

October 1, 2015

#### VIA ELECTRONIC MAIL

Public Utility Commission of Oregon 201 High St. SE Salem, Oregon 97301-1166

Attention: Filing Center

## Re: LC 57 -- PacifiCorp's Written Report on Environmental Compliance and Transmission Investments for the Third Quarter of 2015

PacifiCorp d/b/a Pacific Power (Company) provides the attached report to replace the above-referenced report in its entirety. This filing is in compliance with the following provision included in Order No. 14-252, as modified in Order No. 14-288:

"Beginning in the fourth quarter of 2014, PacifiCorp will appear before the Commission to provide quarterly updates on coal plant compliance requirements, legal proceedings, pollution control investments, and other major capital expenditures on its coal plants or transmission projects. PacifiCorp may provide a written report and need not appear if there are no significant changes between the quarterly updates."

As there have been no significant changes since the last quarterly update provided on June 30, 2015, the Company is providing the attached written report. The report consists of an updated PowerPoint slide deck, building upon information provided in the Company's last update, with updates for the following information (these items have been high-lighted in yellow in the report):

- An update on Energy Imbalance Market (EIM), including the latest benefits report from the California Independent System Operator (CAISO) and EIM tariff filings on pages 5-8.
- Updates to the environmental compliance timeline on page 16.
- An update on the Clean Power Plan on pages 18-20.
- Updates to regional haze litigation in Arizona, Utah and Wyoming on pages 22, 24-25.
- An update on the Jim Bridger Units 3 and 4 selective catalytic reduction project on page 27.
- An update on mercury emissions control on page 29.
- An update on ash/scrubber waste on page 31.

Please direct informal questions with respect to this report to Erin Apperson, State Regulatory Affairs Manager, at (503) 813-6642.

Sincerely,

R. Bryce Dalley

Vice President, Regulation

Enclosure

## PacifiCorp Quarterly Environmental Compliance and Transmission Investment Update

**Update for Third Quarter 2015** 











Let's turn the answers on.

## Quarterly Update Reporting Requirement

• In the final order in the company's 2013 integrated resource plan docket, the Commission ordered the following:

Beginning in the fourth quarter of 2014, PacifiCorp will appear before the Commission to provide quarterly updates on coal plant compliance requirements, legal proceedings, pollution control investments, and other major capital expenditures on its coal plants or transmission projects. PacifiCorp may provide a written report and need not appear if there are no significant changes between the quarterly updates.

• Information in this slide deck builds on data provided in the company's last quarterly update (June 30, 2015).



# Transmission Projects and EIM and CAISO Update

## Transmission Developments

- EIM Update
- PacifiCorp ISO Integration
- Transmission Project Development
  - Wallula to McNary
  - Energy Gateway Projects
    - Sigurd to Red Butte



## Energy Imbalance Market Update

- The EIM became fully operational November 1, 2014
- California ISO released its EIM
   Benefits Report covering the second
   quarter of 2015

BAA	Nov-Dec 2014	Jan-Mar 2015	Apr-Jun 2015	Total
ISO	\$1.24 M	\$1.45 M	\$2.46 M	\$5.15 M
PACE	\$2.31 M	\$2.62 M	\$3.26 M	\$8.19 M
PACW	\$2.42 M	\$1.19 M	\$4.46 M	\$8.07 M
Total	\$5.97 M	\$5.26 M	\$10.18 M	\$21.41 M

BAA	April	May	June	Total
ISO	\$0.62	\$1.00	\$0.84	\$2.46
PACE	\$0.62	\$0.97	\$1.67	\$3.26
PACW	\$0.66	\$1.21	\$2.59	\$4.46
Total	\$1.90	\$3.18	\$5.10	\$10.18

- Total estimated benefit to the EIM footprint since November 1, 2014 is \$21.41M and is consistent with the 2013 projected annual benefits
- In this report, the ISO quantified the EIM benefits using the fiveminute EIM interval results



## EIM Tariff Filings and Orders

- FERC granted California ISO's requests for pricing waiver effective November 1, 2014
- FERC initiated a Section 206 Investigation to set the record regarding price excursions experienced in PacifiCorp's BAAs
  - Technical Conference held April 9, 2015
  - CAISO tariff amendments to resolve price excursion issues filed with FERC August 19, 2015
    - Pricing waiver extended until implementation of a FERC approved solution

