Application No. 22-05-\_\_\_\_ Exhibit PAC/500 Witness: James Owen

## BEFORE THE PUBLIC UTILITIES COMMISSION

## OF THE STATE OF CALIFORNIA

PACIFICORP

Direct Testimony of James Owen

Coal Retirement – Environmental Drivers

May 2022

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1		I. INTRODUCTION AND QUALIFICATIONS
2	Q.	Please state your name, business address, and present position with PacifiCorp
3		d/b/a Pacific Power (PacifiCorp or Company).
4	A.	My name is James Owen. My business address is 1407 West North Temple,
5		Suite 210, Salt Lake City, Utah 84116. My position is Vice President,
6		Environmental, Fuels and Mining.
7	Q.	Please describe your education and professional experience.
8	A.	I have a Bachelor of Science Degree in Mining Engineering, a Master of Business
9		Administration Degree, and a Juris Doctorate Degree, all from the University of Utah.
10		I joined the Utah Department of Natural Resources – Division of Oil Gas and Mining
11		in November 2008, and held positions of increasing responsibility within the agency,
12		including responsibilities for environmental permitting, enforcement of
13		environmental compliance, engineering design, oversight of mine reclamation
14		bonding, environmental program management, and legislative and policy
15		management. I joined PacifiCorp as Director of Environmental in February 2018. I
16		have assumed positions of increasing responsibility since that time and currently
17		serve as Vice President of Environmental, Fuels and Mining. My current
18		responsibilities encompass strategic planning, stakeholder engagement, regulatory
19		support, support of major generation resource additions, direct oversight of fueling
20		strategy, management of mining operations, and direct oversight of major
21		environmental compliance projects.
22	Q.	Have you testified in previous regulatory proceedings?
23	A.	Yes. I have testified in regulatory proceedings in Oregon, Idaho, Utah and Wyoming.

1		II. PURPOSE AND SUMMARY OF TESTIMONY
2	Q.	Please describe the purpose and provide a summary of your testimony.
3	A.	My testimony explains how state and federal environmental requirements for
4		PacifiCorp's coal-fired power plants are accounted for in the Company's long-term
5		resource planning process; these requirements drive the retirement dates or in some
6		cases, conversion dates of certain coal units. This supports the Company's request to
7		accelerate the current depreciation schedules of certain coal units currently in
8		California rates, as discussed in the testimony of witness Matthew McVee,
9		Exhibit PAC/100. My testimony, along with that of witness Shayleah J. LaBray in
10		Exhibit PAC/400 is responsive to the California Public Utilities Commission's
11		(Commission) directive, as discussed further below.
12		III. PACIFICORP'S COAL RETIREMENT PLANS
13	Q.	Please describe the Commission's directive to include information on retirement
14		plans for all coal facilities serving California customers.
15	A.	In PacifiCorp's last general rate case (2019 Rate Case), the Commission directed the
16		Company to provide information on "its retirement plans for all coal facilities serving
17		California customers, and any associated request for accelerated depreciation,
18		consistent with its Integrated Resource Plan filings." <sup>1</sup> In July of 2021, the
19		Commission authorized PacifiCorp's request to extend the filing of its coal retirement
20		plans and further detailed that "[t]he Commission can evaluate PacifiCorp's coal
21		facility retirement plans in its 2023 general rate case more efficiently after

<sup>&</sup>lt;sup>1</sup> In the Matter of the Application of PacifiCorp (U901E), an Oregon Company, for an Order Authorizing a General Rate Increase Effective January 1, 2019, A.18-04-002, D.20-02-025 at 73 (Feb. 18, 2020).

1		PacifiCorp's plans are updated with information provided by PacifiCorp's 2021
2		Integrated Resource Plan[.] <sup>"2</sup>
3	Q.	Has PacifiCorp's 2021 Integrated Resource Plan (IRP) provided updated coal
4		facility retirement or conversion dates in the preferred portfolio?
5	A.	Yes. The current coal retirement, or conversion dates, identified in the 2021 IRP
6		preferred portfolio are as follows:
7 8 9 10 11 12 13 14 15 16 17 18		<ul> <li>2024 = Jim Bridger Units 1-2 (conversion to natural gas-fired)</li> <li>2025 = Colstrip Units 3-4</li> <li>2025 = Craig Unit 1</li> <li>2025 = Naughton Units 1-2</li> <li>2027 = Dave Johnston Units 1-4</li> <li>2027 = Hayden Unit 2</li> <li>2028 = Craig Unit 2</li> <li>2028 = Hayden Unit 1</li> <li>2036 = Huntington Units 1-2</li> <li>2037 = Jim Bridger Units 3-4</li> <li>2039 = Wyodak</li> <li>2042 = Hunter Units 1-3</li> </ul>
19	Q.	Does the Company account for environmental requirements and costs during the
20		IRP process?
21	A.	Yes. PacifiCorp's analysis incorporates state and federal environmental compliance
22		obligations and, if applicable, the corresponding incremental compliance costs.
23		Applicable unit- and plant-specific permit limits are incorporated into the IRP model
24		as inputs that restrict the model from operating the units beyond the emission limit
25		parameters. In cases where incremental capital or operating costs would be incurred
26		to achieve compliance, those costs are included as assumptions in the model. The

