

ITEM NO. 1




PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: August 19, 2014

REGULAR   X   CONSENT \_\_\_\_\_ EFFECTIVE DATE \_\_\_\_\_ N/A \_\_\_\_\_

DATE: August 11, 2014

TO: Public Utility Commission

FROM: Juliet Johnson 

THROUGH: Jason Eisdorfer, Maury Galbraith, and Aster Adams   

SUBJECT: PACIFIC POWER: (Docket No. LC 57) Coal Analysis Framework for PacifiCorp's 2015 IRP.

**STAFF RECOMMENDATION:**

Staff recommends that the Commission adopt the recommendations described below as an appropriate coal analysis framework for PacifiCorp's 2015 Integrated Resource Plan.

**DISCUSSION:**

*Background*

On July 8, 2014, the Commission issued its final order in PacifiCorp's 2013 IRP (Order No. 14-252). One of the recommendations adopted was that workshops be held, including at least one with the Commissioners, to refine the list of specific fleet analyses to be performed in the 2015 IRP. The Order required Staff to present its final recommendations to the Commission at a Public Meeting and participants were to have an opportunity to comment on final recommendations.

Workshops were held on the following days and times:

- Workshop #1 - June 12, 2014, from 9:00 AM – noon
- Workshop #2 – June 26, 2014, from 9:30 AM – 4:00 PM
- Workshop #3 – July 15, 2014, from 1:30 PM – 4:30 PM
- Workshop #4 with Commissioners – August 6, 2014, from 9:30 AM – 11:30 AM

*Participation*

Staff is appreciative of PacifiCorp's and the participant's engagement in this process.

Active participants included representatives from the Citizens Utility Board, Renewable Northwest Project, Northwest Energy Coalition, Sierra Club, and Oregon Department of Energy. At this time, Staff understands that all participants are in agreement with the coal analysis framework for Wyodak and the other plants described in this memo. This does not mean that Staff and other parties are precluded from making additional requests as the 2015 IRP progresses.

### *Wyodak*

In January 2014, the United States Environmental Protection Agency (EPA) issued a final Federal Implementation Plan (FIP) for the State of Wyoming. The Wyoming FIP required selective catalytic reduction (SCR) be installed at Wyodak by 2019. The Wyoming FIP also indicated that for Dave Johnston Unit 3 SCR must be installed by 2019 or the Company must commit to retirement by the end of 2027.

As part of LC 57, Staff proposed specific inter-temporal and fleet analysis alternatives for Wyodak as a starting point for discussion. At the workshops, participants discussed and agreed on a list of model runs contained in Appendix A.

Sierra Club originally proposed two additional model runs that were identical to runs Staff IT-1 and Staff IT-3 in Appendix A except compliance dates were moved up two or three years. Sierra Club's scenarios would result in lower total emissions and higher costs than Staff IT-1 and Staff IT-3. After participant discussions, Sierra Club and other participants agreed to hold off on requiring PacifiCorp to model these additional scenarios. However, it was noted that if the Company enters into negotiations with environmental regulators and total emission levels of Staff IT-1 and Staff IT-3 are not acceptable, Staff would expect PacifiCorp to conduct additional analyses such as what Sierra Club has proposed and if economically feasible propose those alternatives to regulators prior to proceeding with installation of SCR at Wyodak.

As summarized at the August 6, 2014 workshop with the Commissioners, the Company plans to run each of the eight scenarios contained in Appendix A through System Optimizer under low and base gas price scenarios and through two Section 111(d) scenarios.

Staff had originally requested PacifiCorp provide stochastic results from its Planning and Risk (PaR) model for all the portfolios listed in Appendix A. After further consideration and to reduce potentially unnecessary model runs, Staff has agreed to data request PaR runs for specific portfolios of interest after initial results are provided.

### *Other Coal Plants*

Although workshops were primarily focused on Wyodak, the following were also discussed and generally agreed upon by all participants:

- Wyodak, Dave Johnston 3, Naughton 3, and Cholla are the units that will be presented in Confidential Volume III of the 2015 IRP.
- For Dave Johnston 3, the Company will model and evaluate SCR in 2019 versus firm commitment to retire in 2027.
- For Naughton 3, the Company will model and evaluate natural gas conversion in 2018 versus early retirement at year-end 2017.
- The Company will provide its analysis for Cholla Unit 4 in Confidential Volume III of the 2015 IRP.<sup>1</sup>
- Although it is likely that pollution control investments will be required in the future at the Hunter and Huntington coal units in Utah, because the final requirements are not yet known and because major retrofits will not likely be required until 2021 or beyond, Confidential Volume III of the 2015 IRP will not contain a detailed economic analysis of potential Hunter and Huntington investments. Rather, alternative actions at these units will be explored through sensitivity analysis as part of portfolio modeling.