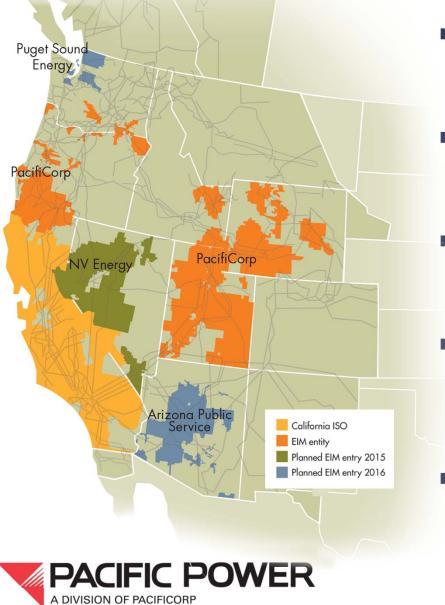


## EIM Tariff Filings and Orders (cont.)

- CAISO tariff amendments establishing EIM readiness criteria for new EIM Entities filed with FERC August 28, 2015
- CAISO's tariff amendments on Phase 1 of the EIM Year 1
   Enhancements
- CAISO's tariff amendments requesting a 6-month transition period for new EIM entities
- Coordination with BPA continues related to dynamic transfer capability limits on the COI



## Prospects for EIM Expansion



- PacifiCorp is supportive of broader market participation & coordination
- CAISO approach/EIM design is highly scalable for added participation
- NV Energy scheduled to join the EIM starting November 2015
- Puget Sound Energy and Arizona Public Service scheduled to join the EIM starting October 2016
- Portland General Electric and Idaho
  Power Company both announced they
  will explore steps to join the Western
  EIM

## Full participation provides significant benefits beyond those of the Energy Imbalance Market

#### **EIM Benefits**

#### **Full Participation Benefits**

- Lowers real-time operating costs through 5-minute optimized dispatch
- Enhances renewable integration and reduces renewable curtailment

- Lowers costs through optimization of day-ahead system set-up
- Enables excess renewable generation to serve larger area
- Supports transmission investments that enhance efficiency and renewable integration through regional planning
- Captures benefits of load and resource diversity
- Greater visibility across the system enhances reliability
- Lowers compliance costs



## PacifiCorp's Next Steps

- Benefits study underway
- If decision is made to proceed, full stakeholder and regulatory review and input process
  - > ISO stakeholder process
  - PacifiCorp state commission process
  - PacifiCorp's transmission customers and load serving entities in our balancing authority areas
- Followed by FERC filings and PacifiCorp state regulatory approval process
- Engagement over governance of a regional ISO organization



## Development of a regional ISO requires careful consideration of existing policies and tariff provisions

Transition agreement Stakeholder Processes

- Greenhouse Gas Rules
- Transmission Charges
- Full Network Model and Settlements
- Resource Adequacy Rules
- FERC Filings to address tariff changes
- Governance

Engage on issues with state regulators & regional market participants

Seek regulatory approvals

Implementation design, development, testing, market simulation, and readiness assessment

Regional market implementation



## Wallula to McNary (Segment A)

- Approximately 30 miles between Wallula-McNary, single circuit 230 kilovolt line
- Satisfies transmission customer service request, increases reliability and load service opportunities
- Oregon certificate of public convenience and necessity received in 2011
- Target in-service date 2017





## Energy Gateway Development

- Sigurd to Red Butte
  - In-service May 2015
- Gateway West
  - Segment D
  - Segment E
- Gateway South
  - Segment F
- Boardman to Hemingway
  - Segment H