<sup>&</sup>lt;sup>2</sup> In the Matter of the Application of PacifiCorp (U901E), an Oregon Company, for an Order Authorizing a General Rate Increase Effective January 1, 2019, A.18-04-002, D.21-07-012 at 5 (Jul. 21, 2021).

1		Company includes current, planned, and proposed environmental requirements that
2		may involve additional costs. PacifiCorp also evaluates retirement as an option to
3		achieve compliance where appropriate, depending on the environmental requirement.
4	Q.	Please identify coal units for which the retirement date has been driven by
5		environmental requirements at the state and/or federal level.
6	A.	The retirement dates for Craig Units 1 and 2, Hayden Units 1 and 2, Naughton Units
7		1 and 2, Dave Johnston Unit 3 are driven by environmental requirements.
8	Q.	Please describe why PacifiCorp identified 2025 and 2028 as the retirement dates
9		for Craig Unit 1 and 2, respectively, and 2028 and 2027 as the retirement dates
10		for Hayden Unit 1 and 2, respectively.
10 11	А.	for Hayden Unit 1 and 2, respectively. Craig Unit 1 has a closure commitment in 2025 under the Regional Haze Rule, which
	A.	
11	A.	Craig Unit 1 has a closure commitment in 2025 under the Regional Haze Rule, which
11 12	A.	Craig Unit 1 has a closure commitment in 2025 under the Regional Haze Rule, which was promulgated under the Clean Air Act. The 2021 IRP reflects this commitment.
11 12 13	A.	Craig Unit 1 has a closure commitment in 2025 under the Regional Haze Rule, which was promulgated under the Clean Air Act. The 2021 IRP reflects this commitment. The retirement dates for Craig Unit 2 (2028) and Hayden Units 1 (2028) and 2 (2027)
11 12 13 14	A.	Craig Unit 1 has a closure commitment in 2025 under the Regional Haze Rule, which was promulgated under the Clean Air Act. The 2021 IRP reflects this commitment. The retirement dates for Craig Unit 2 (2028) and Hayden Units 1 (2028) and 2 (2027) were based on environmental requirements under joint-owner and state emission
<ol> <li>11</li> <li>12</li> <li>13</li> <li>14</li> <li>15</li> </ol>	A.	Craig Unit 1 has a closure commitment in 2025 under the Regional Haze Rule, which was promulgated under the Clean Air Act. The 2021 IRP reflects this commitment. The retirement dates for Craig Unit 2 (2028) and Hayden Units 1 (2028) and 2 (2027) were based on environmental requirements under joint-owner and state emission reduction goals. <sup>3</sup> Colorado's State Implementation Plan (SIP) for the Regional Haze

<sup>&</sup>lt;sup>3</sup> See COLO. REV. STAT. §25-7-105 (setting state emissions reduction goals); COLO. REV. STAT. §25-7-140 (requiring certain actions to be taken in support of state emissions reduction goals); 2020 INTEGRATED RESOURCE PLAN/ELECTRIC RESOURCE PLAN (Tri-State Generation and Transmission Association, Dec. 1, 2020) available at https://tristate.coop/sites/tristategt/files/PDF/resourceplan/Dec-2020-WAPA-IRP.zip; 2021 Electric

Resource Plan and Clean Energy Plan (Xcel Energy, March 31, 2020) available at https://www.xcelenergy.com/staticfiles/xe-

responsive/Company/Rates%20&%20Regulations/Resource%20Plans/Clean%20Energy%20Plan/Vol 1-Plan\_Overview.pdf.

