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BEFORE THE UTAH PUBLIC SERVICE COMMISSION

In the Matter of PacifiCorp's 2017 Integrated Resource Plan	**Docket No. 17-035-16** **COMMENTS OF THE NATIONAL PARKS CONSERVATION ASSOCIATION**

The National Parks Conservation Association ("NPCA"), on behalf of its thousands of members and supporters in Utah, respectfully submit these comments regarding PacifiCorp's 2017 Integrated Resource Plan ("2017 IRP"), which was filed with the Utah Public Service Commission ("Utah PSC" or "Commission") on April 4, 2017 in Docket No. 17-035-16. As explained below, PacifiCorp's 2017 IRP is inadequate because it assumes, rather than evaluates, the economics of continued long-term operation of its coal-fired electric generating units. In addition, PacifiCorp unreasonably assumes that it will not be required to install modern pollution controls for nitrogen oxide ("NOx") or other emissions from its Hunter, Huntington, and other coal units despite those units' significant emissions of pollution that harms public health and degrades National Parks and Wilderness Areas with haze.[1]

[1] NPCA's focus in these comments on the assumptions and evaluation of PacifiCorp's coal units should not be interpreted to imply agreement with other portions of the 2017 IRP that are not addressed in these comments.

I. The National Parks Conservation Association

Since its founding in 1919, NPCA has been the independent, nonpartisan voice working to strengthen, defend, and protect America's favorite places. With over 1.4 million members and supporters beside us, NPCA is the voice of America's national parks, working to protect and preserve our nation's most iconic and inspirational places for present and future generations. NPCA celebrates the parks — and works tirelessly to defend them.

NPCA's Southwest office works to protect 63 national parks and monuments in Utah, Arizona, Colorado, and New Mexico from numerous threats posed by the area's booming population, which brings increased tourism and recreation, heightened development pressure, and expanded energy infrastructure. In 2016, over 15 million people visited Utah's national parks and monuments, generating more than $12 billion in direct spending to the state from the outdoor recreation economy in Utah (according to The Outdoor Industry Association). As of September 2017, NPCA had 2,828 paying members in Utah and 10,307 members and supporters.

II. The Utah IRP Standards

Pursuant to Utah law, an "integrated resource plan" is defined as a utility plan that includes, among other things, a 10-year demand and energy forecast, options for meeting the demand and energy needs identified in such forecast, a description of assumptions and conclusions regarding the effect of the resource plan on the cost and reliability of energy service, and a description of the environmental and economic consequences of such plan.[2] In its 1992 Guidelines for PacifiCorp's IRP filings, the Utah PSC made clear that the IRP is an important tool for ensuring that the utility is pursuing a least cost plan for reliably meeting its customers' needs, explaining that:

[2] Utah Code 52-17-102(3).

> The Commission will require PacifiCorp to pursue the least cost alternative for the provision of energy services to its present and future ratepayers that is consistent with safe and reliable service, the fiscal requirements of a financially healthy utility, and the long-run public interest. The Commission believes that the IRP Standards and Guidelines describe a process that will help utilities accomplish this goal.[3]

This least cost planning approach was confirmed in the Commission's order acknowledging PacifiCorp's 2015 IRP filing, in which the Commission noted that:

> The IRP process is an open, public process through which all relevant supply-side and demand-side resources are investigated in the search for the optimal set of resources to meet current and future electric service needs at the lowest total cost to the utility and its customers, in a manner consistent with the long-run public interest, given the expected combination of costs, risks and uncertainty.[4]

In short, an IRP should seek to identify a least cost plan for reliably serving customer needs in a manner that is consistent with the public interest and takes into consideration the risks and uncertainty that is inherent in long-term resource planning.

III. PacifiCorp Failed to Reasonably Evaluate the Economics of Its Existing Coal Fleet in its 2017 IRP.

In order to identify a least cost plan for reliably meeting customers' needs, a utility must not only evaluate options for new energy resources to be added to its portfolio. It must also carefully assess the economics of its existing generating units. Such assessment is necessary for the utility to be able to determine whether it is in the best interest of customers to continue operating those units as currently designed or whether they should be retrofitted with more efficient pollution controls or retired and replaced with demand side management, market purchases, and/or new generating units. Unfortunately, PacifiCorp's 2017 IRP fails to present such an evaluation.

[3] Utah PSC, Report and Order on Standards and Guidelines, Docket No. 90-2035-01 (June 18, 1992) at 1, (hereinafter "1992 Guidelines").
[4] Utah PSC, Report and Order, Docket No. 15-035-04 (Jan. 8, 2016) at 6.

