



# 2015 Integrated Resource Plan Volume I

*Let's turn the answers on.*

March 31, 2015



Pacific Power  
Rocky Mountain Power

in order to continue to assess the potential impacts of the Clean Power Plan on PacifiCorp's integrated resource planning.

## **EPA Regulatory Update – Non-Greenhouse Gas Emissions**

### **Clean Air Act Criteria Pollutants – National Ambient Air Quality Standards**

The CAA requires the EPA to set National Ambient Air Quality Standards (NAAQS) for certain pollutants considered harmful to public health and the environment. For a given NAAQS, the EPA and/or a state identifies various control measures that, once implemented, are meant to achieve an air quality standard for a certain pollutant, with each standard rigorously vetted by the scientific community, industry, public interest groups, and the general public.

Particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), and lead are often grouped together because under the CAA, each of these categories is linked to one or more NAAQS. These “criteria pollutants”, while undesirable, are not toxic in typical concentrations in the ambient air. Under the CAA, they are regulated differently from other types of emissions, such as hazardous air pollutants and GHGs. Within the past few years, the EPA established new standards for particulate matter, sulfur dioxide, and nitrogen dioxide.

On November 25, 2014, the EPA issued a proposed rule to modify the standards for ground-level ozone. Comments on the proposed rule are due March 17, 2015. If revised standards are finalized, the EPA will designate areas in the country as being in “attainment” or “nonattainment” of the revised standards. Under the proposed rule, the EPA would make these designations by October 2017, and states would have until 2020 or 2037, depending on the ozone level in the area, to comply with the revised standards.

### **Cross-State Air Pollution Rule**

In July 2011, the EPA finalized its Cross-State Air Pollution Rule (CSAPR), which required new reductions in SO<sub>2</sub> and nitrogen oxide (NO<sub>x</sub>) emissions from large stationary sources, including power plants, located in 31 states and the District of Columbia. Litigation in the D.C. Circuit Court of Appeals resulted in a stay on the implementation of the CSAPR in December 2011. Ultimately, in April 2014, the U.S. Supreme Court reversed a D.C. Circuit Court of Appeals opinion that vacated the CSAPR. CSAPR Phase I implementation is now scheduled for 2015.

PacifiCorp does not own generating units in states identified by the CSAPR and thus will not be directly impacted; however, the Company intends to monitor amendments to these rules closely in the event that the scope of a replacement rule extends the geographic scope of impacted states.

### **Regional Haze**

The EPA's Regional Haze Rule, finalized in 1999, requires states to develop and implement plans to improve visibility in certain national park and wilderness areas. On June 15, 2005, the EPA issued final amendments to its Regional Haze Rule. These amendments apply to the provisions of the Regional Haze Rule that require emission controls known as the Best Available Retrofit Technology (BART), for industrial facilities meeting certain regulatory criteria with emissions that have the potential to impact visibility. These pollutants include fine particulate

matter (PM), NO<sub>x</sub>, SO<sub>2</sub>, certain volatile organic compounds, and ammonia. The 2005 amendments included final guidelines, known as BART guidelines, for states to use in determining which facilities must install controls and the type of controls the facilities must use. States were given until December 2007 to develop their implementation plans, in which states were responsible for identifying the facilities that would have to reduce emissions under BART guidelines as well as establishing BART emissions limits for those facilities. States are also required to periodically update or revise their implementation plans to reflect current visibility data and the effectiveness of the state's long-term strategy for achieving reasonable progress toward visibility goals. States will be required to submit the next periodic update by July 31, 2018.

The Regional Haze Rule may drive additional SO<sub>2</sub> and NO<sub>x</sub> reductions, particularly from facilities operating in the Western United States. This includes the states of Utah and Wyoming where PacifiCorp operates generating units, in Arizona where PacifiCorp owns but does not operate a coal unit, and in Colorado and Montana where PacifiCorp has partial ownership in generating units operated by others, but is nonetheless subject to the Regional Haze Rule.

In May 2011, the state of Utah issued a Regional Haze state implementation plan (SIP) requiring the installation of SO<sub>2</sub>, NO<sub>x</sub> and PM controls on Hunter Units 1 and 2 and Huntington Units 1 and 2. In December 2012, the EPA approved the SO<sub>2</sub> portion of the Utah Regional Haze SIP and disapproved the NO<sub>x</sub> and PM portions. The EPA's approval of the SO<sub>2</sub> SIP was appealed to federal circuit court. In addition, PacifiCorp and the state of Utah appealed the EPA's disapproval of the NO<sub>x</sub> and PM SIP. PacifiCorp and the state's appeals were dismissed. In addition, and separate from the EPA's approval process and related litigation, the Utah Division of Air Quality undertook an additional BART analysis for each of Hunter Units 1 and 2 and Huntington Units 1 and 2, which will be provided to the EPA as a supplement to the existing Utah SIP. In October 2014, Utah proposed to amend its SIP with the updated BART analysis concluding that no incremental controls (beyond those included in the May 2011 SIP) were required at the Hunter and Huntington units. The public comment period for the amended SIP closed December 22, 2014, and the SIP is expected to be submitted for approval to the EPA in early 2015.

