

# 2015 Integrated Resource Plan

## Kick-Off Meeting

June 5, 2014



Rocky Mountain Power  
Pacific Power  
Pacificorp Energy

# Agenda

---

- Introductions
- 2015 IRP Schedule
- Process Improvements
- *Lunch Break (1/2 hour) | 11:30 PT/12:30 MT*
- 2013 IRP Update Highlights
- 2013 IRP Requirements
- Action Plan status updates

# IRP Group and Support Team

**Rick Link**

*Director, Origination*

**Chris Mumm**

*Director, Valuation/Planning*

**Ted Drennan, Manager IRP**

Michael Liljenwall, IRP Coordinator

**Hui Shu, Manager Valuation/Planning**

Dan Swan, IRP Modeling

Brian Osborn, IRP Modeling

Robert Meredith, IRP Modeling

Market Assessment

Load and Revenue Forecasting

Environmental Strategy

Transmission Planning

Finance/Business Planning

Demand-side Management

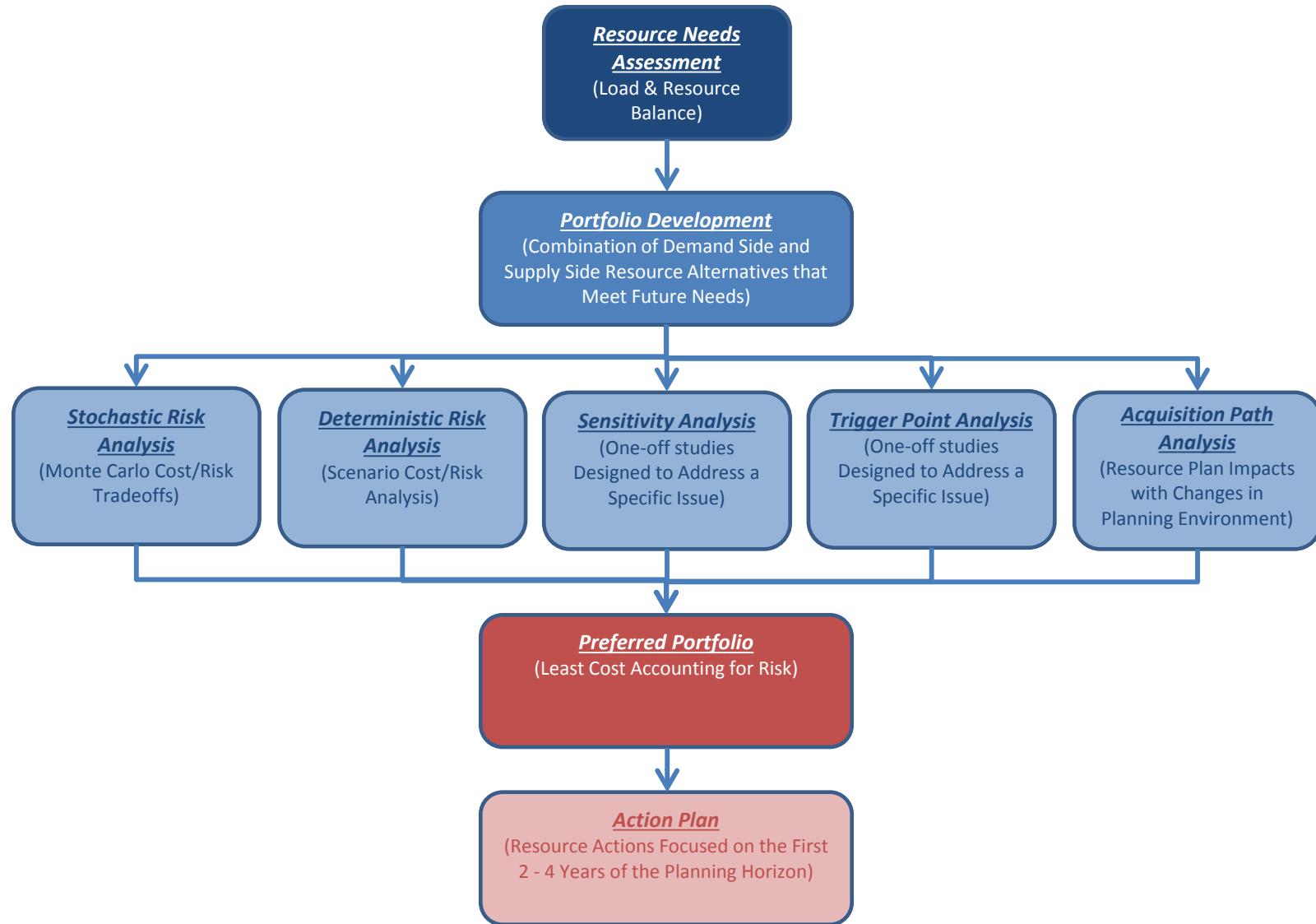
Regulation

Resource Development & Construction

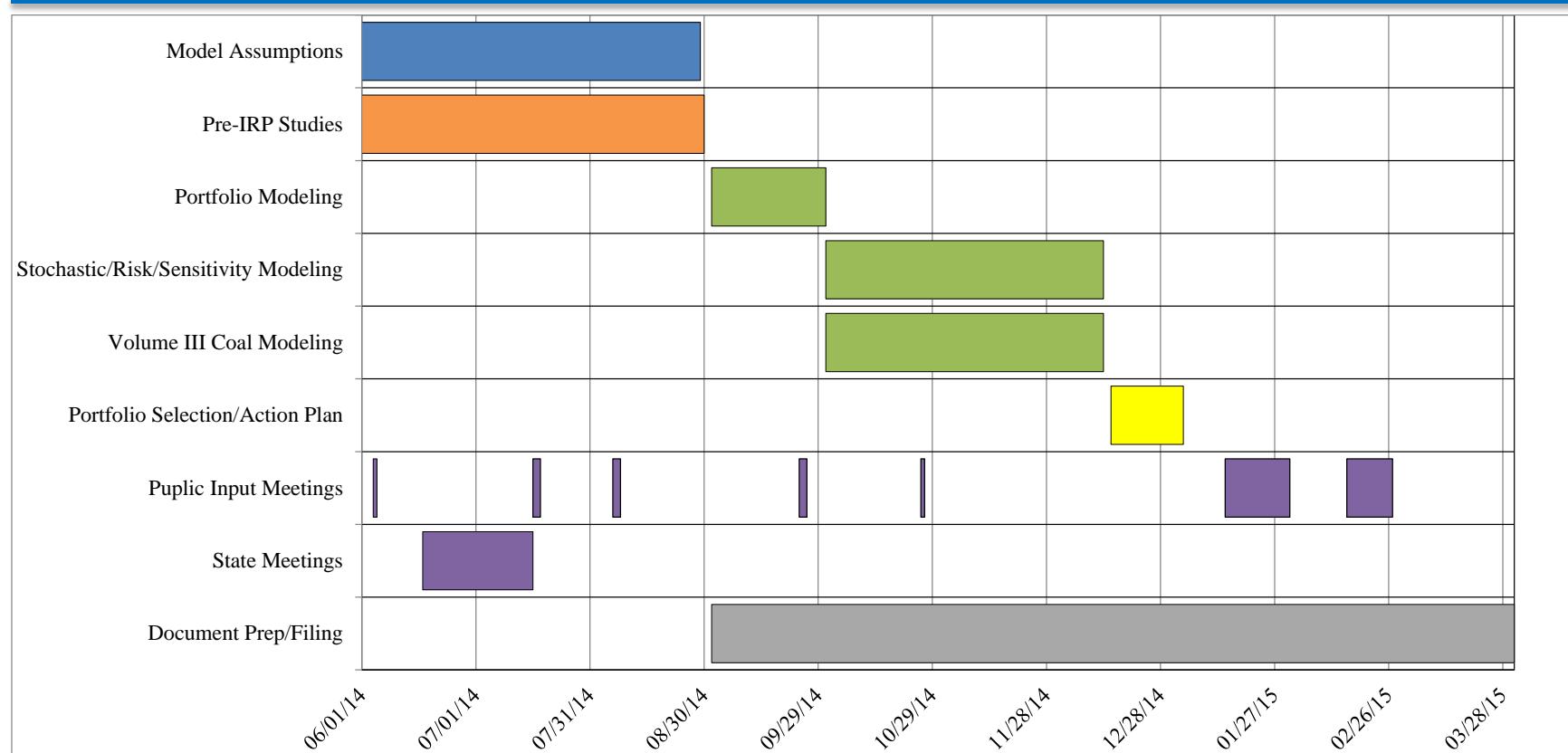
Renewable Compliance Officer

Commercial & Trading  
Front Office  
(Origination, Structuring &  
Pricing, Short-Term Resource  
Planning, Wholesale Trading)

# Introduction to the IRP



# 2015 IRP Schedule – Activity Timeline



- Pre-IRP studies include:
  - LOLP study
  - Wind and solar capacity contribution study
  - Wind integration study update
  - DSM potential study
  - Distributed generation market penetration study
  - Stochastic parameter updates
  - Anaerobic digester study

# 2015 IRP Schedule – Public Process

---

## Tentative Public Meeting Schedule and Topics\*

- July 17-18
  - Environmental Policy
  - Transmission
  - Portfolio Development
  - Sensitivities and Risk Analysis Process
  - DSM Potential Study
  - Load Forecast/Needs Assessment
- August 7-8
  - Supply-Side Resources
  - Distributed Generation Study
  - Energy Storage Study
  - Plant Efficiency Study
  - Renewable Portfolio Standards
  - Wind Integration
  - Resource Capacity Contribution
  - LOLP Parameters

\* Meeting topics are tentative and subject to change.

# 2015 IRP Schedule – Public Process

---

- September 25-26
  - Stochastic Modeling
  - EIM Update
  - Smart Grid Update
  - Anaerobic Digester Study
  - Portfolio Development
  - Sensitivities/Risk Analysis
- October 27
  - Portfolio Results
- January 2015
  - Confidential Coal Analysis
  - Stochastic Results
  - Sensitivity Analysis Results
  - Preferred Portfolio and Action Plan
- February 2015
  - Final Report

\* Meeting topics are tentative and subject to change.

