energy Standard

# **Business Growth: Cascade Crossing**

#### **Cascade Crossing Transmission Project**

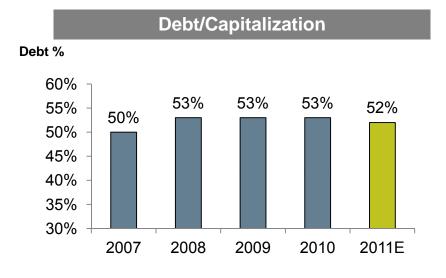
- 500 kV circuit, approximately 210 miles
- Connect Boardman, Coyote Springs, potential new base load and renewable energy resources into the southern part of PGE's operating area
- Provide transmission access for development of new potential wind resources
- Reduce transmission congestion
- Identified by the federal government as a Federal Inter-Agency Rapid Response Team for Transmission project
- Approximate capital investment ranges from \$800 million to \$1 billion



Estimated in-service date: late 2016 - 2017

# **Prudent Financial Strategy**

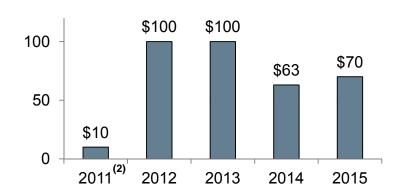
#### 2011 Earnings Guidance: \$1.90 - \$2.05 per share (1)



# \$1.05 \$1.00 \$0.96 \$0.90 \$0.90

#### **Manageable Near-term Debt Maturities**

#### \$ in millions



#### **Credit Ratings**

	Senior Secured	Senior Unsecured	Outlook
S&P	A-	BBB	Stable
Moody's	A3	Baa2	Stable

1) Earnings guidance as reaffirmed by the company on November 3, 2011

2009

2) January 2011, PGE redeemed and retired \$10 million Port of St. Helens pollution control revenue bonds

2010

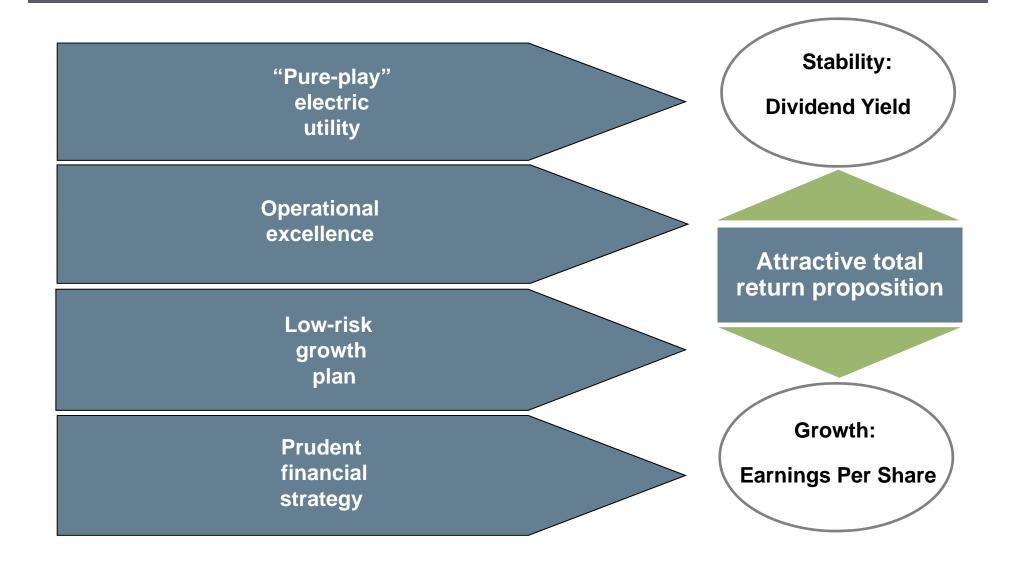
3) Dividends paid per share; includes dividend of \$0.265 declared in August 2011 and paid in October 2011

