BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of PACIFICORP (U 901 E), an Oregon Company, for an Order Authorizing a General Rate Increase Effective January 1, 2019.

Application No. 18-04-002 (Filed April 12, 2018)

And Related Matter

I.17-04-019

REPLY BRIEF OF PACIFICORP (U 901 E)

[PUBLIC VERSION]

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Dated: February 8, 2019

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REPLY BRIEF OF PACIFICORP (U 901 E) [PUBLIC VERSION]

In accordance with the schedule specified in the Assigned Commissioner's Scoping Memo and Ruling, as subsequently modified by the January 22, 2019 Email Ruling Extending Briefing Schedule issued by Administrative Law Judge Eric Wildgrube, PacifiCorp d/b/a Pacific Power (PacifiCorp) hereby submits its Reply Brief in the above-captioned docket.

I. <u>EXECUTIVE SUMMARY</u>

In this Reply Brief, PacifiCorp responds to the Opening Briefs of the Public Advocates Office (Cal PA), Sierra Club, and TURN. As indicated in PacifiCorp's Opening Brief, there are a substantial number of issues in the consolidated General Rate Case (GRC) and Order Instituting Investigation (OII) that are uncontested, and those issues should be resolved as proposed in PacifiCorp's Application and prepared testimony.¹

¹ Opening Brief of PacifiCorp, pp. 2–3.

Α. **Public Advocates Office**

Notably, Cal PA's opening brief makes no mention whatsoever of any of PacifiCorp's rebuttal testimony or the company's revised rate request and fails to respond to the substantive arguments in the rebuttal testimony that contradict Cal PA's positions. Cal PA simply duplicates the content of its direct testimony and assembles it into a brief. Because Cal PA failed to address any of PacifiCorp's rebuttal testimony, the few contested issues between PacifiCorp and Cal PA should be decided in favor of PacifiCorp. PacifiCorp responded to each of Cal PA's arguments with extensive rebuttal testimony. In particular, these issues involve the Return on Equity (ROE) setting the Cost of Capital in the rate effective period, and an adjustment to PacifiCorp's incentive compensation program costs. On all other issues, PacifiCorp and Cal PA are in agreement.

В. **TURN**

TURN's opening brief makes only three recommendations: First, that the Commission should reject PacifiCorp's proposal for accelerated depreciation of its coal-fired generation units, and delay consideration until a "future request to alter depreciation schedules for its California customers." But TURN's suggestion to simply delay consideration of coal unit depreciation lives is not supported by its testimony. Indeed, TURN submitted no testimony on the subject whatsoever. TURN's cross-examination of PacifiCorp witnesses did reveal that there are significant reasons to accelerate the depreciation of the coal units now,³ reasons that were endorsed by Cal PA. 4 TURN's assertion that there is no connection between accelerated depreciation and resource planning choices is disproved by the prepared testimony of PacifiCorp and Cal PA, as well as by testimony elicited in cross-examination. PacifiCorp's accelerated

² Opening Brief of The Utility Reform Network (TURN), p. 1.

³ RT Vol. 3, pp. 155 (line 4)–56 (line 5) (Lockey/PacifiCorp).

⁴ Exh. Cal Advocates-07, pp. 8 (line 3)–9 (line 9).

depreciation proposal should be adopted precisely because it provides additional flexibility to respond to resource planning issues that may arise in relation to the coal units.

Second, TURN recommends that PacifiCorp submit extensive additional information regarding the dispatch of its coal units in future Energy Cost Adjustment Clause (ECAC) proceedings.⁵ Again, this recommendation was not addressed in TURN's testimony and it is procedurally improper to introduce it in its post-hearing brief. There is no record evidence to support TURN's suggestion, and PacifiCorp was denied any opportunity for its witnesses to address this proposal on the record.⁶ In addition, in future ECAC proceedings, TURN has the ability to propound discovery questions on these issues. Thus, there is no reason for the Commission to mandate extensive information disclosures by PacifiCorp until and unless TURN raises such issues in the next ECAC. TURN has not raised any such issues in past PacifiCorp ECAC proceedings.

TURN's final recommendation in its opening brief is to sunset the alternative compliance mechanism by which PacifiCorp complies with the California Emissions

Performance Standard (EPS). As detailed below, PacifiCorp qualifies for the alternative compliance standard created by the Legislature and adopted by the Commission, and its expenditures for maintenance and emissions control equipment at its coal units do not violate either the EPS or the alternative compliance standard. TURN's contention that such

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⁵ Opening Brief of TURN, pp. 1, 12.

⁶ See, e.g., *Application of California-American Water Company for Authorization to Increase its Revenues, etc.*, D.18-12-021, p. 59 ("This issue was raised for the first time in ORA's opening brief, and therefore, the record does not contain information regarding the impact of [ORA's proposals]."); *Go Printing, Inc. v. PG&E*, D.18-11-030, p. 10 ("Complainant is raising these issues for the first time in its Opening Brief and there is insufficient evidence to support these allegations."); *Application of PG&E Proposing a Market Structure and Rules for the Northern California Natural Gas Industry, etc.*, D.03-12-061, p. 129 ("The transmission capacity to obtain fuel for the DWR contracts was not raised in the testimony of any of the parties in this proceeding. Accordingly, that issue does not need to be addressed in this proceeding.").

expenditures must be considered long-term financial commitments fails to acknowledge the Commission's contrary view stated in the decision implementing the alternative compliance mechanism.⁷

C. <u>Sierra Club</u>

Sierra Club has made several recommendations in the consolidated proceedings, many of which differ substantially from those presented in its testimony.⁸ The Commission should reject Sierra Club's revised proposals because they are unsupported by the evidence and legally deficient.

Sierra Club urges the Commission to find that PacifiCorp has failed to engage in least-cost planning. This notion is disproved by the extensive direct and rebuttal testimony of PacifiCorp explaining its comprehensive integrated resource plan (IRP) process and how the IRP supports least-cost, least-risk planning and operation of PacifiCorp's system. Sierra Club's claim also disregards the biennial IRPs themselves, voluminous planning documents which PacifiCorp has filed with the Commission for many years.

Based on the faulty premise that PacifiCorp does not conduct least-cost planning, Sierra Club proposes that PacifiCorp be required to submit detailed resource planning testimony in every ECAC application to prove whether specific generation units provide benefits to customers. Because this recommendation was not made in Sierra Club's testimony, PacifiCorp

⁷ TURN's witness recommended in his OII testimony that the Commission disallow the costs of "long term financial commitments" that extend the lives of PacifiCorp's coal units. (Exh. TURN-1, p. 3 (lines 3–6).) However, TURN did not discuss or advocate for its witness' recommendation in its Opening Brief. PacifiCorp opposes this recommendation for the same reasons cited in response to the Sierra Club's assertion that such commitments violate the Emission Performance Standard. (See Section XII.A., *infra*.)

⁸ Sierra Club's Opening Brief, pp. 5–7. As noted in fn. 6 *infra*, it is procedurally improper for Sierra Club to raise claims for the first time in its post-hearing brief.

⁹ Opening Brief of PacifiCorp, pp. 54–65.

¹⁰ Exh. PAC/1800, p. 6 (lines 4–7).

was unable to respond to it in rebuttal or during the hearing. It is clear, however, that such a requirement would result in wasteful duplication of information provided in the IRP and ECAC proceedings and impose unnecessary burdens on the Commission and all of the parties to these proceedings.

In another new claim, Sierra Club contends that PacifiCorp failed to establish the reasonableness of the capital investments and maintenance costs at all of its coal units between 2011 through 2018 and seeks to disallow all such past expenditures whether reflected in this case or past ECAC or Post Test-year Adjustment Mechanism (PTAM) filings.¹¹ This new claim is unsupported by the evidence, procedurally improper, and barred by retroactive ratemaking principles.

Sierra Club has also improperly expanded its challenge to the reasonableness of capital costs for PacifiCorp's coal units for the test year 2019, from ten specific units to *all* of PacifiCorp's coal units. Relatedly, Sierra Club recommends that the Commission find that retirement of some coal units by 2022 would benefit customers (without specifically defining which units), and prospectively prohibit any spending at those coal units beyond 2022 without specific justification.¹²

PacifiCorp's evidence supports the relatively modest capital costs associated with continued operation and maintenance of its coal units for the test period. Contrary to Sierra Club's claims, there is no evidence that the capital expenditures in the test year or beyond are

Originally, Sierra Club sought to disallow past expenditures related only to the specific emissions control expenditures it challenged at the Jim Bridger, Hayden, Craig and Naughton plants. (See PacifiCorp Opening Brief, pp. 52–53.)

¹² Sierra Club's Opening Brief, pp. 21–22.

imprudent or unnecessary, or that PacifiCorp's coal units are not cost-effective. Sierra Club points to studies being developed in the company's ongoing 2019 IRP process to support its claims, but the record is clear that these studies are preliminary, do not yet reflect the full costs and reliability impacts of combined plant retirements by 2023, and do not indicated which units, if any, could be cost-effectively retired by 2023. It should also be noted that Sierra Club avoided cross-examining the PacifiCorp witness most qualified to discuss the IRP process and analysis of coal-related expenditures, Mr. Rick T. Link. PacifiCorp's other witnesses referred Sierra Club to Mr. Link or his testimony approximately 40 times, while Serra Club only asked Mr. Link a handful of questions that largely failed to address the information Sierra Club sought from the other witnesses. Is

Sierra Club reiterates its past recommendations to deny recovery of the emissions control equipment installed at Jim Bridger Units 3 and 4 and at Naughton Unit 1 (which has been reflected in California rates since 2012). Sierra Club has not addressed any of the evidentiary and legal deficiencies of these claims. ¹⁶ In addition, Sierra Club appears to have dropped its challenge to emissions control equipment installed at the Craig and Hayden plants, because Sierra Club failed to include these plants in its summary of recommendations in its Opening Brief.

¹³ RT Vol. 3, pp. 112 (line 22)–113 (line 1), pp. 116 (line 24)–117 (line 3), pp. 172 (line 1)–173 (line 16) (Lockey/PacifiCorp); see *id.* at p. 105 (lines 10–26), pp. 131 (line 20)–132 (line 3).

¹⁴ RT Vol. 3, p. 105 (lines 10–26), p. 111 (lines 6–11), p. 113 (lines 7–8), pp. 116 (line 24) –117 (line 3), p. 130 (lines 6–15); Exh. PAC/1800, pp. 26 (line 19)–27 (line 14), p. 28 (lines 8–19); see *id.* at p. 30 (lines 10–13).

¹⁵ RT Vol. 4, pp. 392 (line 15)–398 (line 17).

¹⁶ Exh. PAC/400, pp. 3 (line 15)–16 (line 2); Exh. PAC/500, pp. 15 (line 1)–25 (line 15); Exh. PAC/1600, pp. 9 (line 10)–25 (line 20), pp. 26 (line 5)–27 (line 7); Exh. PAC/1700, pp. 2 (line 8)–12 (line 13); Exh. PAC/1800, pp. 31 (line 5)–43 (line 2).

Like TURN, Sierra Club recommends that the Commission should no longer permit PacifiCorp to use the alternative compliance mechanism for EPS compliance. As stated in response to TURN's argument, PacifiCorp has provided record evidence that establishes its compliance with the alternative compliance standard adopted by the Commission.¹⁷ Sierra Club also mischaracterizes PacifiCorp's expenditures for maintenance and emissions control equipment at its coal units as "long term financial commitments" that are not in compliance with either the EPS or the alternative compliance standard. However, Sierra Club, like TURN, fails to explain why its assertion is not undermined by the Commission's determination when implementing SB 1368 that not all maintenance costs or additions of pollution control equipment trigger the EPS.¹⁸

Finally, Sierra Club recommends that the Commission reject the accelerated depreciation lives proposed by PacifiCorp. As explained in detail below, PacifiCorp's accelerated depreciation proposal provides additional flexibility to respond to economic or environmental regulatory issues that may affect the operational lives of PacifiCorp's coal units. Cal PA's testimony supports PacifiCorp's recommendation and concludes that the depreciation proposal is a reasonable means of reducing risk for utility customers.¹⁹

II. POLICY TESTIMONY

Only two issues in the category of Policy Testimony are contested by the parties. PacifiCorp recommends adoption of its proposals for the ECAC and PTAM mechanisms, and a reduction to Cal PA's proposed adjustment for the company's incentive compensation program to exclude only those cost elements related to factors the Commission has excluded in past decisions.

