



November 6, 2017

VIA ELECTRONIC MAIL

Public Utility Commission of Oregon 201 High St. SE Salem, Oregon 97301-3398

Attention: Filing Center

Re: LC 62 – PacifiCorp's Written Report on DSM IRP Acquisition Goals, Environmental Compliance and Transmission Investments, and 111(d) Rule Compliance – 2017 First Update

PacifiCorp d/b/a Pacific Power provides the attached report in compliance with the following provision included in Order No. 14-252, as modified in Order No. 14-288, streamlined in Order No. 16-071 and clarified by the Commission at the December 20, 2016 Public Meeting:

"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."¹

"We highlight the reporting requirement that the company continue to provide twice yearly updates on the status of DSM IRP acquisition goals at regular public meetings. Include in these updates information on future plant and transmission investment decisions, as a streamlined continuation of Order No. 14-288."²

"If there's not a lot of change from quarter to quarter you can submit a report rather than come in."³

As there are no significant updates since the last update provided on December 20, 2016, PacifiCorp is providing the attached written report. The report consists of two updated PowerPoint slide decks. The Semi-Annual DSM Update slide deck provides an update on energy efficiency resource acquisitions. The Environmental Compliance and Transmission Investment Update slide deck builds upon information provided in PacifiCorp's last update, with updates for the following information:

¹ Docket No. LC 57, Order No. 14-288.

² Docket No. LC 62, Order No. 16-071.

³ Public Utility Commission of Oregon, December 20, 2016 Public Meeting, Archived Video at 1:44:26.

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- An update on the Energy Imbalance Market (EIM) benefits report from the California Independent System Operator (CAISO), EIM expansion, regional independent system operator governance, and Energy Gateway program status on pages 5-8.
- An update on the Clean Power Plan (updates in red font) on page 10.
- An update on State Greenhouse Gas items (updates in red font) on page 12.
- Updates to regional haze litigation in Utah, Wyoming, Arizona and Colorado (updates in red font) on pages 14-15.
- Updates on national ambient air quality standards, coal combustion residuals and the Clean Water Act (updates in red font) on pages 17, 19 and 21, respectively.

Please direct informal questions with respect to this report to Natasha Siores, State Regulatory Affairs Manager, at (503) 813-6583.

Sincerely,

Etta Lockey

Vice President, Regulation

Enclosures

CERTIFICATE OF SERVICE

I certify that I electronically served a true and correct copy of PacifiCorp's Compliance Filing on the parties listed below via electronic mail in compliance with OAR 860-001-0180.

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Dated this 6th of November, 2017.

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Sava

Katie Savarin Coordinator, Regulatory Operations

Oregon Public Utility Commission Semi-annual DSM Update October 2017







Let's turn the answers on.

2016 - Class 2 EE Resources Acquisitions

State Wide Energy Savings Results (aMW)				
State	2016			
			% of Target	
	Actual	Target	Achieved	
СА	0.64	0.86	74%	
ID	2.02	1.80	112%	
OR	26.25	19.22	137%	
UT	32.00	34.59	93%	
WA	5.16	4.70	110%	
WY	4.65	5.50	85%	
Total	70.72	66.68	106%	

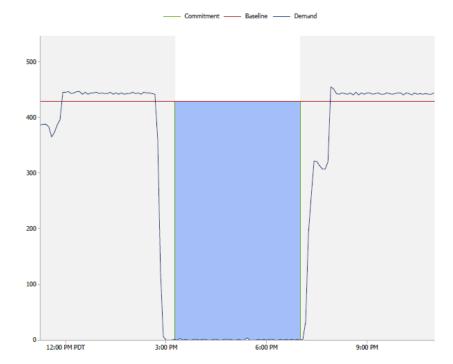
2017 - Class 2 EE Resources Acquisitions

State Wide Energy Savings Results (aMW)				
State	2017			
	Actual			
	Through		% of Target	
	September	Target	Achieved	
СА	0.28	0.85	33%	
ID	0.90	2.01	45%	
OR	11.00	22.68	48%	
UT	20.27	38.06	53%	
WA	2.88	5.09	57%	
WY	3.33	5.00	67%	
Total	38.65	73.69	52%	

Consistent with previous years, the Company anticipates significant savings in the final quarter. Based on 2015 and 2016 data nearly 40% of reported savings were realized in the last quarter of the year.