Instead, for eight of its coal units, PacifiCorp simply assumes continued as is operation until a previously identified end-of-life year ranging from 2034 to 2046. For the remaining 16 units, PacifiCorp purports to evaluate a range of different futures. But with one limited exception, such evaluation simply uses a handful of pre-selected retirement dates as inputs to its economic modeling, rather than letting the model identify the lowest cost future for such units. In addition, PacifiCorp unreasonably assumes that it can continue operating such coal units for 10 to 20 years or more without installing modern pollution controls that are required by the federal Clean Air Act's regional haze requirements and/or other laws and necessary to minimize the substantial public health and air quality impacts that these generating units have on protected Class I national parks and wilderness areas. As a result of these flaws, a realistic lowest cost resource plan has not been identified in the 2017 IRP.

Given PacifiCorp's fundamentally deficient assessment of its existing coal units, the Commission should decline to acknowledge the 2017 IRP and, instead, require PacifiCorp to present for public and Commission review a thorough and reasonable evaluation of whether PacifiCorp's planned continued long-term operation of many of its coal units without modern pollution controls for nitrogen oxide ("NOx") pollution is consistent with the type of realistic least cost planning that the Commission has identified as a core principle of integrated resource planning in the state.

A. PacifiCorp's 2017 IRP assumes the continued, status quo operation of its coal units for years to decades into the future

In its 2017 IRP, PacifiCorp relegated its evaluation of its coal units to a screening analysis in which it assessed a series of what the utility refers to as regional haze compliance scenarios for some of its coal units. PacifiCorp set forth a Reference Case scenario that assumed compliance with regional haze plans that require the installation of Selective Catalytic Reduction

("SCR") pollution controls in 2021 or 2022 at the Hunter, Huntington, and Jim Bridger units, and "early" retirement or gas conversion of the Naughton 3, Cholla 4, and Craig 1 units in 2019 or 2025. Units that receive SCR in 2021 or 2022 under the Reference Case scenario were then assumed to retire in the late 2030s or early 2040s. The Reference Case was then compared to five scenarios in which no SCRs are installed at any coal units, but different retirement dates for the Hunter, Huntington, and Jim Bridger units are assumed. In an entirely unsurprising result, the IRP concluded that scenarios in which SCRs are not installed would be lower cost than the Reference Case in which SCRs are installed at Hunter, Huntington, and Jim Bridger.

PacifiCorp then identified one such non-SCR scenario – RH-5 – as the lowest cost regional haze scenario. After a modification regarding Naughton 3, PacifiCorp selected scenario RH-5a as its least cost haze compliance scenario. Pursuant to that scenario, PacifiCorp's IRP assumes the following with regards to coal units for which it evaluated a handful of different retirement dates:

- Naughton Unit 3 (Retired 2018)
- Cholla Unit 4 (Retired 2020)
- Craig Unit 1 (Retired 2025)
- Dave Johnston Plant (Retired 2027, end-of-life)
- Jim Bridger Unit 1 (Retired 2028)
- Naughton Units 1 & 2 (Retired 2029, end-of-life)
- Hayden Units 1 & 2 (Retired 2030, end-of-life)
- Jim Bridger Unit 2 (Retired 2032)
- Craig Unit 2 (Retired 2034, end-of-life)
- Huntington Plant (Retired 2036, end-of-life)

Scenario RH-5a included assumed retirement dates for a series of other PacifiCorp coal units for which the same retirement dates were assumed in every other scenario that PacifiCorp screened.[5] Those units and retirement dates are:

- Colstrip 3 and 4 (2046)

[5] See Regional Haze Case Fact Sheets, 2017 IRP Vol. II at 269-275.

- Craig 2 (2034)
- Hunter 1 and 2 (2042)
- Jim Bridger 3 and 4 (2037)
- Wyodak (2039)

Scenario RH-5a then became core case 1, referred to as "OP-NT3," which was the scenario that was carried forth into the next stage of the IRP analysis.[6] In short, the assumptions regarding the continued operation of and retirement dates for PacifiCorp's coal units were then incorporated as a given into the rest of PacifiCorp's IRP analysis and its Preferred Plan.

PacifiCorp's approach to evaluating its existing coal units was fundamentally deficient in at least the following two ways which render the 2017 IRP fatally flawed.

B. PacifiCorp's assumption that it will not have to install modern pollution controls for NOx pollution on its coal units is unreasonable and renders its resource planning fundamentally flawed.