¹⁹ See Section V., pp. 17–23, *infra*.

Opening Brief of PacifiCorp, pp. 112–115.
 D.07-01-039, p. 52; Opening Brief of PacifiCorp, pp. 114–115; See also pp. 42–45, *infra*.

A. ECAC and PTAM Mechanisms

PacifiCorp requests that it be permitted to retain the PTAM attrition factor and make minor adjustments to its ECAC mechanism to properly address Production Tax Credits (PTC) and Start Up Fuel Costs.²⁰ PacifiCorp's position is not opposed by Cal PA.²¹ Nor has any party objected to the proposed adjustments for PTC and Start Up Fuel Costs.

Sierra Club Proposes to Require Resource Planning in ECAC Proceedings
Sierra Club claims that "it takes no position on the Commission's decision to
retain the ECAC and PTAM mechanisms." However, Sierra Club goes on to present a new
recommendation in its Opening Brief, unsupported by any testimony, that no net power costs
from coal-fired units be permitted rate recovery by means of the ECAC mechanism unless
supported by resource planning testimony to establish that the generation units in question have
"been proved to be valuable to customers." This suggestion would improperly inject a full IRP
analysis into ECAC proceedings, and should be rejected by the Commission as duplicative and
unwieldy. In complete contradiction to its own proposal, Sierra Club admits that the ECAC
mechanism is not designed for a "rigorous resource planning review."

PacifiCorp submitted substantial testimony in this case detailing its IRP process, and stated that it is now in the process of developing its 2019 IRP. PacifiCorp has been continually modeling its coal fleet since the 2011 IRP,²⁵ and the 2019 IRP will provide an even more detailed review of the cost effectiveness of the company's generation units.²⁶ Sierra Club and other parties are participating in the 2019 IRP process now underway and will have the

²⁰ Opening Brief of PacifiCorp, pp. 12, 17–19.

²⁵ See pp. 24–30, *infra*.

²¹ Opening Brief of the Public Advocates Office, p. 3.

²² Sierra Club's Opening Brief, p. 9.

²³ *Id.* at pp.8–9.

²⁴ *Id.* at p. 9.

²⁶ Opening Brief of PacifiCorp, p. 60.

opportunity to respond to the final 2019 IRP, once it is filed with PacifiCorp's state commissions later this year.²⁷ Given the robust, multi-state IRP process already in place for PacifiCorp, it is unnecessary to add a new resource planning process to annual ECAC proceedings. Sierra Club's recommendation would frustrate and confuse the entire ECAC mechanism and waste the resources of the Commission and the parties by duplicating complex resource planning analyses in multiple cases.

ECAC proceedings are the appropriate place to examine the prudency of a particular element of net power costs, or to challenge the dispatch decisions of the utility to see if they comply with least-cost, least risk principles. In addition, significant capital investments in plants incurred between rates cases can be examined through the PTAM major capital additions procedure, usually through an advice letter filing by the utility. Sierra Club has had the opportunity in previous ECAC proceedings to challenge PacifiCorp's net power costs, but has not intervened in these cases. In addition, Sierra Club could have contested the regional haze compliance investments at Naughton Unit 1 when such costs were first put into rates in California through an advice letter. However, Sierra Club did not protest the advice letter. Before the Commission adopts Sierra Club's recommendation to drastically alter resource planning and ECAC proceedings at the Commission, Sierra Club should be forced to establish that the existing processes are not adequate. Sierra Club has clearly not met this standard.

²⁷ See *In the Matter of PacifiCorp d/b/a Pacific Power, 2019 Integrated Resource Plan*, Or. Pub. Util. Comm'n, Docket No. LC 70, Petition to Intervene of Sierra Club (June 26, 2018).

²⁸ Scoping Memo and Ruling of Assigned Commissioner and Joint Ruling with Administrative Law Judge, I.17-04-019, September 14, 2017, p. 11 ("We also find Sierra Club's suggested question about least-cost dispatch of coal plants to be outside the scope of this proceeding; that and related questions are more appropriately addressed in a future review of PacifiCorp's ECAC mechanism.") See also Assigned Commissioner's Scoping Memo and Ruling, A.18-04-002/I.17-04-019 (July 19, 2018) p. 5.

²⁹ Opening Brief of PacifiCorp, p. 86; Exh. PAC/1600, p. 4 (lines 7–15).

2. TURN Proposes Burdensome Disclosures in ECAC Applications

TURN makes equally resource-intensive and unnecessary recommendations for modifying PacifiCorp's ECAC mechanism. TURN suggests that:

[T]he Commission should direct PacifiCorp to submit, in its next ECAC, a quantification of total incremental dispatch of its generating units into wholesale markets to serve non-PacifiCorp loads both within California and across the West. This submission should include its general activities in Western bilateral markets and specific activities in the EIM. For purposes of presentation to the Commission, data for California and other Western loads should be separately displayed. The presentation should identify incremental generation, incremental operating and fuel costs, incremental market revenues, and incremental GHG emissions. PacifiCorp should provide this information separately for its bidding into the EIM, and also include bids submitted into the EIM and accepted by the EIM, both to serve California load and non-California load.³⁰

TURN's proposal seeks a combination of information that can be routinely provided through a data request in an ECAC proceeding, and information that is impractical to produce or just unavailable. In the first instance, TURN should make a data request in the next ECAC proceeding for much of the information it seeks. Information such as bi-lateral transactions in other western markets, information about resources bid into the EIM, savings generated by the EIM, and California-specific loads vs. western loads, are all types of information that PacifiCorp has provided to other parties in other net power cost proceedings.

TURN is also requesting information that is simply not possible for PacifiCorp to provide. Tracking and disclosure of incremental dispatch of PacifiCorp generating units used to serve non-PacifiCorp loads is currently not possible. PacifiCorp's witnesses could have addressed this if it were a proposal contained in TURN's testimony, but TURN did not raise the issue in its OII testimony and submitted no testimony regarding this proposal in the GRC. This

³⁰ Opening Brief of TURN, p. 12.

highlights the procedural problem caused by parties who create new proposals that are revealed for the first time in briefs. This does not permit other parties a reasonable opportunity to respond with record evidence, and such proposals should not be adopted by the Commission.

PacifiCorp's primary objection to TURN's proposal is that it is unnecessary and burdensome to require PacifiCorp to provide such information with every ECAC filing, when there is no assurance that any party, let alone TURN, will actually seek to obtain and use the data in such a case. Notably, TURN has not intervened in the last two PacifiCorp ECAC proceedings.³¹ Just as with Sierra Club's recommendation for adding IRP analyses to each ECAC proceeding, PacifiCorp urges the Commission to reject TURN's suggestion to require a mandatory data dump with each ECAC.

PacifiCorp wishes to emphasize that the introduction of new recommendations, unsupported by testimony, for the first time in briefs denies other parties the opportunity to respond to such proposals via record testimony, and violates due process. A GRC is not a rulemaking limited to notice and comment procedures, it is a ratemaking proceeding in which testimony is to be served on other parties and subjected to cross examination. The Commission should reject the newly minted proposals of TURN and Sierra Club as untimely and improper.³²

B. Incentive Compensation

In both its rebuttal testimony and its Opening Brief PacifiCorp explained in detail why Cal PA's proposed disallowance regarding incentive compensation is excessive. The Cal PA recommendation does not take into account the fact that the incentive methodology is based on six factors, not three.³³ In addition, the specific components of the methodology that Cal PA objected to as having no direct customer benefit—customer satisfaction surveys and the financial

³¹ A.17-08-005, A.18-08-001.

³² See the authorities cited in fn. 6, *supra*.

³³ Opening Brief of PacifiCorp, p. 13; Exh. PAC/1400, p. 18 (lines 8–18).

strength of the utility—comprised a much smaller proportion of the incentive compensation calculation than the two-thirds that Cal PA assumed.³⁴ However, Cal PA's opening brief ignored PacifiCorp's rebuttal testimony on this issue, simply reiterated Cal PA's direct testimony, and offered no further support for their proposed disallowance.³⁵ Therefore, PacifiCorp's rebuttal testimony is uncontradicted and should form the basis for the Commission's decision on this issue. The Cal PA disallowance should be reduced to just that portion related to customer survey activity and financial strength benchmarks, as calculated in the PacifiCorp rebuttal testimony.³⁶

C. 2018 Income Tax Adjustment

The Cal PA opening brief accurately recites the steps that PacifiCorp has taken to book tax savings in a memorandum account to be returned to customers at a later date.³⁷ Both Cal PA and PacifiCorp agree that the tax savings should be returned to customers.

III. <u>INTER-JURISDICTIONAL COST ALLOCATION METHODOLOGY</u>

A. <u>Issues from OII—Reasonableness of Rates</u>

No party submitted any testimony or raised issues on brief related to the existing cost allocation methodology used by PacifiCorp in California. The reasonableness of rates from the existing Revised Allocation protocol should be verified in the decision

B. <u>Issues from GRC—2017 Protocol</u>

No party submitted any testimony or raised issues on brief related to the new cost allocation methodology proposed by PacifiCorp in this Application. Accordingly, the 2017 Protocol Allocation Methodology should be adopted going forward

³⁴ Opening Brief of PacifiCorp, p. 16; Exh. Cal Advocates-04, pp. 9 (line 24)–10 (line 3).

³⁵ Opening Brief of the Public Advocates Office, pp. 58–61.

³⁶ Opening Brief of PacifiCorp, p. 16.

³⁷ Opening Brief of the Public Advocates Office, p. 3.

IV. COST OF CAPITAL

A. <u>Capital Structure</u>

As indicated in PacifiCorp's opening brief, there is no dispute between Cal PA and PacifiCorp on the proposed capital structure for the rate effective period.

B. Cost of Debt and Preferred Stock

No party disputes the cost of debt and cost of preferred stock proposed in PacifiCorp's Application.³⁸ Accordingly, PacifiCorp's proposals on these matters should be adopted by the Commission.

C. Return on Equity

The Commission should set the ROE for PacifiCorp at 10.6 percent. This level of return is appropriate and supported by substantial evidence in the record. The range of reasonable equity returns based upon the financial models and comparable earnings and allowed returns extends from 9.38 percent (the average of the Discounted Cash Flow (DCF), Capital Asset Pricing Model (CAPM) and Risk Premium model results using the updated data in PacifiCorp witness Mr. Kurt Strunk's rebuttal testimony) to 10.48 percent (the average of all methods considered by Mr. Strunk as set forth in Exhibit PAC/1504).³⁹ While the Cal PA focuses exclusively on the DCF, CAPM and the Risk Premium models, the data used by Mr. Strunk to derive a fair return--yielding an overall average of 10.48 percent--is more comprehensive and informative than the narrow approach employed by Cal PA. In addition, as Mr. Strunk has pointed out, there are several important factors that warrant a return set at or

³⁸ Opening Brief of PacifiCorp, pp. 28–29.

³⁹ Exhibit PAC/1504.

above the higher end of the range of reasonable returns, factors that with one exception were not considered or even addressed by Cal PA.⁴⁰

Cal PA did not review or consider the more recent data used by PacifiCorp's witness to update his financial model analysis. Cal PA's opening brief describes the proxy group selected by PacifiCorp for the ROE analysis by referring only to the proxy group included in Mr. Strunk's direct testimony. Nowhere does Cal PA acknowledge that Mr. Strunk made changes to the proxy group in his rebuttal testimony to account for changes in some of the listed companies. Cal PA refers to Mr. Strunk's analyses as having been performed in February 2018, when the updated financial models described in his rebuttal testimony were based on data from October 2018. It is important for the Commission to understand that PacifiCorp's witness relied on more recent data than the data considered by Cal PA, and that is a primary reason that Mr. Strunk's financial model results produced an average return of 9.38 percent rather than the 8.94 percent recommended by Cal PA. As Cal PA's cost of capital analysis is simply a recitation of their direct testimony, all of Mr. Strunk's criticisms of Cal PA's analysis as set forth in his rebuttal testimony still hold true, and have not been contradicted by any record evidence.

Beyond its reliance on an overly narrow set of indicators of a fair return, perhaps the greatest weakness in the Cal PA cost of capital analysis is its complete failure to consider additional risk issues that can affect the return required by a utility's investors. These factors

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⁴⁰ Exhibit PAC/1500, pp. 2 (line 9)–4 (line 5).

⁴¹ Opening Brief of the Public Advocates Office, pp. 10–11.

⁴² Exhibit PAC/1500, pp. 16–18.

Opening Brief of the Public Advocates Office, pp. 12, 15, 16, and 20.

