

April 12, 2021

***VIA ELECTRONIC MAIL***

Public Utility Commission of Oregon  
Attention: Filing Center  
201 High St. SE, Suite 100  
Salem, Oregon 97301-3398

**Re: LC 62 and LC 67 – PacifiCorp’s Written Report on DSM IRP Acquisition Goals, Environmental Compliance and Transmission Investments – 2020 Second 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 Public Utility Commission of Oregon (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.<sup>1</sup>*

*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.<sup>2</sup>*

*If there’s not a lot of change from quarter to quarter you can submit a report rather than come in.<sup>3</sup>*

PacifiCorp is providing the attached written report for the period of July 1, 2020 through December 31, 2020. PacifiCorp can also provide a presentation of its update if the Commission has any questions or concerns with the information provided.

The report consists of two updated PowerPoint slide decks: the Semi-Annual DSM Update and the Environmental Compliance and Transmission Investment Update. The Semi-Annual DSM Update slide deck provides an update on the 2020 targeted energy savings forecast by state. The

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<sup>1</sup> LC 57, Order No. 14-288.

<sup>2</sup> LC 62, Order No. 16-071.

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

Public Utility Commission of Oregon

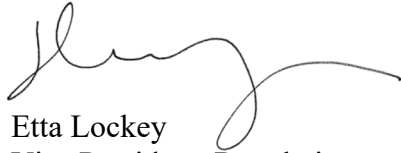
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Environmental Compliance and Transmission Investment Update slide deck includes updates throughout, building upon information provided in PacifiCorp's last update.

Please direct any questions regarding this report to Cathie Allen, Regulatory Affairs Manager, at (503) 813-5934.

Sincerely,

A handwritten signature in black ink, appearing to read 'Etta Lockey', with a long, sweeping horizontal flourish extending to the right.

Etta Lockey  
Vice President, Regulation

Enclosures



# PacifiCorp Semi-Annual Demand Side Management Update

Second Update for 2020



# Class 2 Energy Resource Acquisitions

| State Wide Energy Savings Results (aMW) |              |              |                      |
|---|--------------|--------------|----------------------|
| State                                   | CY 2020      |              |                      |
|   | Actuals      | Target       | % of Target Achieved |
| CA                                      | 0.62         | 0.65         | 95%                  |
| ID                                      | 2.45         | 1.96         | 125%                 |
| OR                                      | 17.50        | 19.22        | 91%                  |
| UT                                      | 32.00        | 29.03        | 110%                 |
| WA                                      | 4.60         | 4.55         | 101%                 |
| WY                                      | 6.88         | 5.82         | 118%                 |
| <b>Total</b>                            | <b>64.05</b> | <b>61.24</b> | <b>105%</b>          |

*Note: The reported savings in the table above are preliminary as the Company and Energy Trust of Oregon are still conducting their year-end review needed to finalize savings results for 2020. The estimated savings results at generation and are gross. The source of the targets is the 2019 IRP portfolio energy efficiency selections in Table D.4, converted from MWh to aMW.*



# Additional Information

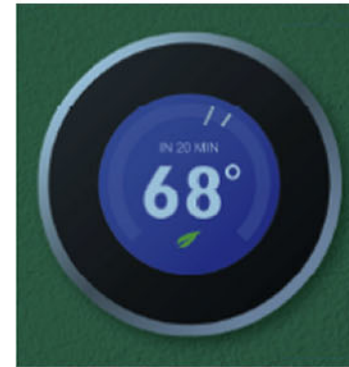
Additional information on Class 2 energy resource acquisitions can be found on PacifiCorp's website under the "Reports and Program Evaluations by State" section at:

