EXH. RJB-8T
DOCKET UE-230172
WITNESS: RONALD J. BINZ

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION Complainant, v. PACIFICORP, d/b/a PACIFIC POWER & LIGHT COMPANY, Respondent.	DOCKET UE-230172

CROSS-ANSWERING TESTIMONY OF RONALD J. BINZ

ON BEHALF OF SIERRA CLUB

October 27, 2023

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I. INTRODUCTION

Q: Please state your name, position, and address.

A: My name is Ronald J. Binz. I am a Principal with Public Policy Consulting, a firm specializing in energy policy and regulatory matters. My business address is 333 Eudora Street, Denver, Colorado 80220-5721.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of Intervenor Sierra Club.

Q: Did you file direct testimony in this docket?

A: Yes, I filed direct testimony in this case on September 14, 2023.

Q: What is the purpose of your cross-answering testimony?

A: I am responding to parts of the direct testimony of Staff Witness John Wilson, specifically to the section of his prefiled testimony addressing modifications to the Power Cost Adjustment Mechanism ("PCAM"). The relevant testimony is contained in pages 19 to 39 of his prefiled direct testimony. Although his testimony contains information considered to be confidential, the pages I address do not contain any confidential information.

II. RESPONSE TO STAFF WITNESS JOHN WILSON

Q: What conclusions and recommendations of Mr. Wilson do you have concerns about?

A: First, Mr. Wilson makes two findings that I disagree with:

1. His partial agreement with PacifiCorp witness Jack Painter that increasing levels of renewable generation are significantly contributing to errors in estimates of Net Power Costs ("NPC") for PacifiCorp.

2. His belief that increasing renewable energy will cause future projections of NPC to be consistently too low, resulting in relatively more surcharges.

Second, Mr. Wilson makes several recommendations for changes to the PCAM. I disagree with some of them and agree with others.

1. That the "deadband" in the PCAM structure be eliminated.

2. That the asymmetric sharing bands be collapsed into to a single symmetric sharing band

3. That the sharing percentage be reduced to a uniform 90/10

4. That surcharges or sur-credits be spread over 2 years.

5. That the trigger for a surcharge or sur-credit be changed from $17 million to $7 million

I will address each of these two findings and five recommendations for changes to the PCAM.

Q: As a threshold matter, do you think there is a compelling reason for the Commission to change the PCAM?

A: No, I do not. The Commission adopted the current PCAM and its specific structure in 2015. This was after earlier proposals from the Company that the Commission rejected, in part, because they did not contain adequate risk sharing between customers and shareholders.[1] For instance, in PacifiCorp's 2012 General Rate Case, the Commission

[1] *See, e.g., In the Matter of the Petition of PacifiCorp For an Order Approving Deferral of Costs Related to Declining Hydro Generation,* Dkt. No. UE-050684, Order 04 at 37-38, ¶ 99 (Apr. 17, 2006) (rejecting PacifiCorp's PCAM proposal, which did not include a deadband and only a 90/10 sharing band, because these limited sharing mechanisms did not "adequately balance risks and benefits between shareholders and ratepayers").

rejected PacifiCorp's PCAM proposal because the proposal did not include either deadbands or sharing bands, which the Commission characterized as "critically important elements that provide an incentive for the Company to manage carefully its power costs and [ ] protect ratepayers in the event of extraordinary power cost excursions that are beyond the Company's ability to control."[2]

In my opinion, the PCAM is achieving its purposes. Mr. Wilson agrees, at least in part.[3] As explained in my direct testimony, the PCAM should be examined in view of the original purposes for its adoption, but also be considered in view of some new realities. Given the reduction in costs for renewables and storage and the movement towards decarbonization, the PCAM can play an added role. By exposing the utility to some degree of risk, the PCAM levels the playing field between fossil fuel resources with volatile costs and carbon emissions on the one hand, and renewable resources with non-volatile costs and zero carbon emissions on the other. This leveling of the playing field should affect system planning and resource selection. Without a sharing mechanism for costs the utility is immune to the inherent risks of gas generation and new gas capacity is given a free pass: there is very little chance that any of its costs will not be recovered.