⁴⁴ Exhibits PAC/1506, 1507, 1508, 1509, 1510.

⁴⁵ Exhibit PAC/1504; Opening Brief of the Public Advocates Office, p. 10.

⁴⁶ Exhibit PAC/1500, pp. 2 (line 9)–4 (line 5).

include current economic conditions, where the trend of rising interest rates and increase volatility in equity markets will drive investors to require higher returns.⁴⁷ Nor does Cal PA discuss or take into account the need to adjust the DCF financial model to account for unrealistically low returns the model provides under current market conditions⁴⁸

PacifiCorp has identified other risk factors applicable to PacifiCorp that are not accounted for in the allowed returns of other utilities across the nation, most of which were completely ignored in Cal PA's cost of capital analysis. One such risk factor is PacifiCorp's strategic plan to transition away from its current level of reliance on coal-fired generation and to add substantial renewable generation resources to its portfolio. This effort will require substantial additional capital investment, which in turn increases overall investment risk for the company. 49 PacifiCorp also faces additional business and regulatory risk due to factors that lower customer demand, including energy efficiency, net metering, and the potential for stranded costs due to departing load in the event that community choice aggregation (CCA) is offered to customers in PacifiCorp's service territory. ⁵⁰ Cal PA does comment on the risk of load loss due to community choice aggregation in its opening brief.⁵¹ However, Cal PA has understated the risk of CCA development, both in terms of how quickly a CCA could enter PacifiCorp's service territory, and the risk perceived by investors even before a CCA begins operation.⁵² Cal PA does make one new argument in its opening brief with regard to CCA risk, stating, "the California allotted portion of PacifiCorp's generation assets are included in rate base for TY 2019, and PacifiCorp will earn a full return on these assets. Thus, there is no risk to PacifiCorp from the

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⁴⁷ Exh. PAC/200, p. 4 (lines 1–6); Exh. PAC/1500, pp. 6 (line 19)–9 (line 2).

⁴⁸ Opening Brief of PacifiCorp, pp. 35–36.

⁴⁹ Exh. PAC/200, p. 30 (lines 1–15).

⁵⁰ Opening Brief of PacifiCorp, pp. 39–41.

⁵¹ Opening Brief of the Public Advocates Office, pp. 21–23.

⁵² Opening Brief of PacifiCorp, pp. 40–41.

CCA program."⁵³ This statement does not address the full range of risks from load departing to CCA service. Even though PacifiCorp's capital investment in generation plant may be in rate base, the company can still face stranded costs due to load lost for other net power costs, such as the cost of power purchased under a PPA or a long-term import contract. Such costs may also be shifted to the remaining bundled customers to their detriment. Neither result is healthy for the utility and its customers. As indicated in PacifiCorp's opening brief, there is no comparable PCIA mechanism in place for PacifiCorp at this time.⁵⁴ If a CCA were to commence operation it is difficult to predict what regulatory mechanism would address potentially stranded power costs. This uncertainty creates a tangible risk that is well understood by investors. The Commission should take note of the testimony of Mr. Strunk regarding investor concerns about potential stranded cost issues in provider of last resort situations.⁵⁵

Finally, PacifiCorp, like all California utilities, faces increased risk from wildfires, and this risk has been determined by ratings agencies and investors to increase investment risk in California utilities.⁵⁶ The recent bankruptcy filing by Pacific Gas and Electric Company is compelling proof that California wildfires create significant risk for electric utilities operating in the state.⁵⁷

In summary, Cal PA ignored PacifiCorp's cost of capital rebuttal testimony, failed to address the need for adjustments to a standard DCF analysis, did not analyze additional business risk even though the Commission has adjusted ROE for such risks in the past, ⁵⁸ failed to

⁵⁸ Opening Brief of PacifiCorp, pp. 44–45.

⁵³ Opening Brief of the Public Advocates Office, p. 23.

⁵⁴ Opening Brief of PacifiCorp, pp.39–40.

⁵⁵ Exh. PAC/200, pp. 35 (line 19)–47 (line 14).

⁵⁶ *Id.* at pp. 9 (line 16)–11 (line 10).

⁵⁷ United States Bankruptcy Court in the Northern District of California, *In re PG&E Corporation, Debtor*, Case Nos. 19-30088 and 19-30089, filed January 29, 2019.

take into consideration a substantial number of such additional risks applicable to PacifiCorp, did not consider comparable returns in its analysis, and failed to consider the impact of current and expected economic conditions on required returns.

When all these issues are properly considered by the Commission, it lends strong support for the conclusion that a reasonable return for PacifiCorp must be set at or just above the upper end of the range of reasonable returns for comparable electric utilities. The recommendation of PacifiCorp to retain its current level of ROE at 10.6 percent is both reasonable and conservative in light of the significant increase in risk factors it now faces, relative to the conditions present during its previous GRC when the ROE of 10.6 percent was originally approved by the Commission.

V. ACCELERATED DEPRECIATION FOR COAL UNITS

PacifiCorp, supported by the testimony of Cal PA,⁵⁹ urges the Commission to approve its recommendation for accelerating the depreciation of its coal-fired generation units, by returning them to the depreciable lives in place prior to 2007. This will permit all of the coal units to be fully depreciated between 2023 and 2029. Accelerating the depreciation on these units will increase the company's ability to respond to changing economic conditions and environmental requirements for the coal units, while reducing the risk of increased costs in the future for its customers should the coal plants be retired before all their costs are recovered in rates.⁶⁰ The prospect of full or even partial recovery of the remaining book value of these coal plants, combined with the need to purchase replacement power or generation capacity could impose a significant burden on ratepayers. Cal PA agreed that accelerating depreciation is an

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⁵⁹ Opening Brief of Public Advocates Office, pp. 25–26.

⁶⁰ Opening Brief of PacifiCorp, pp. 49–52.

appropriate step to mitigate such risks. 61 Now is the appropriate time to undertake the accelerated depreciation, while other factors mitigate the increase in depreciation costs, with the net result being just a small increase in PacifiCorp's retail rates.⁶² The proposed accelerated depreciation will not adversely affect PacifiCorp's customers. In fact, it will reduce risk for both customers and the utility.

Α. Sierra Club

Sierra Club asserts without authority that PacifiCorp's accelerated depreciation proposal produces no customer benefits. This is not accurate. Both PacifiCorp and Cal PA identified such benefits in their testimony, including testimony in the hearing room. ⁶³ Equally inaccurate is the assertion of Sierra Club that the bulk of PacifiCorp's coal fleet is already uneconomic.⁶⁴ As PacifiCorp witnesses explained, there are no IRP studies that conclude that the bulk of PacifiCorp's coal fleet is uneconomic.⁶⁵ In particular, the December 2018 coal analysis, upon which Sierra Club so heavily relies, is only a preliminary study⁶⁶ that does not purport to address all of the elements of a complete IRP analysis, including consideration of costs, operational impacts, and reliability issues related to multiple plant retirements. These issues will be considered in PacifiCorp's ongoing 2019 IRP process.⁶⁷

Sierra Club also severely mischaracterizes PacifiCorp's witness' testimony on the recovery of retired or abandoned plant, and how such an event affects shareholders and customers. Sierra Club states that the "stranding" of an asset is a risk borne by shareholders

⁶¹ Opening Brief of Public Advocates Office, p. 26. ⁶² Opening Brief of PacifiCorp, pp. 49–50.

⁶³ Exh. PAC/1400, pp. 9 (line 9)–10 (line 7); RT Vol. 3, p. 176 (lines 6–25) (Lockey/PacifiCorp); Exh. Cal Advocates-07, p. 8 (lines 3–21).

⁶⁴ Sierra Club's Opening Brief, pp. 10–11; RT. Vol. 3, p. 112 (lines 24–28) (Lockey/PacifiCorp).

⁶⁵ RT. Vol. 3, p. 110 (lines 17–25) (Lockey/PacifiCorp).

⁶⁶ RT. Vol. 3, p. 105 (lines 5–28) (Lockey/PacifiCorp); RT. Vol. 3, p. 109 (lines 9–21) (Lockey/PacifiCorp).

⁶⁷ RT. Vol. 3, p. 111 (lines 3–11) (Lockey/PacifiCorp).

alone. 68 Yet the testimony cited in footnote 18 on page 11 of Sierra Club's opening brief reveals no such statement. PacifiCorp witness Ms. Lockey did testify that accelerating depreciation reduces risk for the company, but she did not say the company always bears 100 percent of the risk. In fact, she testified that a variety of different outcomes are possible in a retired plant situation, and in many cases, the company can recover all or a portion of net book costs in rates, which customers will pay.⁶⁹

В. **TURN**

TURN proposes in its opening brief a \$5.24 million reduction in revenue requirement for PacifiCorp by eliminating the company's proposed accelerated depreciation for its coal units. This issue was not addressed by TURN's witness in the OII, and TURN served no testimony in the GRC. Once again, as in the case of TURN's recommendations related to the ECAC mechanism, TURN unfairly seeks to introduce a new recommendation without providing PacifiCorp the opportunity to address TURN's proposal through the testimony of its witnesses or other record evidence. Such last minute "testimony by attorney" should be disregarded by the Commission.⁷⁰

The substantive arguments that TURN offers in opposition to PacifiCorp's accelerated depreciation proposal are unpersuasive and speculative. TURN engages in unreasonable speculation about significant additional capital spending in the future at coal units, arguing that recovering the costs of new capital investments on an accelerated schedule could increase rates significantly.⁷¹ However, there is no record evidence of any significant new capital investments planned for the coal units under discussion in this case. PacifiCorp is simply

 ⁶⁸ Sierra Club's Opening Brief, p. 11.
 ⁶⁹ RT Vol. 3, pp. 156 (line 20)–157 (line 12) (Lockey/PacifiCorp).

⁷¹ Opening Brief of TURN, p. 4.

proposing to continue to inspect, maintain, and service its coal fleet.⁷² Indeed, as all parties are aware, the focus of the intervenors' efforts in this proceeding is to argue that a number of the coal units should be retired, and PacifiCorp is studying whether it would be cost effective and operationally prudent to retire any coal plants in its 2019 IRP.⁷³

TURN also misconstrues the relationship between depreciation lives and the operational lives of PacifiCorp's plant. The depreciable life for any asset is often based on an estimate of the number of years over which the asset will be used. The purpose of the depreciable life is to determine the time period over which the company recovers its investment. However, the depreciable life does not determine a date certain for the asset's retirement. Over the life of the asset, both the depreciable life and the operational life can be adjusted depending on multiple variables. PacifiCorp's proposal to accelerate the depreciable lives of the coal units is in response to changing circumstances, including environmental policies, regulations, and legislation.⁷⁴

TURN mistakenly asserts that there must be a "nexus between the timing of sunk cost recovery and decisions to operate or retire the plant." TURN misses the point. PacifiCorp is not proposing to accelerate the depreciation of its coal units to match some predetermined retirement date. It is taking advantage of a favorable overall cost environment that will allow accelerated recovery of the net book value of the coal units without raising customer rates significantly. This is valuable to both the company and its customers, and is strategically sound given the increasing uncertainty related to the operational future of the coal units—due to

⁷² Opening Brief of PacifiCorp, p. 66, fn. 254.

⁷³ *Id.* at p. 60, fn. 224.

⁷⁴ *Id.* at p. 50; Exh. Cal Advocates 07, p. 8 (lines 3–21).

⁷⁵ Opening Brief of TURN, pp. 4–5.

⁷⁶ Opening Brief of PacifiCorp, p. 49, fns. 174 and 176.

potential environmental regulations as well as economic competition from other sources of generation, including renewable assets.

The ability to reduce the possibility of stranded costs for the coal units during the transition to renewable resources without excessive rate increases is what PacifiCorp means by "flexibility," a term that TURN had difficulty understanding in the context of the accelerated depreciation proposal. Another way to measure the value of the flexibility that PacifiCorp seeks is to recall the testimony of Cal PA, which agreed with PacifiCorp that the coal units do face "stranding risks from future changes to state compliance plans with the federal EPA's Regional Haze Program and from the future possibility of stronger federal regulation of greenhouse gas emissions." Cal PA also noted that market pressures contribute risk to the coal units in the form of possible economic obsolescence, as natural gas and renewables will continue to exert market pressure on coal-fired power plants. Indeed, Cal PA agrees with PacifiCorp that the accelerated depreciation proposal is "a reasonable risk mitigation measure."