2011

2007

2008

# **Portland General Investment Highlights**



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# **Business Growth: Biglow Canyon**

#### **Biglow Canyon Wind Farm**

- Columbia Gorge, eastern Oregon
- 450 MW total installed capacity
- Total cost approximately \$1 billion
- Completion of Biglow Canyon Phase III brings PGE's ability to supply approximately 10% of its 2011 retail load with Oregon RES qualified resources



	Phase I	Phase II	Phase III
Nameplate Capacity	125 MW, 76 turbines	150 MW, 65 turbines	175 MW, 76 turbines
MW per unit	1.65 Megawatts	2.3 Megawatts	2.3 Megawatts
Cost (w/AFDC)	\$255 million	\$321 million	\$385 million
Online date	December 2007	August 2009	August 2010
Vendor	Vestas	Siemens	Siemens

# **Business Growth: Integrated Resource Plan**

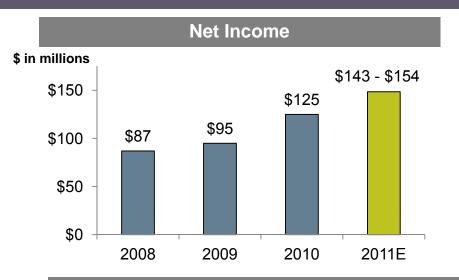
#### **Integrated Resource Planning Process**

- Under OPUC guidelines, PGE is required to file an Integrated Resource Plan (IRP) within two years of acknowledgment of the previous plan
- The IRP requires that the primary goal must be the selection of a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers
- The goal is to obtain OPUC acknowledgement of the IRP. Acknowledgement is not approval for ratemaking purposes, but the Commission has stated that it will give "considerable weight" to utility actions that are consistent with the acknowledged IRP

#### 2009 Integrated Resource Plan

- November 2010 PGE received acknowledgement of IRP originally filed in November 2009
- PGE filed a 2011 Integrated Resource Plan Update on November 23, 2011
  - Includes an update to the 2009 Action Plan implementation activities
  - Examines new projections for future customer demand and the resulting portfolio balance
  - Addresses anticipated differences in timing for the acquisition of new resources identified in the 2009 Action Plan
  - Includes discussions on Demand Response, the Renewable Energy Standard, Boardman, Cascade Crossing, and Wind Integration
  - Since PGE is not proposing changes to the IRP Action Plan, acknowledgement of the 2011 IRP Update by the OPUC is not necessary

## **Recent Financial Results**





#### Key Items (\$ earnings per diluted share)

#### 2008

- Trojan Refund Order Provision (-\$0.32)
- Non-qualified benefit plan assets (-\$0.19)
- Beaver oil sale (+\$0.10)
- Senate Bill 408 (-\$0.10)

#### 2009

- Boardman Deferral (-\$0.15)
- Selective Water Withdrawal (-\$0.05)
- Non-qualified benefit plan assets (+\$0.07)
- Senate Bill 408 (-\$0.11)

#### 2010

- Non-qualified benefit plan assets (+\$0.04)
- Senate Bill 408 (+\$0.04)
- Strong power supply operations partially offset by milder weather and continued effects of a weak economy