# Process Improvements

---

- 2013 IRP Action Item 11a:

*“Within 90 days of filing the 2013 IRP, schedule an IRP workshop with stakeholders to discuss potential process improvements that can more efficiently achieve meaningful cost and risk analysis of resource plans in the context of the IRP and implement process improvements in the 2015 IRP.”*
- Workshop held on September 23, 2013
  - Opportunity for stakeholders to recommend and discuss IRP process improvements
  - Collaboration with the Company and other stakeholders
  - The goal is to identify ways that can allow the Company to more efficiently develop an IRP that meets state IRP guidelines/requirements
- The Company is most interested in balanced process improvement concepts that recognizes:
  - Divergent opinions and priorities among stakeholders
  - Variation in what the IRP means among states
  - The Company’s goal is to be responsive to all stakeholders and all requests; however, it is often not practical or possible to accommodate all requests

# Desire for Additional/More Advanced Analysis with Each IRP

---

"The analysis to determine the appropriate Planning Reserve Margin (PRM) should be expanded..."

"...encourage the Company to increase the amount of sophistication of its overall analysis regarding demand response and other load control tools..."

"PacifiCorp should produce sensitivities or trigger point analyses to show what effects its assumptions have on selection of renewable resources..."

"The Company has not demonstrated that its preferred portfolio is the optimal set of low cost, low risk resources..."

"Coal plant investments are unsupported by modeling..."

Filed  
Comments

"The Company should be required to perform a new capacity contribution analysis..."

"We recommend the Company be required to conduct a stochastic modeling workshop..."

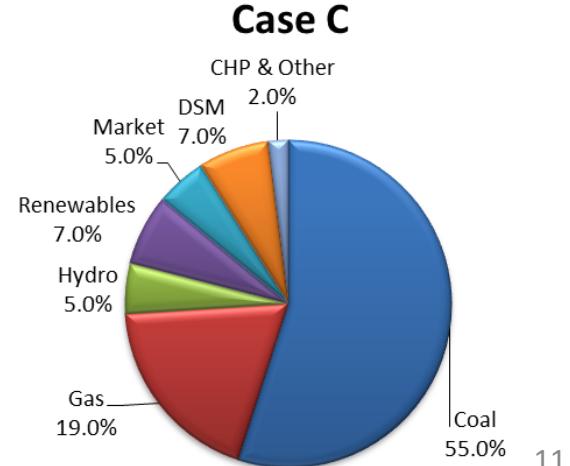
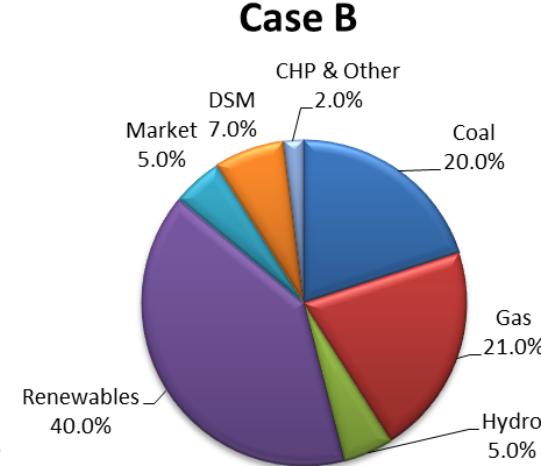
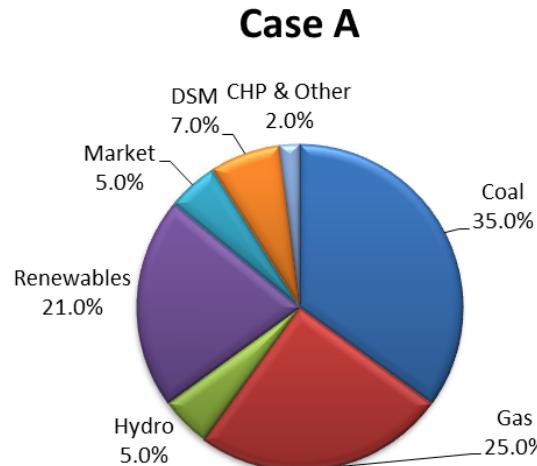
# Process Improvements – Comments

---

- Comments received from:
  - HEAL Utah
  - Northwest Coalition of Energy Coalition
  - Oregon Public Utility Commission
  - Renewable Northwest Project
  - Utah Clean Energy
  - Utah Office of Consumer Services
  - Western Resource Advocates
- General themes in comments focused on a few specific areas
  - Modeling
  - Transmission
  - Renewable Resources
  - Environment
  - Overall process
  - Presentation

# Process Improvements – Modeling

- Model transparency
  - Desire for more transparency in models
    - Hourly, long-term models by nature are complex.
    - The Company will work with stakeholders to improve model understanding. (stochastic modeling as topic during the public input process).
    - The Company plans to provide more model data and include data discs when filing the 2015 IRP.
  - Request for a wider variety of distinct portfolios and fewer individual cases
    - The Company is assessing potential to supplement the use of “Core Case” scenario definitions with portfolios designed to meet a certain resource mix.



# Process Improvements – Transmission & Renewables

- Transmission
  - Transmission costs should be examined in relation to coal plant investments, as well as a better integration of transmission planning with resource selection
    - We are coordinating with our transmission planning team to assess how to best evaluate how transmission costs might be impacted in its coal investment analyses.
    - We are working with our resource development and transmission planning departments to develop improved transmission upgrade costs applicable to supply side resource alternatives by location.
- Renewables
  - Costs associated with renewable resources should be updated throughout process.
    - The Company will incorporate resource costs, including forecasts of declining costs where appropriate. However, continual updating within the IRP process is not feasible.
    - The Company is assessing the feasibility of performing “trigger point analysis” on renewable resource costs as an IRP sensitivity that can inform the acquisition path analysis.

# Process Improvements – Environmental

---

- The timing and potential costs of new environmental regulations need to be examined thoroughly.
  - The Company will examine current, and proposed regulations that will have an impact on long-term planning. These could include regulations related to operations of current or proposed facilities. Environmental policy will continue to be covered as an agenda item in a public input meeting and continue to be incorporated into IRP modeling.
- Parties would like the IRP to look at both social and private costs of CO<sub>2</sub>.
  - The Company will consider specific proposals from stakeholders.
- Emissions associated with front-office transactions should be included in analysis.
  - To be discussed in the context of environmental policies and their treatment in the context of IRP modeling.

# **Process Improvements – Overall Process & Presentation**

---

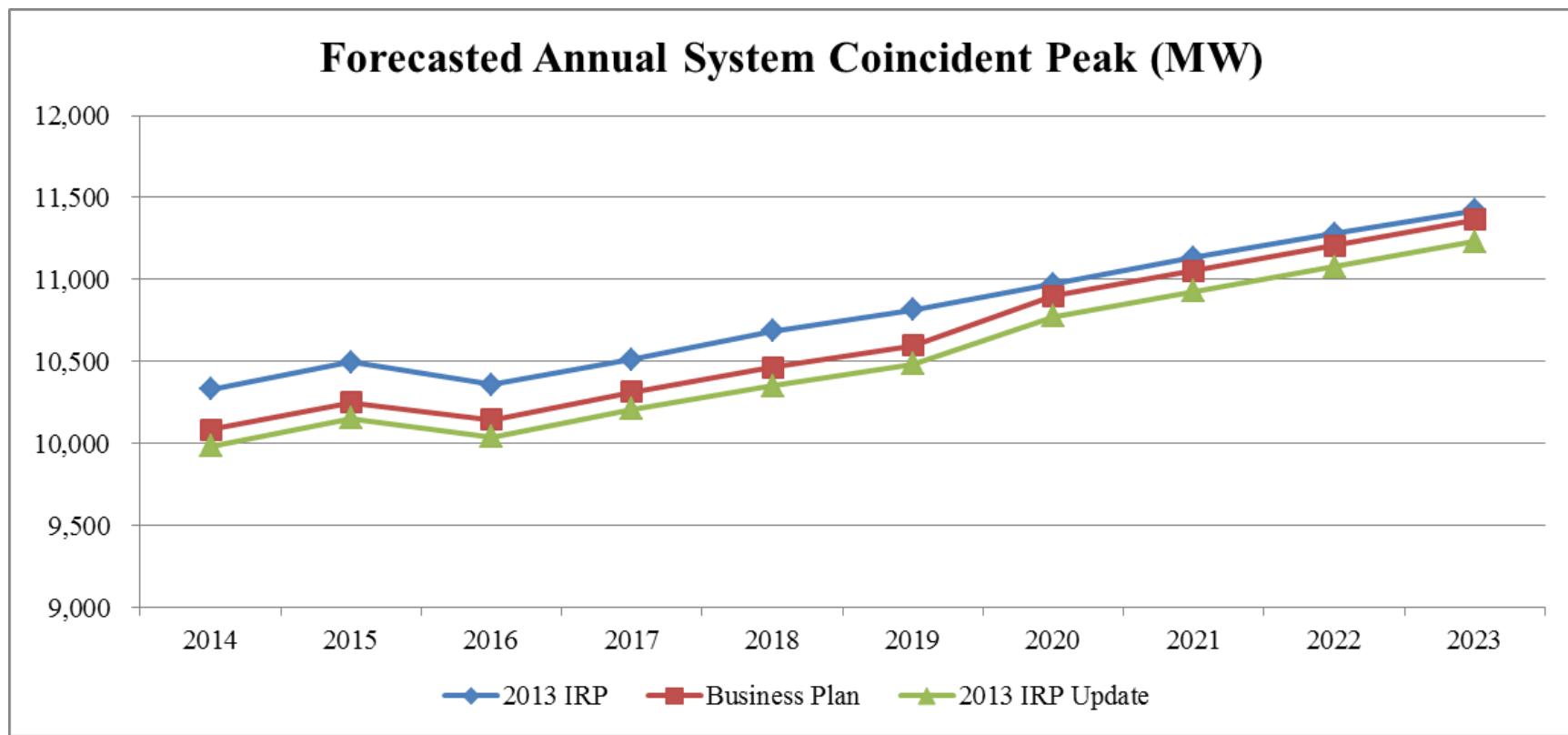
- Overall process
  - IRP process should have a shorter timeframe with fewer meetings
    - The Company must meet specific IRP guidelines in six states.
    - Some 2015 IRP public input meetings are being planned as two day sessions (fewer meeting sessions to cover all the topics).
    - The Company is committed to maintaining its modeling schedule.
  - More stakeholder input in portfolio development and alternative futures should be examined.
    - To streamline portfolio development, the Company is considering initiating portfolio discussions with sample/indicative portfolio results.
    - The Company is planning to implement a more structured stakeholder comment process following each public input meeting.
- Presentation
  - Details requested include planned expenditures by plant and variety of cost metrics.
    - The Company plans to provide more data during the public input process and include a data disk with its 2015 IRP filing.
    - Specific reporting requirements from state IRP acknowledgement orders will be met.