TURN prematurely focuses on a scenario in which PacifiCorp's coal units are retired with unrecovered stranded costs, even though it concedes that "the ultimate fate of these plants remains unclear." This is not a stranded cost or abandoned plant situation. Yet TURN cites cases regarding the ratemaking treatment for abandoned plant, suggesting that the accelerated depreciation proposal benefits only PacifiCorp shareholders by recovering the net book value of the plants before they are retired. However, it is not true that the only outcome of a plant retirement is for shareholders to bear all of the unrecovered costs. The Commission

⁷⁷ RT Vol. 3, pp. 182 (line 4)–183 (line 25) (Lockey/PacifiCorp).

⁷⁸ Exh. Cal Advocates-07, p. 8 (lines 3–21).

⁷⁹ *Ibid*.

⁸⁰ *Id.* at p. 9 (lines 2–9).

⁸¹ Opening Brief of TURN, p. 7.

⁸² Opening Brief of TURN, p. 6, fns. 14–16.

may deny a return on abandoned plant, but the net book costs may still be recovered in customers' rates. ⁸³ As PacifiCorp's witness testified, there is a range of outcomes that can result from the early retirement of a plant, including recovery of book value with a return, or a reduced return, or no return. ⁸⁴ But in many of these outcomes, customers will still pay most, if not all, of the unrecovered plant costs. Thus, accelerated depreciation provides tangible benefits to customers (as well as shareholders) by recovering the net book value before the plant's retirement, so that customers do not face the worst-case scenario of paying some portion of the retired plant's costs while also paying for the generation needed to replace that plant's generation. ⁸⁵

TURN attempts to suggest that the fact that a coal unit may remain in service after it is depreciated would conflict with the provisions of recently enacted SB 100, which contains language stating that the "achievement of this [100 percent zero-carbon resource] policy for California shall not increase carbon emissions elsewhere in the western grid and shall not allow resource shuffling." However, TURN cannot substantiate this claim. First, SB 100 was enacted in late August 2018, and became effective Jan. 1, 2019. The statute calls for the Commission, with the California Energy Commission and the California Air Resources Board, to "take steps to ensure that a transition to a zero-carbon electric system does not cause or

⁸³ See cases cited in Opening Brief of TURN, p. 6, fn. 14: D.85-08-046, 1985 Cal. PUC LEXIS 687, where the Commission allowed recovery in rates of the remaining plant investment for the Humboldt nuclear power plant, but denied a rate of return on the remaining plant balance; and D. 85-12-108, 1985 Cal. PUC LEXIS 1112, in which SDG&E was allowed to collect the unrecovered book value of power plants "in storage" over a 5 year period, but was not allowed to earn a return on the remaining plant balance.

⁸⁴ RT Vol. 3, pp. 156 (line 20)–157 (line 12) (Lockey/PacifiCorp).

⁸⁵ RT Vol. 3, p. 176 (lines 6-25) (Lockey/PacifiCorp).

⁸⁶ Cal. Pub. Util. Code § 454.53(a).

contribute to greenhouse gas emissions increases elsewhere in the western grid."⁸⁷ The Commission and its sister agencies have not yet enacted regulations or orders to implement SB 100, and as the target for completing a zero-carbon electric system is 2045, it may be some time before such regulations are forthcoming. Thus, it is impossible to say whether a future action by a PacifiCorp coal unit may conflict with future regulations not yet drafted by the Commission.

There are equally significant factual flaws in TURN's contention, as well. The PacifiCorp coal units that are under discussion in this proceeding already provide power to states other than California. PacifiCorp's generation fleet is dispatched to serve its entire system. That was clearly established in PacifiCorp's testimony. Whether a particular coal unit's net book value has been fully recovered (the issue related to the accelerated depreciation proposal) has no bearing on whether the plant is creating increased greenhouse gas (GHG) emissions in another state. TURN has offered no record evidence to establish that a continuation of existing dispatch protocols will create a change in emissions among the states PacifiCorp serves. Neither do the cost allocation proposals being discussed in the Multi-State Process Broad Review Working Group (MSP) support TURN's contention. The proposals being discussed in the MSP may adjust which states pay for coal units in the future, but those proposals are still under negotiation and in development. TURN's attempt to suggest a violation of SB 100 is not supported by any record evidence, and is premature at best, perhaps by as much as 26 years.

C. Cal PA Recommendations re Future GRC Depreciation Studies

Cal PA recommends that PacifiCorp include specific information as part of any future GRC proceeding to substantiate its depreciation showing. 90 PacifiCorp agrees to provide

⁸⁸ Exh. PAC/200-I, pp. 2-5 (line 19)–2-6 (line 1).

⁹⁰ Opening Brief of Public Advocates Office, p. 27–29.

⁸⁷ Cal. Pub. Util. Code § 454.53(a).

⁸⁹ Opening Brief of PacifiCorp, p. 26; RT Vol. 3, p. 178 (lines 9–20) (Lockey/PacifiCorp).

depreciation studies and other supporting information related to any depreciation proposals, as well as projections related to pre-funded removal costs for California distribution assets, as part of the application and testimony in its next GRC.

VI. RECOVERY OF CAPITAL EXPENDITURES ON COAL GENERATION UNITS

A. Coal Generation Modeling in PacifiCorp's IRP Process

1. There is No Evidence to Support Sierra Club's Claims that Most of PacifiCorp's Coal Plants are Uneconomic Today.

Sierra Club's Opening Brief contains several entirely new recommendations, including disallowance of all capital expenditures in PacifiCorp's coal plants since 2011, and disallowance of all capital for PacifiCorp's coal plants in the 2019 test period. Sierra Club bases these recommendations on the allegation that "many" or "the bulk" of PacifiCorp's coal plants are uneconomic and should be retired in the near term to save customers money, as well as the patently false statement that this allegation is "undisputed." There is no evidence that PacifiCorp's coal plants are uneconomic now or at the time the company made past investments in these plants.

Sierra Club relies heavily on the company's coal study information from its ongoing 2019 IRP process, presented at a public input meeting in December 2018. This information study, which is preliminary and incomplete, does not reflect the full costs and reliability impacts of combined plant retirements by 2023, nor does it indicate which units, if any, could be cost-effectively retired in 2023 taking into account system reliability

⁹¹ Sierra Club's Opening Brief, pp. 1, 3, 10-11, 12, 17–18.

requirements.⁹² Until on-going reliability studies are finalized and additional portfolio modeling is completed, no valid conclusions can be drawn from this preliminary, incomplete analysis. 93

Sierra Club also relies on unit-by-unit studies performed by its contractor, Synapse, as well as unit-by-unit analyses conducted by PacifiCorp in June 2018, and again in December 2018 as part of the company's most recent coal study. 94 None of these studies show that any generating unit is uneconomic today, or in the 2019 test period—a fact Sierra Club ignores. Moreover, each study's unit-by-unit analysis is of limited utility because it involves simplified assumptions and modeling, in particular, assuming that the coal unit being studied is viewed in isolation. Unit-by-unit studies do not consider the economic impact of retiring more than one unit, let alone nearly half of PacifiCorp's coal fleet, and therefore do not take into account the system-wide effects of cumulative retirements. 95 While unit-by-unit studies are useful for purposes of prioritizing which coal units merit closer examination using more sophisticated modeling tools in the resource planning process, it is inappropriate to draw conclusions from such studies about potential economic benefits or costs associated with early retirement of specific coal units.⁹⁶

⁹² RT Vol. 3, p. 105 (lines 10–26), pp. 112 (line 22)–113 (line 1), p. 113 (lines 7–8), pp. 116 (line 24)–117 (line 3), pp. 123 (line 23)–124 (line 2), p. 130 (lines 6–15), pp. 131 (line 20)–132 (line 3) (Lockey/PacifiCorp); Exh. OII-GRC-SC-Cross Exhibit-1, pp. 58–62, 99. 93 RT Vol. 3, p. 111 (lines 6–11) (Lockey/PacifiCorp).

⁹⁴ Sierra Club's Opening Brief, p. 18. As explained in PacifiCorp's opening brief, the Synapse study suffers from multiple deficiencies, including excluding key factors from consideration and reaching conclusions untethered from the limitations of the analysis. (Opening Brief of PacifiCorp, p. 67; see also Exh. PAC/1800, p. 30 (lines 4–19); Exh. PAC/1600-I, p. 15 (lines 3– 10).)

⁹⁵ Exh. PAC/1800, pp. 26 (line 15)–28 (line 11), p. 30 (lines 4–13); Exh. PAC/1600-I, p. 6 (lines 11-14).

⁹⁶ Exh. PAC/1800, pp. 26 (line 19)–27 (line 11), p. 30 (lines 9–13); RT Vol. 3, pp. 172 (line 1)– 173 (line 16) (Lockey/PacifiCorp); see also Exh. PAC/1800, p. 9 (lines 3–10).

PacifiCorp witness Mr. Rick T. Link clearly explained the limitations of unit-by-unit studies in his rebuttal testimony, as did PacifiCorp witness Ms. Etta Lockey at hearing. 97

Sierra Club disregards these cautions in its Opening Brief, continuing without explanation to draw overbroad and misleading conclusions from these studies. Specifically, Sierra Club improperly treats the individual unit results in PacifiCorp's December 2018 unit-by-unit analysis as cumulative, claiming these results confirm that "most" of PacifiCorp's coal fleet should be retired, when these unit-by-unit results only reflect the study of individual units in isolation. 98

Sierra Club also inappropriately sums together the present-value customer benefits for multiple units at the Naughton and Jim Bridger plants, when these figures are not additive for the same reason. 99 Most egregiously, however, Sierra Club continues to mischaracterize these results as depicting economic benefits from retiring a particular unit, effectively ignoring the limitations of the study, 100 which, as PacifiCorp's witnesses have repeatedly explained, does not account for system-wide economic and reliability impacts. 101

PacifiCorp's most recent December 2018 coal analysis included a preliminary "stacking" analysis to review how multiple, concurrent coal unit retirements interact systemwide. Sierra Club also points to this analysis to support its claims. As noted above, and as stated expressly on the face of the December 2018 public meeting presentation for PacifiCorp's

⁹⁷ Exh. PAC/1800, pp. 27 (line 19)–28 (line 11), p. 30 (lines 7–13); Exh. PAC/1600-I, p. 6 (lines 11–14), p. 14 (lines 2–9); RT Vol. 3, pp. 172 (line 1)–173 (line 16) (Lockey/PacifiCorp).

⁹⁸ Sierra Club's Opening Brief, pp. 19–20 (presumably summing figures from PVRR(d) columns in Exh. OII-GRC-SC-Cross Exhibit-1, pp. 9–12).

⁹⁹ *Id.* at pp. 19–20.

¹⁰⁰ *Id.* at pp. 18–20.

¹⁰¹ Exh. PAC/1800, p. 27 (lines 7–11), pp. 27 (line 19)–28 (line 11), p. 30 (lines 7–13); Exh. PAC/1600-I, p. 6 (lines 11–14), p. 14 (lines 2–9); RT Vol. 3, pp. 172 (line 1)–173 (line 16) (Lockey/PacifiCorp).

¹⁰² Exh. OII-GRC-SC-Cross Exhibit-1, pp. 58–62, 99; RT Vol. 3, pp. 172 (line 26)–173 (line 16); Exh. PAC/1800, p. 28 (lines 15–17).

2019 IRP process, this analysis does not yet include reliability analysis, including the incremental costs to address potential reliability issues. ¹⁰³ In fact, none of the studies summarized in the December 2018 public meeting presentation meet minimum reliability requirements. Furthermore, additional analysis will be required to layer in consideration of regional haze compliance alternatives in order to complete this study for the 2019 IRP. ¹⁰⁴ Sierra Club disregards these caveats to draw sweeping and inappropriate conclusions from the preliminary stacking study results, much as it did with the unit-by-unit studies. ¹⁰⁵

2. PacifiCorp's Coal Analyses Have Evolved Over the Years in Response to Stakeholder Feedback, and the Company is Evaluating Early Retirement Carefully in its 2019 IRP Cycle

To support its new and revised recommendations, Sierra Club continues to offer unwarranted critiques of the coal analyses PacifiCorp has performed in its resource planning processes, taking particular aim at the 2015 and 2017 IRPs. ¹⁰⁶ As described in PacifiCorp's Opening Brief, the company's approach to analyzing its coal resources has evolved and become more sophisticated over time, with many of the methodological changes driven by stakeholder feedback. ¹⁰⁷ PacifiCorp began developing coal fleet modeling scenarios during the 2011 IRP cycle. Following the 2011 IRP, PacifiCorp worked with stakeholders, including Sierra Club, to develop a unit-by-unit screening model to prioritize specific units to analyze further in the 2011 IRP Update. ¹⁰⁸

¹⁰³ RT Vol. 3, p. 105 (lines 10–16), pp. 121 (lines 19–26), p. 130 (lines 6–15); Exh. OII-GRC-SC-Cross Exhibit-1, pp. 59–61, 99.