On January 10, 2014, the EPA issued a final action in Wyoming requiring installation of the following NO<sub>x</sub> and PM controls at PacifiCorp facilities:

- Naughton Unit 3 by December 31, 2014 - selective catalytic reduction (SCR) equipment and a baghouse
- Jim Bridger Unit 3 by December 31, 2015 - SCR equipment
- Jim Bridger Unit 4 by December 31, 2016 - SCR equipment
- Jim Bridger Unit 2 by December 31, 2021 - SCR equipment
- Jim Bridger Unit 1 by December 31, 2022 - SCR equipment
- Dave Johnston Unit 3 - SCR within five years or a commitment to shut down in 2027
- Wyodak - SCR equipment within 5 years

Difference aspects of the EPA's final action were appealed by a number of entities. PacifiCorp appealed the EPA's action requiring SCR at Wyodak. PacifiCorp requested, and was granted, a stay of the EPA's action as it pertains to Wyodak pending resolution of the appeals. A final

decision on the appeal is expected in 2016. With respect to Naughton Unit 3, in its final action the EPA indicated support for the conversion of the unit to natural gas and that it would expedite action relative to consideration of the gas conversion once the state of Wyoming submitted the requisite SIP amendment. PacifiCorp has obtained a construction permit and revised Regional Haze BART permit from the state of Wyoming to convert Naughton Unit 3 to natural gas in 2018. Wyoming has not yet submitted a revised Regional Haze SIP incorporating this alternative compliance approach to the EPA.

The state of Arizona issued a Regional Haze SIP requiring, among other things, the installation of SO<sub>2</sub>, NO<sub>x</sub> and PM controls on Cholla Unit 4, which is owned by PacifiCorp but operated by Arizona Public Service. The EPA approved in part, and disapproved in part, the Arizona SIP and issued a federal implementation plan (FIP) requiring the installation of SCR equipment on Cholla Unit 4. PacifiCorp filed an appeal regarding the FIP as it relates to Cholla Unit 4, and the Arizona Department of Environmental Quality and other affected Arizona utilities filed separate appeals of the FIP as it relates to their interests. All appeals are pending. PacifiCorp is working with Arizona Public Service as well as state and federal agencies on an alternate compliance approach and associated approvals for Cholla Unit 4.

The state of Colorado issued a Regional Haze SIP requiring, among other things, the installation of selective non-catalytic reduction (SNCR) technology at Craig Unit 1 by 2018. Environmental groups appealed the EPA's action, in which PacifiCorp intervened in support of the EPA. In July 2014, parties to the litigation, other than PacifiCorp, entered into a settlement agreement which requires installation of SCR equipment at Craig Unit 1 in 2021. Following settlement, the EPA filed a motion with the Tenth Circuit Court of Appeals seeking a voluntary remand to the EPA of those portions of the EPA's approval of Colorado's SIP relating to Craig Unit 1. This motion is pending. PacifiCorp opposed the settlement agreement between the EPA and other parties to the litigation.

## **Mercury and Hazardous Air Pollutants**

The Mercury and Air Toxics Standards (MATS) became effective April 16, 2012. The MATS rule requires that new and existing coal-fueled facilities achieve emission standards for mercury, acid gases and other non-mercury hazardous air pollutants. Existing sources are required to comply with the new standards by April 16, 2015. Individual sources may be granted up to one additional year, at the discretion of the Title V permitting authority, to complete installation of controls or for transmission system reliability reasons. On November 25, 2014, the U.S. Supreme Court announced that it will consider challenges to MATS specifically reviewing whether the EPA unreasonably refused to consider costs in making its determination to regulate hazardous pollutants from power plants. At this time, no requests for stay have been filed and the MATS rule remains in place pending a decision from the U.S. Supreme Court, expected summer 2015.

Emission reduction projects completed to date or currently permitted or planned for installation, including the scrubbers, baghouses and electrostatic precipitators required under other the EPA requirements, are consistent with achieving the MATS requirements and will support PacifiCorp's ability to comply with the final standards for acid gases and non-mercury metallic hazardous air pollutants. PacifiCorp will be required to take additional actions to reduce mercury emissions through the installation of controls or use of reagent injection at certain of its coal-fueled generating facilities to otherwise comply with the standards.