# 2013 IRP Update Highlights

---

- The 2013 IRP Update coincident peak load forecast is down as compared to those in the 2013 IRP and fall 2013 ten-year Business Plan. This reduction in load forecast pushes the need for new thermal resource out to 2027.
- Forecasted gas and energy prices have declined compared to those in 2013 IRP and fall 2013 ten-year business plan. Drop in gas price forecast is driven by shale-gas plays, which in turn leads to lower forecasted market prices.
- With a reduced coincident system peak forecast and lower market prices, the updated resource portfolio continues to show that customer loads over the front ten years of the planning horizon will be met with front office transactions (firm market purchases) and through energy efficiency.
- Several Energy Gateway developments since the Company's 2013 IRP was filed include reaching construction and permitting milestones, adjusting in-service dates for future segments, and developing activities on joint-development projects. In-service dates were updated coinciding with revised permitting dates, generation facility needs and load growth assumptions.
- EPA partially approved and partially rejected the Wyoming Regional Haze SIP and issued a FIP to cover those areas of SIP disapproval in January. This established compliance requirements and schedules for specific Wyoming coal units including a requirement for installation of selective catalytic reduction (SCR) at Wyodak by early March 2019.
- There has been no movement on federal renewable portfolio standards since 2010. As such the 2013 IRP Update did not incorporate any federal RPS assumptions. This, combined with the decline in load pushes the need for new renewable resources solely to meet RPS obligations out to 2024 and 2025.

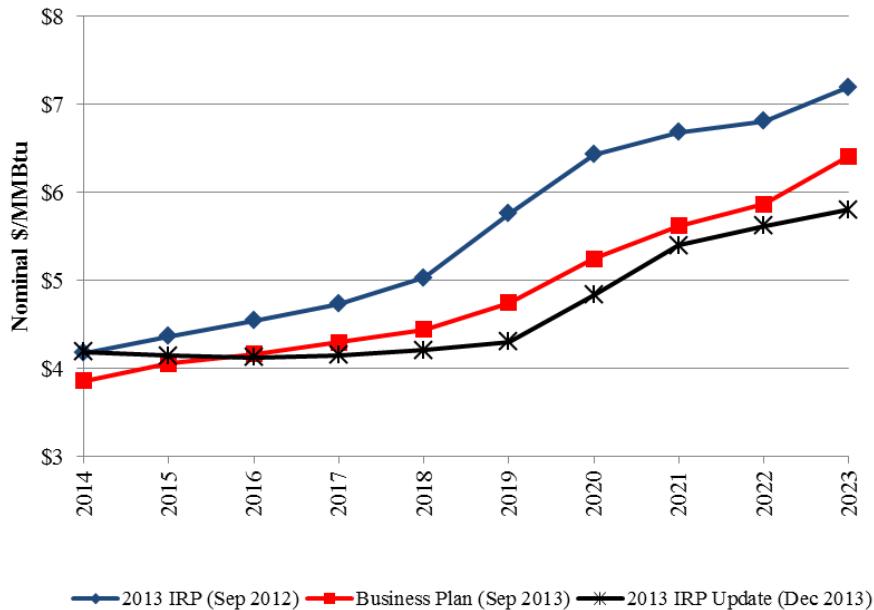
# Load Forecast Comparison



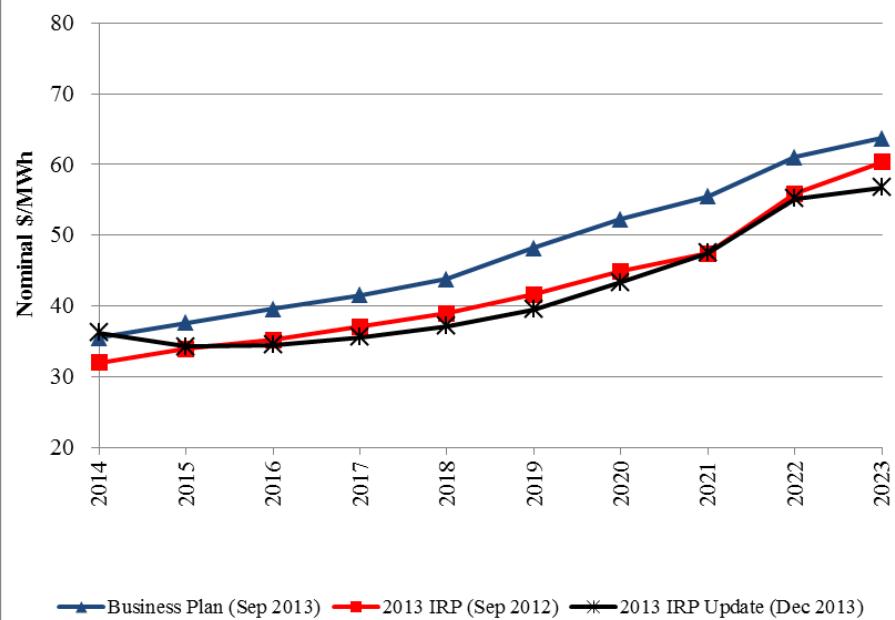
- Coincident peak forecast decreased through the planning period
  - Reduced residential class load forecast (increased EE)
  - Lower long-term peak load growth expectations
- Need for new resources is pushed out

# Power and Natural Gas Price Comparison

Henry Hub Natural Gas Prices

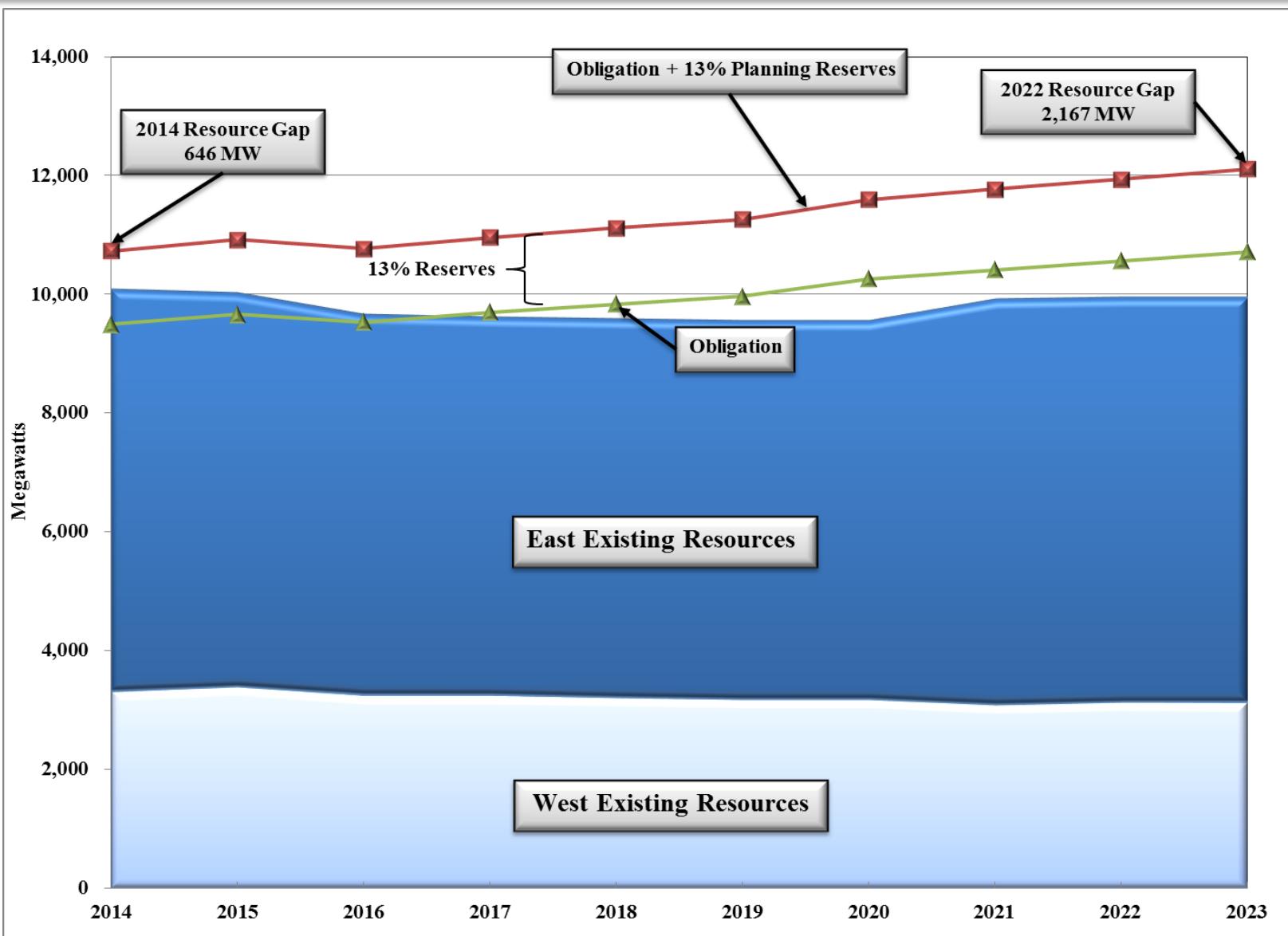


Average of Mid C/Palo Verde Flat Power Prices



- Gas Prices down due to shale plays
- Low gas (and low loads) lead to lower power forecasts