¹⁰⁴ Exh. PAC/1800, p. 28 (lines 14–19).

¹⁰⁵ Sierra Club's Opening Brief, pp. 18–20; cf. RT Vol. 3, p. 111 (lines 3–11), pp. 112 (line 22)–113 (line 1) (Lockey/PacifiCorp).

¹⁰⁶ Sierra Club's Opening Brief, p. 12.

¹⁰⁷ Opening Brief of PacifiCorp, pp. 56–60; Link 1800, p. 7 (lines 10–19).

¹⁰⁸ Exh. PAC/1800, p. 8 (line 20)–9 (line 10).

In the 2013 IRP, PacifiCorp advanced from performing standalone coal studies to considering coal unit retirements and gas-conversion alternatives on a system-wide basis within the portfolio-development process of the IRP. This allowed for expanded modeling of retirement and conversion alternatives over a wide range of coal units. In addition, PacifiCorp analyzed specific coal units with near-term environmental compliance timelines, with more detailed unit-specific analysis (hypothetical intertemporal tradeoff analysis) for Jim Bridger Units 3 and 4. ¹⁰⁹ The 2013 IRP thus included studies analyzing whether early retirement of individual coal units was more cost-effective than continued operation. ¹¹⁰

The company performed comparable analyses in the 2015 and 2017 IRPs.¹¹¹

These subsequent IRPs also included further refinements developed specifically in response to contemporaneous stakeholder requests and feedback, such as expanded intertemporal tradeoff analysis and fleet tradeoff analysis for specific units in response to recommendations from Oregon commission staff in the 2015 IRP, and incorporating an endogenous-retirement case specifically in response to a request from Sierra Club in the 2017 IRP.¹¹² In each IRP, therefore, PacifiCorp's analysis has evolved based on lessons learned and in direct response to feedback received during the preceding cycle.¹¹³

As part of the 2019 IRP cycle, the company developed a simplified unit-by-unit analysis in June 2018 in response to a request from the Oregon commission staff, and then a far

¹⁰⁹ Exh. PAC/1800, pp. 10 (line 19)–11 (line 21).

¹¹⁰ *Id.* at p. 18 (lines 10–16).

¹¹¹ *Id.* at p. 18 (lines 10–16).

¹¹² *Id.* at p. 13 (lines 1–17), p. 14 (lines 3–6), p. 16 (lines 9–11), pp. 21 (line 9)–22 (line 8), p. 23 (lines 18–21), p. 24 (lines 4–10, 16–22).

¹¹³ *Ibid*

more complex preliminary stacked analysis in December 2018.¹¹⁴ The company's preliminary analysis suggests that the economics of some coal units may be changing, but it is premature to draw conclusions until further reliability and other analyses are completed.¹¹⁵ As demonstrated by the evolution of PacifiCorp's coal analysis in its IRP process over the last eight years, PacifiCorp has regularly evaluated the cost-effectiveness of continued operation of its coal fleet and remains committed to taking a hard look at its coal-fired plants going forward.¹¹⁶ Accordingly, the company is continuing to study these results as part of its comprehensive system-wide analysis in the 2019 IRP to determine whether specific coal units may be candidates for early retirement, taking into account economic and reliability concerns.¹¹⁷

The preliminary results of the December 2018 coal study do not support Sierra Club's recommended disallowances, which rely on the premise that early retirement of

¹¹⁴ Exh. PAC/1800, pp. 26 (line 15)–28 (line 19); RT Vol. 3, p. 103 (lines 11–23), p. 113 (lines 5–8), p. 116 (lines 24–26), pp. 131 (line 20)–132 (line 3), pp. 172 (line 1)–173 (line 16) (Lockey/PacifiCorp). PacifiCorp cautioned about the limitations of such a study, but it agreed to perform the study and worked with Oregon staff to develop a feasible implementation schedule. (Exh. PAC/1800, pp. 26 (line 10)–27 (line 15).) Sierra Club's assertion that PacifiCorp "resisted calls" by the Oregon staff to "assess the value of its coal fleet" mischaracterize the exchange entirely. (Sierra Club's Opening Brief, pp. 12, 16.)

line 1)–173 (line 16) (Lockey/PacifiCorp). For all of the reasons described above regarding the limitations of these preliminary studies, (see *supra* pp. 25–27,) it is both factually inaccurate and misleading for Sierra Club to claim the most recent preliminary study "belatedly confirm[s]" its position over the last several IRP cycles that "most of PacifiCorp's coal units should be retired to save customers money." (Sierra Club's Opening Brief, pp. 13, 18.)

¹¹⁶ Exh. PAC/1400, p. 6 (lines 17–19, 21–22); Exh. PAC/1800, p. 7 (lines 5–9). In its opening brief, PacifiCorp fully rebutted Sierra Club's false assertion that the company only evaluates its existing coal fleet when faced with significant capital investments at those facilities. (Compare Opening Brief of PacifiCorp, pp. 61–64, with Sierra Club's Opening Brief, pp. 14, 16.) Therefore, PacifiCorp does not address this further here.

¹¹⁷ RT Vol. 3, p. 105 (lines 10–26), p. 111 (lines 6–11), pp. 112 (line 22)–113 (line 1), p. 113 (lines 7–8), pp. 113 (line 12)–115 (line 9), pp. 116 (line 24)–117 (line 3), pp. 121 (line 19)–122 (line 3), pp. 123 (line 23)–124 (line 2), p. 130 (lines 6–15), pp. 131 (line 20)–132 (line 3), pp. 172 (line 1)–173 (line 16) (Lockey/PacifiCorp); Exh. OII-GRC-SC-Cross Exhibit-1, pp. 4, 5, 62, 99.

PacifiCorp's coal units is cost-effective now, and would have been cost-effective as far back as 2011. PacifiCorp's previous IRP analysis consistently demonstrated that early retirement of multiple units was not the best option and that these units continued to provide benefits to California customers through lower net power costs. 119

Recovery of Capital Costs in Coal Units B.

Relying entirely on its faulty assessment of the unit-by-unit studies and preliminary stacking analysis described above, Sierra Club's new recommendations propose to disallow all capital spending at PacifiCorp's coal plants since 2011, in the 2019 test period, or beginning in 2022. 120 In addition to the evidentiary deficiencies just outlined, Sierra Club raised these recommendations for the first time in its Opening Brief, which is procedurally improper, and denies PacifiCorp any opportunity to respond to the proposals with record evidence. 121 Moreover, the capital spending Sierra Club now seeks to disallow includes costs already in rates. 122 Therefore, Sierra Club's recommendation violates the rule against retroactive ratemaking—"one of the most 'cardinal principles' in the ratemaking process." ¹²³

¹¹⁸ Exh. PAC/1800, p. 2 (lines 16–18), pp. 19 (line 17)–20 (line 2). ¹¹⁹ Exh. PAC/1400, p. 6 (lines 12–20); Exh. PAC/1800, p. 20 (lines 10–12).

¹²⁰ Sierra Club's Opening Brief, pp. 16–22.

¹²¹ See fn. 6, *supra*.

¹²² Sierra Club argues the company has failed to meet its burden of establishing prudence for nearly \$1.7 billion in coal capital spending since 2011, in total disregard for the rebuttal testimony of PacifiCorp witness Ms. Etta Lockey. Ms. Lockey explained that Sierra Club's figure encompasses spending for both coal and non-coal resources and, even more importantly, that most of the spending embedded in this figure is already incorporated in California rates and therefore not included in this filing. Specifically, since PacifiCorp's 2011 general rate case, the company has included California's allocated share of approximately \$1.9 billion in totalcompany capital investments (including but not limited to investments in coal plants) in California rates through its PTAM mechanism. This is approximately \$4.8 million on a California revenue requirement basis. Exh. PAC/1400, p. 8 (lines 1-8).

¹²³ Pacific Southcoast Freight Bureau, Decision No. 92317, 1980 Cal. PUC LEXIS 844, p. *3 ("The rule against retroactive ratemaking is very broad in its application, as it is one of the most 'cardinal principles' in the ratemaking process.").

All three categories of capital costs that Sierra Club recommends the Commission disallow—past capital expenditures, ongoing capital costs, and future capital costs—are necessary to ensure PacifiCorp's generation fleet is well-maintained, safe, and reliable. It is therefore reasonable and prudent for PacifiCorp to make such expenditures unless and until particular plants are deemed uneconomic and scheduled for shutdown. 124

C. Recovery of Emissions Control Equipment and Related Expenditures

- 1. Jim Bridger Units 3 and 4
 - a. Sierra Club Ignores the Evidentiary Deficiencies in its Bridger SCR Adjustment.

Sierra Club's recommendation to disallow the costs of the selective catalytic reduction equipment (SCRs) install at Jim Bridger Units 3 and 4 improperly relies on evidence presented in another case to another commission which Sierra Club never submitted in this case. Failing to produce evidence in the record is no mere technicality. Sierra Club's entire case for its proposed adjustment turns on its competing economic calculations for the Jim Bridger SCR investment. To arrive at these numbers, however, Dr. Fisher recites and relies on economic analysis that he previously acknowledged was erroneous in proceedings before the Washington Utilities and Transportation Commission (WUTC), and to which the WUTC afforded no weight. 126

¹²⁴ Exh. PAC/1400, p. 7 (lines 8–11); Exh. PAC/1600, pp. 5 (line 20)–6 (line 1); see also Opening Brief of PacifiCorp, p. 66.

¹²⁵ See Sierra Club Opening Brief, pp. 22–26; Exh. PAC/1800, p. 31 (lines 22–24), 32 (lines 11-17); Exh. PAC/1600, p. 3 (lines 16–17); Exh. PAC/1700, p. 2 (lines 8–15); see also Opening Brief of PacifiCorp, pp. 75–77.

¹²⁶ Exh. PAC/1600, pp. 22 (line 12)–23 (Line 2); *Wash. Utils. and Transp. Comm'n v. PacifiCorp*, Docket No. UE-152253, Order 12 ¶¶ 80 n. 116, 82, 102 n. 158, 111, 298 (Sept. 1, 2016); Exh. GRC-SC-JIF-200-C, p. 26 (lines 5−8), p. 31 (lines 9−14); Exh. PAC/1700, p. 2 (lines 8−15), 7 (lines 13)–8 (line 3); Exh. PAC/1800, p. 32 (line 18)–33 (line 2).

b. Sierra Club Fails to Show SCRs were No Longer Cost-Effective When the Investment Decision Was Made.

Sierra Club argues that changes in both natural gas and coal prices rendered SCRs less economic than natural gas conversion, claiming that "the value of the Bridger projects had turned negative" in "December 2013 or January 2014[.]" There are numerous flaws with this argument.

(1) Sierra Club Improperly Relies on Hindsight Data.

Sierra Club improperly relies on hindsight data unavailable in late May 2013, when PacifiCorp decided to install SCRs at Jim Bridger, and also unavailable on December 1, 2013, the date the company executed the Full Notice to Proceed (FNTP) to its contractor. This is inconsistent with Commission precedent, which seeks to "avoid the application of hindsight in reviewing the reasonableness of a utility decision." Specifically, Sierra Club relies on data points with respect to the price of natural gas and the cost of coal, both of which are necessary in Sierra Club's calculations to reduce PacifiCorp's estimated benefits to a negative value. Sierra Club's natural gas price derives from an official forward price curve generated on December 31, 2013, post-dating even the FNTP by 30 days. Even more problematic, Sierra Club's coal cost adjustment purports to come from an updated fueling forecast developed for the 2015 IRP in

¹²⁷ Sierra Club's Opening Brief, p. 25 (citing Exh. GRC-SC-JIF-200-C, pp. 26, 31).

¹²⁸ Exh. GRC-SC-JIF-200-C, p. 26 (lines 3-14); Exh. PAC/1600, p. 3 (lines 14–20). It is for this very reason that the Washington commission disregarded Sierra Club's data. (*Wash. Utils. and Transp. Comm'n v. PacifiCorp*, Docket No. UE-152253, Order 12 ¶¶ 80 n. 116, 102 n. 158, 111, 298 (Sept. 1, 2016); see also Exh. PAC/1600, p. 22 (line 12–19), Exh. PAC/1800, p. 33 (lines 3–8).)

