

Stephanie Kodish
Senior Director & Counsel, Clean Air Program
National Parks Conservation Association
706 Walnut Street, Suite 200
Knoxville, TN 37902
skodish@npca.org

BEFORE THE UTAH PUBLIC SERVICE COMMISSION

<p>In the Matter of PacifiCorp’s 2017 Integrated Resource Plan</p>	<p>Docket No. 17-035-16</p> <p>COMMENTS OF THE NATIONAL PARKS CONSERVATION ASSOCIATION REGARDING PACIFICORP’S 2017 IRP UPDATE</p>
--	---

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 Update (“2017 IRP Update”), which was filed with the Utah Public Service Commission (“Utah PSC” or “Commission”) on May 1, 2018 in Docket No. 17-035-16. As explained below, the 2017 IRP Update further underscores the need for PacifiCorp to carefully evaluate, rather than assume, the economics of its proposed continued long-term operation of its coal-fired generating units in order to determine whether earlier retirement of one or more of those units would be a lower cost, lower risk plan for customers.¹

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 more than 1.4 million

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 Update that are not addressed in these comments.

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 May 2018, NPCA had 2,929 paying members in Utah and 7,969 members and supporters.

II. The Utah IRP Standards

In its 1992 Guidelines for PacifiCorp’s IRP filings, the Utah PSC made clear that the IRP process is an important tool for ensuring that the utility is pursuing a least cost plan for reliably meeting its customers’ needs, explaining that:

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.²

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

² Utah PSC, Report and Order on Standards and Guidelines, Docket No. 90-2035-01 (June 18, 1992) at 1, (hereinafter “1992 Guidelines”).

customers, in a manner consistent with the long-run public interest, given the expected combination of costs, risks and uncertainty.³

In its recent order acknowledging PacifiCorp's 2017 IRP filing, the Commission "reaffirm[ed] that] least-cost, least-risk planning is not a quaint concept of the past; it remains the fundamental objective of the IRP process."⁴

In short, the IRP process 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. The 2017 IRP Update Fails to Evaluate a Least Cost, Least Risk Plan Regarding the Continued Operation Versus Retirement and Replacement of PacifiCorp's Coal Units.

While the 2017 IRP Update includes a chapter regarding PacifiCorp's plans for purportedly addressing regional haze requirements at its coal units, the Update fails to meaningfully evaluate the economics of continuing to operate versus retiring and replacing such units. Instead, the 2017 IRP Update sets forth virtually the same preferred plan regarding the coal units as was set forth in the 2017 IRP,⁵ without providing any basis to conclude that such plan was or remains the least cost, least risk option for customers.

The following coal units are not mentioned in the 2017 IRP Update and, therefore, it appears that PacifiCorp is simply assuming that it is economic to continue to operate these units until the same retirement dates that were assumed in the 2017 IRP (which are listed below).

- Colstrip 3 and 4 (2046)
- Craig 2 (2034)

³ Utah PSC, PacifiCorp 2015 IRP Report and Order, Docket No. 15-035-04 (Jan. 8, 2016) at 6.

⁴ Utah PSC, PacifiCorp 2017 IRP Report and Order, Docket No. 17-035-16 (Mar. 2, 2018) at 18.

⁵ The only differences are that the 2017 IRP Update delays the Naughton Unit 3 retirement by one month (to January 30, 2019), assumes the addition of inadequate NOx controls to Huntington Units 1 and 2 in 2022 and 2023, respectively, and delays the 2021 installation of inadequate NOx controls to Hunter Units 1 and 2 to 2022 and 2023, respectively. 2017 IRP Update at p. 70 Table 6.1.

- Hayden Units 1 & 2 (2030)
- Jim Bridger 3 and 4 (2037)
- Naughton Units 1 & 2 (2029)
- Wyodak (2039)

These retirement dates were simply assumed, rather than identified through least-cost modeling, in the 2017 IRP⁶ and are apparently now just carried over into the Update.

