Exh. CAT-28T
Dockets UE-191024 *et. al.*
Witness: Chad A. Teply

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PACIFICORP dba PACIFIC POWER & LIGHT COMPANY Respondent.	Dockets UE-191024, UE-190750, UE-190929, UE-190981, UE-180778 (*Consolidated*)

PACIFICORP

SUPPLEMENTAL TESTIMONY OF CHAD A. TEPLY

April 2020

ATTACHED EXHIBITS

Confidential Exhibit CAT-29C—Confidential Decommissioning Studies Base Estimate

Confidential Exhibit CAT-30C—Other Costs to Consider

Confidential Exhibit CAT-31C—Owner Cost and Contractor Indirect Details

I. INTRODUCTION

Q. Are you the same Chad A. Teply who previously submitted direct testimony in this proceeding on behalf of PacifiCorp dba Pacific Power & Light Company (PacifiCorp or the Company)?

A. Yes.

II. PURPOSE OF SUPPLEMENTAL TESTIMONY

Q. What is the purpose of your supplemental testimony?

A. The purpose of my supplemental testimony is to provide background regarding the confidential decommissioning and site restoration studies filed by PacifiCorp on January 16, 2020, and March 17, 2020 (Decommissioning Studies), in the Company's 2018 Depreciation Study proceeding.[1] My supplemental testimony discusses the scope of the Decommissioning Studies and the differences between previous plant decommissioning estimates, and summarizes the costs estimated in the Decommissioning Studies.

Q. Please explain the responsibilities of the staff within your organization related to decommissioning and site restoration of PacifiCorp's coal-fired generation resources.

A. My staff is responsible for preparing decommissioning scopes of work, procuring studies and environmental assessments, coordinating with PacifiCorp's operations, environmental, regulatory, and compliance teams, engaging the competitive market in

[1] *Wash. Util. and Trans. Comm'n v. Pacific Power & Light Co.,* Docket No. UE-180778, PacifiCorp's Decommissioning Study (Jan. 16, 2020) (Jim Bridger Decommissioning Study); *Wash. Util. and Trans. Comm'n v. Pacific Power & Light Co.,* Docket Nos. UE-191024, UE-190750, UE-190929, UE-190981, UE-180778, consolidated, PacifiCorp's Colstrip Decommissioning Study (Mar. 17, 2020) (Colstrip Decommissioning Study).

decommissioning and site remediation contracting, and ultimately managing execution of site decommissioning and restoration projects for PacifiCorp's owned and operated coal-fired generation resources.

Q. Why did PacifiCorp conduct the Decommissioning Studies?

A. Through PacifiCorp's Multi-State Process negotiations, the signatories to the 2020 PacifiCorp Inter-Jurisdictional Allocation Protocol (2020 Protocol) agreed that the Company should conduct a thorough study of decommissioning and site restoration costs for its coal-fired generation resources.[2]

III. SCOPE OF DECOMMISSIONING STUDIES

Q. Please describe the scope of the Decommissioning Studies.

A. The scope of work for the Decommissioning Studies include the following requirements:

- Provide an owner-informed, overall decommissioning design basis to be used for all of the generating facilities in the study. The design basis established the fundamental assumptions for the cost estimates provided in the final Decommissioning Studies.
- Provide a Class 3 cost estimate to identify of all of the costs for the decommissioning, demolition, reclamation, and remediation of the Hunter, Huntington, Dave Johnston, Jim Bridger, Naughton, Wyodak, Hayden, and Colstrip generating facilities.[3]
- Provide a narrative report describing the entities involved, process used to prepare the report, and assumptions.

[2] Exhibit No. EL-3 (2020 Protocol Sections 4.3.1.1-4.3.1.2).
[3] Only the Jim Bridger Units 1-4 and Colstrip Unit 4 coal-fired resources are in PacifiCorp's Washington rates.

- Provide a spreadsheet report incorporating the Association for the Advancement of Cost Engineering (AACE)[4] Class 3 cost estimates inclusive of certain owner provided Asset Retirement Obligation (ARO) cost estimates as verified by the third-party study provider.
- Provide cost estimates based on fourth quarter 2019 dollars.

Q. Who conducted the Decommissioning Studies for the Company?

A. The Decommissioning Studies were performed by a consulting firm with input from independent contractors with direct experience decommissioning and restoring coal-fired facilities following retirement of generation resources. The study was performed by independent engineering consultant Kiewit Engineering Group Inc. The study included review and input from an independent demolition contractor North American Dismantling Corporation. The study also included review and input from independent hazardous materials abatement contractors Winter Environmental and ARC Abatement. Two additional independent demolition contractors, Bierlein Companies, Inc. and Brandenburg Industrial Service Company, also reviewed the Decommissioning Studies results.

IV. COMPARISON TO PREVIOUS ESTIMATES

Q. Please describe the difference between the Decommissioning Studies and previous decommissioning estimates prepared by the Company?

A. The Decommissioning Studies provide an AACE Class 3 estimate for demolition, salvage, and scrap costs for the facilities studied. An AACE Class 3 cost estimate has an expected accuracy of minus 20 percent to plus 30 percent. The typical purpose of

[4] AACE is a 501(c)(3) non-profit professional association founded in 1956 that offers publications, practice guides, education, certification and recommended practices for cost estimating.

a Class 3 estimate is for budget authorization or control.

Previous decommissioning cost estimates were extrapolated from AACE Class 5 estimates for demolition of a limited subset of PacifiCorp's owned and operated coal-fired facilities. A Class 5 study has an expected accuracy of minus 50 percent to plus 100 percent. The typical purpose of a Class 5 estimate is for concept screening. It should also be noted that the underlying scope and design basis for the previous decommissioning cost estimates was refined and expanded in response to scoping feedback from stakeholders during the Multi-State Process negotiations.

