



October 20, 2020

Bryce Bird
Director
Utah Division of Air Quality
195 North 1950 West
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Subject: PacifiCorp – Utah Coal Generation Facilities – Regional Haze Second Planning Period Reasonable Progress Analysis – Response to UDAQ’s June 18, 2020 letter

Dear Mr. Bird:

The purpose of this letter is to respond to the Utah Division of Air Quality’s (“UDAQ”) letter of June 18, 2020 and provide the information you requested. PacifiCorp appreciates UDAQ’s time and effort dedicated to these regional haze issues, and values the opportunity to provide this feedback and information.

I. Costs and “Reasonableness”

Regarding the Division’s June 18th letter, PacifiCorp disagrees with the implication that the costs of installing and operating selective catalytic reduction (“SCR”) technology on the Hunter and Huntington power plants are “reasonable.” The estimated SCR costs for the Hunter and Huntington power plants are “unreasonable” for several reasons. First, data derived from dozens of other regional haze rulemakings demonstrates the SCR costs for Hunter and Huntington exceed what EPA and states have found to be reasonable for other sources. *See* Attachment A. As the chart in Attachment A demonstrates, EPA and the states **have not found** SCRs costing more than \$5,000 per ton to be reasonable, and SCRs also have not been required when the deciview improvement is low in relation to the costs. Additionally, no SCRs have been found reasonable where the costs exceed \$4,000 per ton and the visibility improvement is relatively modest. Here, the plant-average¹ SCR costs for the Hunter plant are \$5,980 per ton, and are \$5,659 per ton for the Huntington plant, for an overall average cost of \$5,819 per ton.

¹ As PacifiCorp explained in its April 2020 Second Planning Period Reasonable Progress Analysis (page 3), “PacifiCorp believes it is appropriate under the regional haze rules for Utah to conduct its ‘reasonable progress’ analyses for the second planning period on both a ‘[coal-fired power plant] group’ and a ‘plantwide’ basis for PacifiCorp’s power plants in Utah.” Both the regional haze regulations and applicable guidance allow a plant-wide approach. *See* 40 CFR 51.301 and -308(f)(2)(i); *see also* 2019 “Guidance on Regional Haze State Implementation Plans for the Second Implementation Period,” Appendix C (page C-4). Under both a group and a plant-wide analysis, SCR and SNCR costs per ton are substantially higher than EPA and states have found to be reasonable in the past. Even on an individual unit basis, the SCR costs are outside the range of reasonable costs as determined for other sources by EPA and various states.

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Likewise, selective non-catalytic reduction ("SNCR") technology also is too costly to install and operate at Hunter and Huntington. Here, the plant-average SNCR costs for the Hunter plant are \$9,125 per ton and for the Huntington plant are \$6,793 per ton, for an overall average cost of \$8,192 per ton. Utilizing the same \$4,000/\$5,000 thresholds as SCR, the SNCR costs here are also unreasonable.

Moreover, due to regulatory concerns, the tremendous costs of installing and operating SCRs and SNCRs at Hunter and Huntington are unreasonable. Many states in PacifiCorp's service area have adopted laws and regulations that make recovery of further investments into coal-fired assets difficult, if not impossible. For example, Oregon's Senate Bill 1547-B extends and expands the Oregon RPS requirement to 50 percent of electricity from renewable resources by 2040 and requires that coal-fueled resources are eliminated from Oregon's allocation of electricity by January 1, 2030. In California, the state's Emission Performance Standard (EPS) requirements have resulted in phasing out coal resources for California-serving utilities. That standard was mandated by Senate Bill 1368 and applies to baseload generation either owned by, or under long-term contract to, a utility which prohibits the use of coal-fired generation after 2025. A 2019 Washington law (Clean Energy Transformation Act) sets a 2025 deadline for utilities to end all reliance on coal, and a 2045 deadline to end use of natural-gas-generated electricity. PacifiCorp remains committed to providing low-cost power to its customers across its service territory and wishes to clearly convey that a requirement to install SNCR or SCR on any of its Utah coal facilities would have significant negative impacts on its customers.