¹²⁹ In re Southern California Edison Company, D.90-09-088, 37 CPUC 2d 488, 499; In re Southern California Edison Company, D.94-03-039, 53 CPUC 2d 362.

¹³⁰ Exh. GRC-SC-JIF-200-C, p. 26 (lines 3–8).

¹³¹ Exh. PAC/1800, p. 37 (lines 4–14).

November 2014, nearly one year after the FNTP, using data generated in July 2014.¹³² Therefore, even taking Sierra Club's natural gas and coal decrements at face value, it is insupportable to state that the value of the Jim Bridger SCRs had turned negative in December 2013, or even January 2014.¹³³

(2) Sierra Club Improperly Revives an Erroneous Figure for its Coal Cost Adjustment.

Sierra Club's coal decrement *cannot* be taken at face value. To reach this "negative" value calculation, Sierra Club resuscitates a figure (an alleged \$143 million increase in coal costs) that Dr. Fisher himself previously conceded was erroneous in proceedings before the WUTC. ¹³⁴ Before the WUTC, Sierra Club admitted that it failed to account for capital savings associated with shuttering the underground mine earlier than had previously been planned, among other flaws. ¹³⁵ Here, Sierra Club failed to rebut the company's evidence on these points or explain why it continues to rely on figures that it conceded are wrong, that it abandoned in the Washington case, and that it did not support with *actual evidence in this record*.

¹³² See Exh. PAC/1700, p. 5 (lines 11–13), pp. 7 (line 13)–8 (line 12), pp. 11 (line 22)–12 (line 4); Exh. PAC/1800, p. 34 (line 9)–35 (line 7); GRC-SC-JIF-200-C, p. 26 (lines 5-8).

of course, January 2014 also post-dates both the decision to install SCRs and the FNTP issuance. It is not clear why Sierra Club references this date other than due to the fact that EPA confirmed Wyoming's SIP in January 2014. (See Sierra Club's Opening Brief, pp. 23–26 (referencing January 2014).)

¹³⁴ Exh. GRC-SC-JIF-200-C, p. 26 (lines 5–8), p. 31 (lines 9–14); Exh. PAC/1700, pp. 7 (line 13)–8 (line 3); *Wash. Utils. and Transp. Comm'n v. PacifiCorp*, Docket No. UE-152253, Order 12 ¶ 82 (Sept. 1, 2016).

Exh. PAC/1700, pp. 6 (line 13)–8 (line 12), pp. 9 (line 14)–11 (line 19); Exh. PAC/1600, p. 3 (lines 20–21); Exh. PAC/1800, p. 33 (line 18–22), p. 35 (lines 8–20). In fact, even over the two year period between the January 2013 long-term fueling plan and the long-term fueling plan used in the 2015 IRP, the present value revenue requirement (PVVR) differential for coal costs only increased by \$31 million, a 2.4 percent increase in coal costs, instead of the \$143 million as Sierra Club claims. Even had this information been known in the fall of 2013, this minor fluctuation in long-term coal costs was not material enough to have caused the company to modify its decision to move forward with the SCR system installations. (Exh. PAC/1700, pp. 2 (line 22)–3 (line 5), p. 5 (lines 14–19), p. 12 (lines 4–10).)

(3) There was No Material Increase in Coal Costs.

Sierra Club does not refute the evidence establishing that, notwithstanding some changes in operational plans at the Bridger Coal Company in the fall of 2013, an increase in the mine's cash costs was substantially offset by capital savings and reduced third-party coal costs, such that the net increase in coal costs was minimal. Furthermore, the modest net increase in coal costs as a result of these changes was nearly offset in its entirety by engineering, procurement, and construction (EPC) contract savings for the SCRs. 137

c. PacifiCorp's Schedule was Necessary and Appropriate to Ensure Compliance with Legal Requirements.

Contrary to Sierra Club's insinuations, PacifiCorp did not "rush[] forward" to undertake major capital investments for environmental compliance at the Jim Bridger plant "in the absence of any binding regulatory requirement." The record is clear that PacifiCorp presented the Jim Bridger SCR investment for review in the 2013 IRP and in fully litigated state regulatory processes before the company made its investment decision. Sierra Club's narrative that PacifiCorp acted hastily to approve the Bridger SCRs is false.

Sierra Club also ignores uncontroverted evidence that Wyoming deemed its regional haze restrictions at Jim Bridger binding irrespective of EPA's actions. As part of this regulatory process, PacifiCorp responsibly negotiated an implementation schedule to align with

¹³⁶ Exh. PAC/1700, p. 6 (lines 1–12), pp. 8 (line 13)–9 (line 13); Exh. PAC/1800, pp. 42 (line 7)–43 (line 2). Sierra Club asserts that PacifiCorp's decision to install SCRs at Bridger was motivated by a conflict of interest to keep the Bridger Mine operational solely to further the interest of PacifiCorp shareholders. (Sierra Club's Opening Brief, pp. 23, 25–26.) For ratemaking purposes, Bridger Mine is consolidated with the Jim Bridger coal plant in a manner that ensures no cross-subsidization. Through its IRP process, PacifiCorp decides whether to continue operating a plant based on comprehensive economic analysis (which in the case of Bridger, includes both the coal plant and the mine), not shareholder return.

¹³⁷ Exh. PAC/1600, pp. 13 (line 22)–14 (line 5); see also Exh. PAC/1800, p. 39 (lines 4–11).

¹³⁸ Sierra Club Opening Brief, pp. 22, 23.

¹³⁹ Exh. PAC/400, p. 4 (lines 17–23), pp. 10 (line 1)–11 (line 5); Exh. PAC/1600, pp. 18 (line 1)–19 (line 17); Exh. PAC/402; Exh. PAC/403.

established four-year major maintenance overhaul cycles for the individual units.¹⁴⁰ PacifiCorp then developed the timeline in the EPC contract to account for complex multi-jurisdictional regulatory processes, while retaining as much flexibility as possible to accommodate market changes and still meet the environmental compliance deadlines.¹⁴¹ December 1, 2013 was the last feasible date for a decision to begin installation while still meeting these compliance deadlines.¹⁴²

d. In December 2013, Installing SCRs at Jim Bridger Remained the Most Cost-Effective Environmental Compliance Option

The evidence in this case demonstrates that the Jim Bridger SCRs were the most cost-effective compliance option for customers. In fact, it would have been difficult for PacifiCorp to justify the prudence of any decision other than installing the Jim Bridger SCRs, because the economic analysis favored this investment over other options at all points relevant to this prudence review. The company's analysis continued to show substantial benefits as of December 1, 2013, based on a September 2013 official forward price curve for natural gas and the EPC contract savings. Reducing this to account for changes in coal costs based on the October 2013 mine plan decreases the SCR benefits modestly, but substantial benefits remain. Given this information, coupled with the company's additional risk and scenario analysis, a reasonable utility would not have terminated the contract for the SCRs and switched to natural gas conversion at that late date.

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¹⁴⁰ Exh. PAC/400, p.14 (lines 1–8).

¹⁴¹ Exh. PAC/1600, p. 17 (lines 9–23); see Exh. PAC/400, p. 11 (lines 14–15).

¹⁴² Exh. PAC/1600, p. 3 (lines 8–13).

¹⁴³ *Id.* at p. 4 (lines 3–6), p. 13 (lines 17–20).

¹⁴⁴ *Id.* at p. 9 (lines 13–17).

¹⁴⁵ *Id.* at pp. 14 (line 20)–15 (line 6). Even if hindsight data were considered, based on the December 31 OFPC, as Sierra Club improperly recommends, the analysis would still have shown \$29 million in favor of the SCRs. (*Ibid.*) And the following spring, forecast proxy costs

Cancelling a major environmental compliance project mid-stream is much more than just a paper exercise, as Sierra Club would lead the Commission to believe. Prudent management of a complex multi-year, multi-jurisdictional project like the Jim Bridger SCRs includes parallel path environmental agency permitting, regulatory reviews, and major commercial negotiations. For these reasons, cancelling the SCRs in December 2013 would have been imprudent absent an undisputable reversal of project economics, new or changed environmental compliance requirements, changes to legislative policies impacting the resource for all customers, or similar major events. None of those things occurred. 146

Furthermore, the costs of natural gas conversion would have been higher than previously assumed in the company's SCR analysis if the company had cancelled the EPC contract on December 1, 2013, for several reasons. First, a change at this late date would have resulted in a highly compressed schedule. Such a timeline would necessarily increase the analyzed costs of the gas conversion scenario, either because the project would need to be expedited or because the unit would need to be shuttered for noncompliance pending completion of the retrofit, or both. Losing these units for six-to-eighteen months would cause the company to incur significant replacement power costs and reduced system reliability, increasing the costs of natural gas conversion. Second, based on information from the competitive market bids for the Naughton Unit 3 natural gas conversion contract, by December 2013 the company knew that implementation costs for that project were significantly higher than originally anticipated. This

for carbon regulations and natural gas in the 2013 IRP Update still remained within the ranges initially assessed. Exh. PAC/400, p. 13 (lines 1-6).

¹⁴⁶ Exh. PAC/1600, p. 14 (lines 11–19).

meant that original cost projections for the natural gas alternative at Jim Bridger were understated in the SCR analysis. 147

2. Naughton Unit 1

As Sierra Club concedes, capital improvements for emissions control equipment at Naughton Unit 1 have been included in California rates since 2012 through Commission approval of the company's 2012 PTAM advice letter filing. 148 Sierra Club has not alleged procedural deficiencies with this filing, which was filed, noticed, and available for review. Sierra Club had the opportunity through the PTAM process to intervene but did not. Nearly seven years after the fact, Sierra Club now urges this Commission to take Naughton Unit 1 out of rates. 149 As with Sierra Club's general recommendation to disallow past capital expenditures in PacifiCorp's coal units, this recommendation constitutes impermissible retroactive ratemaking. 150 Sierra Club does not address or defend the legality of this recommendation, or its other backward-looking adjustments, in its opening brief.

Even if the prudence of PacifiCorp's investment at Naughton Unit 1 were a legitimate issue in this general rate case, Sierra Club's allegations regarding Naughton suffer from evidentiary deficiencies similar to Sierra Club's challenge to the Jim Bridger SCRs. To support its assertion that Naughton Unit 1 was not the least cost environmental compliance option at the time the decision was made, Sierra Club relies entirely on testimony it filed in

¹⁴⁷ Exh. PAC/1600, p. 14 (6–10), pp. 15 (line 7)–17 (line 6).

¹⁴⁸ Sierra Club's Opening Brief, p. 9; Exh. GRC-SC-JIF-200-C, p. 13 (lines 8–9); see also PacifiCorp Opening Brief, p. 86; Exh. PAC/1600, p. 4 (lines 7–15), p. 26 (lines 5–8); OII-GRC-SC-Cross Exhibit-7, pp. 2–3; RT Vol. 4, p. 351 (lines 11–18), p. 352 (lines 16–20) (Teply/PacifiCorp).

¹⁴⁹ Sierra Club's Opening Brief, p. 29.

¹⁵⁰ Decision No. 92317 ("The rule against retroactive ratemaking is very broad in its application, as it is one of the most 'cardinal principles' in the ratemaking process."); see also Decision 16-09-046, p. 5 (declining to revisit approval of advice letters for PacifiCorp's major capital additions when "any objections to these advice letters should have been raised in a protest to the advice letter during the advice letter process").

another case to another commission (the Oregon commission).¹⁵¹ While Sierra Club did file this testimony as an exhibit in this case, it failed to explain how that testimony supports its position before this Commission. This is particularly true because, as PacifiCorp explained in its opening brief, Naughton Unit 1 parallels Naughton Unit 2 in all relevant respects, with similar investments required by the same environmental regulations and relying on the same business case, and this Commission approved the prudency of the Naughton Unit 2 investments in the last general rate case in 2011.¹⁵²

3. Craig Unit 2 and Hayden Units 1 and 2

Sierra Club appears to have abandoned its proposed adjustments for the emissions control equipment at the Craig and Hayden plants, as it does not address these adjustments in its Opening Brief, nor does it include the Craig and Hayden adjustments in its summary of recommendations.