I will not repeat here the arguments I ventured in my direct testimony for keeping the PCAM in its present form. But when deciding whether the PCAM needs a major

[2] *WUTC v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket UE-130043, Order 05 at 66-67, ¶ 170 (Dec. 4, 2013).
[3] Exh. JDW-1CT, Direct Test. of John D. Wilson at 34:9-11 (Sept. 14, 2023) (hereinafter "Exh. JDW-1CT").

overhaul or should be effectively eliminated, the Commission should consider that the relevant circumstances have not changed since its original decision.

Q: Please explain why you disagree with Mr. Wilson (and Mr. Painter) about the effect of variable renewable generation on NPC.

A: Here is a paragraph from Mr. Wilson's testimony:

> While I believe that the overall effect of renewable energy on NPC variability will be somewhat less than Company witness Painter's testimony implies, I anticipate that it will tend to result in Forecast NPC underestimating Actual NPC. All other things being equal, customers will be more likely to be affected by surcharges than by sur-credits resulting from the PCAM deferral account."[4]

Mr. Wilson and Mr. Painter assert with little or no empirical evidence that renewable variation raises net power costs and/or makes NPC very difficult to predict. Both witnesses seem to lean on the ordinary understanding that renewable resources are variable resources.

However, the short-term variation in renewable output is a fact of life that other utilities are learning to accommodate. Before committing to Messrs. Wilson and Painter's conclusion, much more measurement and better modeling is needed. Further, the entire effect of adding more renewables must be considered. Given their low costs, adding renewables to the generation portfolio reduces power costs, even considering costs associated with integration and potential curtailment.[5] The question is whether these

[4] Exh. JDW-1CT at 27:3-7.

[5] For example, in PacifiCorp's rate case currently pending in Wyoming, Rocky Mountain Power CEO Gary Hoogeveen's prefiled rebuttal testimony explained that "[t]he Gateway South transmission line enables the interconnection of over 1,600 megawatts ("MW") of renewable generation. In the three months the line is included

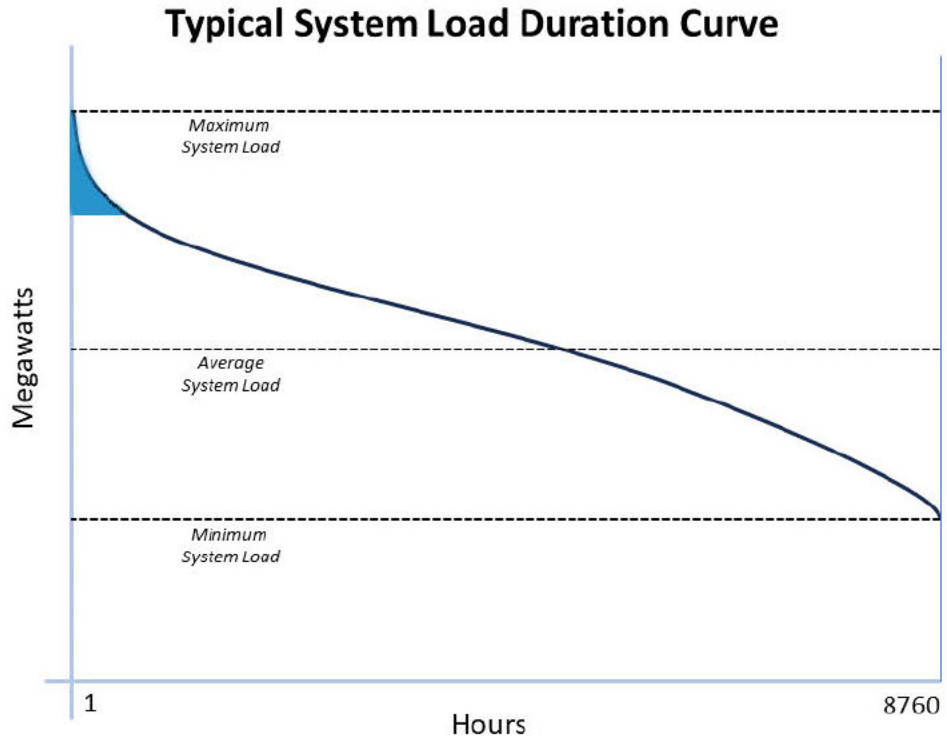
savings are larger than the sum of a relatively few hourly cost differences created by variable production.