Q. Please describe the major differences between the previous estimates and the current Decommissioning Studies.

A. The differences between the previous estimates and the current Decommissioning Studies are primarily in the method, estimate class, scope, assumptions for ARO and environmental liabilities, site reclamation, owner's costs and contractor indirect costs applied to the current Decommissioning Studies.

Q. What is the change to the method of estimating decommissioning costs used in the Decommissioning Studies?

A. The previous estimates developed demolition costs and salvage values for three coal-fired generating facilities that were intended to be generally representative of the broader coal-fired generating fleet. The cost of demolition and salvage for the generating facilities that were not directly studied were extrapolated to establish estimates using generally comparable generating facilities that had been studied. The current Decommissioning Studies estimate the cost and salvage values for each

generating facility individually.

Q. What is the change to the estimate class?

A. The previous estimates utilized an AACE Class 5 estimating approach with an expected accuracy of minus 50 percent to plus 100 percent. The current Decommissioning Studies use an AACE Class 3 estimating approach study with an expected accuracy of minus 20 percent to plus 30 percent.

Q. Please describe the scope of the estimate in the Decommissioning Studies.

A. The scope of the previous estimates was focused primarily at a facility level and limited to individual generating units. The previous estimates did not include infrastructure and utilities outside the plant perimeter. The current study focused on individual units as well as all common plant facilities, both inside and outside the facility perimeter.

Q. How were AROs addressed in the Decommissioning Studies?

A. During the time between the previous estimates and the current study, the scope and cost of AROs changed as existing obligations were completed and new obligations were incurred. In addition, the scope of the current study included reviewing the cost of PacifiCorp's ARO estimates. Where the consultant found that the consultant's estimate for an ARO was significantly different than PacifiCorp's estimate, the consultant included their estimate for the ARO in the Decommissioning Studies. The net result was a total increase of approximately $104.3 million for Jim Bridger Unit 1-4 (Jim Bridger) and Colstrip Unit 4 generating facilities.

Q. Did the Decommissioning Studies address site reclamation?

A. Yes. The current Decommissioning Studies include site reclamation at an estimated cost of $14.5 million for Jim Bridger and Colstrip Unit 4 generating facilities. Reclamation scope assumptions include grading to meet permit conditions and match existing terrain as much as reasonably possible, installing top soil, and seeding for native plants. The previous estimates did not include site reclamation.

Q. How did the Decommissioning Studies address owner's cost and contractor indirect costs?

A. The previous estimates did not include owner's project development and oversight costs or itemized competitive market contractor indirect costs. The current Decommissioning Studies include owner's project development and oversight costs. Owner's costs include the cost of preparing the facility for the work, project management, long-lead permitting, and site demolition management.

V. RESULTS

Q. Please summarize the results of the Decommissioning Studies for Jim Bridger and Colstrip Unit 4.

A. Confidential Exhibit CAT-29C contains a table showing the base decommissioning cost results of the Decommissioning Studies for Jim Bridger and Colstrip Unit 4, excluding certain costs that may be considered outside of base decommissioning costs or require additional steps to refine their accuracy. Confidential Exhibit CAT-30C contains a table summarizing those other costs that will be associated with decommissioning and demolition of Jim Bridger and Colstrip Unit 4 but are outside of the base decommissioning costs. Owner's costs and contractor indirect costs are

also summarized separately in Confidential Exhibit CAT-31C.

Q. What costs were included in the total base decommissioning and demolition costs for each facility?

A. In general terms, the base decommissioning costs include the costs for: (1) developing the decommissioning project including the site investigation; (2) decommissioning the facility, decontaminating activities, and preparing the facility for the demolition contractor; (3) dismantling and demolition of the facility less the offset value of salvage and scrap; (4) completing the ARO, site remediation, and site restoration; and (5) the estimates of competitive market contractor margin and indirect costs.[5] The costs and offsets were adjusted to PacifiCorp ownership values for each facility studied.

Q. Were there any offsets to the estimated base decommissioning and demolition costs?

A. Yes. Demolition costs are offset by the value of salvage and scrap. Estimated salvage value is based on the projected value of equipment, materials, and commodities that could be sold. Estimated scrap value is based on the estimated then-current market prices of steel, titanium, copper based metals, and other valuable metals.[6]

Q. Do the Decommissioning Studies incorporate other costs in relation to decommissioning?

A. Yes. Other costs incorporated in the Decommissioning Studies that may be considered outside of decommissioning costs include: (1) assets for which cost

[5] Jim Bridger Decommissioning Study at 20-25; Colstrip Decommissioning Study at 21-28.
[6] Jim Bridger Decommissioning Study at 15-16 and 24; Colstrip Decommissioning Study at 16-18 and 25.

recovery is accounted for through mechanisms other than depreciation; (2) assets that do not present an immediate hazard, nuisance, or need to decommission and remediate, including asbestos coated piping; (3) coal pile subsurface excavation and remediation and above-ground asbestos remediation costs that have been estimated, but will be further evaluated in the next steps; and (4) material and supply inventory and rolling stock dispensation.[7]

Q. Is PacifiCorp conducting other efforts to more accurately estimate the decommissioning costs?

A. Yes. The Decommissioning Studies assumed removal of 10 feet of coal-laden soil under the current coal piles at each facility. PacifiCorp is planning to conduct a coal pile boring study to improve the coal pile subsurface excavation, remediation, and haul off cost estimate for each facility studied. PacifiCorp is also planning to conduct an asbestos study for each facility studied to improve asbestos abatement costs.

Q. Does this conclude your supplemental testimony?

A. Yes.

[7] Jim Bridger Decommissioning Study at 24-25; Colstrip Decommissioning Study at 26-28.