# 2013 IRP Update – System Capacity Position



# 2013 IRP Update – Comparison to 2013 IRP

## 2013 IRP Update

Summary Portfolio Capacity by Resource Type and Year, Installed MW

Resource	Installed Capacity, MW											10-year Total
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
<b>Expansion Options</b>												
Gas - CCCT	-	645	-	-	-	-	-	-	-	-	-	645
Gas- Peaking	-	-	-	-	-	-	-	-	-	-	-	-
DSM - Energy Efficiency	112	110	98	96	95	88	82	74	74	74	64	854
DSM - Load Control	-	-	-	-	-	-	-	-	-	-	-	-
Renewable - Wind	-	-	-	-	-	-	-	-	-	-	-	-
Renewable - Utility Solar	2	6	2	-	-	-	-	-	-	-	-	8
Renewable - Distributed Solar	7	11	14	16	17	13	14	15	15	15	15	147
Combined Heat & Power	1	1	1	1	1	1	1	1	1	1	1	11
Front Office Transactions *	255	445	583	701	831	931	1,027	1,261	1,042	1,098	1,210	913
<b>Existing Unit Changes</b>												
Coal Early Retirement/Conversions	-	-	(502)	-	-	-	-	-	-	-	-	(502)
Thermal Plant End-of-life Retirements	-	-	-	-	-	-	-	-	-	-	-	-
Coal Plant Gas Conversion Additions	-	-	338	-	-	-	-	-	-	-	-	338
Turbine Upgrades	14	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>391</b>	<b>1,218</b>	<b>534</b>	<b>814</b>	<b>944</b>	<b>1,034</b>	<b>1,123</b>	<b>1,351</b>	<b>1,132</b>	<b>1,189</b>	<b>1,290</b>	

Front Office Transactions in resource total are 10-year average. \*

## Difference - 2013 IRP Update Less 2013 IRP Preferred Portfolio

Summary Portfolio Capacity by Resource Type and Year, Installed MW

Resource	Installed Capacity, MW											10-year Total
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
<b>Expansion Options</b>												
Gas - CCCT	-	-	-	-	-	-	-	-	-	-	-	-
Gas- Peaking	-	-	-	-	-	-	-	-	-	-	-	-
DSM - Energy Efficiency	(2)	(6)	(5)	(6)	(2)	(4)	(8)	(7)	(6)	(8)	(4)	(55)
DSM - Load Control	-	-	-	-	-	-	-	-	-	-	-	-
Renewable - Wind	-	-	-	-	-	-	-	-	-	-	-	-
Renewable - Utility Solar	(2)	3	(1)	-	-	-	-	-	-	-	-	2
Renewable - Distributed Solar	-	-	-	-	(1)	(0)	-	1	-	-	-	-
Combined Heat & Power	-	-	-	-	-	-	-	-	-	-	-	-
Front Office Transactions *	(395)	(264)	(262)	(282)	(271)	(278)	(296)	(159)	(149)	(235)	(217)	(241)
<b>Existing Unit Changes</b>												
Coal Early Retirement/Conversions	-	-	-	-	-	-	-	-	-	-	-	-
Thermal Plant End-of-life Retirements	-	-	-	-	-	-	-	-	-	-	-	-
Coal Plant Gas Conversion Additions	-	-	-	-	-	-	-	-	-	-	-	-
Turbine Upgrades	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>(399)</b>	<b>(267)</b>	<b>(268)</b>	<b>(288)</b>	<b>(274)</b>	<b>(282)</b>	<b>(304)</b>	<b>(165)</b>	<b>(155)</b>	<b>(243)</b>	<b>(221)</b>	

Front Office Transactions in resource total are 10-year average. \*

2013 IRP included no significant thermal resource in front 10 years.

Impact from decline in load forecast from 2013 IRP:

- Less reliance on Front Office Transactions
- Lower optimal level of DSM

# 2013 IRP Update – Renewables

---

- Updated solar costs
  - Cost declines over 10%

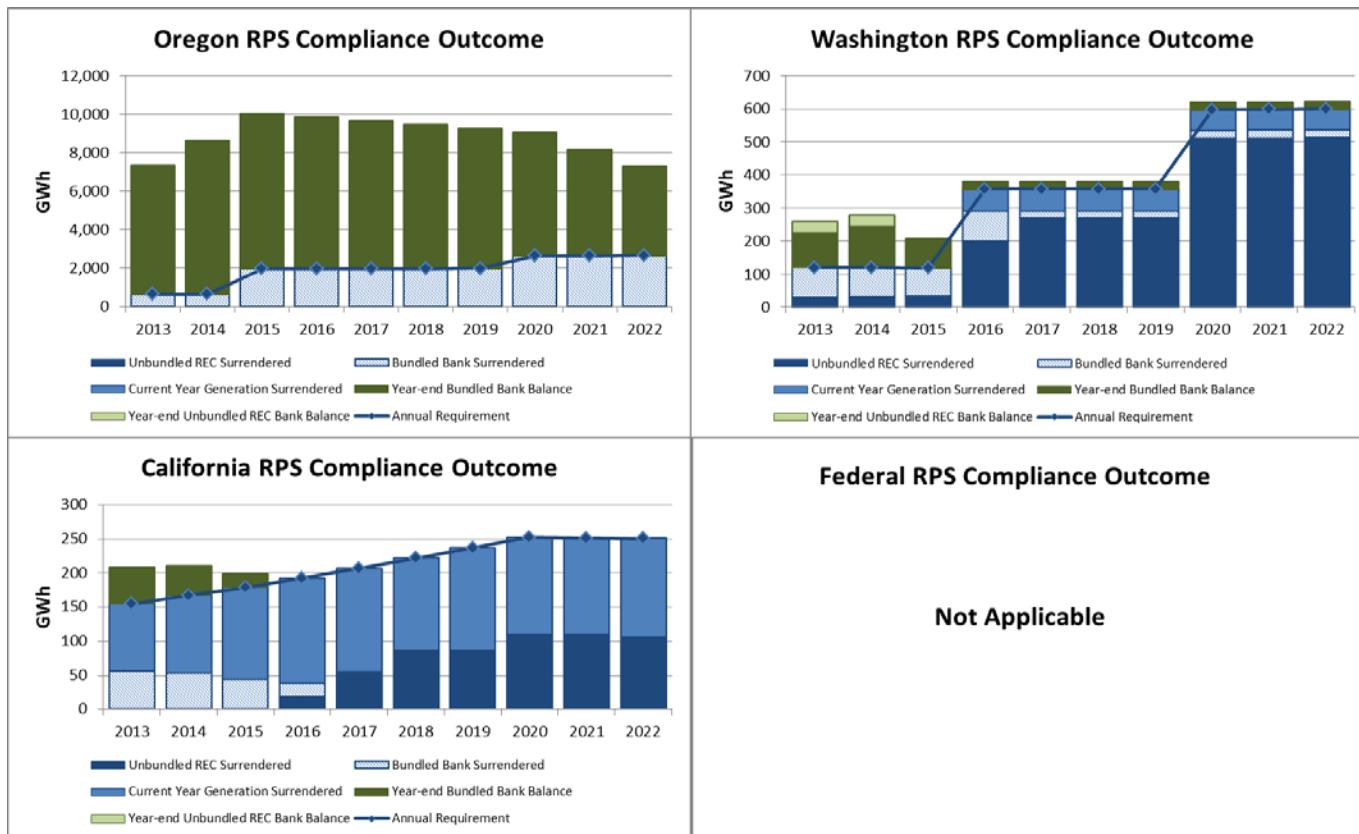
Technology	2013 IRP Update			2013 IRP		
	EPC Only \$/W <sub>AC</sub>	Owner's Costs \$/W <sub>AC</sub>	Total (with Owner's Costs) \$/W <sub>AC</sub>	EPC Only \$/W <sub>AC</sub>	Owner's Costs \$/W <sub>AC</sub>	Total (with Owner's Costs) \$/W <sub>AC</sub>
Single Axis Tracking	\$2.682	\$0.172	\$2.854	\$2.982	\$0.194	\$3.176
Fixed Tilt	\$2.526	\$0.162	\$2.688	\$2.770	\$0.182	\$2.952

- Decline in need for renewables driven by:
  - Lower load forecast
  - Increased generation from new renewable contracts
  - No assumed Federal RPS

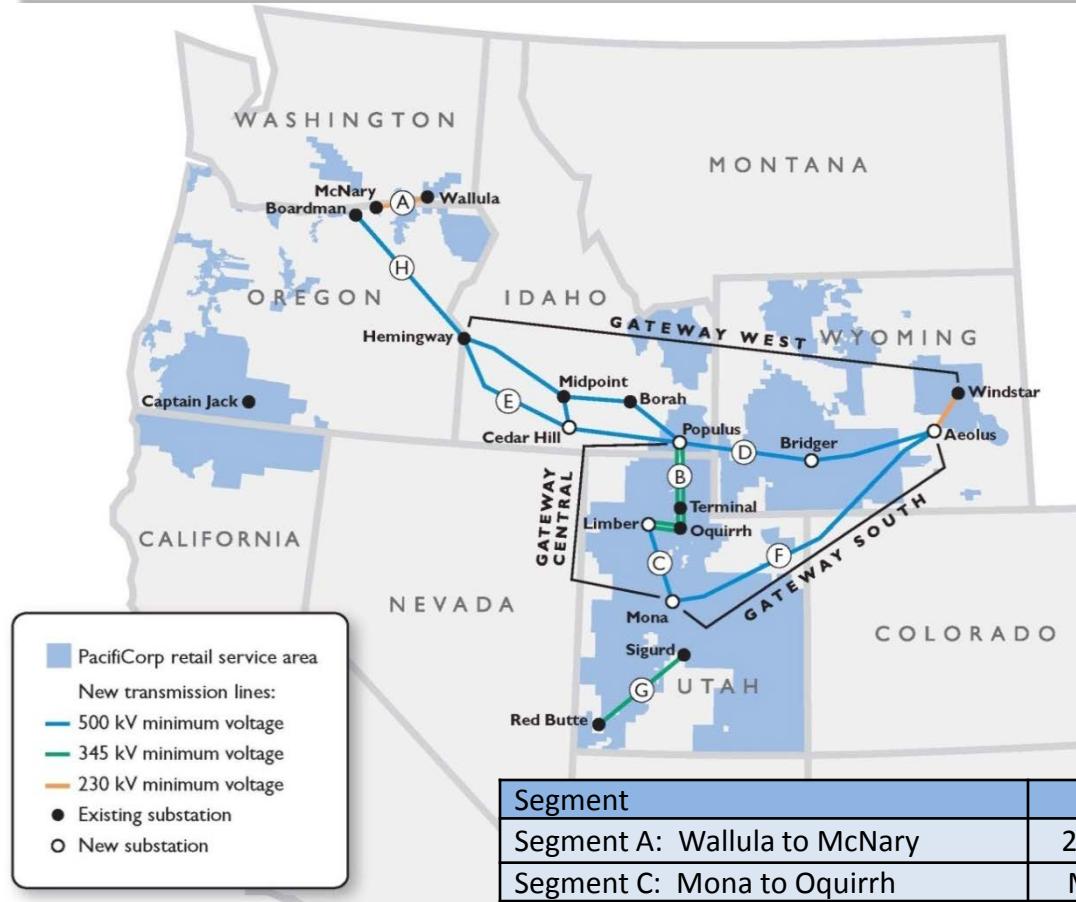
Source	Installed Capacity (MW)			
	Year		Total Capacity Additions	Incremental Capacity Changes From Prior Resource Portfolio (Decrease)
	2024	2025		
2013 IRP	432	218	650	-
Business Plan	184	365	549	(101)
2013 IRP Update	184	296	480	(69)