Irrigation Load Control Pilot

- Irrigation Load Control Pilot
 - 4 events called in July and August of 2017
 - Average 432 kW per event
 - Event duration of 3.75 hours per event
 - 3 customers, 7-9 pumps available per event
- Year End Report to be delivered in March 2018



Targeted Efficiency Pilots

- Purpose
 - Develop, implement and evaluate a learning pilot In Oregon and Washington that is focused on bringing additional value to the grid by deploying existing energy efficiency resources to select areas within a short timeframe.
- Goals
 - Understand how quickly existing energy efficiency resources can be deployed to a focused area and how the impacts can be measured.
- Status
 - Pilot implementation began in July 2017 for Oregon and January 2017 for Washington.
 - Activities have included increased marketing and outreach to all customers in targeted area.
 - Energy audits and direct install measures for business customers in Oregon.
- Next Steps
 - Measure impacts of program by converting kWh into kW using load shapes.
 - Energy Trust of Oregon to conduct a process evaluation of the Oregon pilot at the end of 2017.

Additional Information

For additional information, see "Reports & Program Evaluations by Jurisdictions" on PacifiCorp website

http://www.pacificorp.com/es/dsm.html

 Select your state of choice, year of interest, and type of report type

PacifiCorp Bi-annual Environmental Compliance and Transmission Investment Update October 2017 Undate





Let's turn the answers on.

Energy Imbalance Market ("EIM"), Regional ISO, and Transmission Project Development

Transmission Updates

- EIM Update
- Regional ISO
- Transmission Project Development
 - Energy Gateway Projects
 - Boardman to Hemingway



EIM – Calculated Benefits

BAA	Nov-Dec 2014	Total 2014
ISO	\$1.24 M	\$1.24 M
PacifiCor p	\$4.73 M	\$4.73 M
Total	\$5.97 M	\$5.97 M

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BAA	Jan-Mar 2015	Apr-Jun 2015	Jul-Sep 2015	Oct-Dec 2015	Total 2015
ISO	\$1.45 M	\$2.46 M	\$3.48 M	\$5.28 M	\$12.67 M
PacifiCor p	\$3.81 M	\$7.72 M	\$8.52 M	\$6.17 M	\$26.22 M
NV Energy				\$0.84 M	\$0.84 M
Total	\$5.26 M	\$10.18 M	\$12.00 M	\$12.29 M	\$39.73 M
	2017				

BAA	Jan-Mar 2016	Apr-Jun 2016	Jul-Sep 2016	Oct-Dec 2016	Total 2016
ISO	\$6.35 M	\$7.88 M	\$5.44 M	\$8.67 M	\$28.34 M
PacifiCorp	\$10.85 M	\$10.51 M	\$15.12 M	\$8.99 M	\$45.47 M
NV Energy	\$1.70 M	\$5.20 M	\$5.60 M	\$3.07 M	\$15.57 M
Arizona Public Service				\$5.98 M	\$5.98 M
Puget Sound Energy				\$1.56 M	\$1.56 M
Total	\$18.90 M	\$23.59 M	\$26.16 M	\$28.27 M	\$96.92 M

BAA	Jan-Mar 2017	Apr-Jun 2017	Total 2017
ISO	\$9.50 M	\$15.49 M	\$24.99 M
PacifiCorp	\$11.47 M	\$8.81 M	\$20.28 M
NV Energy	\$3.50 M	\$4.62 M*	\$8.12 M
Arizona Public Service	\$5.23 M	\$8.13 M	\$13.36 M
Puget Sound Energy	\$1.40 M	\$2.47 M	\$3.87 M
Total	\$31.10 M	\$39.52 M	\$70.62 M