My direct testimony showed that, for the vast majority of the year, the natural variation in renewable generation will not cause NPC to be erratic or difficult to forecast, especially when compared to the large swings in natural gas prices that are often seen in that market. I illustrated my conclusion with an exaggerated assumption – that all renewable generation was missing. I showed that, even under this exaggerated assumption, the effect of all renewable generation disappearing simply was to shift a higher-cost combined-cycle generating plant to the margin. The impact on the market-clearing price was modest.

In contrast, sharply higher natural gas prices shift the supply curve upwards, increasing system costs much more than any effect created by variation in renewable output. I examined these ideas in my direct testimony using a generic resource stack and showed that, for many hours of the day, the impact of "missing" renewable generation had a relatively small effect on power costs in that hour. To expand on this argument in response to Messrs. Wilson and Painter's testimony, consider the following illustrative "load duration curve."

in the test year used to set rates in this case, it has a revenue requirement of approximately $7 million—and decreases net power costs by $19 million, resulting in a net benefit of $12 million in this proceeding." *In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates by Approximately $140.2 Million Per Year or 21.6 Percent and to Revise the Energy Cost Adjustment Mechanism*, Dkt. No. 20000-633-ER-23, Record No. 17252, Rebuttal Test. of Gary W. Hoogeveen at 11:10-14 (Sept. 2023).

Figure 1: Typical System Load Duration Curve



The interpretation of the load duration curve is straightforward. The vertical axis is the system load in MWs. The horizontal axis lists the hours of the year, from 1 to 8760. While demand varies over the 8760 hours in a year, most hours have a demand that is "moderately above" or "moderately below" average, and these hours make up the bulk of the graphic. The hours in which load is "well above average" – the truly peak hours – are relatively few. In this example, the strongest peak hours, the base of the shaded triangular area at the top left, make up only about 6% of the total number of hours in the year.

Utility planners know that wind generation tends not to track with peak demand, and they assign a low capacity-value to wind. Given this knowledge, it would be imprudent to design a system assuming an amount of wind generation than the planners

know is not likely to materialize, based on generation history. Instead, utility planners plan to meet peak demand with resources with higher capacity factors that are designed for that purpose: e.g., combustion turbines, demand response, battery storage, and purchased short-term capacity.

This means that any potential large cost impact of variation in renewable generation will be restricted to those hours when demand is high and, even then, the effect is likely to be muted by the availability of peaking resources. In all other hours of the year, variation in renewable output will have the modest effect I illustrated in my direct testimony. And any such increase is probably swamped by the deep reductions in NPC created by adding renewable generation.

Thus, my disagreement with Messrs. Wilson and Painter resolves to the *degree* to which the variation of renewable generation will affect net power costs. The PacifiCorp witness paints one picture, Mr. Wilson paints a less severe impact, while I think the impact will be even smaller.

Mr. Painter's complaint—that NPC becomes more difficult to project as renewables grow—is mainly a problem of PacifiCorp's modeling. We know that utility operation centers are able to deal with the mix of resources in a utility's portfolio, including substantial amounts of variable resources. Their decisions are rational, and their choices are easily understood after the fact. Modeling needs to grow in sophistication and be able to approximate what happens in real-time operations in order to accurately predict

NPC. PacifiCorp's challenges in modeling are due to the limits of its modeling software. This is a case where the workman *should* blame his tools.

Q: What about Mr. Wilson's belief that, in the future, NPC projections will be too low, triggering persistent surcharges on customer bills?

A: I'm not sure how Mr. Wilson comes to this conclusion, especially when five of the last six PCAM adjustments have been in the other direction.[6] The only recent year in which the PCAM was underestimated was 2021. In all other years 2016 to 2020, the NPC was overestimated. In 2021, the big gap between Projected NPC and Actual NPC was very likely caused by the increase in natural gas prices. As shown in my direct testimony, the average annual price of natural gas in 2021 at Henry Hub was 86% higher than in 2020 (nearly double). Unless PacifiCorp and the power market futures predicted that increase in gas costs, it's no surprise that estimated NPC was lower than actual. I would venture that variation in renewable generation played little or no role in the mis-estimation.