VII. CAPITAL EXPENDITURES FOR WIND REPOWERING, WIND GENERATION, AND TRANSMISSION/DISTRIBUTION UPGRADES

No party opposes PacifiCorp's proposals regarding expenditures for wind repowering, wind generation, and transmission and distribution upgrades. Thus PacifiCorp's proposed capital expenditures should be approved in the decision in this case.

VIII. ADVANCED METERING INFRASTRUCTURE

No party opposes PacifiCorp's proposed Advanced Metering Infrastructure

Project which should be approved in the final decision in this case.

¹⁵¹ See Sierra Club's Opening Brief, p. 27 n.78 (citing to the Dr. Fisher's testimony before the Oregon Public Utilities Commission); Exh. GRC-SC-JIF-200-C, pp. 14 (line 25)–15 (line 4), pp. 15 (line 23)–16 (line 5), pp. 16 (line 18)–17 (line 2).

¹⁵² Exh. PAC/1600, p. 26 (lines 5–10); Exh. GRC-SC-JIF-200-C, p. 13 (lines 3–7). See also D.10-09-010 (2011 test period encompassed Naughton Unit 2).

A. Connection and Reconnection Fees for Customers with Smart Meters

No party opposes PacifiCorp's proposed connection and reconnection fees for customers with smart meters. The proposed fees should be approved in the final decision in this case.

IX. IMPLEMENTATION OF RISK-BASED DECISION MAKING FRAMEWORK

PacifiCorp does not oppose Cal PA's recommendations for additional information and analysis to be included in future showings on this issue. PacifiCorp believes, however, that Cal PA's recommendations are consistent with the ongoing process that is occurring through the voluntary agreement with the Safety and Enforcement Division in Docket A.15-05-002, and PacifiCorp requests that the Commission defer the creation of any additional obligations for the company until the conclusion of that process.

X. REVENUE REQUIREMENT

In its opening brief Cal PA did not object to the adjustments proposed by PacifiCorp related to revenue requirements in its rebuttal testimony. Cal PA simply repeated the adjustments it identified in its direct testimony. The outstanding issues that impact revenue requirements (the ROE and incentive compensation adjustments) are addressed elsewhere in this brief. Subject to the impact of the Commission's decision on those two issues, the Commission should adopt the revenue requirement proposed by PacifiCorp in its rebuttal testimony. ¹⁵³

XI. COST OF SERVICE, RATE SPREAD, AND RATE DESIGN

The majority of PacifiCorp's requests relating to cost of service, rate spread, and rate design are unopposed. No party objects to PacifiCorp's Marginal Cost of Service Study.

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¹⁵³ Opening Brief of PacifiCorp, pp. 99-103.

Cal PA's recommendation that the Commission deny PacifiCorp's request to increase the non-CARE residential customer basic charge from \$7.20 to \$7.35 is moot 154—the overall reduction in PacifiCorp's requested revenue requirement, which is reflected in PacifiCorp's rebuttal testimony, allows PacifiCorp to maintain the residential basic charge at \$7.20.155

Cal PA's opening brief also addresses PacifiCorp's original rate spread proposal—not PacifiCorp's current proposed rate spread. 156 As PacifiCorp explained in its rebuttal testimony and its opening brief, PacifiCorp responded to Cal PA's preference to mitigate significant changes in rates to any one class of service by limiting the residential rate increase to 1.4 percent and reducing the rate decrease for its lighting rate schedule to 4.4 percent.¹⁵⁷ PacifiCorp's revised rate spread brings rates for each customer category closer to reflecting the cost of service for those rate schedules, while mitigating rate impacts to customers.

XII. **REMAINING OII ISSUES**

The Emissions Performance Standard does a number of things. It is intended to reduce the state's financial risk exposure to the compliance costs associated with future GHG emissions and associated future reliability problems in electricity supplies. ¹⁵⁸ It sets a CO₂ emissions limit of 1,100 lbs/MW for new long-term financial investments in baseload generation intended to extend the life of the plant by five or more years, or that result in a net increase in the plant's rated capacity. It sets the same emissions limit for new contracts for baseload generation with a term of five or more years. The EPS requires the large investor-owned utilities to submit their long-term power purchase contracts for Commission review and approval by advice letter

¹⁵⁸ D.07-01-039, p. 3.

¹⁵⁴ Opening Brief of Public Advocates Office, pp. 5, 62, 67.

¹⁵⁵ Exh. PAC/2000, p. 3 (lines 6–11); Opening Brief of PacifiCorp, p. 105.

¹⁵⁶ Opening Brief of Public Advocates Office, p. 64.

¹⁵⁷ Exh. PAC/2000, p. 1 (lines 15–24); Opening Brief of PacifiCorp. p. 105.

(for RPS contracts) or application (for non-RPS contracts); to submit documentation to demonstrate their procurement contracts comply with the EPS; and to demonstrate that their long-term financial commitments also comply with the statute. ¹⁵⁹ The EPS requires Electric Service Providers, Community Choice Aggregators, and small electrical corporations to provide after-the-fact proof of compliance by means of an Attestation Letter; these non-IOU entities may also seek pre-approval of long-term financial commitments. ¹⁶⁰ And the EPS allows multijurisdictional utilities to demonstrate compliance through a Commission-approved alternative compliance mechanism, which is done through an annual advice letter filing. ¹⁶¹

There are also a number of things that the EPS does not do. The EPS does not regulate annual emissions for electric utilities. It does not require divestment of generating resources or dictate the content of a utility's generating portfolio. It does not address whether a generating plant is economic to operate. The EPS does not automatically prohibit the installation of emissions control equipment at a generating plant. It does not apply to fuel supply contracts.

PacifiCorp has been in compliance with California's EPS since it was implemented by the Commission in 2007. PacifiCorp continues to meet the statutory requirements for a multi-jurisdictional utility entitled to the option of alternative compliance and the Commission should leave PacifiCorp's existing compliance requirements undisturbed. The utility commissions of Oregon and Washington undertake a thorough review of PacifiCorp's GHG emissions under EPS standards that are similar to California's. None of the arguments put forth by TURN or Sierra Club successfully demonstrate that PacifiCorp should no longer be allowed to use the Commission-approved alternative EPS compliance mechanism.

 $^{^{159}}$ *Id.* at pp. 154–157, 173–174. 160 *Id.* at pp. 160–163.

¹⁶¹ *Id.* at p. 164–168.

A. Emissions Performance Standard

PacifiCorp has not spent the last decade making long-term financial investments in its coal-fired generating units that are incompatible with its EPS compliance requirements. ¹⁶² TURN's and Sierra Club's arguments to the contrary are primarily based on the flawed premise that the environmental regulations to which PacifiCorp is subject impose a binary choice: either install emissions control equipment or shut down the plant. ¹⁶³ That is not the case. ¹⁶⁴ Failure to comply with environmental regulations that require installation of emissions control equipment—which PacifiCorp has never done—would only mean operating out of compliance with the regulations. ¹⁶⁵ The premise of Sierra Club's argument that PacifiCorp's fuel supply contracts also extend the lives of generating plants is even more strained. ¹⁶⁶ The life of a car is not extended when the owner stops to buy gas.

PacifiCorp is in compliance with its EPS requirements in California, as it has been continuously since SB 1368 was adopted. The Legislature created an alternative compliance mechanism for multi-jurisdictional utilities, and the Commission determined that PacifiCorp met the statutory criteria and approved alternative compliance for PacifiCorp. The record supports PacifiCorp's continued use of the alternative compliance mechanism.

- 1. Emissions Control Equipment and Turbine Upgrades Do Not Trigger the EPS
 - a. Emissions Control Equipment

In addition to the lack of conceptual support, TURN's and Sierra Club's claims regarding PacifiCorp's EPS compliance also lack a factual or legal basis. PacifiCorp's

¹⁶² Cf. Opening Brief of TURN, pp. 14–15; Sierra Club's Opening Brief, pp. 32–33.

¹⁶³ Opening Brief of TURN, pp. 14–15; Sierra Club's Opening Brief, pp. 32–33; RT Vol. 3, p. 257 (lines 15–21) (Ramsey/Sierra Club).

¹⁶⁴ RT Vol. 3, pp. 257 (line 22)–258 (line 6) (Wiencke/PacifiCorp).

¹⁶⁵ Ibid

¹⁶⁶ Sierra Club's Opening Brief, pp. 32–33.

investments in emissions control equipment were not intended to extend the lives of the plants¹⁶⁷—nor did the operational lives change as a result of any of the capital expenditures in the record of this proceeding.¹⁶⁸ TURN's claim that these investments "undoubtedly" extended the operational lives of the plants is proven false by the record.¹⁶⁹ TURN's claim that the Dave Johnston generating plant may have been forced to retire absent emissions control upgrades also disintegrates on a plain reading of the portion of the transcript cited by TURN in purported support of this notion.¹⁷⁰ What PacifiCorp's witness Ms. Wiencke *actually* said was that retirement would have been one of the options considered when evaluating the decision to install the emissions control equipment,¹⁷¹ an option PacifiCorp routinely evaluates when contemplating a large capital expenditure.¹⁷² Ms. Wiencke also stated that the service life of the plant did not change as a result of the emissions control upgrades, and that PacifiCorp's decision to extend the depreciable lives of many of its generating resources in 2008 was not connected to the installation of the emissions control equipment.¹⁷³ That PacifiCorp chose to extend the

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¹⁶⁷ See D.07-01-039, p. 5.

Exh. PAC/1402-I-C; RT Vol. 3, p. 268 (lines 2–15) (Wiencke/PacifiCorp); Opening Brief of PacifiCorp, p. 115.

¹⁶⁹ Exh. PAC/1402-I-C; RT Vol. 3, p. 268 (lines 2–15) (Wiencke/PacifiCorp); Opening Brief of PacifiCorp, p. 115. TURN cites to confidential Attachment E of its OII testimony, which is the same information contained in PacifiCorp's Exhibit PAC/1402-I-C, though PacifiCorp's exhibit contains significantly more information. (Opening Brief of TURN, p. 16 fn. 65)

¹⁷⁰ Opening Brief of TURN, p. 16.

¹⁷¹ RT Vol. 3, p. 235 (lines 21–22) (Wiencke/PacifiCorp).

¹⁷² Exh. PAC/500, p. 2 (lines 2–5), pp. 24 (line 15)–25 (line 2); Exh. PAC/1800, p. 7 (lines 3–9), p. 17 (lines 8–11).

¹⁷³ RT Vol. 3, p. 236 (lines 4–9, 22–28) (Wiencke/PacifiCorp). TURN fares no better with its convoluted semantic argument that PacifiCorp's use of interchangeable terms to discuss a generating plant's operational life creates a loophole in the EPS to PacifiCorp's benefit. (Opening Brief of TURN, p. 15.)

depreciable lives of these plants to relieve rate pressure on customers is well documented in the record.¹⁷⁴

TURN also overstates the significance of the difference between Oregon's EPS statute, which contains an express exemption for emissions control equipment, and California's statute, which does not. 175 When it enacted Senate Bill 1368, the Commission determined that it would not achieve the "best and most workable approach" to identifying changes to an existing power plant that would increase the expected level of GHG emissions from the facility over the long term if "every replacement of equipment or addition of pollution control equipment should trigger the EPS." While this is not an absolute exception for all emissions control equipment, the Commission made it clear that its intention is to identify expenditures that will increase GHG emissions from generating facilities in the long term. None of the emissions control equipment that PacifiCorp installed at its generating plants to meet environmental requirements increased GHG emissions from those facilities. Moreover, TURN's assertion that the Commission nevertheless found that "any pollution control investment that extends the life of the facility at least [five] years would be subject to [EPS] compliance" is a misreading of D.07-01-039. That condition was proposed by TURN and was not adopted by the Commission.

b. Turbine Upgrades

The turbine upgrades that PacifiCorp has performed at certain generating plants since 2007 do not trigger PacifiCorp's EPS compliance obligations in California. Under the alternative compliance mechanism created by the Legislature and approved by the Commission,

¹⁷⁴ See Exh. PAC/1400-I, p. 8 (lines 5–7).

¹⁷⁵ Opening Brief of TURN, p. 17.

¹⁷⁶ D.07-01-039, p. 52.

¹⁷⁷ Opening Brief of TURN, p. 17 (citing D.07-01-039, p. 52).

¹⁷⁸ D.07-01-039, p. 52.

¹⁷⁹ Cf. Opening Brief of TURN, p. 14; Sierra Club's Opening Brief, p. 32.