<https://www.pacificorp.com/environment/demand-side-management.html>



# PacifiCorp Semi-Annual Environmental Compliance and Transmission Investment Update

Second Update for 2020



# Transmission Updates



- EIM Update
- Transmission Project Development

# EIM – Calculated Benefits



2020

| BAA                          | Jan-Mar<br>2020 | Apr-Jun<br>2020 | Jul-Sep<br>2020 | Oct-Dec<br>2020 | Total<br>2020 |
|------------------------------|-----------------|-----------------|-----------------|-----------------|---------------|
| ISO                          | \$9.57 M        | \$21.25 M       | \$23.68 M       | \$7.54 M        | \$62.04 M     |
| PacifiCorp                   | \$7.80 M        | \$8.46 M        | \$13.47 M       | \$10.90 M       | \$40.63 M     |
| NV Energy                    | \$5.36 M        | \$4.73 M        | \$8.81 M        | \$5.72 M        | \$24.62 M     |
| Arizona Public<br>Service    | \$11.26 M       | \$6.40 M        | \$22.60 M       | \$8.70 M        | \$48.96 M     |
| Puget Sound<br>Energy        | \$3.67 M        | \$2.84 M        | \$3.44 M        | \$3.73 M        | \$13.68 M     |
| Portland General<br>Electric | \$6.93 M        | \$9.15 M        | \$8.95 M        | \$6.73 M        | \$31.76 M     |
| Idaho Power                  | \$5.15 M        | \$6.08 M        | \$8.51 M        | \$6.56 M        | \$26.30 M     |
| Powerex                      | \$1.09 M        | \$1.15 M        | \$0.88 M        | \$0.91 M        | \$4.03 M      |
| BANC/SMUD                    | \$7.07 M        | \$9.17 M        | \$8.70 M        | \$5.42 M        | \$30.36 M     |
| Seattle City Light           |                 | \$1.63 M        | \$2.87 M        | \$2.14 M        | \$6.64 M      |
| Salt River Project           |                 | \$8.14 M        | \$17.41 M       | \$10.51 M       | \$36.06 M     |
| <b>Total</b>                 | \$57.90 M       | \$79.00 M       | \$119.32 M      | \$68.86 M       | \$325.08 M    |