# 2013 IRP Update – Renewables

Compliance obligations met using bundled and unbundled RECs



# Energy Gateway Transmission



- Provides system reliability improvements
- Supports development of diverse range of resources
- Timelines have been updated

Segment	2013 IRP	2013 IRP Update
Segment A: Wallula to McNary	2013-2014	Sponsor driven*
Segment C: Mona to Oquirrh	May 2013	Completed May 2013
Segment C: Oquirrh to Terminal	June 2016	May 2017*
Segment D: Windstar to Populus	2019-2021	2021-2024*
Segment E: Populus to Hemingway	2020-2023	2020-2024*
Segment F: Aeolus to Mona	2020-2022	2020-2022
Segment G: Sigurd to Red Butte	June 2015	June 2015
Segment H: West of Hemingway		Sponsor driven

\*Estimated in-service date adjusted since 2013 IRP

# New Requirements from the 2013 IRP

## Acknowledgement Process

---

- 2013 IRP acknowledged/accepted in Idaho, Utah, Washington, and Wyoming
  - California acknowledgment exemption; filing requirements only tied to RPS compliance reporting
  - Oregon held a second public meeting to discuss the proposed IRP order May 28, 2014. Final decisions were made, but actual order is pending.
- Multiple new requirements in received (and proposed) acknowledgement orders
  - Many directives were dealt with in 2013 IRP Update filed March 31
    - Corrections to IRP table
    - Business plan sensitivity
    - Data presentation – capacity balance in East and West before transfers
  - Other directives are already part of the IRP process
    - Coal analysis updates
    - Analysis of rules around CO2
  - New requirements are outlined in the following slides

# 2013 IRP Order Requirements

Req No.	Topic	State	Reference	Requirement
1	Additional Meetings	Oregon	Proposed Order	Beginning in 3rd quarter make quarterly updates on coal plan compliance requirements, legal proceedings, pollution control investments and other major capital expenditures on coal plants
2	Additional Meetings	Oregon	Proposed Order	Workshops to determine analysis for coal investments within next 6 months. Commission to attend at least one, results to be presented in public meeting for Commission to adopt.
3	Additional Meetings	Oregon	Proposed Order	Craig/Hayden - hold confidential workshop to review analysis on environmental investments
4	Additional Meetings	Oregon	Proposed Order	DSM updates twice yearly for the Commission in 2014 and 2015. Includes opportunities with special contract customers. Also require stand-alone item which will likely be combined: In 2015 IRP and quarterly updates report on negotiations with special contract customers on EE projects
5	DSM	Idaho	Order No. 32890, p. 12	The Commission directs the Company to increase its efforts toward achieving higher levels of cost-effective DSM.
6	DSM	Idaho	Order No. 32890, p. 13	In future IRP and DSM filings, the Commissions directs the Company to present clear and quantifiable metrics governing its actions regarding decisions to implement or decline to implement energy efficiency programs.
7	DSM	Oregon	Proposed Order	Include Implementation Plan specific to service territory for all states other than OR in 2015 IRP.

# 2013 IRP Order Requirements

Req No.	Topic	State	Reference	Requirement
8	Environmental	Washington	Docket UE-120416 – p. 2 of cover letter	Do not use a zero-cost carbon assumption in the base case for the 2015 IRP.
9	Environmental	Washington	Docket UE-120416 – p. 2 of cover letter	Explore ways the Company can contribute to Washington's emissions reductions goals and the rate impacts of any such measure.
10	Environmental	Utah	Docket 13-2035-01 – p. 24	Because EPA's proposed and final implementation plans and challenges to those implementation plans continue to fluctuate, we encourage PacifiCorp to continue to monitor and prudently respond to the constantly changing landscape in its IRP update to be filed in 2014 ("2013 IRP Update") and in the 2015 IRP.
11	Environmental	Idaho	Order No. 32890 – p. 12	The Commission also acknowledges that recent history has demonstrated that attempts by energy analysts to predict carbon pricing is fraught with failure and uncertainty. However, it seems more likely than not that the EPA will move forward and enact additional regulations of fossil fuels under the federal Clean Air Act. In light of this contingency, it appears to be in the best interest of the Company and its customers to continue to evaluate and devote more focus on the development of alternative energy resources.
12	Environmental	Oregon	Proposed Order	Provide documentation of timelines and key decision points for expected pollution control options
13	Environmental	Oregon	Proposed Order	Prior to end of 2014 work with parties on modeling requirements of 111(d) in 2015 IRP.

# 2013 IRP Order Requirements

Req No.	Topic	State	Reference	Requirement
14	Modeling	Washington	Docket UE-120416 – p. 2 of cover letter	Update the coal analysis.
15	Modeling	Washington	Docket UE-120416 – p. 2 of cover letter	Show the capacity balance in the East and West control areas prior to any transfers.
16	Modeling	Washington	Docket UE-120416 – p. 2 of cover letter	Model the East and West control areas separately.
17	Modeling	Washington	Docket UE-120416 – p. 2 of cover letter	Ensure that future smart grid analyses provide a fair and full assessment.
18	Modeling	Utah	Docket 13-2035-01 – p.20	In the 2013 IRP Update we direct PacifiCorp to perform a sensitivity case with stochastic analysis using the values in the August Order for wind and solar capacity contribution.
19	Modeling	Oregon	Proposed Order	File Special 2013 IRP Update on Cholla 4 no later than 6 months after Order
20	Modeling	Oregon	Proposed Order	Evaluate Naughton Unit 3 decision with updated analysis including shutdown vs conversion
21	Modeling	Oregon	Proposed Order	Include screening tool in 2015, 2017 and 2019 IRPs
22	Modeling	Oregon	Proposed Order	Take into account the outcome of Docket No. UE 267 in 2015 IRP (direct access 5-year-opt-out) - Final order is targeted for 9/22/2014
23	Modeling	Oregon	Proposed Order	Analyze Wyodak decision on SCR in 2015 IRP using Staff's proposed analytical framework as a reference. Will also dovetail with coal analysis workshops.

# 2013 IRP Order Requirements

Req No.	Topic	State	Reference	Requirement
24	Procedural	Utah	Docket 13-2035-01 – p.24	We note the annual coincident peak load data by state in Table A.7 on page 13 of Appendix A, appears rather to provide each state's highest monthly peak load which is coincident with the system rather than its load coincident with the time of annual system peak. PacifiCorp should correct this table and provide it in its 2013 IRP Update.
25	Procedural	Utah	Docket 13-2035-01 – p. 24	The Division notes PacifiCorp includes in Table 9.2, "an excellent summary of actions [PacifiCorp] may undertake should the future start to turn out significantly different than anticipated as reflected in [PacifiCorp's] preferred portfolio." We concur with the Division this is a very useful table and we encourage PacifiCorp to expand its use of this table in its 2013 IRP Update and 2015 IRP to address additional issues.
26	Procedural	Utah	Docket 13-2035-01 – p. 30	We note PacifiCorp did not present the Business Plan as a sensitivity case in the 2013 IRP. We remind PacifiCorp to provide this sensitivity in the 2013 IRP Update and all future IRPs.
27	Procedural	Utah	Docket 13-2035-01 – p. 28	We direct PacifiCorp to file the 2013 DSM Potentials Study in this docket within 45 days.
28	Procedural	Oregon	Proposed Order	Provide tables detailing major planned expenditures with estimated costs in each year for each plant under different modeled scenarios
29	Procedural	Oregon	Proposed Order	Provide yearly DSM targets on both capacity and energy basis

# 2013 IRP Order Requirements

---

Req No.	Topic	State	Reference	Requirement
30	Renewables	Washington	Docket UE-120416 – p. 2 of cover letter	Continue acquiring renewable energy credits through requests for proposals issued at regular intervals.
31	Renewables	Utah	Docket 13-2035-01 – p. 19	PacifiCorp's treatment of RECs in the 2013 IRP is questioned by several parties. First, in its replacement of 208 megawatts of wind resource in the Preferred Portfolio with unbundled RECs, PacifiCorp does not analyze the comparative risks of the two alternatives, essentially concluding that a wind resource and an unbundled REC carry the same risks for customers. Parties argue this conclusion should be tested rather than assumed. Second, parties argue the value of a REC should be included in the cost of a renewable resource as an offset. We direct PacifiCorp to further address both of these issues in the 2013 IRP Update.
32	Supply Side Resources	Washington	Docket UE-120416 – p. 2 of cover letter	Update the Company's energy storage study and consider an energy storage demonstration project in the West Control Area.
33	Supply Side Resources	Washington	Docket UE-120416 – p. 2 of cover letter	Conduct a thorough analysis of anaerobic digester potential in the Company's Washington service territory.
34	Transmission	Washington	Docket UE-120416 – p. 2 of cover letter	Continue to work with stakeholders to refine the System Operational and Reliability Benefits Tool.
35	Transmission	Washington	Docket UE-120416 – p. 2 of cover letter	Summarize the expected impacts of the Company's participation in the energy imbalance market with the California Independent System Operator.
36	Transmission	Oregon	Proposed Order	Continue permitting Segments D, E, F and H until PacifiCorp files its 2015 IRP, when SBT analysis for these segments may be performed.