One fundamental flaw in the 2017 IRP's treatment of PacifiCorp's coal units is that it is based on the assumption that such units can continue to operate for 10 to 20 years or more without having to install additional pollution controls. While the 2017 IRP Reference Scenario assumes SCRs on each of Hunter Units 1 and 2, Huntington Units 1 and 2, and Jim Bridger Units 1 and 2, and the 2015 IRP Update assumed the installation of SCR on four out of six of those units, the Preferred Plan in the 2017 IRP simply wishes away those SCRs. PacifiCorp similarly assumes that Colstrip Units 3 and 4, Wyodak, and Naughton Units 1 and 2 can continue operating for between 12 and 29 years without additional air pollution controls. In total, PacifiCorp's 2017 IRP assumes that 21 of its coal units will continue to operate for a decade or more without additional pollution controls, and that 9 of those units will continue operating for at least 17 more years without additional controls.

[6] 2017 IRP at 196.

PacifiCorp does not provide any justification for this assumption that it will be able to continue to pollute for years to come without needing to install modern pollution controls on its coal units. Nor is any such justification readily apparent. To the contrary, SCRs are needed on Hunter, Huntington, Jim Bridger, and other PacifiCorp coal units to comply with the federal Clean Air Act's regional haze provisions. Congress enacted the regional haze provisions to protect the "intrinsic beauty and historical and archaeological treasures" of our nation's most prized public lands—including National Parks such as Canyonlands and Arches and wilderness areas nationwide—by eliminating human-caused haze pollution that mars vistas in these "Class I areas."[7] To achieve Congress's national goal of "prevent[ing] any future, and remedying…any existing" human-caused haze in Class I areas, the Act requires each state to develop an implementation plan to reduce, and ultimately eliminate, air pollution from sources within its borders that causes or contributes to visibility impairment in any Class I area.[8] These state implementation plans, or "SIPs," must prescribe "emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal."[9] Where a SIP fails to satisfy the statutory and regulatory requirements of the regional haze program, the U.S. EPA must disapprove such SIP and prepare a federal implementation plan or "FIP."[10]

On July 5, 2016, the EPA finalized a regional haze FIP for Utah that established nitrogen oxide ("NOx") limits for the Hunter and Huntington coal units of 0.07 lbs/mmBtu.[11] EPA found that such limits were necessary to reduce the significant haze impacts that pollution from those

[7] 42 USC §§ 7472(a), 7491(a)(1).
[8] 42 USC § 7491(b)
[9] 42 USC § 7491(b)(2).
[10] 42 USC § 7410(c)(1)(A).
[11] U.S. EPA, Approval, Disapproval, and Promulgation of Air Quality Implementation Plans, 81 Fed. Reg. 43894, 43924 (July 5, 2016)

plants has on the Grand Canyon, Arches, Black Canyon, Bryce Canyon, Canyonlands, Capitol Reef, Mesa Verde and Zion National Parks and Flat Tops Wilderness Area.[12] The agency also found that such limits, which are approximately 50% to 75% lower than the current NOx emission rates from those units, were cost effectively achievable through the installation and operation of SCRs.[13] Similar regional haze requirements have been established for Jim Bridger and other PacifiCorp coal units, and for numerous coal plants owned by other utilities throughout the country.

PacifiCorp is presumably assuming that it will be able to avoid these haze requirements for Hunter and Huntington as a result of EPA's recent announcement that it intends to reconsider the Utah regional haze FIP.[14] Any such reconsideration that leads to weaker haze protections, however, is destined to fail because, as the EPA established in its 2016 FIP, the NOx emission reductions at Huntington and Hunter are necessary to reduce haze impacts on numerous Class I areas and required as a matter of law. In addition, Utah and/or the EPA are required in 2021 to submit SIPs or FIPs for the second planning period to provide for emission reductions necessary to achieve further reasonable progress towards natural visibility conditions.[15] Such second round SIP/FIP could require not only additional NOx reductions, but also further reductions in sulfur dioxide emissions[16] or other visibility impairing pollution from Hunter, Huntington, and other PacifiCorp coal units. While litigation and EPA reconsideration of the Utah regional haze FIP may delay the need to significantly reduce emissions from the Hunter and Huntington plants, it is unreasonable to assume without explanation that those and other PacifiCorp coal units will be

[12] *Id*. at 43895.
[13] *Id*. at 43903-04.
[14] Letter from Scott Pruitt, U.S. EPA, to Bryce Bird, Utah Division of Air Quality (July 14, 2017).
[15] U.S. EPA, Protection of Visibility: Amendments to Requirements for State Plans, 82 Fed. Reg. 3078 (Jan. 10, 2017).
[16] Such reductions necessitate, for example, upgrades to existing flue gas desulfurization controls.

able to evade the need to install modern pollution controls for NOx emissions for decades to come.[17] The impact of these units on national park air quality in the region is significant. According to the National Park Service, human caused haze impairs visibility at Arches and Canyonlands National Parks alone over 300 days per year on average.[18] Much of this human caused haze pollution comes from the Hunter and Huntington units. *Id*.