### *Transmission*

The recommendations related to Wyodak in Order No. 14-252 (Docket No. LC 57) required that the 2015 IRP analysis include the impact of potential coal plant retirements and reduced generation in eastern Wyoming on considerations for the necessity of the Gateway West transmission segments. However, due to changed conditions in the 2015 IRP, the Company is not planning to model the Gateway West transmission segment except in two sensitivity cases. Therefore, the impact of coal plant retirements on that line is not an active issue. However, Staff and other parties have asked the Company to consider costs and potential benefits of coal alternatives on existing transmission. The Company plans to evaluate the costs of reinforcing the transmission system under retirement scenarios, but it has not agreed to explore the potential

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<sup>1</sup> Per Action item 8d from Order No. 14-252 in LC 57, the Company is also obligated to provide an analysis of the Cholla Unit 4 compliance alternatives in a special, designated IRP Update within six months of the final order in LC 57 and well enough in advance to allow for all viable pollution control alternatives to be adequately considered and pursued.

*benefits* associated with freed up transmission capacity, reduced congestion and/or increased wheeling revenues. Staff will follow through on this item through data requests if necessary.

### *Transparency*

Toward increased transparency, the Company has agreed to a) provide parties with a copy of the updated screening tool spreadsheet model that was first issued as part of the 2011 IRP Update,<sup>2</sup> b) provide CDs of output data from models used in the IRP, c) provide Staff with opportunities to see a demo of and become familiarized with the System Optimizer model, and d) provide Staff and other parties with access to model input files, once non-disclosure agreements are signed. Staff is working with the Company and other parties to schedule at least one visit to PacifiCorp to see a demonstration of and become familiarized with System Optimizer. Staff will pursue other site visits with the Company if needed.

### *Section 111(d) of the Clean Air Act*

At the workshops, the participants also discussed PacifiCorp's plans for modeling Section 111(d) of the Clean Air Act in the 2015 IRP. These discussions are ongoing. In the recommendations section of Order No. 14-252, the Commission directed that prior to the end of 2014, the Company will work with participants to explore options for how PacifiCorp plans to model and perform analysis in the 2015 IRP related to what is known about the requirements of 111(d).<sup>3</sup> Parties will continue to work with PacifiCorp on 111(d), however Order No. 14-252 does not require reporting back to the Commission on this item prior to issuance of the 2015 IRP.

### *Summary*

Staff is satisfied that the requirements of Order No. 14-252 have been met by this process and outcome.

## **PROPOSED COMMISSION MOTION:**

Adopt the recommendations regarding coal analysis framework for PacifiCorp's 2015 IRP as contained within this memorandum.

Docket No. LC 57 2015 IRP Coal Analysis Framework

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<sup>2</sup> Order 14-252 in LC 57 contained a specific requirement that an updated version of the screening tool be provided as part of the 2015, 2017 and 2019 IRPs. See page 2 of 3 of Appendix A in Order No. 14-252.

<sup>3</sup> Order No. 14-252 at 13 and Appendix A, page 2.

## Appendix A - Agreed Upon Model Runs for Wyodak in PacifiCorp's 2015 IRP

Model Run	Name	Wyodak	Dave Johnston 1	Dave Johnston 2	Dave Johnston 3	Dave Johnston 4
<b>Base Cases</b>						
1	SCR in 2019	SCR in 2019	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)
2	Early Retirement	Retire (3/4/2019)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)
3	Gas Conversion	Conversion (6/1/2019)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)
<b>Inter-temporal (IT) Alternatives</b>						
4	Staff IT-1	SNCR (3/4/2019) Retire (12/31/2030)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)
5	Staff IT-2	Conversion (6/1/2022)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)
6	Staff IT-3	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)
<b>Fleet Tradeoff (FT) Alternatives</b>						
7*	Staff FT-1	No SCR	Firm commitment to retire (12/31/2027)	Firm commitment to retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)
	Staff FT-2	No SCR	Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)	Firm commitment to retire (12/31/2027)
8	Staff FT-3	No SCR	Conversion (6/1/2022) Retire (12/31/2027)	Conversion (6/1/2022) Retire (12/31/2027)	Retire (12/31/2027)	Retire (12/31/2027)

\* same model run provides result for FT-1 and FT-2, but environmental regulators will view alternatives differently