# **2013 IRP Action Item Updates**

---

- Action Item 1 – Renewable Resources
  - Issued multiple RFPs to purchase qualifying RECs for CA, OR, and WA RPS compliance
  - Issued reverse RFPs to sell RECs that are not required to meet state RPS compliance
  - Issued solar RFP to meet Oregon small solar compliance obligation. Bids refreshed following contractual issues with one of selected projects.
  - Updated solar costs and capacity factors for 2013 IRP Update
- Action Item 2 – Distributed Generation
  - Company continues to pursue solar opportunities in Utah
  - Analyzed potential for acquiring CHP resources – see Appendix B of 2013 IRP Update

# 2013 IRP Action Item Updates

---

- Action Item 3 – Firm Market Purchases
  - Company continues to procure energy through multiple means including RFPs and bilateral negotiations
  - RFP in accordance with Washington protocols resulted in 25 MW of firm, heavy-load energy for July-September 2014
- Action Item 4 – Flexible Resource Actions – Energy Imbalance Market (EIM)
  - Company continues to work on developing an EIM with CAISO.
  - EIM tariff changes filed with FERC on March 25
- Action Item 5 – Hedging actions Natural Gas RFP
  - Workshops held with stakeholders to discuss potential changes to Company's process for evaluating future gas RFPs.

# 2013 IRP Action Item Updates

---

- Action Item 6 – Plant Efficiency Improvement Actions
  - Company completed a multi-plant analysis of potential energy conservation opportunities at wholly owned generation facilities.
  - Analysis contained in Appendix C of 2013 IRP Update
- Action Item 7 – Demand Side Management (DSM) Actions – Class 2 DSM
  - Acquire 1,425 – 1,876 GWh of cost-effective Class 2 energy efficiency resources by the end of 2015 and 2,034 – 3,180 GWh by the end of 2017.
  - On track with goal – CY 2013 (preliminary results) = 590 GWh ~ 122% 2013 selections

# 2013 IRP Action Item Updates – DSM

---

## Completed (7a)

- Collaborate with ETO on a pilot residential home comparison report
- Enhanced/Consolidated Business Program
  - wattsmart Business – Utah
  - wattsmart Business – Washington
- Expand Trade Ally Network for business customers – 5 states
- Contract to expand small-mid market business marketing, outreach and project development capabilities – 5 states
- Increase acquisition of residential DSM resources
  - Expand “bundled” measure incentives – Utah, Washington and Idaho
  - Increase qualifying measures – Washington
  - Review & realign incentives – Washington
- ETO funding contract review and renewal
- Decrement value study – accelerated DSM

## Completed (7B)

- Develop a pilot irrigation customer TOU in Oregon

# 2013 IRP Action Item Updates

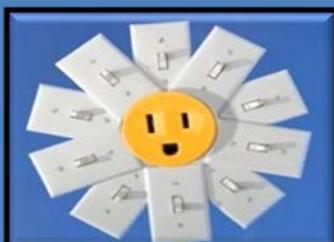
---

- Action Item 8 – Coal Resource Actions
  - Naughton Unit 3 EPA in favor of gas conversion.
  - Hunter Unit 1 – Substantial completion of baghouse conversion and low NOX burner compliance projects anticipated by end of August 2014.
  - Jim Bridger Units 3 and 4 – Received Certificate of Public Convenience and Necessity from Idaho, Wyoming and Utah and a full Notice to Proceed. Project execution is in progress.
  - Cholla Unit 4 – continuing to analyze compliance alternatives.
- Action Item 9 – Transmission Actions
  - Permitting actions continue, timelines have been updated.
  - A draft EIS for Segment F for the Gateway South project was received in February 2014.
  - PacifiCorp's memorandum of understanding with Portland General Electric (PGE) with respect to the development of Cascade Crossing that terminated by its own terms.
  - PacifiCorp continues to support the Boardman to Hemingway project.

# 2013 IRP Action Item Updates

---

- Action Item 10 – Planning Reserve Margin
  - Will provide an updated analysis for planning reserve margins in 2015 IRP.
- Action Item 11 – Planning and Modeling Process Improvement Actions
  - Held workshop on process improvements, stakeholders provided comments.
  - Cost/Benefit Analysis of DSM Resource Alternatives – company will continue to study DSM resources in 2015 IRP. Currently working with EnerNOC on the potential study.



# APPENDIX MATERIALS FOR ACTION ITEM UPDATES

# 2013 Action Plan Status Updates

Action Item	Activity	Status
1a. Renewable Resource Actions - Wind Integration	Update the wind integration study for the 2015 IRP. The updated wind integration study will consider the implications of an energy imbalance market along with comments and feedback from the technical review committee and IRP stakeholders provided during the 2012 Wind Integration Study.	The wind integration study will be updated as part of the 2015 IRP process.
1b. Renewable Resource Actions - Renewable Portfolio Standard Compliance	With renewable portfolio standard (RPS) compliance achieved with unbundled renewable energy credit (REC) purchases, the preferred portfolio does not include incremental renewable resources prior to 2024. Given that the REC market lacks liquidity and depth beyond one year forward, the Company will pursue unbundled REC requests for proposal (RFP) to meet its state RPS compliance requirements.  1. Issue at least annually, RFPs seeking then current-year or forward-year vintage unbundled RECs that will qualify in meeting Washington renewable portfolio standard obligations.	1. The Company issued an RFP on August 14, 2013. While there were a number of offers received, none were compelling from a price/structure perspective. Furthermore, when issued, the Company did not see a need for RECs until 2016. There will be another RFP issued prior to year-end 2014. Results will be discussed in the 2015 IRP.
	2. Issue at least annually, RFPs seeking historical, then current-year, or forward-year vintage unbundled RECs that will qualify for Oregon renewable portfolio standard obligations. As part of the solicitation and bid evaluation process, evaluate the tradeoffs between acquiring bankable RECs early as a means to mitigate potentially higher cost long-term compliance alternatives.	2. The Company issued an RFP on December 31, 2012 with bids due January 15, 2013. A numbers of offers were selected that met matched needs and specific pricing criteria. A new RFP is planned for issuance prior to year-end 2014.
	3. Issue at least annually, RFPs seeking then current-year or forward-year vintage unbundled RECs that will qualify for California renewable portfolio standard obligations.	3. The Company issued an RFP on March, 14, 2014 for California-eligible RECs. Bids were due March 28, 2014; results of the RFP will be incorporated in the 2015 IRP.
1c. Renewable Resource Actions - Renewable Energy Credit Optimization	On a quarterly basis, issue reverse RFPs to sell RECs not required to meet state RPS compliance obligations.	The Company issued a total of five reverse RFPs to sell RECs in calendar 2013. To date in 2014 the Company has issued one RFP. Three more RFPs, one per quarter, are anticipated for the remainder of the year.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
1d. Renewable Resource Actions – Solar	<p>1. Issue an RFP in the second quarter of 2013 soliciting Oregon solar photovoltaic resources to meet the Oregon small solar compliance obligation (Oregon House Bill 3039). Coordinate the selection process with the Energy Trust of Oregon to seek 2014 project funding. Complete evaluation of proposals and select potential winning bids in the fourth quarter of 2013.</p> <p>2. Issue a request for information 180 days after filing the 2013 IRP to solicit updated market information on utility scale solar costs and capacity factors.</p>	<p>1. The Company issued a solar RFP on April 30, 2013. The final selection of two solar PV projects was completed on October 4, 2013. One of the bids did not satisfy certain contractual obligations. Updated pricing from bids was requested April 2014, and a winning bid selected May 2014. Contract negotiation is ongoing.</p> <p>2. PacifiCorp hired Black &amp; Veatch in October 2013 to provide a report with updated market information on current EPC costs for both 5 MWac and 50 MWac single axis tracking and fixed tilt solar PV systems at selected locations. The study included Lakeview, OR and three Utah locations, Salt Lake City, Milford, and Veyo. Capital and O&amp;M costs, as well as performance parameters were updated. See also Chapter 4 – Supply-Side Resources section.</p>
1e. Renewable Resource Actions - Capacity Contribution	Track and report the statistics used to calculate capacity contribution from wind resources and available solar information as a means of testing the validity of the peak load carrying capability (PLCC) method.	The PLCC method of calculating capacity contribution for wind and solar resources will be tested in the 2015 IRP.
2a. Distributed Generation Actions - Distributed Solar	Manage the expanded Utah Solar Incentive Program to encourage the installation of the entire approved capacity. Beginning in June 2014, as stipulated in the Order in Docket No. 11-035-104, the Company will file an Annual Report with program results, system costs, and production data. These reports will also provide an opportunity to evaluate and improve the program as the Company will use this opportunity to recommend changes. Interested parties will have an opportunity to comment on the report and any associated recommendations.	The Company continues to pursue solar opportunities as approved in Docket No. 11-035-104. This will include increases of 500 kW for residential customers per year through 2017. Initial evaluation report is to be filed in June 2014 with the Utah Commission.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
2b. Distributed Generation Actions - Combined Heat & Power (CHP)	Pursue opportunities for acquiring CHP resources, primarily through the Public Utilities Regulatory Policies Act (PURPA) Qualifying Facility contracting process. For the 2013 IRP Update, complete a market analysis of CHP opportunities that will: (1) assess the existing, proposed, and potential generation sites on PacifiCorp's system; (2) assess availability of fuel based on market information; (3) review renewable resource site information (i.e. permits, water availability, and incentives) using available public information; and (4) analyze indicative project economics based on avoided cost pricing to assist in ranking probability of development.	See Appendix B of 2013 IRP Update for the Executive Summary of the CHP study.
3a. Firm Market Purchase Actions - Front Office Transactions	<p>Acquire economic front office transactions or power purchase agreements as needed through the summer of 2017.</p> <p>1. Resources will be procured through multiple means, such as periodic market RFPs that seek resources less than five years in term, and bilateral negotiations.</p> <p>2. Include in the 2013 IRP Update a summary of the progress the Company has made to acquire front office transactions over the 2014 to 2017 forward period.</p>	<p>1. The Company plans to continue seeking procurement through multiple means, including consideration of periodic market RFPs throughout 2014. Additional bilateral negotiations will occur where there are opportunities for economic power purchases.</p> <p>2. Since filing the IRP the Company has executed a purchase transaction for 25 MW of firm, heavy-load-hour energy for July-September, 2014. This resulted following an RFP in accordance with Washington regulatory requirements.</p>
4a. Flexible Resource Actions - Energy Imbalance Market (EIM)	Continue to pursue the EIM activities with the California Independent System Operator and the Northwest Power Pool to further optimize existing resources resulting in reduced costs for customers.	<p>The Company is developing an energy imbalance market with the California Independent System Operator to further optimize existing resources resulting in reduced costs for customers. PacifiCorp filed EIM tariff changes with FERC on March 25. The go-live date for the energy imbalance market is scheduled for October 1, 2014.</p> <p>Additionally, the Company continues to follow and support the Northwest Power Pool effort in developing a security constrained economic dispatch tool among other efforts.</p>