Mr. Wilson's belief that NPCs will likely be underestimated going forward appears to be tied to his partial agreement with Mr. Painter on the impact of variable renewable generation, a view that I do not share. Further, Mr. Wilson seems not to expect that PacifiCorp could improve its modeling capacities, especially with respect to renewable production.[7]

[6] Exh. JP-1T, Direct Test. of Jack Painter at 8, Table 1 (Mar. 2023, Refiled Apr. 19, 2023).
[7] Interestingly, if Mr. Wilson is correct – that there will be more surcharges in the future -- this would progressively help consumers under the PCAM. When consumers "share" a part of the under collection with the utility, consumers pay less in total than they would, had there been no sharing, even though there is a surcharge. The higher the sharing percentage, the more consumers benefit.

To the extent that this belief – that NPC will be consistently underestimated – is used to justify his changes to the PCAM, I think the Commission should be wary of relying too much on this asserted new trend.

Q: Please turn to Mr. Wilson's recommended changes to the PCAM.

A: I've already stated my belief that the PCAM does not need to be overhauled. But if the Commission is inclined to make any of the changes recommended by Mr. Wilson, I wish to explain which of his changes Sierra Club would accept and which it opposes.

Deadband

The deadband serves a useful purpose and should be retained. Exposing the utility to the full effect of its resource choices is desirable and harkens back to regulation before adjustment clauses. The effect is not large inasmuch as it is limited to the first $4 million. I do not agree with Mr. Wilson that the deadband might result in a "windfall" for either customers or the utility. The Commission should keep the deadband feature.

Collapse of sharing bands

The current PCAM has a relatively complex sharing formula with asymmetric sharing levels that vary between over- and under-projections. The subtleties introduced by the complexity probably do not translate to the utility or to customers. Sierra Club would not oppose collapsing the sharing band percentages into a single symmetric sharing band outside the deadband.

Uniform sharing percentage

Mr. Wilson's proposal is to adopt a single sharing ratio of 90/10. This change produces a smaller sharing amount than the current PCAM in all cases. If the various sharing bands are collapsed into a single band with a single sharing percentage, Sierra Club recommends using the same sharing percentage used currently in Wyoming, which 80/20. This is closer to the composite effect of the current mechanism than is 90/10.

Trigger for surcharges or sur-credits

Mr. Wilson proposes to lower the threshold or trigger for collecting a shortfall or refunding a charged amount from $17 million to $7 million. Sierra Club has no objection to that change.

Spreading surcharges or sur-credits over two years

Mr. Wilson proposes that every PCAM surcharge or sur-credit be collected over a two-year period, half the first year and half the second year. Sierra Club disagrees with this recommendation. In general, the Commission may want the impact of the surcharge or sur-credit to be nearer in time to incurrence of the costs, compared to an adjustment spread over multiple years. On the other hand, there will be times that the Commission may want to spread an especially large surcharge over two or three years to avoid rate shock.

The Commission has shown that it already has the authority to spread a surcharge or sur-credit over multiple periods if that is thought advisable. Such a decision should be made on a case-by-case basis; the Commission should not artificially constrain its options

by locking in a requirement of spreading surcharges or sur-credits over exactly two years in every case.

Q: Please summarize your findings and recommendations.

- Mr. Wilson (and Mr. Painter) overstate the impact of variable renewable generation on NPC and on the difficulty in forecasting NPC.

- In addition to the traditional reasons for employing a risk-sharing mechanism, the PCAM improves regulation by reminding the utility of the risks associated with resources that have volatile fuel costs. This helps level the resource planning playing field on which fossil generation and renewable generation compete for a place in the portfolio.

- The Commission's PCAM tariff is still an effective means to supply useful incentives to PacifiCorp. There is no compelling reason to change the structure of the PCAM.

- If the Commission decides to change the PCAM, it should retain the dead band and a sharing mechanism with the sharing percentage set to 80%/20%.

Q. Does this complete your rebuttal testimony at this time?

A: Yes.