# Total EIM Benefits

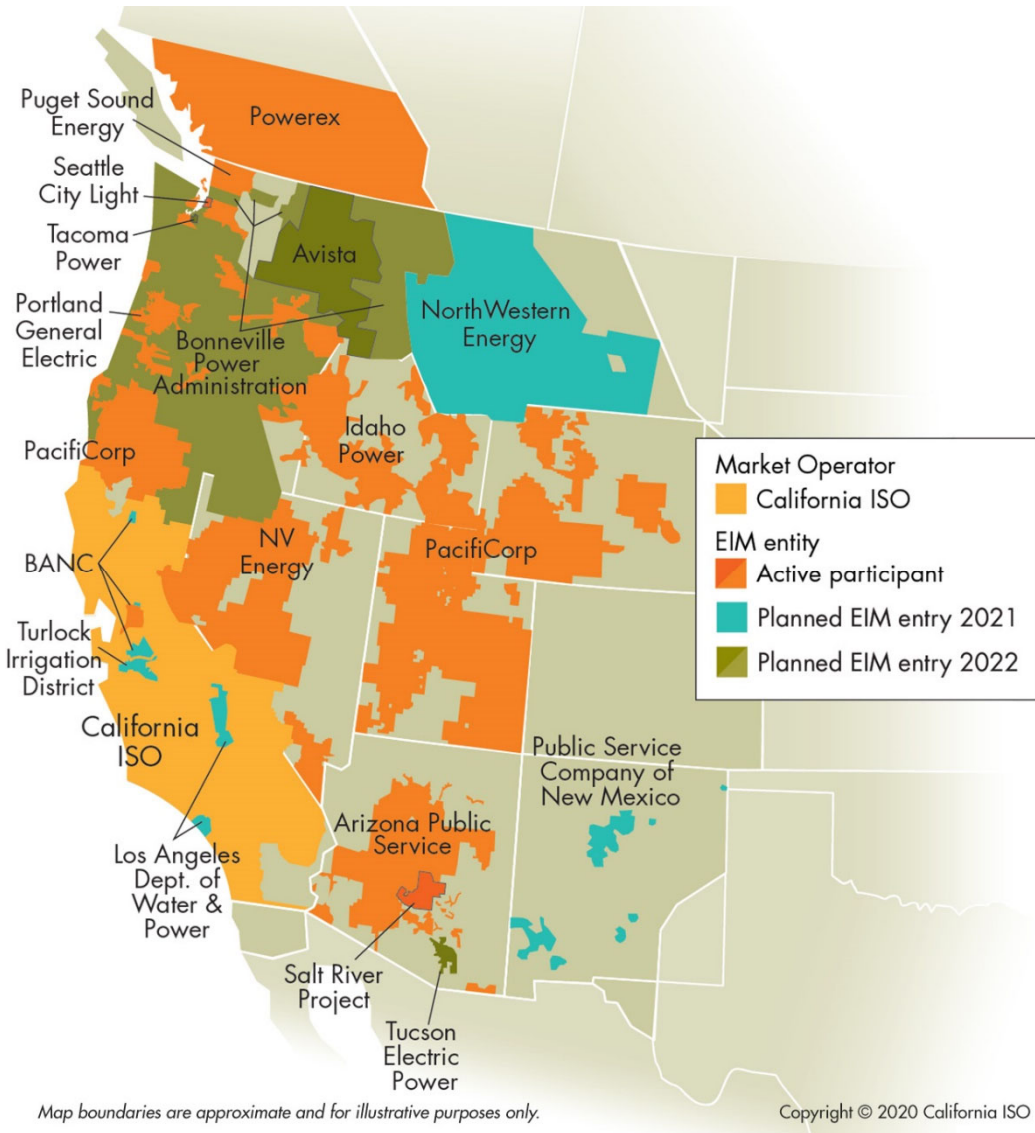
## November 2014 – December 2020



| BAA                    | Total           |
|------------------------|-----------------|
| ISO                    | \$253.92 M      |
| PacifiCorp             | \$275.92 M      |
| NV Energy              | \$113.65 M      |
| Arizona Public Service | \$189.28 M      |
| Puget Sound Energy     | \$54.93 M       |
| Portland General       | \$105.03 M      |
| Idaho Power            | \$81.41 M       |
| Powerex                | \$23.81 M       |
| BANC/SMUD              | \$46.22 M       |
| Seattle City Light     | \$6.64 M        |
| Salt River Project     | \$36.06 M       |
| <b>Total</b>           | <b>\$1.19 B</b> |