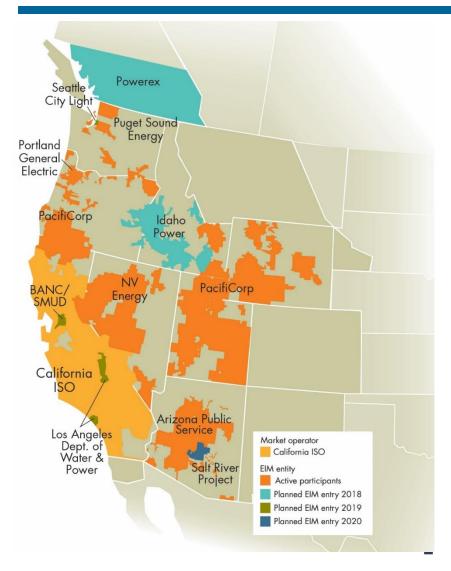


BAA	Total
ISO	\$67.24 M
PacifiCorp	\$96.70 M
NV Energy	\$24.53 M*
Arizona Public Service	\$19.34 M
Puget Sound Energy	\$ 5.43 M
Total	\$213.24 M

* NVE's benefits do not include benefits from the month of June 2017, pending further validation of data.



Prospects for EIM Expansion



PacifiCorp is supportive of broader market participation & coordination; CAISO approach/EIM design is highly scalable for added participation

NV Energy EIM implementation occurred December 1, 2015, Puget Sound Energy and Arizona Public Service EIM implementation occurred October 1, 2016, and Portland General Electric EIM implementation occurred October 1, 2017

Idaho Power Company and Powerex Corp are scheduled to join the EIM starting April 2018

Balancing Authority of Northern California with the Sacramento Municipal Utilities District, Seattle City Light, and the Los Angeles Department of Water and Power are scheduled to join the EIM starting April 2019

Salt River Project is scheduled to join the EIM starting April 2020

Mexico Grid Operator CENACE is exploring future entry.

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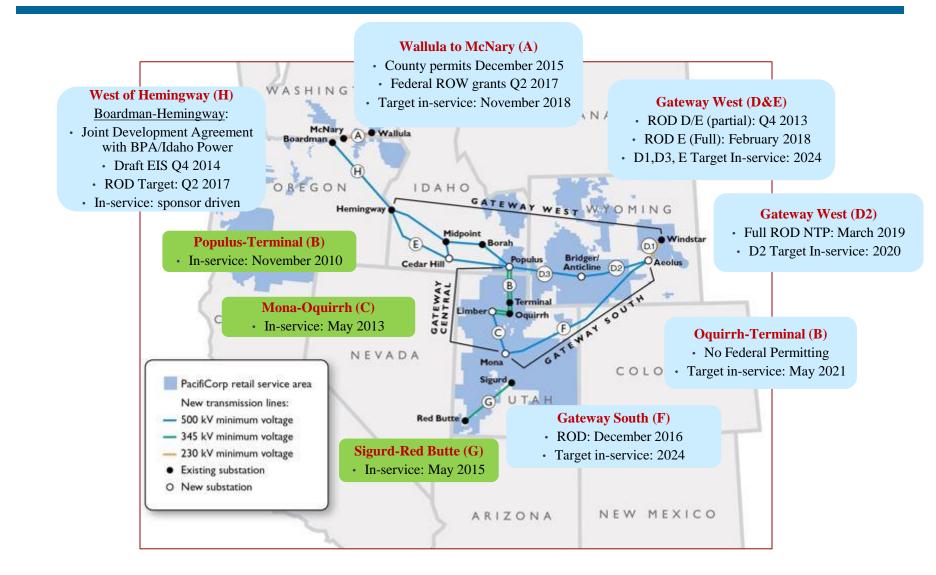


PacifiCorp supports taking additional time to resolve important governance issues

- Due to regional ISO governance issues, California Governor Brown postponed plans to submit a proposal for the Legislature to consider in the 2016 Legislative Session
- California Assembly bills 726 and 813 were amended mid-2017 addressing the next steps the ISO should take on a governance structure that allows for expansion into a Regional ISO
- In September 2017, California Assemblymember Holden announced the Assembly bills would not move forward this year – "still more to discuss including the role of the Legislature in review of any proposed governance structure of a new ISO"



