CASE: UE 335
WITNESS: LANCE KAUFMAN

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 1100

Rebuttal Testimony

August 15, 2018

Q. Please state your name, occupation, and business address.

A. My name is Lance Kaufman. I am a Senior Economist employed in the Energy Rates, Finance and Audit Division of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE., Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes, I provided Staff/300 and Staff/800.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to reply to parties' testimony on PGE's proposed decoupling changes.

Q. Did you prepare an exhibit for this round of testimony in this docket?

A. The only exhibit I prepared is Staff/1100.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. DECOUPLING

Q. Please summarize the decoupling issues in this docket.

A. As explained in my opening testimony, decoupling mechanisms remove or reduce the relationship between sales volume and revenue. When sales decline, utilities are able to collect more per unit sold to make up for the lost revenue. Utilities generally support decoupling because it reduces the volatility of a utility's earnings.[1]

A full decoupling mechanism adjusts revenues for all deviations from forecasted revenue. A partial decoupling mechanism limits adjustments for usage or revenue variation to specified causes of variation such as energy efficiency (EE).[2]

Currently, PGE has two decoupling adjustments in place, the Sales Normalization Adjustment (SNA) and the Lost Revenue Recovery Adjustment (LRRA). The SNA applies to residential (Schedule 7) and small commercial customers (Schedule 32) and compares weather-adjusted distribution, transmission, and fixed generation revenues that are collected on a volumetric basis with those that would be collected with a fixed per-customer charge. The difference is accumulated in a balancing account and refunded or collected over a future period. The LRRA is a limited revenue recovery mechanism tied to the reduced kWh sales resulting from incremental EE savings generated through ETO programs directed to nonresidential customers other than those on

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[1] Staff/800, Kaufman/13.
[2] Staff/800, Kaufman/13.

Schedule 32 whose load does not exceed one average megawatt.[3] Any rate increase resulting from either the SNA or LRRA is limited to two percent annually.

In this docket, PGE proposes to:

1. Discontinue the LRRA and in its place apply the SNA to Schedules 38/538 (Large Nonresidential Optional Time-of-Day Standard Service/Large Nonresidential Optional Time-of-Day Direct Access Service), 47 (Small Nonresidential Irrigation and Drainage Pumping Standard Service), and 49/549 (Large Nonresidential Irrigation and Drainage Pumping Standard Service/Large Nonresidential Irrigation and Drainage Pumping Direct Access Service), and to the fixed generation portion of the volumetric generation charges in Schedules 83 (Large Nonresidential Standard Service 31-200 kW) and 85 (Large Nonresidential Standard Service (201-4000 kW);[4]
2. Remove the weather adjustment from the SNA to allow the full difference in use per customer to be refunded to customers or charged to customers; and
3. Retain the two percent annual rate increase limitation, but allow PGE to carry forward any amounts over two percent and collect from ratepayers in subsequent years.[5]

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[3] See PGE/1300, Macfarlane-Goodspeed/29.
[4] PGE presents this item as two separate changes, but clarifies in its reply testimony that this is in fact a single proposal. (PGE/2400, Macfarlane-Goodspeed/4, lines 3 to 6.)
[5] PGE/1300, Macfarlane-Goodspeed/29-30.

Staff opposed all three changes in opening testimony.[6] CUB opposed item two related to the weather adjustment and was silent on the remaining issues. Walmart opposes applying the SNA to Schedules 83 and 85, but recommends that if the Commission does apply the SNA to schedules 83 and 85, the adjustment should be on a per kW basis rather than a kWh basis.[7] Walmart did not address the remaining PGE decoupling proposals.

Q. What are Staff's concerns with PGE's proposal?

A. Full decoupling does not further Commission goals and shifts risk from the company to customers without any offsetting benefit to customers. Also, PGE's proposal eliminates large customers' ability to mitigate economic risk by reducing electric usage.

Q. How does PGE respond to Staff's concern with PGE's proposal to discontinue the LRRA and replace it with the SNA?

A. PGE responds by noting that:

1. The customers who receive service under the affected schedules also implement energy efficiency measures;[8] and
2. The changes reduce business risk for customers.[9]

Q. Please respond to PGE's statement that the changes affect customers that implement energy efficiency measures.

A. Staff's does not oppose maintaining the LRRA, which is a mechanism that recovers lost revenue associated with energy efficiency. If the LRRA is

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[6] Staff/800, Kaufman/11-16.
[7] Walmart/100, Chriss/20.
[8] PGE/2400, Macfarlane-Goodspeed/4.
[9] PGE/2400, Macfarlane-Goodspeed/5.

maintained, PGE should be indifferent to energy efficiency, and there is no need for additional changes. PGE's testimony does not conflict with Staff's recommendation to maintain the LRRA, which addresses lost revenue from energy efficiency.