Note: On July 3, 2020, total EIM benefits reached \$1 billion

# Prospects for EIM Expansion



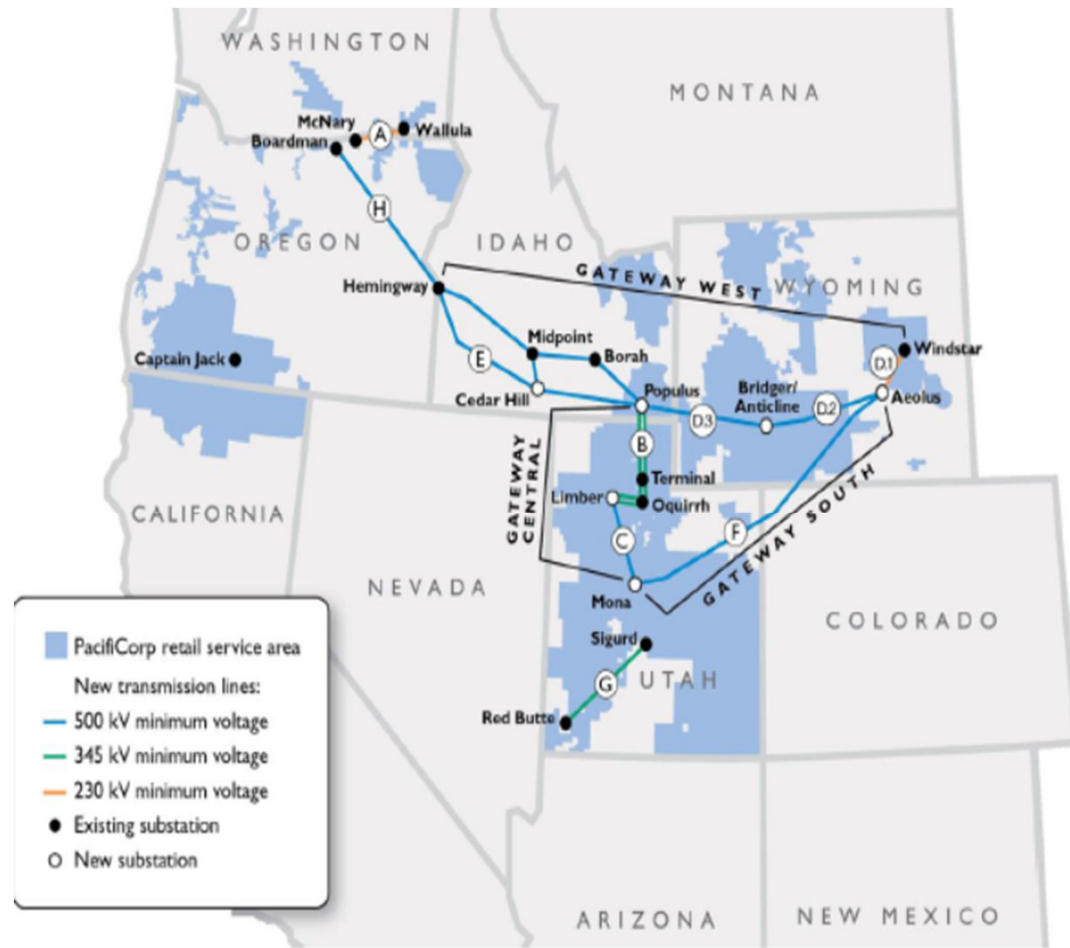
- PacifiCorp is supportive of broader market participation & coordination; CAISO approach/EIM design is highly scalable for added participation.
- NV Energy EIM implementation occurred December 2015, Puget Sound Energy and Arizona Public Service EIM implementation occurred October 2016, Portland General Electric EIM implementation occurred October 2017, Idaho Power Company and Powerex Corp EIM implementation occurred April 2018, Balancing Authority of Northern California, with the Sacramento Municipal Utilities District EIM implementation occurred April 2019, and Salt River Project and Seattle City Light EIM implementation occurred April 2020.
- Public Service Company of New Mexico, the Los Angeles Department of Water and Power, Northwestern Energy, Turlock Irrigation District, and Balancing Authority of Northern California Phase 2 are scheduled to join the EIM starting April 2021. Avista, Tacoma Power, Tucson Electric Power and Bonneville Power Administration are scheduled to join the EIM in spring 2022. El Paso Electric commits to join the EIM in spring 2023.

# Energy Gateway Program Status



Over \$6 billion total investment planned; \$2.4 billion placed in-service

- Gateway West
  - BLM record of decision on 8 of 10 segments November 2013
  - BLM record of decision on last 2 segments April 2018
  - Planned in-service 2025-2030
- Aeolus-to-Jim Bridger/Anticline
  - Segment D2 of Gateway West
  - Placed in-service Q4 2020
- Gateway South
  - BLM record of decision December 2016
  - Planned in-service 2024
- Boardman-to-Hemingway
  - BLM record of decision December 2017
  - Oregon Energy Facility Siting Council site certificate target date June 2021
  - Planned in-service 2026
- **Segments In-Service**
  - Populus-to-Terminal November 2010
  - Mona-to-Oquirrh May 2013
  - Sigurd-to-Red Butte May 2015
  - Wallula to McNary January 2019



This map is for general reference only and reflects current plans. It may not reflect the final routes, construction sequence or exact line configuration.