The 2017 IRP Update identifies a couple scenarios for the Hunter and Huntington units.⁷ Those scenarios, however, assume the same retirement dates (2042 for Hunter, 2036 for Huntington) as were in the 2017 IRP and use the same unreasonable assumption that such units will be able to avoid needing to install Selective Catalytic Reduction (“SCR”) under the Regional Haze Rule or other environmental standards. Craig Unit 1 is also referenced in the 2017 IRP Update, but every scenario assumes the same 2025 retirement with no SCR installation as was included in the 2017 IRP.⁸

The 2017 IRP Update purports to evaluate Dave Johnston Unit 3, but that evaluation fails to provide any meaningful information about the economics of that unit. In particular, the 2017 IRP Update assumes a 2027 retirement date in all scenarios, and then simply compares the net present value revenue requirement (“NPVRR”) of installing an SCR in 2019 versus not installing an SCR. Not surprisingly, the scenario in which the unit is retired with no SCR installed was found to have a lower NPVRR than retiring the unit after installing an SCR in 2019.⁹

In the 2017 IRP Update, PacifiCorp sets forth an evaluation of retiring Jim Bridger Units 1 and 2 in 2028 and 2032, respectively, with no SCRs, versus installing SCRs in 2022 and 2021, respectively, and retiring the units in 2037.¹⁰ But no explanation is provided as to how those

⁶ 2017 IRP Vol. I at 77, Table 5.3.

⁷ 2017 IRP Update at 70, Table 6.1.

⁸ *Id.* at 70, Table 6.1; 2017 IRP Vol. I at 195.

⁹ 2017 IRP Update at 70-73.

¹⁰ *Id.* at 73-75.

assumed retirement dates were selected. As such, there is no basis to conclude 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 replaced at lower cost with new cleaner energy resources.

In short, the 2017 IRP Update continues to present an inertial analysis that assumes, rather than evaluates, the economic reasonableness of continued long-term operation of almost all of PacifiCorp's coal units. Such an approach suffers from the same two flaws that marred PacifiCorp's analysis in the 2017 IRP. First, the company again unreasonably assumes that it can continue operating its coal units for up to 28 more years without installing pollution controls, despite the clear requirement of the Regional Haze Rule and other federal standards to substantially reduce pollution from those units in order to protect public health and improve air quality.¹¹ Second, PacifiCorp continues to fail to evaluate, with regards to each of its coal units, whether it would be more economic to put the unit on the path to an expeditious retirement rather than continuing to plan to operate the unit for a decade or more. As such, PacifiCorp has not demonstrated that it is pursuing a least-cost, least-risk plan.¹² NPCA hereby incorporates by reference its previous submission on those two points.

IV. The 2017 IRP Update Identifies Changed Conditions that Further Demonstrate the Need for a Thorough Evaluation of the Economics of PacifiCorp's Coal Units.

The imperative of evaluating the economics of PacifiCorp's coal units is heightened here by the fact that the 2017 IRP Update shows that since the filing of the 2017 IRP, market conditions have changed in ways that further disfavor the company's coal fleet. In particular, in comparison to the 2017 IRP, the Update shows that:

¹¹ NPCA, Comments on PacifiCorp's 2017 IRP, at 6-9.

¹² *Id.* at 9-10.

- Projected coincident system peak demand for PacifiCorp is down by an average of 424 MWs over the next ten years, with the reduction in peak demand steadily growing from 254 MWs in 2018 to 559 MWs by 2027.¹³
- Projected annual load for each of the years 2018 through 2027 has declined, with the total annual decline steadily growing from 140,147 MWs in 2018 to 1,638,641 MWs in 2027.¹⁴
- Forecasted Henry Hub natural gas prices are lower through 2030.¹⁵
- Forecasted market energy prices are lower through 2030.¹⁶
- Projected costs of wind and solar resources continue to reflect a downward trend over the next 20 years, with lower costs for both resources reported in the 2017 IRP Update than in the 2017 IRP.¹⁷

In other words, PacifiCorp's overall need for energy and capacity has declined since the 2017 IRP, while the cost of resource alternatives to coal have fallen.

The 2017 IRP Update shows that these market changes are adversely impacting the economics of PacifiCorp's coal units. As explained in Section III above, the Preferred Plan proposed in the 2017 IRP Update is, with regards to coal capacity, virtually unchanged from the Preferred Plan set forth in the 2017 IRP. Yet, as shown by comparing Figure 8.3 in the 2017 IRP Update with Figure 8.70 in the 2017 IRP, the portion of PacifiCorp's energy coming from coal is forecasted to be smaller in the 2017 IRP Update than in the 2017 IRP. In particular, the 2017 IRP forecasted that coal would be 51% of PacifiCorp generation in 2018 and between 41% and 49% in every year through 2029.¹⁸ By contrast, the 2017 IRP Update forecasts that coal will be 40% of generation in 2019, will range between 34% and 38% from 2020 to 2024, and will not exceed 45% through 2029. Such decline in coal generation is clearly beneficial for public health,

¹³ 2017 IRP Update at 3, 139, Table A.4.

¹⁴ *Id.* at 23, Figure 4.1.

¹⁵ *Id.* at 56, Figure 5.2.