Q. Please respond to PGE's statement that its proposed change to the LRRA and SNA would reduce business risk for customers.

A. According to economic theory, risk is fundamentally an issue of variation in profit. Risk mitigation tools, such as insurance, and commodity price swaps are designed to reduce volatility of profit. Under PGE's proposal, however, the volatility of PGE's business customers' profit increases, resulting in greater risk to these customers.

During periods of high economic activity, businesses generally have high demand, which results in high electric use and high costs, but also high revenue. Under PGE's proposal, during periods of high economic activity when profits are normally high, customers would have lower power prices and therefore even higher profit. Similarly, during periods of low economic activity, customers would experience additional energy charges, thus lowering profit. In other words, PGE's proposal increases profit volatility.

Q. How does Walmart's response to PGE's decoupling proposal relate to Staff's position that no change to the LRRA is appropriate?

A. Walmart's position underscores that the Commission should adopt Staff's recommendation to maintain the LRRA. Walmart opposes PGE's proposal to substitute the SNA for the LRRA. Customer preference should be given substantial weight when it comes to decoupling mechanisms. Walmart provides the only customer opinion on PGE switching from the LRRA to the SNA in this docket.

Q. Given Staff's response to PGE's two points above and the support of Walmart, does Staff continue to recommend no change to the LRRA?

A. Yes, PGE has failed to rebut Staff's concerns or demonstrate that the proposal provides any ratepayer benefit.

Q. How does PGE respond to Staff's and CUB's objections to eliminating weather normalization from the SNA?

A. PGE's opening testimony relies on an assertion that eliminating weather normalization will reduce customer weather risk.[10] To support this assertion PGE references a 2013 report on PGE's decoupling that stated that full decoupling would reduce customer bill volatility.[11] In Staff/804, Staff provides analysis of the 2013 report, and demonstrates that in fact there would be almost no reduction in bill volatility, and that the very small reduction in volatility is not statistically significant. This means that PGE's "evidence" could just as well be normal random variation.

PGE notes that Staff's analysis does not include 2017 weather affects, which will not be incorporated into rates until 2019. PGE points out that weather normalization would reverse the sign of the adjustment, but this is not evidence that it reduces bill volatility.[12] PGE's analysis is fundamentally flawed

[10] PGE/1300, Macfarlane-Goodspeed/31.
[11] PGE/1300. Macfarlane-Goodspeed/31, n. 4; PGE/1306, Macfarlane-Goodspeed/26-33.
[12] PGE/2400, Macfarlane-Goodspeed/6.

because it is not evaluating the net impact of the amortization of 2017 amounts in 2019 considering actual 2019 weather. In order to analyze the impact of the mechanism on customer risk BOTH the mechanism and actual weather must be considered. Staff's analysis uses a time period that allows consideration of the combined impact, and shows that there is virtually no impact on bill volatility.

Q. PGE states "It is a common misconception that full weather decoupling increases risk or shifts risk to customers."[13] What evidence or argument does PGE provide to demonstrate that this is a misconception?

A. PGE provides no evidence or argument to support this statement.

Q. PGE states that decoupling removes PGE's incentive to increase sales.[14] Is this relevant to the question of weather normalization?

A. No, this is not relevant to weather normalization. PGE's existing SNA mechanism is sufficient to remove the incentive to increase sales. Unless PGE can influence the weather, removing weather normalization will not provide further benefit with respect to removing the incentive to increase sales.[15]

Q. Please respond to CUB's arguments against eliminating weather normalization.

[13] PGE/2400, Macfarlane-Goodspeed/6.
[14] PGE/2400, Macfarlane-Goodspeed/7.
[15] Staff acknowledges that PGE may have some marginal ability to influence global weather through carbon emissions, but is skeptical that PGE would intentionally manipulate global climate in order to achieve greater sales.

A. Staff generally agrees with CUB's arguments, summarized below that eliminating weather normalization:

1. Represents a significant shift of risk from shareholders to customers;
2. Will lead to additional volatility in customer bills;
3. Is a significant change in Commission policy;
4. Represents inappropriate (and maybe illegal) retroactive ratemaking, and
5. Is unnecessary.

These points generally mirror Staff's points, although Staff has yet to take a position on CUB's arguments related to retroactive ratemaking.[16]

Q. How does PGE respond to Staff's objection to modifying the two percent of rates limiter?

A. PGE proposes to modify the two percent limiter so that annual amounts in excess of the two percent can carry forward to future years. Staff argues that this will harm customers with no associated benefit. PGE argues that Staff provides no rational for this observation.[17] However, PGE does not deny that Staff's statement is true, and indeed it is true, and the underlying rational is quite simple. If amounts over the two percent limit carry forward, they will be collected from customers in a future time period. This is an increase in rates relative to the status quo in which the amounts do not carry forward.