# Clean Power Plan

# Clean Power Plan (CPP)

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- March 2017, President Trump issued an Executive Order directing the EPA to review the CPP
- April 2017, the Circuit Court of Appeals abates the lawsuits on the CPP for 60 days; lawsuit continues to be on hold
- October 2017, EPA proposed to repeal the CPP and issued an Advanced Notice of Proposed Rulemaking to solicit information on the best system for emission reduction; EPA also requested the court case remain in abeyance until completion of rulemaking
- PacifiCorp submitted comments on the ANPR on February 26, 2018 and the proposed CPP Repeal on April 28, 2018
- August 2018, EPA proposed Affordable Clean Energy (ACE) Rule to replace CPP
- June 2019, EPA finalized the ACE Rule and repealed the CPP



# **Affordable Clean Energy (ACE) Rule**

# ACE Rule

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- Proposed ACE Rule published in the Federal Register on August 31, 2018
- October 2018, PacifiCorp submitted comments on the ACE Rule in conjunction with Berkshire Hathaway Energy and its individual businesses
- Final ACE Rule published in the Federal Register on July 8, 2019
- ACE Rule changed the definition of “Best System of Emission Reduction” or “BSER” for CO2 emissions
  - BSER limited to specific Heat Rate Improvement (“HRI”) projects for coal-fired electric generating units, identified as “candidate technologies”:
    - Neural Network/Intelligent Sootblower
    - Rebuild/Replace Boiler Feed Pumps
    - Air Heater & Duct Leakage Control
    - Variable Frequency Drives
    - Steam Turbine Blade Path Upgrade
    - Redesign/Replace Economizer
    - Improved Best Operating and Maintenance O&M Practices

# ACE Rule continued

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- EPA assessed economic effects of HRI project costs at \$50 per kW and \$100 per kW, providing 2.5% HRI and 4.5% HRI
- PacifiCorp has historically implemented HRI projects to enhance efficiency and reduce fuel consumption; thus, HRI projects are routinely evaluated and implemented with appropriate permitting where economically justified
- HRI projects are typically accounted for through run rate capital and individual unit performance inputs that are imbedded in PacifiCorp's System Optimizer (SO) modeling
- Wyoming and Utah conducted initial conference calls with stakeholders in May and July 2020 respectively to discuss ACE rule implementation





# Regional Haze

# Utah Regional Haze Compliance

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- July 2016, EPA published its final action on UT Regional Haze SIP. requiring SCR on Hunter Units 1 and 2 and Huntington Units 1 and 2 within five years
- September 2016, PacifiCorp and other parties filed a request for reconsideration and an administrative stay with EPA
- July 2017, EPA sent letters to PacifiCorp and the state of Utah indicating its intent to reconsider its FIP; the agency also filed a motion with the 10<sup>th</sup> Circuit Court of Appeals to hold the litigation in abeyance pending the rule's reconsideration
- September 2017, the 10<sup>th</sup> Circuit granted the petition for stay and the request for abatement; the compliance deadline of the FIP and the litigation was stayed indefinitely pending EPA's reconsideration

# Utah Regional Haze Compliance



- January 2020, EPA published proposed approval of an alternative SIP submitted by Utah, which shows improved visibility through modeling, makes the shutdown of the Carbon plant federally enforceable and adopts the NOx controls and emission limits on the Hunter and Huntington plants, including on an additional non-BART unit at Hunter. The proposal withdraws the federal implementation plan requirements to install SCR on Hunter Units 1 and 2 and Huntington Units 1 and 2.
- February 2020, EPA held a public hearing on the proposed SIP approval in Price, Utah.
- Litigation remains on hold
- EPA published the final Utah SIP rule on November 27, 2020, which aligned with the proposed rule, and on January 11, 2021, the Tenth Circuit Court of Appeals dismissed challenges to EPA's 2014 FIP in light of the finalized Utah SIP replacement.
- Second Planning Period
  - On April 21, 2020, PacifiCorp submitted to the Utah Department of Environmental Quality a Reasonable Progress Analysis for the regional haze second planning period for the Huntington and Hunter plants.
  - PacifiCorp continues to exchange information with the Utah Department of Environmental Quality regarding the Reasonable Progress Analysis and second planning period requirements. The state anticipates submitting the second planning period SIP to the EPA by the end of September 2021