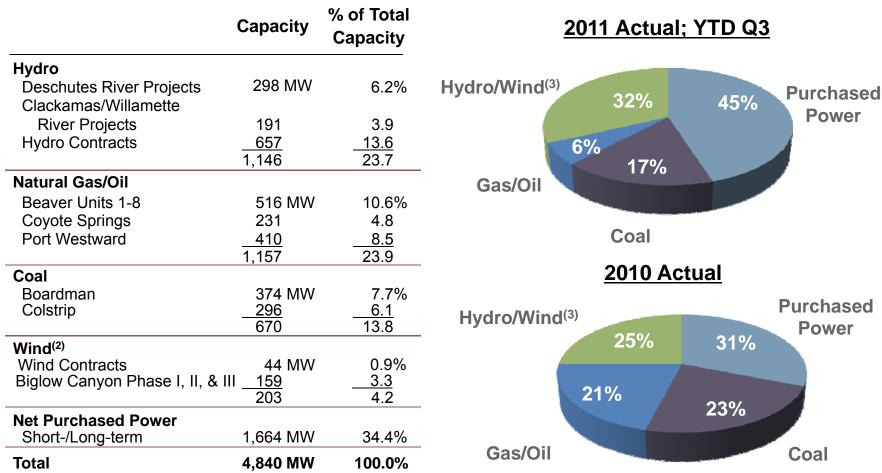
#### 2011

November 3, 2011, reaffirmed 2011 earnings guidance of \$1.90 to \$2.05 per diluted share.

## Resource Mix

#### Resource Capacity (at 12/31/10) (1)

Power Sources as % of Total System Load



<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> Wind generation from contracts and Biglow is expressed in average megawatts. Biglow's capacity reflects the weighted average capacity factor for all three phases of the project.

<sup>3)</sup> Includes PGE owned and purchased hydro and wind resources.

## **Emissions Controls**

#### **Emissions Controls at the Boardman Coal Plant**

- December 2010 Oregon Environmental Quality Commission (OEQC) approved revised Best Available Retrofit Technology (BART) rules
- June 2011, EPA approved revised rules, which were published in the Federal Register in July 2011
- Under the revised rules, PGE would:
  - Use lower sulfur coal to fire the plant's boiler
  - Install low NOx burners and modified over-fired air ducts
  - Install dry sorbent injection systems (DSI) to address SO<sub>2</sub> and mercury
    - Contingent upon successful pilot testing:
      - PGE would meet a 0.4 lb SO2/MMBtu limit using DSI by July 2014
      - PGE would meet a 0.3 lb SO2/MMBtu limit using DSI by July 1, 2018
  - Cease coal-fired operations no later than December 31, 2020
- PGE Share of 2011 capital spending on Boardman controls estimated to be approximately \$19 million
  - Installed low NOx burners and over-fire air ducts
  - Mercury controls installed and performance testing is complete
- Total costs of proposed Boardman emissions controls is approximately \$60 million (1)

# Regulatory Environment

#### Oregon Public Utility Commission

 Governor-appointed Commission with staggered four-year terms (John Savage 3/2013, Susan Ackerman 3/2012, Stephen Bloom 12/2015) (1)

#### Return on Equity & Capital Structure

- 10.0% allowed return on equity
- 50% debt and 50% equity capital structure

#### Forward Test Year

#### Net Variable Power Cost Recovery

- Annual Update Tariff
- Power Cost Adjustment Mechanism: contains fixed deadbands and earnings test

#### Decoupling

- Per 2011 General Rate Case order, mechanism to continue through the end of 2013

#### Renewable Energy Standard

- Standard requires PGE to serve 25% of its retail load from renewable sources by 2025

#### Renewable Adjustment Clause (RAC)

- PGE can recover costs of renewable resources through a separate tracking mechanism

#### Integrated Resource Plan

- OPUC "Acknowledgement" is standard
- 2009 IRP: long-term analysis outlining 20-year resource strategy
- 2011 IRP Update: filed November 23, 2011

<sup>1)</sup> Ray Baum, Chairman of the OPUC since March 2010, resigned effective January 16, 2011 to accept a position as a senior policy advisor to the chairman of the House Subcommittee on Communications & Technology in DC; Stephen Bloom was nominated by Oregon's governor and was confirmed by the Senate on November 16, 2011.