#### **Energy Gateway**





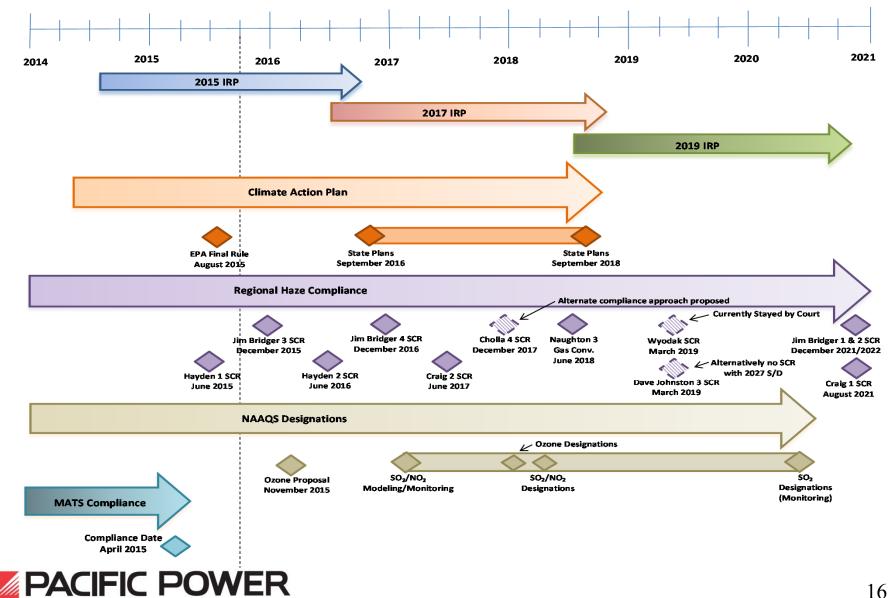
## Environmental Compliance Update

## Air



## Environmental Compliance Timeline

A DIVISION OF PACIFICORP





- The pre-publication version of the U.S. Environmental Protection Agency's final Carbon Pollution Emissions Guidelines for Existing Stationary Sources ("Clean Power Plan") was released August 3, 2015
- The final rule is expected to be published in the *Federal Register* in October 2015
- States are required to submit state plans implementing the Clean Power Plan by September 6, 2016, with an option to request an extension to September 2018
- EPA also issued a draft Federal Implementation Plan ("FIP") and model trading rules for comment; comments will be due 90 days from publication in the *Federal Register* 
  - > PacifiCorp intends to submit comments on the FIP and model trading rules
- PacifiCorp is participating in regional efforts led by the Western Interstate Energy
   Board and the Center for New Energy Economy related to the development of implementation concepts



- PacifiCorp is committed to working with states to implement a path forward
  - Most states have kicked off or are in the process of developing stakeholder processes for state plan development
  - PacifiCorp met with Oregon state agencies in September and is awaiting further guidance on the development of a technical work group and principles for plan development
  - PacifiCorp is committed to working with stakeholders and state agencies to identify least-cost compliance approaches for all PacifiCorp customers
  - PacifiCorp will support state efforts with technical analysis and information as needed timing of stakeholder processes are unlikely to align with any single company IRP cycle
  - Though Clean Power Plan stakeholder processes will be separate from IRPs, PacifiCorp's future IRPs will continue to incorporate Clean Power Plan analysis and input from states on the development of their plans



- Under the final rule, states have many options in terms compliance pathways the chosen pathways will have significant influence on cost and impacts to customers
  - PacifiCorp will advocate for state plans that achieve emissions reductions required in the most cost-effective and least administratively burdensome manner
- The final rule incorporates a concept for states to be "trading ready" and trade compliance instruments without a formal multi-state agreement
  - This may include cooperation and coordination between PacifiCorp states, but may not necessarily involve a comprehensive compact for environmental attribute trading
  - PacifiCorp will work with states to assess benefits, if any, of multi-state coordination



## Regional Haze



## Arizona Regional Haze Litigation

- The appeals regarding the Cholla plant Regional Haze Federal Implementation Plan ("FIP") continue to be held in abeyance while the State of Arizona processes the Cholla plant application for permit and State Implementation Plan ("SIP") revision, including a BART reassessment
- The State of Arizona public comment period has closed. The state has drafted responses to comments received and has forwarded them to EPA for a 45-day review
- EPA is expected to complete public comment and take final action on the permit and SIP revision by June 2016
- The Cholla appeal is expected to remain in abeyance until that time, with the parties required to provide status updates to the court every 90 days (the second update was provided August 19, 2015)



## Colorado Regional Haze Litigation

- Various environmental groups appealed EPA action approving selective non-catalytic reduction ("SNCR") at Craig Unit 1, while PacifiCorp intervened in support of EPA's approval. Other parties intervened as well regarding a variety of appeal points.
- Most of the parties, not including PacifiCorp, entered into a settlement agreement in July 2014 under which, following a series of administrative actions, Craig Unit 1 will be required to install selective catalytic reduction ("SCR") in 2021.
- By order dated July 11, 2014, the court granted motions filed by the environmental groups to hold the appeal in abeyance while the settlement agreement and related administrative actions move forward
- PacifiCorp opposed the settlement agreement and the requirement for Craig Unit 1 to install SCR by 2021. EPA nevertheless approved the settlement after notice and opportunity for public comment.
- The State of Colorado approved a Regional Haze SIP revision consistent with the settlement over the objections of PacifiCorp and subject to final legislative action
- The state of Colorado has forwarded the SIP revision to EPA for review and approval, which is expected to be finalized in 2016