# Wyoming Regional Haze Compliance

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- January 2014, EPA issued a regional haze FIP partially approving certain parts of the state of Wyoming's SIP
- EPA approved the following SIP requirements:
  - Jim Bridger Units 3&4 Installed SCR in 2015, 2016
  - Jim Bridger Units 1&2 Install SCR by 2021 and 2022
  - Naughton Unit 3: Remove from coal-fueled service in January 2019, with option to convert to gas
  - Naughton Units 1&2: Install LNB and OFA (.26 lb/MMBtu Nox rate)
  - Dave Johnston Unit 4: install LNB and OFA (.15 /b/MMBtu Nox rate)
  - Dave Johnston Unit 1&2: no new controls
  - Dave Johnston Unit 3: EPA offered two alternative compliance paths in the FIP: (1) install LNBS and OFA and shut-down by 2027 or (2) install LNB/OFA and SCR.
  - Wyodak Unit 1: Install SCR within five years of the final rule (challenged by PacifiCorp)
- April 2017, after appeals, EPA and Basin Electric negotiated settlement agreement and filed a joint motion in the 10th Circuit to hold the Basin-specific issues in abeyance

# Wyoming Regional Haze Compliance

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- PacifiCorp, Wyoming and Basin Electric submitted motions requesting the court hold all of the consolidated appeals of challenged portions of the Wyoming Regional Haze FIP in abeyance while the Basin Electric settlement is processed and promulgated by EPA
- The 10th Circuit Court of Appeals granted the motion to hold entire case in abeyance pending Basin's settlement; the Basin settlement required notice and comment rulemaking and was finalized in 2017
- The court denied environmental groups motion asking the court to bifurcate certain claims and to reconsider its decision to abate the case pending settlement and continued the stay while parties worked with the court mediator
- October 2019, as part of mediation, PacifiCorp submitted a Request for Reconsideration of the EPA's FIP to install SCR on Wyodak.
- February 2020, the court granted an additional 90-day abatement while EPA, PacifiCorp and the state of Wyoming continue to explore potential settlement of the dispute.
- EPA, the state of Wyoming and PacifiCorp signed the Wyodak Settlement Agreement December 16, 2020; it will be published in the Federal Register and subject to public comment before final approval by EPA.

# Wyoming Regional Haze Compliance

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- February 2019, PacifiCorp submitted a “Reasonable Progress Reassessment” for the Jim Bridger plant to the Wyoming Division of Air Quality (WDAQ). The Reasonable Progress Reassessment is an innovative proposal that, if approved, would implement new plant-wide emission limits at Jim Bridger, in lieu of the requirement to install SCR equipment on Jim Bridger Units 1 and 2 (currently required by the end of 2022 and 2021, respectively).
- April 2019, PacifiCorp met with Wyoming and EPA in Washington D.C. to discuss the Bridger Reasonable Progress Reassessment. EPA raised nine issues relating to the Reassessment for further consideration, and PacifiCorp worked with WDAQ to address the nine issues.
- July 2019, the Bridger Reasonable Progress Reassessment was published for public comment.

# Wyoming Regional Haze Compliance

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- WDAQ issued the Jim Bridger Regional Haze Reassessment air permit May 5, 2020.
- WDAQ submitted a regional haze State Implementation Plan revision approving the Reassessment to the U.S. Environmental Protection Agency May 14, 2020.
- EPA Region 8 informed PacifiCorp that it had approved the SIP revision in November of 2020. The proposed approval must be published in the Federal Register and subject to public comment before EPA can issue a final approval.
- Second Planning Period
  - On March 31, 2020, PacifiCorp submitted a four-factor reasonable progress analysis for the regional haze second planning period to WDAQ which analyzed PacifiCorp's Naughton, Jim Bridger, Dave Johnston, and Wyodak plants.
  - WDAQ anticipates submitting the second planning period SIP to EPA around September 2021.