# 2013 Action Plan Status Updates

Action Item	Activity	Status
5a. Hedging Actions Natural Gas Request for Proposal	<p>Convene a workshop for stakeholders by October 2013 to discuss potential changes to the Company's process in evaluating bids for future natural gas RFPs, if any, to secure additional long-term natural gas hedging products.</p>	An initial workshop was held on October 29, 2013. Parties also provide comments in early December. Additional meetings were held with Utah Office of Consumer Services (OCS) and Utah Department of Public Utilities (DPU) in January, 2014. The Company continues to work with stakeholders to implement some of the feedback received.
6a. Plant Efficiency Improvement Actions	<p>Production efficiency studies have been conducted to satisfy requirements of the Washington I-937 Production Efficiency Measure that have identified categories of cost effective production efficiency opportunity.</p> <ol style="list-style-type: none"> <li>1. By the end of the first quarter of 2014, complete an assessment of the plant efficiency opportunities identified in the Washington I-937 studies that might be applicable to other wholly owned generation facilities.</li> <li>2. Prior to initiating modeling efforts for the 2015 IRP, determine a multi-state "total resource cost test" evaluation methodology to address regulatory recovery among states with identified capital expenditures.</li> <li>3. Prior to initiating modeling efforts for the 2015 IRP, present to IRP stakeholders in a public input meeting the Company's recommended approach to analyzing cost effective production efficiency resources in the 2015 IRP.</li> </ol>	<p>1. The Company has completed a multi-plant analysis of potential energy conservation opportunities at wholly owned generation facilities. The "Energy Analysis Report" is included as Appendix C.</p> <p>2. Total Resource Cost Test methodology was presented and explained to the Washington I-937 Advisory Group and accepted with no objections noted in the WUTC's order approving the Company's 10-year conservation potential and 2014-2015 biennial conservation target, effective Jan. 1, 2014. This methodology will be the basis for analysis in the 2015 IRP.</p> <p>3. As stated above, the Company will present to IRP stakeholders the analysis methodology presentation used in Washington I-937. This same methodology will be proposed as the 2015 IRP TRC test methodology.</p>

# 2013 Action Plan Status Updates

Action Item	Activity	Status
7a. Demand Side Management (DSM) Actions - Class 2 DSM	<p>Acquire 1,425 – 1,876 gigawatt hours (GWh) of cost-effective Class 2 energy efficiency resources by the end of 2015 and 2,034 – 3,180 GWh by the end of 2017.</p>	2013 preliminary results of 590 GWh represent 41 and 31 percent respectively of the 1,425 – 1,876 GWh three year range and 122 percent of planned 2013 targeted resources.
	<p>1. Collaborate with the Energy Trust of Oregon on a pilot residential home comparison report program to be offered to Pacific Power customers in 2013 and 2014. At the conclusion of the pilot program and the associated impact evaluation, assess further expansion of the program.</p>	1. The 24 month pilot program was implemented in August 2013. Expansion will be dependent on pilot results and if appropriate included as an action item in the 2015 IRP Action Plan.
	<p>2. Implement an enhanced consolidated business program to increase DSM acquisition from business customers in all states excluding Oregon.</p> <ul style="list-style-type: none"> <li>a) Utah base case schedule is 1st quarter 2014 with an accelerated target of 3rd quarter 2013.</li> <li>b) Washington base case schedule is 4th quarter 2014, with an accelerated target of 1st quarter 2014.</li> <li>c) Wyoming, California, and Idaho base case schedule is 4th quarter 2014, with an accelerated target of 2nd quarter 2014.</li> </ul>	<p>2(a) The company filed an enhanced consolidated program for business customers in May 2013. The Utah Commission approved the changes effective July 1, 2013.</p> <p>2(b) The Company filed an enhanced consolidated program for business customers in November 2013. The Washington Commission approved the changes effective January 1, 2014.</p> <p>2(c) The Company plans to file an enhanced consolidated program for business customers in Wyoming in April 2014 and California and Idaho in Q2 2014.</p>
	<p>3. Accelerate to the 2nd quarter of 2014, an evaluation of waste heat to power where generation is used to offset customer requirements – investigate how to integrate opportunities into the DSM portfolio.</p>	3. Draft statement of work is complete. RFP to select vendor to perform the evaluation will be released in March 2014.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
7a. Demand Side Management (DSM) Actions - Class 2 DSM	4. Increase acquisitions from business customers through prescriptive measures by expanding the "Trade Ally Network". a) Base case target in all states is 3rd quarter 2014, with an accelerated target of 4th quarter 2013.	4. A contract amendment with the Company's trade ally coordinator to expand the Trade Ally Network was executed August 2, 2013. The change (1) increased Trade Ally activities in training and recruitment, (2) extended work related to Utah's evaporative cooling initiative, and (3) emphasized collection of actionable market data. The end result is to implement a targeted customer outreach and engagement process with the objective of increasing participation and increasing program savings.
	4. Accelerate small-mid market business DSM acquisitions by contracting with third party administrators to facilitate greater acquisitions by increasing marketing, outreach, and management of comprehensive custom projects by 1st quarter 2014.	5. Contracts were finalized with two small to mid-market third-party administrators specializing in business customer project facilitation February 25, 2014. These new contracts will increase marketing, outreach and will manage comprehensive custom projects for small to mid-market customers.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
7a. Demand Side Management (DSM) Actions - Class 2 DSM	<p>6. Increase the reach and effectiveness of “express” or “typical” measure offerings by increasing qualifying measures, reviewing and realigning incentives, implementing a direct install feature for small commercial customers, and expanding the residential refrigerator and freezer recycling program to include commercial units.</p> <p>a) Utah base case schedule is 1st quarter 2014 with an accelerated target of 3rd quarter 2013.</p> <p>b) Washington base case schedule is 4th quarter 2014, with an accelerated target of 1st quarter 2014.</p> <p>c) Wyoming, California, and Idaho base case schedule is 4th quarter 2014, with an accelerated target of 2nd quarter 2014.</p>	<p>6(a) Revisions to the existing wattsmart Business program were previewed with Utah’s DSM Advisory Committee in December 2013. The revisions will add program measures including evaporative pre-cooler retrofit, demand-controlled commercial kitchen ventilation and others. Updates are also planned for existing typical upgrade measures. Contracting for the direct install (small business lighting offer) is complete and program design work is underway. An amendment to the refrigerator/freezer recycling program vendor agreement is also underway. The Company intends to file the above mentioned program changes to the Utah program in April 2014.</p> <p>6(b) Many of the proposed additions in Washington were part of the wattsmart Business filing that became effective January 1, 2014. Contracting for the direct install (small business lighting offer) is complete and program design work is underway. A meeting was held with Washington’s DSM advisory group in February 2014, to preview the direct install (small business lighting) program. An amendment to the refrigerator/freezer recycling program vendor agreement is also underway. The Company filed the changes for the refrigerator/freezer recycling program with Washington in March 2014. The changes for the direct install (small business lighting offer) will be filed by June 2014.</p> <p>6(c) Work for Wyoming, California, and Idaho programs is progressing. In Wyoming, the enhanced measures and incentives and expansion of the refrigerator/freezer recycling program will be filed in April 2014, with the direct install (small business lighting) program filed in June 2014. In California, the enhanced measure and incentives, direct install (small business lighting) program, and the expanded refrigerator/freezer recycling program will be filed in April 2014. In Idaho, the enhanced measure and incentives, direct install (small business lighting) program, and the expanded refrigerator/freezer recycling program will be filed in June 2014.</p>