PacifiCorp's emissions and expenditures are reviewed substantively by the utility commissions of Oregon and Washington. The turbine upgrades, which did not increase emissions, are allowed under the Oregon and Washington EPS statutes; the turbine upgrades are also allowed under PacifiCorp's Commission-approved alternative compliance in California.

2. Fuel Contracts Do Not Trigger the EPS

PacifiCorp's fuel contracts are not long-term financial commitments that extend the lives of its generating plants in contravention of the EPS. Fuel contracts are not investments in baseload generation or purchases of baseload power under the EPS statute. Sierra Club concedes that the Commission has never found fuel supply contracts to be financial commitments for baseload generation, should be supply contracts to be financial commitments for baseload generation, should be supply contracts to be financial commitments for baseload generation, should be supply contracts to be financial commitments for baseload generation, should be supply contracts to be financial commitments for baseload generation, should be supply contracts with the EPS. Sierra Club provides no legal or factual basis for this argument. To the contrary, Sierra Club's "facts" bear no relation to the record of this proceeding. Sierra Club claims that, since 2007, PacifiCorp has entered into "many new contracts" for coal supplies that would extend the lives of its coal-fired plants. PacifiCorp has entered into fuel supply contracts with terms over five years since 2007. Sierra Club states that these contracts often include substantial liquidated damages provisions for early termination, which can cause PacifiCorp to continue operating non-economic coal—which is

¹⁸⁶ Exh. OII-SC-JIF-9-C.

¹⁸⁰ RT Vol. 3, p. 245 (lines 4–14) (Wiencke/PacifiCorp).

¹⁸¹ RT Vol. 3, pp. 243 (line 26)–244 (line 2) (Wiencke/PacifiCorp).

¹⁸² Exh. PAC/1300-I, pp. 5 (line 16)–6 (line 11).

¹⁸³ Exh. OII SC-JIF-100-C, p. 14 (lines 18–20).

¹⁸⁴ Sierra Club's Opening Brief, pp. 32–33.

¹⁸⁵ *Id.* at p. 32.

¹⁸⁷ Sierra Club's Opening Brief, p. 32.

shown in the Sierra Club exhibit that lists the contracts ¹⁸⁸—and PacifiCorp has stated on the record that it does not enter into fuel supply contracts with terms longer than the operating lives of the generating plants. ¹⁸⁹ And Sierra Club's claims about the amount of coal burned and CO2 emitted under these contracts are its own witnesses' figures, ¹⁹⁰ which have not been vetted for accuracy.

There is no statutory, factual, or logical basis for a conclusion that PacifiCorp's fuel supply contracts should trigger the EPS. The Commission should reject Sierra Club's invitation to make such a determination.

B. Alternative Compliance Mechanism

Continued use of the alternative compliance mechanism in California is appropriate for PacifiCorp. Alternative compliance is not, as Sierra Club claims, the "donothing" option. ¹⁹¹ To the contrary, approximately 98 percent of PacifiCorp's operations are overseen by the regulatory commissions of the five other states in which PacifiCorp provides service. This oversight includes review by Oregon, Washington, and Utah of PacifiCorp's GHG emissions, and substantive review of PacifiCorp's long-term financial commitments for baseload electricity under the Oregon and Washington EPS statutes. The facts that prompted the Legislature to create the alternative compliance option, and that supported the Commission's decision to approve alternative compliance for PacifiCorp, have not changed since 2007. There is nothing in the record of this proceeding that would justify changing PacifiCorp's EPS compliance mechanism.

¹⁸⁹ Exh. PAC/1300-I, p. 7 (lines 6–10).

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¹⁸⁸ Exh. OII-SC-JIF-9-C.

¹⁹⁰ Sierra Club's Opening Brief, p. 32.

¹⁹¹ *Id.* at p. 33.

1. Directing PacifiCorp to Stop Using Alternative EPS Compliance Would Not Further Sierra Club and TURN's Goals

Because the purpose and scope of the EPS is limited, revoking PacifiCorp's alternative compliance mechanism will not produce the changes to PacifiCorp's operations that Sierra Club and TURN claim. Sierra Club and TURN both posit that non-alternative compliance would have prevented PacifiCorp from installing emissions control equipment, would have precluded PacifiCorp from entering into fuel supply contracts, would result in PacifiCorp divesting certain generating plants, and would reduce PacifiCorp's system-wide emissions factor. Sierra Club and TURN are incorrect. The EPS sets an emissions limit of 1,100 lbs. CO₂/MWh for new long-term financial commitments for baseload electric generation. The EPS does not regulate annual emissions, nor does it dictate divestment of generating assets or the makeup of a utility's generating portfolio. Had PacifiCorp demonstrated compliance with the EPS using the non-alternative mechanisms, the aspects of its operations to which Sierra Club and TURN object would likely be the same as they are today.

In its decision implementing the EPS and approving alternative compliance for PacifiCorp, the Commission stated that its goal of identifying changes to existing power plants that would increase those facilities' GHG emissions in the long term would not be accomplished "by requiring that every replacement of equipment or addition of pollution control equipment should trigger the EPS." While this is not the black-letter exception for emissions control equipment and related equipment upgrades found in the Oregon and Washington EPS statutes, it is an indication that the Commission, had it reviewed PacifiCorp's emissions control installations, would likely have found that the projects did not trigger the EPS. At a minimum, it is not a foregone conclusion that the Commission would have determined that the emissions

¹⁹³ D.07-01-039, p. 52.

¹⁹² See Sierra Club's Opening Brief, p. 33; Opening Brief of TURN, pp. 22–23.

control equipment was an improper expenditure under the EPS. There is likewise no certainty that any future emissions reduction expenditures at PacifiCorp's generating plants would be viewed by the Commission as a violation of the EPS.

PacifiCorp's annual system emissions are regulated by the California Air

Resources Board (ARB), and PacifiCorp is in compliance with its ARB regulatory obligations.

Because the EPS does not regulate electric utilities' annual system emissions, if PacifiCorp had not been authorized by the Commission to use the alternative compliance methodology,

PacifiCorp's system emissions factor would be unchanged from what it is today.

Moreover,

TURN's argument that alternative EPS compliance is incompatible with the 100 percent

renewable resource requirement of Senate Bill 100 conflates the two statutory schemes.

SB

100 imposes requirements on the long-term generating portfolios of load-serving entities in

California; the EPS imposes discrete requirements on a narrow set of utility expenditures.

TURN's concerns regarding the compatibility of PacifiCorp's alternative compliance mechanism and Oregon's Senate Bill 1547, which requires PacifiCorp to eliminate capital costs from coal generation from retail rates by 2030, are equally misplaced. As PacifiCorp explained in its testimony, California's EPS and Oregon's SB 1547 do not conflict with each other. PacifiCorp's baseload generation-related expenditures are subject to review under the Oregon and Washington EPS statutes.

Finally, TURN's arguments regarding the potential effects of PacifiCorp's Coal Life Evaluation Allocation and Realignment (CLEAR) proposal, which has been discussed as

¹⁹⁶ Opening Brief of TURN, pp. 21–22.

¹⁹⁴ Opening Brief of PacifiCorp, pp. 108–109.

¹⁹⁵ *Id.* at p. 108.

¹⁹⁷ *Id.* at p. 22.

¹⁹⁸ Exh. PAC/1300-I, p. 7 (lines 13–20).

¹⁹⁹ *Ibid*.

part of PacifiCorp's ongoing MSP, are speculative. 200 While PacifiCorp believes that its CLEAR proposal will provide its customers with a rational way to align their state energy and climate policies with their utility rates, the proposal has not yet been adopted and is in fact still being negotiated and developed by the company and various stakeholders. If a new cost allocation methodology is adopted in the future, and if it changes PacifiCorp's ability to meet the statutory requirements for alternative EPS compliance, the Commission will have the opportunity to evaluate the facts and determine the method of EPS compliance most appropriate for PacifiCorp at that time.

There is no basis in the record of this proceeding to support a determination that the remedies requested by TURN and Sierra Club would achieve the outcomes they seek. The Commission should allow PacifiCorp to continue to meet California's EPS under the alternative compliance mechanism.

2. Sierra Club's Alternative Remedies are Unworkable and Unnecessary Sierra Club's suggested alternative remedies extend far beyond the limits of the EPS. Fashioning a new alternative compliance proposal that requires PacifiCorp to commit to relying on "rational unit-by-unit economic planning for its coal-burning units" is incompatible with the purpose and terms of SB 1368.²⁰¹ PacifiCorp's IRP analyzes—in great detail—the economic implications of PacifiCorp's generating assets under a number of scenarios. To that end, PacifiCorp is already committed to performing rational economic planning for its coal units, on both an individual and combined basis. PacifiCorp has already proposed a plan to transition California customers off of coal generation by 2030; if the Commission approves PacifiCorp's accelerated depreciation proposal, that transition will be underway. And PacifiCorp has made a

<sup>Opening Brief of TURN, p. 22.
Sierra Club's Opening Brief, p. 33.</sup>

significant commitment to carbon-free capacity additions to serve its customers—the EV 2020 program. None of Sierra Club's remedies fall within the ambit of the EPS, and PacifiCorp is already in the process of doing everything Sierra Club suggests.

The Commission should reject Sierra Club's alternative remedies.

XIII. CONCLUSION AND SUMMARY OF RECOMMENDATIONS

PacifiCorp has refuted all of the arguments of Sierra Club and TURN with substantial direct and rebuttal testimony. Sierra Club, in particular, failed to meaningfully engage in this case by substantively cross examining PacifiCorp witness Rick Link, and resorted to repeating failed, unsubstantiated, or inapplicable arguments from earlier proceedings before other state commissions. Sierra Club simply cannot rebut the voluminous and detailed testimony that documents the prudent decisions made by PacifiCorp to invest in legally-mandated, cost-effective emission control equipment. TURN's brief concentrates on GRC issues (accelerated depreciation and the ECAC mechanism) that were not discussed by its sole witness in the OII, and creates new recommendations that have no record support. Sierra Club and TURN were both unsuccessful in attempting to modify the statutory definition of "a long term financial commitment for baseload power" to include fuel contracts and emission control expenditures. PacifiCorp has provided substantial evidence to support the conclusion that it is in compliance with California's EPS and should be permitted to continue to use the alternative compliance mechanism.

PacifiCorp and Cal PA differed on very few issues, and those important elements of this case which were not in dispute, including revenue requirement, cost of service, rate spread, rate design, and cost allocation methodology, should be decided as recommended in PacifiCorp's direct and rebuttal testimony. PacifiCorp's cost of capital testimony included a significant amount of important evidence that Cal PA chose not to address at all, either in its

testimony or in its opening brief. As a result, the record clearly supports adoption of the ROE recommendation of PacifiCorp, as the Cal PA recommendation is demonstrably below a reasonable range based on an extensive review of comparable returns of similar electric utilities, and a proper assessment of additional risk factors recognized by the Commission. The other minor issue where Cal PA and PacifiCorp differed, incentive compensation costs, should be resolved as proposed by PacifiCorp, which has demonstrated that Cal PA's recommended disallowance was not properly calculated.

In light of the entire record in this proceeding, including the arguments contained herein, PacifiCorp respectfully requests that the Commission grant the General Rate Case Application of PacifiCorp, and issue findings of fact, conclusions of law, and ordering paragraphs consistent with the relief sought by PacifiCorp. ²⁰²

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²⁰² Opening Brief of PacifiCorp, pp. 117–119.

Respectfully submitted February 8, 2019, at San Francisco, California.

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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of PACIFICORP (U-	Application No. 18-04-002
901-E), an Oregon Company, for an Order Authorizing	(Filed April 12, 2018)
a General Rate Increase Effective January 1, 2019.	
And Related Matter.	I.17-04-019

CERTIFICATE OF SERVICE

I, Wendy Peña, certify that I have on this 8th day of February 2019 caused a copy of the foregoing

REPLY BRIEF OF PACIFICORP (U 901 E)

[PUBLIC VERSION]

to be served on all known parties to A.18-04-002 & I.17-04-019 listed on the most recently updated service list available on the California Public Utilities Commission website, via email to those listed with email and via U.S. mail to those without email service. I also caused copies to be hand-delivered as follows:

Commissioner Liane Randolph California Public Utilities Commission 505 Van Ness Avenue, 5th Floor San Francisco, California 94102

ALJ Eric Wildgrube California Public Utilities Commission Division of Administrative Law Judges 505 Van Ness Avenue San Francisco, California 94102

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 8^{th} day of February 2019 at San Francisco, California.

By	/s/ Wendy Peña	
•	Wendy Peña	



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