# Non-Operated Plants Regional Haze Compliance



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## Colorado

- Tri-State's environmental compliance staff and counsel negotiated an agreement in principle with EPA, CDPHE, WildEarth Guardians, and the National Parks Conservation Association on an alternate Regional Haze compliance strategy incorporating accelerated retirement for Unit 1. The agreement will result in a year-end 2025 shutdown with certain interim NO<sub>x</sub> emission reduction commitments from the partner owners
- The state of Colorado's Air Quality Board approved the agreement during a hearing held on December 15, 2016
- CDPHE submitted SIP amendment documentation to EPA Region VIII on May 27, 2017
- EPA approved Colorado's regional haze SIP, effective August 6, 2018. Revisions to the SIP include source-specific revisions to the NO<sub>x</sub> best available retrofit technology (BART) determination for Craig Unit 1





# National Ambient Air Quality Standards

# National Ambient Air Quality Standards

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## One-hour NO<sub>2</sub> & SO<sub>2</sub> Standards

- NO<sub>2</sub>: All areas of the country designated as unclassifiable/attainment
- SO<sub>2</sub>: In January 2018 EPA published the Air Quality Designations for the 2010 SO<sub>2</sub> NAAQS Round 3
- Counties of Emery, Campbell, Lincoln and eastern Sweetwater were classified as attainment/unclassifiable
- In August 2020 EPA proposed Converse County to be classified as attainment/unclassifiable with final designation by December 2020

## Fine Particulate (PM<sub>2.5</sub>) Standard

- In May 2017 EPA reclassified Salt Lake City and Provo to Serious Nonattainment
- In June 2020 EPA proposed to designate Salt Lake City and Provo as being in attainment with the PM<sub>2.5</sub> Standard
- In October 2019 EPA approved a clean data determination for Salt Lake based on Utah's submission of monitoring data showing it had not exceeded the standard for three years. Utah is still required to implement the SIP for sources and the action did not constitute a re-designation to attainment

# National Ambient Air Quality Standards

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## Ozone Standard

- EPA finalized a lower ozone standard in October 2015
- In May 2018 the Wasatch Front in Utah was designated as Marginal Compliance for Ozone and has three years to develop a plan to meet the standard



# Coal Combustion Residuals

# Coal Combustion Residuals

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- PacifiCorp operates six impoundments and four landfills (with three additional impoundments currently in the process of being closed) that are subject to the CCR rule.
- Required groundwater monitoring found 4 impoundments and 2 landfills have impacted groundwater and require remediation. Public meetings were held in July 2019 to seek public input on potential remedies. PacifiCorp is preparing remedies for each site based on regulatory requirements and the public input.
- Utah adopted the federal final rule as state law in September 2016, PacifiCorp is in compliance with all requirements.
- August 2017, EPA proposed permitting guidance on how states' CCR programs should comply with the requirements of the final rule.
- July 2019, Wyoming proposed adoption of a state CCR law, which now awaits legislative approval in 2021.
- It is anticipated that Utah and Wyoming will submit applications for approval of their respective CCR programs prior to the end on 2021.

# Coal Combustion Residuals

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- July 2018, EPA posted Final CCR Rule, Phase 1 Part 1; rule extends certain deadlines and incorporates some risk-based analysis
- August 2018, the D.C. Circuit Court of Appeals issued a decision on certain provisions under the CCR rule relating to timing of closure, finding that some aspects of rule were arbitrary and capricious. The court vacated certain provisions and remanded the issues to EPA to address in accordance with the ruling. A response from EPA is forthcoming.
- November 2019, EPA posted a proposed CCR Rule, Phase 1 Part A, which addresses the DC Court Ruling. The rule requires all unlined impoundments to cease receiving material by August 20, 2020. The rule allows continued operation of these impoundments under certain conditions for a limited time. This rule directly impacts the Jim Bridger and Naughton plants.
- January 2020, PacifiCorp submitted comments on the CCR Phase I Part A rule in conjunction with Berkshire Hathaway Energy and its individual businesses.