Energy Gateway Program Status





Clean Power Plan



Clean Power Plan

- The final Carbon Pollution Emissions Guidelines for Existing Stationary Sources ("Clean Power Plan") was published in the *Federal Register* on October 23, 2015
- On February 9, 2016, the U.S. Supreme Court issued a stay of the Clean Power Plan until current legal challenges are resolved either at the Circuit Court of Appeals for the District of Columbia or at the U.S. Supreme Court
- The Circuit Court of Appeals for the District of Columbia heard oral arguments on the appeal on September 27, 2016
- In August 2017, the U.S. Court of Appeals for the District of Columbia agreed to hold the Clean Power Plan litigation in abeyance
- On March 28, 2017, President Donald Trump issued an Executive Order on Energy Independence calling for review of the Clean Power Plan
- On October 10, 2017, the U.S. Environmental Protection Agency issued a proposal to repeal the Clean Power Plan; comments on the proposed action are due December 15, 2017
- Uncertain whether the U.S. Environmental Protection Agency will propose a replacement rule



State Greenhouse Gas Emissions Policy Update



State Greenhouse Gas Update

Oregon

- In early 2017, the Department of Environmental Quality finalized a study commissioned by the legislature on the potential adoption of a cap-and-trade program in Oregon
- At end of the 2017 session, the Clean Energy Jobs bill, Senate Bill 1070, was introduced and would address state and regional cap-and-trade policies and programs
- In September 2017, the Senate and House environment committees established four work groups to review and make recommendations on specific components of a cap-and-trade program in Oregon
- PacifiCorp is participating in this process

Washington

- During the 2017 legislative session, a number of carbon tax proposals were introduced; however, none of them were successfully passed
- It is anticipated that a coalition of environmental advocates, led by The Nature Conservancy, will introduce a carbon policy ballot measure in 2018; details on what this will look like are uncertain

California

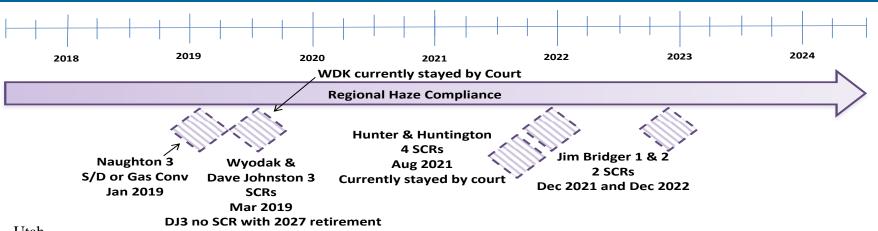
- In 2017, the California Air Resources Board finalized regulatory amendments for post-2020 cap-and-trade program including allowance allocation to electric utilities
- During the 2017 session, the California legislature passed Assembly Bill 398 with a two-thirds super majority vote; AB 398 extends the California cap-and-trade program to December 31, 2030
- Two-thirds super majority vote moots ongoing legal uncertainty regarding whether the cap-and-trade program constituted a tax



Regional Haze Update



Regional Haze Compliance Requirements – Operated Plants



<u>Utah</u>

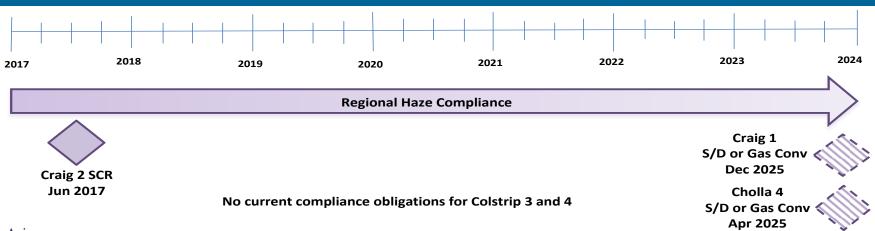
- The EPA published its final action on the Utah Regional Haze SIP in the *Federal Register* on June 30, 2016, requiring installation of SCR on Hunter Units 1 and 2 and Huntington Units 1 and 2 by August 5, 2021 under a FIP
- PacifiCorp and other parties filed requests for administrative reconsideration and stay, as well as judicial review and stay, of EPA's Utah FIP in late 2016
- On July 14, 2017, EPA sent letters to PacifiCorp and the state of Utah indicating its intent to reconsider its final FIP action
- On September 11, 2017, the 10th Circuit Court of Appeals granted a stay and abatement of litigation of the EPA Utah FIP to facilitate EPA's reconsideration