# 2013 Action Plan Status Updates

Action Item	Activity	Status
7a. Demand Side Management (DSM) Actions - Class 2 DSM	7. Increase the reach of behavioral DSM programs: <ul style="list-style-type: none"><li>▪ Evaluate and expand the residential behavioral pilot. Utah base case schedule is 2nd quarter, 2014, with an accelerated target of 4th quarter 2013.</li><li>▪ Accelerate commercial behavioral pilot to the end of the first quarter 2014.</li><li>▪ Expand residential programs system-wide pending evaluation results</li></ul> System-wide target is 3rd quarter 2015, with an accelerated target of 3rd quarter 2014.	7(a) Held meetings with program vendor to scope Utah expansion in January 2014 with options presented to the Utah Steering Committee on February 12, 2014. Company is conducting additional analysis based on feedback from the Steering Committee. 7(b) Have not found a state that both qualifies and is receptive to the commercial pilot at this point however there are ongoing discussions. 7(c) Work is ongoing with expansion options presented to the Washington Advisory Committee in February 2014. Company is conducting additional analysis based on feedback from the Advisory Committee. The Company is working with the program vendor to review program applicability for expansion to Idaho and Wyoming.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
7a. Demand Side Management (DSM) Actions - Class 2 DSM	8.Increase acquisition of residential DSM resources: a)Implement cost effective direct install options by the end of 2013. b)Expand offering of “bundled” measure incentives by the end of 2013. c)Increase qualifying measures by the end of 2013. d)Review and realign incentives: Utah schedule is 1st quarter 2014 e)Review and realign incentives: Washington base case schedule is 2nd quarter 2014, with accelerated target of 1st quarter 2014 f)Review and realign incentives: Wyoming, California, and Idaho base case schedule is 3rd quarter 2014, with an accelerated target of 2nd quarter 2014	8(a) A residential direct install (direct distribution of energy savings kits) RFP was issued with responses received January 2014. Kits will be available to customers in Q2 2014 as the addition of the kit measures are approved in each state. Additional programs targeting direct install measures for electrically heated manufactured homes are available in Washington and will be available in Idaho, California, Utah and Wyoming in Q2 2014. 8(b) Incentives encouraging customers to install bundles of weatherization (i.e. insulation, windows) and heating and cooling equipment (i.e. central air conditioners, heat pumps) were added in Idaho in September 2012, Utah in November 2012 and Washington in January 2014. Review is currently underway in California and Wyoming. 8(c) Measure updates were made in Washington effective with the January 1, 2014 program changes. Updated residential measures were part of the noticed changes in Idaho in February 2014. Work is underway with notices or filings planned to update residential measures and incentives for California and Utah by April 2014 and in Wyoming in June 2014. 8(d) Work is ongoing with filing planned for April 2014 for residential measures and incentives. 8(e) Work is complete with realigned incentives available in Washington January 1, 2014. 8(f) Work is ongoing with updated residential measures noticed in Idaho in February 2014 and notices or filings planned for California and Utah by April 2014 and Wyoming in June 2014.
	9. Accelerate acquisitions by expanding refrigerator and freezer recycling to incorporate retail appliance distributors and commercial units – 3rd quarter 2013.	9. The Company is working with our appliance recycling vendor on operational logistics of an expanded refrigerator/freezer recycling program. Changes were previewed with the Utah Steering Committee and Washington Advisory Committee in February 2014. Planned filing dates in each state are detailed above in action item 6.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
7a. Demand Side Management (DSM) Actions - Class 2 DSM	10. By the end of 2013, complete review of the impact of accelerated DSM on Oregon and the Energy Trust of Oregon, and re-contract in 2014 for appropriate funding as required.	10. Company met with the ETO in September 2013 to review Oregon's 2014 funding requirements, including funding that might be necessary to pursue energy efficiency resources beyond the 2013 IRP's 2014 target. Following the meeting the ETO revised their year-end 2013 funding position and 2014 incremental energy efficiency forecast and determined they had sufficient funding available for 2014 activities. The OPUC was notified in November, 2013 of the funding position. A revised funding agreement between the Company and the ETO was executed in February 2014.
	11. Include in the 2013 IRP Update Class 2 DSM decrement values based upon accelerated acquisition of DSM resources.	11. The Class 2 DSM decrement study based on accelerated acquisition of DSM resources is included as Appendix D.
	12. Include in the 2014 conservation potential study an analysis testing assumptions in support of accelerating acquisition of cost-effective Class 2 DSM resources, and apply findings from this analysis into the development of candidate portfolios in the 2015 IRP.	12. Analysis is ongoing.
7b. Demand Side Management (DSM) Actions - Class 3 DSM	Develop a pilot program in Oregon for a Class 3 irrigation time-of-use program as an alternative approach to a Class 1 irrigation load control program for managing irrigation loads in the west. The pilot program will be developed for the 2014 irrigation season and findings will be reported in the 2015 IRP.	The Company has filed proposed tariffs with the OPUC. Assuming Commission approval, customers will be informed of program, and offered opportunity to sign up. The target date for beginning the pilot program is June 1, 2014.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
8a. Coal Resource Actions - Naughton Unit 3	<ol style="list-style-type: none"><li>1. Continue permitting and development efforts in support of the Naughton Unit 3 natural gas conversion project. The permit application requesting operation on coal through year-end 2017 is currently under review by the Wyoming Department of Environmental Quality, Air Quality Division.</li><li>2. Issue a request for proposal to procure gas transportation for the Naughton plant as required to support compliance with the conversion date that will be established during the permitting process.</li><li>3. Issue an RFP for engineering, procurement, and construction (EPC) of the Naughton Unit 3 natural gas retrofit as required supporting compliance with the conversion date that will be established during the permitting process.</li></ol>	<ol style="list-style-type: none"><li>1. In its action on January 10, 2014, the EPA was in favor of the natural gas conversion on Naughton Unit 3, but couldn't take action because this was not included in the WY regional haze SIP and related documents. The Company met with the Wyoming Department of Environmental Quality: Air Quality Division and WY SIP and related document modifications are now in progress.</li><li>2. RFP was issued on December 23, 2013. As of March 14, 2014 the RFP was suspended. PacifiCorp will reevaluate its natural gas transportation procurement alternatives following pending resolution of the on-going best available retrofit technology permit amendment process for Naughton Unit 3.</li><li>3. A tentative technical evaluation of the EPC RFP proposals was completed. Work to continue the RFP evaluation has been suspended until early 2016.</li></ol>
8b. Coal Resource Actions - Hunter Unit 1	Complete installation of the baghouse conversion and low NOX burner compliance projects at Hunter Unit 1 as required by the end of 2014.	Work is ongoing with substantial completion of the project anticipated by the end of August 2014.
8c. Coal Resource Actions - Jim Bridger Units 3 and 4	Complete installation of selective catalytic reduction (SCR) compliance projects at Jim Bridger Unit 3 and Jim Bridger Unit 4 as required by the end of 2015 and 2016, respectively.	Received Certificate of Public Convenience and Necessity from Idaho, Wyoming and Utah and a full Notice to Proceed. Project execution is in progress.
8d. Coal Resource Actions - Cholla Unit 4	Continue to evaluate alternative compliance strategies that will meet Regional Haze compliance obligations, related to the U.S. Environmental Protection Agency's Federal Implementation Plan requirements to install SCR equipment at Cholla Unit 4. Provide an update of the Cholla Unit 4 analysis regarding compliance alternatives in the 2013 IRP Update.	Evaluation is ongoing. See Chapter 2 under the Resource Update section for more information.

# 2013 Action Plan Status Updates

Action Item	Activity	Status
9a. Transmission Actions - System Operational and Reliability Benefits Tool (SBT)	<p>60 days after filing the 2013 IRP, establish a stakeholder group and schedule workshops to further review the System Benefit Tool (SBT).</p> <ol style="list-style-type: none"><li>For the 2013 IRP Update, complete additional analysis of the Energy Gateway West Segment D that evaluates staging implementation of Segment D by sub-segment.</li><li>In preparation for the 2015 IRP, continue to refine the SBT for Energy Gateway West Segment D and develop SBT analyses for additional Energy Gateway segments.</li></ol>	<p>On June 28, 2013, an email was sent from the IRP Mailbox to the IRP participant distribution list soliciting stakeholder participation on the SBT workgroup. The first SBT workgroup kick-off workshop was held on July 29, 2013. PacifiCorp transmission established an email mailbox for SBT correspondence and a webpage. Notices of workshops and presentation materials are posted on the "Transmission SBT" webpage. Workshops were held with interested Stakeholders on July 29, 2013, August 26, 2013, September 17, 2013, (with an optional make-up webinar on September 30), and November 20, 2013.</p> <ol style="list-style-type: none"><li>Evaluation is ongoing. See Chapter 2 under Gateway West project update for more information. Given the delay in the in-service dates and the continued refinement on the SBT as a result of the stakeholder process, PacifiCorp has not included a sub-segment SBT analysis for Segment D in the 2013 IRP Update.</li><li>PacifiCorp will continue to refine the SBT in preparation for the 2015 IRP.</li></ol>
9b. Transmission Actions - Energy Gateway Permitting	<p>Continue permitting for the Energy Gateway transmission plan, with near term targets as follows:</p> <ol style="list-style-type: none"><li>Segment D, E, and F, continue funding of the required federal agency permitting environmental consultant as actions to achieve final federal permits.</li><li>Segment D, E, and F, continue to support the federal permitting process by providing information and participating in public outreach projected through the next 2 to 4 years.</li><li>Segment H Cascade Crossing, complete benefits analysis in 2013.</li><li>Segment H Boardman to Hemingway, continue to support the project under the conditions of the Boardman to Hemingway Transmission Project Joint Permit Funding Agreement, projected through 2015.</li></ol>	<ol style="list-style-type: none"><li>PacifiCorp continues to fund the required federal agency permitting environmental consultant as actions to achieve final federal permits.</li><li>A draft EIS for Segment F for the Gateway South project was received in February 2014.</li><li>As noted in the November 26, 2013, Oregon IRP Reply Comments, PacifiCorp had a memorandum of understanding with Portland General Electric (PGE) with respect to the development of Cascade Crossing that terminated by its own terms and further discussions with PGE on Cascade Crossing as an option have been ended. Thus, no benefits analysis will be completed.</li><li>PacifiCorp continues to support the Boardman to Hemingway project consistent with the project Joint Permit Funding Agreement. PacifiCorp has participated in the permitting process by providing review and comment of cost, scope and schedule of the project. As a participant in the project PacifiCorp continues to collaborate with Idaho Power in the permitting process providing guidance of activities and plans associated with the permitting phase of the project.</li></ol>

# 2013 Action Plan Status Updates

Action Item	Activity	Status
9c. Transmission Actions - Sigurd to Red Butte 345 kilovolt Transmission Line	Complete project construction per plan.	Construction began in May, 2013. As of February 2014, 69% of the total foundations, and 53% of the total 345 kV lattice towers structures are complete.
10a. Planning Reserve Margin Actions	Continue to evaluate in the 2015 IRP the results of a System Optimizer portfolio sensitivity analysis comparing a range of planning reserve margins considering both cost and reliability impacts of different levels of planning reserve margin assumptions. Complete for the 2015 IRP an updated planning reserve margin analysis that is shared with stakeholders during the public process.	An updated analysis for planning reserve margins will be completed in 2015 IRP.
11a. Planning and Modeling Process Improvement Actions - Modeling and Process	Within 90 days of filing the 2013 IRP, schedule an IRP workshop with stakeholders to discuss potential process improvements that can more efficiently achieve meaningful cost and risk analysis of resource plans in the context of the IRP and implement process improvements in the 2015 IRP.	The Company sent an email to stakeholders on July 23, 2013 to determine stakeholder availability. Thereafter, a meeting was held on September 23, 2013 to discuss potential improvements. Additionally, Stakeholders were able to provide written comments up to October 17, 2013. The 2015 IRP, and associated process, will incorporate much of the Stakeholder feedback.
11b. Planning and Modeling Process Improvement Actions - Cost/Benefit Analysis of DSM Resource Alternatives	Complete a cost/benefit analysis on the level of detail used to evaluate prospective DSM resources in the IRP. The analysis will consider the tradeoffs between model run-time and resulting resource selections, will be shared with stakeholders early in the 2015 IRP public process, and will inform how prospective DSM resources will be aggregated in developing resource portfolios for the 2015 IRP.	DSM resources will be thoroughly studied in the 2015 IRP.