Across the country, it is not uncommon for a regional haze-related SCR requirement to result in retirement or repowering of a coal-fired generation unit. Numerous other utilities facing similar economic and regulatory pressures have retired or repowered the affected units rather than install SCR. *See, e.g.:*

- i. Arizona Cholla Plant, 81 Fed Reg 46852 (July 19, 2016) (required to install SCR but instead announced closure in 2020);
- ii. Colorado Craig Unit 1, 83 Fed. Reg. 31332 (announced it will shutdown by 2025 rather than install SCR);
- iii. New Mexico San Juan Generating Station, 79 Fed. Reg. 60978 (Oct. 9, 2014) (after a FIP requirement to install SCR on all 4 units, settlement provided for retirement of 2 units and SCR on the other 2, but is now considering a total shutdown in 2022 unless it can be saved by a carbon capture project)
- iv. North Carolina BART Alternative, 81 Fed. Reg. 19519 (April 5, 2016) ("Progress Energy and Duke Energy have shut down 22 of the coal fired EGUs" subject to the BART alternative instead of installing controls to lower emissions)
- v. Oregon Boardman Plant, 76 Fed. Reg. 38997 (July 5, 2011) (elected to cease burning coal by 2020 rather than install SCR as originally required by the state submittal to EPA)
- vi. Wyoming Dave Johnston Plant, 79 Fed. Reg. 5032 (Jan. 30, 2014) (PacifiCorp has exercised option to retire unit 3 by 2027 rather than install SCR).

II. RPELs’ Impact on the PALs

Another misconception in the June 18th letter is the relationship between the existing plant-wide applicability limits (“PALs”) and the proposed Reasonable Progress Emission Limits (“RPELs”). The June 18th letter seems to imply that the RPELs would somehow replace the PALs or otherwise interfere with their operation. This is incorrect; the PALs will remain in place and will continue to provide caps for each individual pollutant.

Moreover, after considering the UDAQ’s comments, PacifiCorp is offering to include pollutant-specific emissions limits to address the UDAQ’s concerns. See Table 1 below. With this revised proposal, the RPELs will limit emissions beyond the PALs by providing individual and combined emissions limits for NOx and SO2 that are lower than the individual PALs for those two pollutants. Moreover, PacifiCorp will continue to operate the installed controls, so the idea that one pollutant will be eliminated while the other pollutant is greatly increased is not operationally possible. Instead, PacifiCorp will have both separate NOx and SO2 limits and a combined limit through the RPELs. The following table presents the annual RPEL NOx and SO2 allocations for the Hunter and Huntington plants which will be enforced through applicable permit conditions. As shown in Table 1, the proposed RPEL limits are less than the plants’ NOx and SO2 PALs.

Table 1: Hunter and Huntington RPEL and PAL NOx and SO2 Allocations

	PAL Limits		RPEL Limits		
	NOx (tons/year)	SO2 (tons/year)	NOx (tons/year)	SO2 (tons/year)	NOx + SO2 (tons/year)
Hunter	15,095	5,537.5	11,703	5,297	17,000
Huntington	7,971	3,105	7,040	2,960	10,000

III. RPELs’ levels of reduction

Finally, UDAQ’s June 18th letter questions the “level of reduction” proposed by the RPELs, explaining that the Division does not believe these represent “a reduction in actual emissions.” The June 18th letter compares the PALs to actual emissions, but PacifiCorp believes the appropriate question is whether the RPELs are lower than PacifiCorp’s current permitted emission limits. PacifiCorp always has the ability to emit to its permit and PAL limits, and any further reductions from those limits (such as the RPELs) has the very real effect of limiting PacifiCorp’s potential emissions. While PacifiCorp’s actual emissions may be temporarily lower at this time or some arbitrary time in the past, unless the permitted limits are lowered, PacifiCorp always has the option to change operations and emit to the permit limits.

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IV. PacifiCorp's questions regarding Utah's Second Planning Period process

PacifiCorp has also raised questions about UDAQ's approach to the second planning period. Understanding the following issues will enable PacifiCorp to provide appropriate data and responses to UDAQ's questions:

1. Is UDAQ analyzing sources on a unit-by-unit, plant-wide, or category basis? As explained in PacifiCorp's initial submission, PacifiCorp believes UDAQ should conduct reasonable progress analysis on both a group and plant-wide basis. *See* footnote 1 above.
2. What is the threshold for the "reasonableness" of NO_x controls on a cost per ton basis? As explained above, PacifiCorp contends that anything about \$5,000 per ton is *per se* unreasonable, and may be unreasonable above \$4,000 per ton unless the visibility improvement is strong enough to justify such costs.
3. What are the "on-the-books" scenarios Utah will use for WRAP visibility modeling?
4. How will the baseline be calculated for the second planning period?
5. How will Utah evaluate and analyze the four statutory reasonable progress factors? How will visibility modeling, and other visibility-related information, be considered in UDAQ's analysis?

If PacifiCorp can obtain answers to these questions, it can better understand and respond to the program as administered by Utah. PacifiCorp looks forward to discussing these matters with UDAQ in more detail in the future.

Sincerely,



James Owen

c: Darrell Cunningham
Jim Doak
Marie Durrant
Laren Huntsman
Blaine Rawson - Ray Quinney & Nebeker P.C

Attachment A

Delta Deciview - \$/ton NOx Removed