C. PacifiCorp did not allow its model to select the lowest cost option regarding its coal units.

A second fundamental flaw in PacifiCorp's treatment of its coal units in the 2017 IRP is that the utility did not evaluate whether or when it would be most economic to retire the utility's coal units. Instead, PacifiCorp simply identified one or more retirement dates for each unit that was input into its modeling as an unchangeable assumption. Without letting its model economically select or identify retirement dates for those units, however, there is simply no basis to conclude that the lowest cost option for those units has been included in PacifiCorp's Preferred Plan.

For eight of its units – Colstrip 3 and 4, Craig 2, Hunter 1 and 2, Jim Bridger 3 and 4, and Wyodak – the 2017 IRP considers only a single retirement date, ranging between 2034 and 2046, for each unit. No evidence is provided to show that such retirement dates are the lowest cost options for those units, that those units could reasonably be expected to continue to be beneficial to customers until such retirement dates, or that the units could not be more cost effectively

[17] In a few of its regional haze compliance scenarios, PacifiCorp references "NOx+" as an apparent compliance method. IRP at 171, Table 7.10. No information, however, is provided in the IRP about what NOx+ is, what level of NOx emission reductions it can purportedly achieve, or what the cost of NOx+ would be. As such, it is not possible on this record to evaluate the reasonableness of the apparent reliance on NOx+ as a potential compliance option.

[18] Decl. of Superintendent Catherine A. Cannon (December 15, 2016) in support of EPA's Motion in Opposition to Stay the Final Rule at Issue in Utah v. EPA, Nos 16-9541, 16-9542, 16-9543, 16-9545, 10th Cir.

replaced with new cleaner energy resources at a date preceding the assumed retirement date.[19] Locking in such a significant amount of capacity as a given, rather than as something to be evaluated, runs contrary to the search for the optimal set of resources that is supposed to occur as part of an IRP.

The evaluation of PacifiCorp's other 16 coal units is also inadequate. With regards to those units, the 2017 IRP evaluates a handful of different retirement dates, rather than only a single date for each unit. But the fundamental problem remains that the retirement dates are assumed as inputs to the modeling, rather than dates selected by the modeling. In addition, besides the end-of-life dates for each such unit, no explanation is provided for the other potential retirement dates that were identified in the 2017 IRP. For example, for Huntington 2, a 2036 retirement date is assumed in the Preferred Plan, but the 2029 retirement date identified in the 2015 IRP Update is never evaluated this time around.

PacifiCorp apparently did screen one regional haze compliance scenario, RH-6, in which it allowed the model to select retirement versus retrofitting of Hunter Units 1 and 2, Huntington Units 1 and 2, and Jim Bridger Units 1 and 2 if those units had to install SCRs in 2021 or 2022.[20] Such approach identified that it would be lower cost to retire rather than retrofit Jim Bridger in 2021, is a start towards ensuring that the economics of PacifiCorp's existing coal units are evaluated. But allowing the model to evaluate retirement of only some of the coal units and only a single point in time does not ensure that the lowest cost options regarding PacifiCorp's coal units have been identified.

[19] With regards to the 2046 retirement date assumed for Colstrip Units 3 and 4, it is relevant to note that one of the other owners of those units, Puget Sound Energy, has entered into a proposed settlement agreement pending at the Washington Utilities and Transportation Commission that would establish a depreciation schedule for Colstrip Units 3 and 4 that "assumes a remaining useful life of those units through December 31, 2027." See Multiparty Settlement Stipulation and Agreement, Washington Utilities and Transportation Commission, Dockets UE-170033 & UG-170034 (Sept. 15, 2017).

[20] 2017 IRP at 170-71.

IV. Conclusion

For the foregoing reasons, NPCA urges the Commission to decline to acknowledge the 2017 IRP and, instead, require PacifiCorp to provide for Commission and public review an evaluation of the economics of continuing to operate versus retiring the utility's coal units on the basis of reasonable assumptions regarding compliance with the Clean Air Act's visibility protection requirements.

Respectfully Submitted,

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STATE OF UTAH

Public Service Commission

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CERTIFICATE OF SERVICE

I CERTIFY that on October 24, 2017, a true and correct copy of the foregoing was served upon the following as indicated below:

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Dated this 24th day of October, 2017 at Asheville, NC.

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