

Docket No. UE 433  
Exhibit PAC/1300  
Witness: Brad D. Richards

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**PACIFICORP**

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**Direct Testimony of Brad D. Richards**

**February 2024**

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1                                   **I. INTRODUCTION AND QUALIFICATIONS**

2   **Q. Please state your name, business address, and current position with PacifiCorp**  
3   **d/b/a Pacific Power (PacifiCorp or Company).**

4   A. My name is Brad D. Richards. My business address is 1407 West North Temple,  
5   Suite 210, Salt Lake City, Utah 84116. My title is Vice President of Thermal  
6   Generation.

7   **Q. Please describe your professional experience.**

8   A. I have 22 years of power plant commissioning, operations, and maintenance  
9   experience. I was previously the Managing Director of Gas and Geothermal  
10   Generation from January 2018 to September 2021. For 17 years before that, I held  
11   a number of positions of increasing responsibility within PacifiCorp's generation  
12   organization and with Calpine Corporation in power plant commissioning and  
13   operations. In my current role, I am responsible for operating and maintaining  
14   PacifiCorp's coal, natural gas-fired, and geothermal generation fleet.

15   **Q. Have you testified in previous regulatory proceedings?**

16   A. Yes. I submitted testimony on behalf of the Company in proceedings before the Utah  
17   Public Service Commission and the Washington Utilities and Transportation  
18   Commission.

19                                   **II. PURPOSE OF TESTIMONY**

20   **Q. What is the purpose of your testimony in this case?**

21   A. My testimony provides additional details regarding the natural gas conversion of Jim  
22   Bridger Units 1 and 2, the post-conversion operating costs of Jim Bridger Units 1 and  
23   2, and the flue gas desulfurization (FGD) pond project at the Jim Bridger Plant. These

1 capital costs are necessary to continue operating these units and are not life extending  
2 capital additions.

3 **III. JIM BRIDGER GAS CONVERSION**

4 **Q. Please provide a brief explanation of the process for converting a coal-fired unit**  
5 **to a gas-fired unit at the Jim Bridger facility?**

6 A. The natural gas conversions of Jim Bridger Units 1 and 2 (\$34.6 million total-  
7 Company, \$9.3 million Oregon-allocated) require retrofitting of the boilers with  
8 natural gas burners and flame scanners as well as construction of a distribution  
9 pipeline which can provide a sufficient supply of natural gas. Certain coal and ash  
10 handling equipment will be isolated from the boilers. Additionally, the project  
11 requires new filters, gas heaters, pressure regulators, safety valves, high- and low-  
12 pressure valves, piping, pipe supports, instrumentation, controls, meters, and other  
13 equipment to operate reliably and safely.

14 **Q. Can you provide a brief timeline for when the work will be completed on Jim**  
15 **Bridger Units 1 and 2 to convert these units to natural gas?**

16 A. The timeline is projected to complete both unit conversions and be firing on natural  
17 gas by April 30, 2024. Both units came offline on December 31, 2023. Unit 2 will be  
18 completed first, immediately followed by Unit 1 in conjunction with the planned  
19 Unit 1 overhaul.

20 **Q. Did the Company assess the customer benefits provided by the conversion of Jim**  
21 **Bridger Units 1 and 2 to natural gas?**

22 A. Yes. Company witness Thomas R. Burns explains the economic analysis that was  
23 done to support the Company's decision to convert Jim Bridger Units 1 and 2 to

1 natural gas and demonstrates the conversion is in the public interest and will generate  
2 benefits for Oregon customers.

3 **Q. How will the natural gas conversion of Jim Bridger Units 1 and 2 affect the**  
4 **variable operating costs of those units?**

5 A. Since fuel costs are handled separately, the variable operating and maintenance  
6 (O&M) costs are driven by various chemicals used at the plant, and by ash handling  
7 and fly ash sales revenue. By burning natural gas instead of coal, those units will  
8 avoid the costs associated with ash handling, as well as certain chemicals used for  
9 treating flue gases, scrubber chemicals, mercury, and coal pile sealants. The variable  
10 O&M costs are partially offset by fly ash sales, which will be lost upon cessation of  
11 coal operations on the units. Other chemicals used for water treatment, various  
12 surface cleaning acids, and other miscellaneous chemicals will still be required.

13 **Q. Please explain how the natural gas conversion of Jim Bridger Units 1 and 2 will**  
14 **affect the fixed operating costs of those units.**

15 A. The fixed costs include labor and general maintenance, which will decrease. This  
16 change in fixed costs post conversion is primarily driven by the avoidance of both the  
17 labor and maintenance related to coal handling functions, this includes the unloading  
18 process, and coal pile management, as well as the maintenance on coal crushers,  
19 transport equipment, silos, pulverizers, scrubbers, and precipitators. These fixed  
20 operating costs are further identified in the testimony of Company witness Sherona L.  
21 Cheung.