1		requirements are finalized, the Colorado SIP will be submitted to the Environmental
2		Protection Agency (EPA) for review and approval.
3	Q.	Can you describe why PacifiCorp identified 2025 as the retirement date for
4		Naughton Units 1 and 2?
5	A.	The Naughton facility operates ash-disposal impoundments and is subject to the
6		federal Coal Combustion Residuals (CCR) rule which was promulgated under the
7		Resource Conservation and Recovery Act and the Clean Water Act. Some CCR
8		impoundments at the Naughton plant are considered 'unlined' according to
9		specifications in the CCR rule. The rule required the facility to either (1) cease receipt
10		of waste and initiate closure of unlined CCR impoundments by April 11, 2021;
11		(2) apply for an extended timeline to continue impoundment operation until new,
12		lined impoundments could be built; or (3) demonstrate the need to continue
13		operations of the unlined impoundments due to a lack of alternative capacity and
14		commit to cease coal-fired operations and complete final closure and reclamation of
15		unlined CCR impoundments no later than October 17, 2028. The Company
16		determined the first two options were either impractical or cost-prohibitive, and
17		subsequently submitted an alternative closure demonstration to the U.S.
18		Environmental Protection Agency in November 2020. The demonstration included a
19		commitment to cease coal-fired operation at Naughton Units 1 and 2 by the end of
20		2025 to allow PacifiCorp to complete final closure and reclamation of the impacted
21		impoundments by 2028. Naughton Units 1 and 2 were therefore not allowed to
22		operate beyond 2025 in the 2021 IRP.

1	Q.	Can you describe why PacifiCorp identified 2027 as the retirement date for Dave
2		Johnston Unit 3?
3	А.	Dave Johnston Unit 3 has a federally enforceable closure commitment at the end of
4		2027 under the Regional Haze Rule. <sup>4</sup> Therefore, Dave Johnston Unit 3 was not
5		allowed to operate beyond 2027 in the 2021 IRP.
6	Q.	Are there any other examples of environmental requirements that are expected
7		to impact long-term resource planning?
8	A.	Yes. One example is the commitment to cease coal-fired operation and convert Jim
9		Bridger Units 1 and 2 to natural gas in 2024. The Company determined as part of the
10		2021 IRP that converting these units was in the best interest of customers. The gas
11		conversions later became enforceable commitments under a consent decree between
12		PacifiCorp and the state of Wyoming as part of Regional Haze Rule compliance. <sup>5</sup> The
13		commitment to convert these units is enforceable under state law and will be
14		proposed for formal adoption through state and federal rulemaking processes. These
15		gas conversions, and the associated post-conversion emission limits are
16		environmental requirements which will be included as inputs in PacifiCorp's ongoing
17		long-term resource planning. A similar example involved the environmental
18		requirements relating to the conversion of Naughton Unit 3 from coal to gas. <sup>6</sup> A final

 <sup>&</sup>lt;sup>4</sup> Approval, Disapproval and Promulgation of Implementation Plans; State of Wyoming; Regional Haze State Implementation Plan; Federal Implementation Plan for Regional Haze, 79 Fed. Reg. 5,049 (Jan. 30, 2014).
 <sup>5</sup> Consent Decree, *Wyoming v. PacifiCorp*, No. 2022-CV-200-333 (Dist. Ct., 1st Jud. Dist., Laramie

<sup>&</sup>lt;sup>5</sup> Consent Decree, *Wyoming v. PacifiCorp*, No. 2022-CV-200-333 (Dist. Ct., 1st Jud. Dist., Laramie Feb. 14, 2022).

<sup>&</sup>lt;sup>6</sup> Approval and Promulgation of Air Quality Implementation Plans; Wyoming; Revisions to Regional Haze State Implementation Plan, 83 Fed. Reg. 55,663 (Nov. 7, 2018); Approval and Promulgation of Air Quality Implementation Plans; Wyoming; Revisions to Regional Haze State Implementation Plan 84 Fed. Reg. 10,433 (Mar. 21, 2019).

1		example is the very recently proposed rule by the US EPA under the "good neighbor"
2		provision of the Clean Air Act. <sup>7</sup>
3		IV. CONCLUSION
4	Q.	Please summarize the conclusions of your testimony.
5	A.	PacifiCorp prudently incorporates state and federal environmental requirements for
6		its coal-fired power plants into the Company's resource planning process. In some
7		cases, these requirements drive the retirement or conversion dates of certain coal
8		units. The Company prudently included coal plant retirements that were driven by
9		environmental requirements in the 2021 IRP. This supports the Company's request to
10		accelerate the current depreciation schedules of certain coal units currently in
11		California rates, which should be approved.
12	Q.	Does this conclude your direct testimony?
13	A.	Yes.

<sup>&</sup>lt;sup>7</sup> 87 Fed. Reg. 20,036 (Apr. 06, 2022).