# Regulatory Environment: 2011 General Rate Case

- General rate case filed in February 2010 based on a 2011 test year
- December 2010, OPUC issued a final order in PGE's 2011 General Rate Case

#### **Final Order**

Revenue Increase – \$65 million

Net Revenue Increase (1) – 3.9% effective January 1, 2011

**2011 Average Rate Base** - \$3.152 billion

**ROE & Capital Structure** – 10.0% ROE and 50/50 capital structure

Power Cost Adj. Mech. – Deadband narrowed and fixed at \$30 million above and \$15 million below NVPC baseline

90/10 sharing outside of deadbands

Earnings test continued

Boardman Auto. Adj. Clause – Tariff provides recovery of Boardman's net

book value over shorter life

**Decoupling** – Continue with current mechanism through

end of 2013

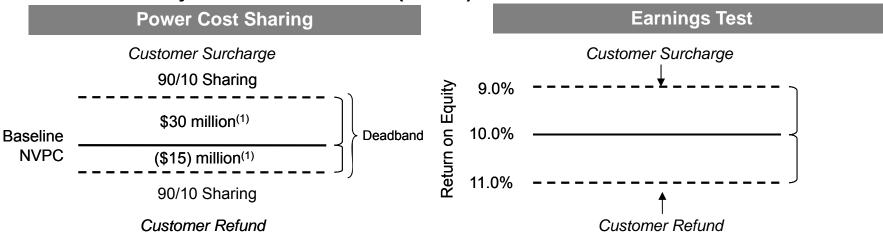
<sup>1)</sup> Initially requested a rate increase of 7.4% which was comprised of a 9.4% increase related to Investment and O&M costs offset by a 2% reduction related to decreased power costs. The stipulated rate increase of 3.9% is comprised of a 6.3% increase related to Investment and O&M costs partially offset by a 2.4% reduction related to decreased power costs.

# **Recovery of Power Costs**

#### **Annual Power Cost Update Tariff**

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

2011 Power Cost Adjustment Mechanism (PCAM)



- PGE absorbs 100% of the costs/benefits within the deadband, and amounts above or below the deadband are shared 90% with customers and 10% with PGE
- An annual earnings test is applied as part of the PCAM
  - Customer surcharge occurs to the extent it results in PGE's actual regulated ROE being no greater than 9.0%
  - Customer refund occurs to the extent it results in PGE's actual regulated ROE being no less than 11.0%
- YTD Q3 2011: PGE's NVPC's were \$36 million below the baseline; recorded \$17 million customer refund

# **Decoupling Mechanism**

- The decoupling mechanism is intended to allow recovery of reduced revenues due to a reduction in sales of electricity resulting from customers' energy efficiency and conservation efforts
- Includes a Sales Normalization Adjustment mechanism (SNA) for residential and small non-residential customers (≤ 30 kW) and a Lost Revenue Recovery mechanism (LRR), for large non-residential 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 2011 general rate case. The SNA mechanism applies to approximately 58% of projected 2011 base revenues
  - The LRR is based on the difference between actual energy-efficiency savings (as reported by the ETO) and those incorporated in the applicable load forecast. The LRR mechanism applies to approximately 29% of projected 2011 base revenues
- OPUC order in PGE's 2011 General Rate Case, authorized the continuation of the decoupling mechanism through December 31, 2013
- YTD Q3 2011, PGE recorded an estimated customer collection of approximately \$0.1 million as weather adjusted use per customer was slightly less than levels included in the 2011 General Rate Case.

(in millions)	Q1	Q2	Q3	Q4	2011 YTD
Sales Normalization Adjustment	\$0.4	(\$0.6)	\$1.0		\$0.8
Loss Revenue Adjustment	\$0.1	(\$0.6)	(\$0.2)		(\$0.7)
Total adjustment	\$0.5	(\$1.2)	\$0.8	\$0.0	<b>\$0.1</b>