# Coal Combustion Residuals

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- EPA published the final CCR Phase I Part A rule on August 28, 2020. The rule requires unlined CCR surface impoundments to cease receipt of waste and initiate closure as soon as technically feasible but no later than April 11, 2021. The rule establishes the requirements for submitting documentation to the EPA to demonstrate the need to continue operation of Jim Bridger FGD Pond 2 until no later than October 15, 2023 due to a lack of alternate capacity, and Naughton South Ash Pond due to a lack of alternate capacity and the plan to cease coal fired operation and close the CCR unit by no later than October 17, 2028. The rule also updates requirements to include an executive summary in the annual groundwater monitoring and corrective action reports, as well as requirements to include contact information and make information immediately available to anyone visiting the publicly accessible Internet site (CCR Web site), and notification requirements to the EPA and the state director if the publicly accessible Internet site (CCR Web site) web address changes.
- PacifiCorp submitted an alternative closure demonstration for the Naughton Plant on October 23, 2020. If approved by EPA, the demonstration will allow the South Ash Pond to continue to receive CCR and non-CCR wastestreams past April 11, 2021. To be eligible for the extension, the Naughton plant must cease operation of coal fired boilers and complete closure of the CCR surface impoundment October 17, 2028.

# Coal Combustion Residuals



- PacifiCorp submitted an alternative closure demonstration for the Jim Bridger Plant to EPA on November 5, 2020. If approved, the demonstration will allow continued receipt of coal combustion residuals and non-coal combustion residual wastestreams past April 11, 2021, until a replacement pond is built in 2023.





# Clean Water Act

# Clean Water Act

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## Effluent Limit Guidelines (ELG)

- PacifiCorp operates three plants subject to the ELGs including Dave Johnston, Naughton, and Wyodak
- EPA published the final ELG for steam electric generating units in the *Federal Register* on November 3, 2015
- September 2017, EPA postponed compliance dates for FGD and bottom ash transport water to “as soon as possible beginning” November 1, 2020 and announced its intent to conduct new rulemaking
- November 2019, EPA proposed revisions to the bottom ash and FGD sections of the rule, relaxing some of the requirements of the 2015 rule while also limiting continued discharge some types of water with bottom or fly ash subject to specific exemptions
- January 2020, PacifiCorp submitted comments on the ELG proposed revisions in conjunction with Berkshire Hathaway Energy and its individual businesses

# Clean Water Act

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## 316(b) Cooling Water Intake Structure Rule

- PacifiCorp operates six plants subject to the 316(b) Rule, including Dave Johnston, Gadsby, Hunter, Huntington, Jim Bridger and Naughton.
- EPA published the final 316(b) Rule for steam electric generating units in the *Federal Register* on August 15, 2014.
- The rule requires submittal of Permit Application Requirements (PARs) for all six plants, which were timely submitted.
- May 2019, PacifiCorp submitted an application to renew the Dave Johnston Wyoming Pollutant Discharge Elimination System (WYPDES) wastewater discharge permit. There were two public comment periods where PacifiCorp submitted comments (December 2019 and August 2020). The Sierra Club and Powder River Basin Resource Council also submitted comments. The draft permit states that PacifiCorp will comply with the 316(b) rule by December 31, 2023. The Wyoming Division of Water Quality has not issued a final permit.

# Title V Air Permit



- On July 2, 2020, the Tenth Circuit Court of Appeals vacated the EPA order for the Hunter plant Title V permit and remanded the permit to EPA to consider the merits of Sierra Club's claims that the plant failed to obtain a major source air permit in 1997.