¹⁶ *Id.* at 56-58, Figures 5.3 to 5.6.

¹⁷ *Id.* at 59-61.

¹⁸ 2017 IRP at 240, Figure 8.70.

air quality, and the environment. What it also shows is that the coal units are not as competitive in the market and, therefore, would almost certainly be bringing in less net operating revenue than previously forecasted. Faced with declining revenue, at some point it would be unreasonable and imprudent to continue incurring the capital, fixed O&M, and other fixed costs necessary to keep a coal unit operating. Just as with the 2017 IRP, however, the 2017 IRP Update fails to provide any information as to when or under what conditions that point is likely to be reached (or whether it already has been reached) at any of PacifiCorp's coal units.

PacifiCorp's inertial approach to its coal units stands in contrast to the way that the company's plans for other resources have changed in the 2017 IRP Update. In particular, as a result of the lower load forecasts, the Preferred Plan in the 2017 IRP Update, as compared to the 2017 IRP, has reduced reliance on market transactions and no longer includes a new gas simple cycle and combined cycle combustion turbine.¹⁹ No explanation has been provided for why the lower load forecasts did not instead lead to an earlier retirement of one or more of PacifiCorp's coal units, and it appears that such an option was never even considered.

V. The Changed Conditions Discussed in the 2017 IRP Update Are a Continuation of the Turn Against Coal that the Market Has Taken Over the Past Few Years.

The unfavorable trends for PacifiCorp's coal fleet described above are not new. For example, PacifiCorp's load forecasts have been declining for years, as shown in the following two tables:²⁰

¹⁹ 2017 IRP Update at 5.

²⁰ In addition to demonstrating changing market conditions, the fact that PacifiCorp has had to adjust its load forecasts downward in each of its past three IRPs and most recent IRP Update suggests that the company's load forecast may be unreliable or improperly biased in favor of over-projecting future energy and capacity needs.

Table 1: Comparison of PacifiCorp Coincident Peak Load (MW) Forecasts

	2019	2023	2027
2013 IRP²¹	10,816	11,421	—
2015 IRP²²	10,614	11,071	11,565
2017 IRP²³	10,310	10,706	11,021
2017 IRP Update²⁴	10,005	10,266	10,462

Table 2: Comparison of PacifiCorp Load Growth (GWs) Forecasts

	2019	2023	2027
2013 IRP²⁵	65,183	68,781	—
2015 IRP²⁶	65,034	67,463	69,983
2017 IRP²⁷	61,301	63,800	65,684
2017 IRP Update²⁸	60,448	61,983	62,922

With regards to gas prices, the 2017 IRP Update projects a Henry Hub price of slightly below \$3 per mmBtu in 2018 rising to approximately \$3.50 per mmBtu by 2024.²⁹ The 2017 IRP forecasted slightly higher gas prices increasing to a bit over \$4 per mmBtu by 2024.³⁰ By contrast, PacifiCorp’s 2015 IRP projected a gas price of \$4.32 per mmBtu in 2018, escalating to

²¹ 2017 IRP, Historic Load Forecasts, pre-DSM Tables tab.

²² 2017 IRP, RMP Supp. Filing Figure 1.2 Load Comp. Update (April 11, 2017).

²³ 2017 IRP, RMP Supp. Filing Figure 1.2 Load Comp. Update (April 11, 2017).

²⁴ 2017 IRP Update at 138, Table A.2.

²⁵ 2017 IRP, Historic Load Forecasts, pre-DSM Tables tab

²⁶ 2017 IRP, RMP Supp. Filing Figure 1.2 Load Comp. Update (April 11, 2017).

²⁷ 2017 IRP, RMP Supp. Filing Figure 1.2 Load Comp. Update (April 11, 2017).

²⁸ 2017 IRP Update at p. 137, Table A.1.

²⁹ 2017 IRP Update at p. 56 Figure 5.2.

³⁰ 2017 IRP Update at p. 56 Figure 5.2.

\$6.07 per mmBtu in 2024,³¹ while the 2013 IRP projection went from \$5.03 per mmBtu in 2018 to \$7.28 per mmBtu in 2024.³²

PacifiCorp's energy price forecasts have similarly declined over the past few IRPs. The 2017 IRP Update projects that average Mid-Columbia/Palo Verde Flat Electric Prices will be approximately \$24 per MWh in 2018 and increase to around \$35/MWh by 2024.³³ The 2017 IRP projection of those electric prices went from around \$26/MWh in 2018 to approximately \$40/MWh in 2024.³⁴ By contrast, the 2015 IRP projected a 2018 price of \$40.39/MWh escalating to \$53.73/MWh by 2024.³⁵ The 2013 IRP, meanwhile, showed a 2018 price of \$43.78/MWh leaping to \$64.36/MWh by 2024.³⁶

As with the changed market conditions shown in the 2017 IRP Update, these longer term trends show an increasingly unfavorable situation for coal, with the need for PacifiCorp's coal units shrinking while the cost of other resources decline. The impacts of these trends on PacifiCorp's coal units should have been and must be evaluated in order for a least cost, least risk resource plan to be developed.