### Utah Regional Haze Next Steps

- On June 3, 2015, the Utah Air Quality Board unanimously approved the Utah Division of Air Quality's revised Regional Haze SIP
- With this final approval, the SIP becomes enforceable by the state
- On June 11, 2015, Utah forwarded the SIP to EPA for review and final action
- Once EPA takes its final action, Utah's Regional Haze SIP or EPA's final action if other that SIP approval will become federally enforceable
- Several environmental groups filed suit against EPA complaining that EPA has not already taken action on Utah's SIP within required time frames
- The parties to that action have proposed entering into a consent decree requiring final EPA action by March 2016



## Wyoming Regional Haze Litigation

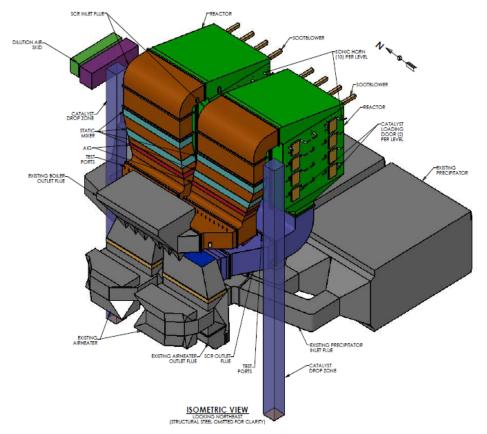
- PacifiCorp has appealed EPA's action requiring SCR at Wyodak. Other parties have also filed appeals of EPA's final action under a variety of opposition points.
- PacifiCorp and other parties asked the court to stay EPA's final action pending the resolution of the appeals. The court has granted the requested stay.
- Final briefing on the appeal of EPA's final action was completed in March 2015
- The court has scheduled oral arguments for January 2016
- The court is expected to make a final decision on the appeal of EPA's final action in 2016



## Regional Haze Compliance Projects



## Jim Bridger Units 3 and 4 SCR Project



- Two selective catalytic reduction systems, one per unit
- Full notice to proceed issued to engineer, procure and construct contractor on December 2, 2013
- Installation of the Unit 3 electrical power and control commodities are 99% complete
- Unit 3 commissioning activities are 55% complete
- Unit 3 in-service date is November 5, 2015
- Unit 4 structural steel erection approximately 85% complete
- Unit 4 in-service date is November 3, 2016
- Approximately 185 construction personnel on site



## Mercury and Air Toxic Standards



#### Mercury and Air Toxics Standards (MATS)

- Compliance deadline was April 16, 2015
- The U.S. Supreme Court has heard a challenge to the MATS rule in *Michigan v. EPA* where petitioners argued that EPA unreasonably refused to consider costs in determining whether it is appropriate to regulate hazardous pollutants emitted by electric utilities
  - On June 29, 2015, the U.S. Supreme Court reversed the lower court decision which upheld the rule and remanded it back to the lower court for further proceedings
  - Pending lower court action, the rule remains in effect
  - In spite of the future legal uncertainties, all of PacifiCorp's coal units have been operating in compliance with the MATS since April 16, 2015



## Ash / Scrubber Waste



## Environmental Regulations—Ash / Scrubber Waste

- Final coal combustion residuals (CCR) rule published in the Federal Register on April 17, 2015, and becomes effective on October 19, 2015
- The regulation is not enforceable by EPA; may only be enforced through RCRA's citizen suit authority
- Establishes certain technical criteria and timeframes for state agencies to administer compliance requirements for individual CCR installations
- CCR surface impoundments (ponds) and landfills may need to close unless they can meet more stringent regulatory requirements
- Fleet wide proxy Subtitle D CCR compliance projects have been incorporated into PacifiCorp's system planning for several years; as final compliance requirements are assessed, compliance project assumptions are being updated
- As of the effective date, PacifiCorp will have nine surface impoundments and four landfills that will be subject to the rule
- PacifiCorp currently plans to close four of the nine impoundments within three years of the effective date of the rule