# **Decoupling Mechanism**

#### **Simplified Decoupling Example**

#### **Assumptions:**

Residential customer

Monthly Kwh usage: 1,000

• Cost per Kwh: \$0.10

• Weather adjusted decrease in monthly usage: 10%

• PGE cost structure: 50% power costs and 50% all other costs

#### **Analysis:**

Base monthly bill:  $1,000 \times 0.10 = 100$ 

Revised monthly bill due to energy efficiency and/or conservation:  $900 \times 90.10 = 900 \times 900 \times 90.10 = 900 \times 900 \times 90.10 = 900 \times 900 \times 90.10 = 900 \times 900 \times 90.10 = 900 \times 900 \times$ 

Reduction in revenue from customer = \$ 10

#### PGE cost structure of lost revenue:

- \$5 in power costs
- \$5 in all other costs (fixed costs)

#### **Financial impact on PGE:**

- Power costs: Approximately \$0 earnings impact on PGE, assuming power sold on the market at PGE average cost included in customer prices
- All other costs: Approximately \$0 earnings impact due to \$5 booked as a regulatory asset for future recovery from customers through the decoupling mechanism

# Renewable Energy Standards

#### **Additional Renewable Resources**

 Integrated Resource Plan addresses procurement of wind or other renewable resources to meet requirements of Oregon's Renewable Energy Standard by 2015. Such need is now approximately 100 MWa (or 300 MW wind nameplate capacity)

#### Renewable Energy Standard

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

<u>Year</u>	Renewable Target	
2011	5%	
2015	15%	
2020	20%	
2025	25%	

• With the completion of Biglow Canyon Wind Farm, PGE has the ability to supply approximately 10% of its 2011 retail load with Renewable Energy Standard qualified resources

# **Capacity Action Plan**

C '	Winter
Capacity Action Plan for 2015	MW
PGE Load with EE Savings	4,150
Remove 5-year Opt-Outs	-144
Operating Reserves <sup>1</sup>	183
Contingency Reserves <sup>2</sup>	232
Existing PGE & Contract Resources	<u>-3,012</u>
PGE Resource Target	1,409
Resource Actions	
Thermal:	
CCCT	441
Combined Heat & Power	2
Renewable:	
Existing Contract Renewal	-
2015 RPS Compliance	15
To Hedge Load Variability:	
Short and Mid-Term Market Purchases	100
	-
Capacity Only Resources:	
Flexible Peaking Supply	200
Customer-Based Solutions (Capacity Only):	
DSG (2010-2013)	67
Demand Response	70
Seasonally Targeted Resources:	
ETO Capacity Savings	176
Bi-Seasonal Capacity	202
Winter-Only Capacity	152
Total Incremental Resources	1,409

<sup>1)</sup> Approx. 6% of generation; excludes reserves for action plan acquisitions

**<sup>26</sup>** 2) 6% of PGE net system load excluding 5-year opt-outs. Total might not foot due to rounding.

# **Energy Action Plan**

Annual Energy Action Plan for 2015	Annual MWa
PGE Load With EE Savings	2,620
Remove 5-year Opt-Outs	-128
Existing PGE & Contract Resources	<u>-1,860</u>
PGE Resource Target	632
Resource Actions	
Thermal:	
CCCT	406
Combined Heat & Power	2
Renewable:	
ETO Energy Savings	119
Existing Contract Renewal	-
2015 RPS Compliance	101
To Hedge Load Variability <sup>1</sup> :	
Short and Mid-Term Market Purchases	100
Total Incremental Resources	728
Energy (Deficit)/Surplus	96
Total Resource Actions	632

## **Smart Grid**

#### **Smart Meters**

- Provides two-way communications with residential and commercial customers
- Vendor: Sensus Metering Systems
- Technology: FlexNet radio frequency technology
- Completed installation of 825,000 meters as of December 31, 2010
- Capital Costs: \$142 million<sup>(1)</sup>
- OPUC approved limited term tariff: June 1, 2008 through December 31, 2010 that recovered the remaining investment in old meters. The 2011 General Rate Case includes project costs, net of savings in customer prices effective January 1, 2011

#### **Distribution System**

- Pursuing direct load control programs
- Optimizing distribution system through advanced technology