Wyoming

- Effective March 3, 2014, the EPA approved the Wyoming Regional Haze SIP requirements for Jim Bridger Units 1 and 2 SCR installations in 2021 and 2022
- At the same time, EPA issued a FIP for the Wyodak plant, requiring the installation of SCR within five years (i.e., by 2019)
- The 10th Circuit Court of Appeal's decision on the appeals of EPA's final FIP actions is not expected to occur until 2018, at the earliest



Regional Haze Compliance Requirements – Partner-Operated Plants



Arizona

- EPA published its approval of the re-assessed Arizona SIP in the *Federal Register* on March 27, 2017, allowing Cholla Unit 4 to remain coal-fueled through April 2025 and avoid the installation of SCR, with the commitment to cease coal-fueled operation at that time
- All litigation regarding the EPA's Arizona FIP final action affecting Cholla Unit 4 has been dismissed

Colorado

- The state of Colorado, EPA, and other parties to the Craig Unit 1 Regional Haze settlement negotiated an alternative compliance plan, allowing the unit to remain coal-fueled through 2025 and avoid the installation of SCR, with the commitment to cease coal-fueled operation at that time The state of Colorado Air Quality Board approved the agreement on December 15, 2016.
- The Colorado Department of Public Health and Environment submitted the associated Colorado SIP amendment for EPA's review and approval on May 27, 2017. EPA's review and approval process is expected to carry into 2018

Montana

There are no pending Regional Haze compliance obligations for Colstrip Units 3 and 4



National Ambient Air Quality Standards



National Ambient Air Quality Standards

One-hour NO₂ Standard

- All areas of the country designated as unclassifiable
- EPA to re-designate attainment areas based on expanded ambient monitoring network by 2017

One-hour SO₂ Standard

- Initial EPA designations in July 2013
- Many areas of the country designated as unclassifiable and will be re-designated based upon a combination of ambient monitoring and facility modeling
- Re-designations to be completed in 2017 through 2020, depending upon approach taken

Fine Particulate (PM_{2.5}) Standard

- EPA notification in May 2010 to states that failed to submit compliance SIPs (including UT and WY)
- States have until 2020 to be in attainment

Ozone Standard

- EPA finalized new ozone standard in October 2015
- The deadline for EPA to promulgate initial designations for the 2015 ozone NAAQS was October 1, 2017. EPA has yet to make those designations



Coal Combustion Residuals



Coal Combustion Residuals

- As of October 19, 2015, PacifiCorp had nine surface impoundments and four landfills that are subject to the CCR rule
- PacifiCorp is currently in the process of closing four of the nine impoundments
- Litigation of the CCR rule is ongoing, but the rule remains in effect. PacifiCorp continues to comply with the requirements of the rule



Clean Water Act



Clean Water Act

Effluent Limit Guidelines (ELG)

- EPA published the final ELG for steam generating units in the *Federal Register* on November 3, 2015.
- The rule impacts PacifiCorp's Dave Johnston, Naughton, and Wyodak facilities.
 <u>316(b)</u>
- EPA published the final 316(b) rule on May 19, 2014, for cooling water intake structures at existing facilities
- The rule allows seven compliance options to address impingement and to assess best technology options for entrainment
- The impact on PacifiCorp facilities is not expected to be significant as most have cooling towers
- The rule is currently stayed. Accordingly, projects anticipated to occur at the Dave Johnston and Wyodak plants are on hold