VI. Conclusion

NPCA is, of course, cognizant that the Commission acknowledged PacifiCorp's 2017 IRP as "substantially compl[ying]" with the IRP Guidelines.³⁷ In doing so, the Commission noted, among other things, that PacifiCorp "has agreed to conduct additional coal modeling in the 2019 IRP."³⁸ As explained above, that additional modeling will only help ensure the creation

³¹ 2015 IRP, Exhibit D Figure 1.4.

³² 2015 IRP, Exhibit D Figure 1.4.

³³ 2017 IRP Update p. 4 Figure 1.2.

³⁴ 2017 IRP Update p. 4 Figure 1.2.

³⁵ 2015 IRP, Exhibit D Figure 1.4

³⁶ 2015 IRP, Exhibit D Figure 1.4.

³⁷ Commission Order at 45.

³⁸ *Id.* at 28.

of a least cost, least risk plan for customers if it (1) evaluates, rather than assumes, the economics of the continued long-term operation of each coal unit, and (2) seeks to identify, rather than assume, a schedule for the orderly retirement of each PacifiCorp coal unit that is found to likely be uneconomic. NPCA urges the Commission to take steps to ensure that such analyses are thoroughly and objectively carried out and disclosed for public review and comment as part of PacifiCorp's 2019 IRP process.

Respectfully Submitted,



Stephanie Kodish
Senior Director & Counsel, Clean Air Program
National Parks Conservation Association
706 Walnut Street, Suite 200
Knoxville, TN 37902
skodish@npca.org

STATE OF UTAH

Public Service Commission

In the Matter of PacifiCorp's 2017
Integrated Resource Plan

Docket No. 17-035-16

CERTIFICATE OF SERVICE

I CERTIFY that on July 30, 2018, a true and correct copy of the foregoing was served by email on the following:

Patricia Schmid
Justin Jetter
Robert Moore
Assistant Utah Attorneys General
pschmid@agutah.gov
jjetter@agutah.gov
rmoore@agutah.gov

Chris Parker
Artie Powell
Erika Tedder
Utah Division of Public Utilities
ChrisParker@utah.gov
wpowell@utah.gov
etedder@utah.gov
dpudatarequest@utah.gov

Office of Consumer Services
Cheryl Murray
Michele Beck
Bela Vastag
cmurray@utah.gov
mbeck@utah.gov
bvastag@utah.gov

Nancy Kelly
Steven S. Michel
Sophie Hayes
Western Resource Advocates
nkelly@westernresources.org

smichel@westernresources.org
Sophie.hayes@westernresources.org

Yvonne Hogle
Robert C. Lively
IRP Mailbox
Rocky Mountain Power
yvonne.hogle@pacificorp.com
bob.lively@pacificorp.com
irp@pacificorp.com
datarequest@pacificorp.com

Adam S. Long
John Lowe
Renewable Energy Coalition
along@shutah.law
jravenesanmarcos@yahoo.com

Gary Dodge
Kevin Higgins
Neal Townsend
Utah Association of Energy Users
gdodge@hjdllaw.com
khiggins@energystrat.com
ntownsend@energystrat.com

Michael Shea
HEAL Utah
michael@healutah.org

Sarah Wright
Kevin Emerson
Hunter Holman
Utah Clean Energy
sarah@utahcleanenergy.org
kevin@utahcleanenergy.org
hunter@utahcleanenergy.org

Gloria Smith
Alexa Zimbalist
Sierra Club
gloria.smith@sierraclub.org
alexa.zimbalist@sierraclub.org

Mitch Longson
Lisa Tormoen Hickey
Interwest Energy Alliance
mlongson@mc2b.com
lisahickey@newlawgroup.com

Dated this 30th day of July 2018 at
Asheville, NC

/s/ Ulla Reeves _____

Ulla Reeves
Advocacy Manager, Clean Air Program
National Parks Conservation Association
1 Rankin Ave. 2nd Floor
Asheville, NC 28801
Phone: (828) 989-0389
ureeves@npca.org