PGE compares the SNA with the provision of a service, asserting that carrying the excess balances forward to future periods is "simply charging

[16] Staff notes that further analysis on the issue of volatility is needed. The initial analysis shows no increase in volatility. Additional data are needed to establish that volatility actually increases under PGE's proposal. However, Staff agrees that in theory volatility should increase.
[17] PGE/2400, Macfarlane-Goodspeed/7.

customers for services provided."[18] However, SNA is not a service to customers; it is a service to the utility.

The Commission has already considered whether the amounts in excess of the two percent should be carried forward in Docket No. UE 197. The Commission explicitly ordered that these amounts should not be carried forward: "We also eliminate the recovery of adjustments in excess of 2 percent of the approved revenue requirement via deferral accounts."[19]

PGE provides no new arguments for the Commission to consider in this case. Staff has simply noted that PGE offers no benefits to counteract the burden placed on ratepayers by PGE's proposal. Given that the Commission has already ruled that it is appropriate that the amounts do not carry forward, PGE should provide a more substantial basis for this change.

Q. Does this conclude your testimony?

A. Yes.

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[18] PGE/2400, Macfarlane-Goodspeed/7.
[19] Order No. 09-176, page 1.

CASE: UE 335
WITNESS: SCOTT GIBBENS

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 1200

Rebuttal Testimony

August 15, 2018

Q. Please state your name, occupation, and business address.

A. My name is Scott Gibbens. I am a Senior Economist employed in the Energy Rates, Finance and Audit Division of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE., Suite 100, Salem, Oregon 97301.

Q. Have you previously provided testimony in this case?

A. Yes, I previously sponsored Exhibit Staff/100 and Exhibit Staff/1000. Staff/100 concerned the Company's net variable power costs, while Staff/1000 discussed the Company's load forecast among other general rate case topics.

Q. What is the purpose of your testimony?

A. I will discuss the Company's response to Staff's proposed adjustments to load forecast. Specifically, I will address the normal weather assumption utilized by the Company.

Q. Did you prepare an exhibit for this docket?

A. I did not prepare any exhibits in conjunction with Staff/1200.

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1. NORMAL WEATHER ASSUMPTION

Q. What is a normal weather assumption?

A. The Company's load forecast model utilizes weather as an informing factor in the expected load forecast. Standard ratemaking principals lead to the recovery of the Company's prudently incurred costs during a "normal" year. Following this idea, the weather input into the forecasting model is representative of a normal year, not the expected weather for the test year that might include things like El Niño status.

Q. Please provide a background for this issue.

A. PGE has typically used a 15-year moving average methodology to create a normalized weather input for its load forecast model. In PGE's last rate case,[1] PGE proposed to utilize a trended weather approach for the normal weather assumption in its load forecast. Staff argued that the use of a trended or "hinge fit" model was a non-standard and unnecessary practice.

The hinge fit method is not necessary because it produces results similar to the rolling-average method when determining the short-term forecast, i.e., the test year load. Also, the fifteen years of weather is a relatively small sample for determining a normalized weather forecast. Because PGE's methodology uses a relatively short period for the historical average, it should be adept at forecasting any upward trend in the weather.[2]

[1] PGE's last general rate case was Docket No. UE 319.
[2] Staff/1000, Gibbens/6-8.

Staff is aware of no other public utility that uses a trended weather approach in its load forecasting. All of the Oregon utilities use a rolling average. Given there is little need to change the forecast method, especially in PGE's case, Staff concludes that the uncertainty associated with using a non-standard methodology such as the hinge fit method outweighs any potential benefit.[3]

Q. What was PGE's response to Staff's reply testimony?

A. PGE listed several reasons they disagree with Staff. PGE pointed to evidence of acceptance of the methodology by nationally respected agencies and the fact that PGE utilized the approach in the previous IRP.[4] PGE also noted the relatively minute impact of the change to the overall result and also included a rebuke to Staff regarding Staff's concerns of the level of uncertainty and risk.[5]

Q. Does Staff agree that the trended weather approach is well developed and recognized?

A. No. Although it has been studied and otherwise is available as a means of making sample forecasts to further knowledge by different government agencies, it is simply not a methodology utilized by other utilities. Neither Staff nor PGE were able to identify a utility anywhere in the U.S. that currently utilizes this approach for ratemaking.[6]

Q. Does Staff agree that all weather assumptions are subject to uncertainty?

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[3] Staff/1000, Gibbens/6-8.
[4] PGE/2300, Riter-Lucas/7.
[5] PGE2300, Riter-Lucas/7-8.
[6] PGE/1100, Riter-Lucas/10.

A. Yes, it is true that no matter what the assumption, the forecast will face the same uncertainty. However, PGE is proposing to change their methodology to an approach no other utility in the state uses. They are adding complexity to the model to try to account for a very minor problem. It's akin to using stitches to heal a paper cut. To give a sense of the magnitude of the issue, Staff compared the last 20 years of historic actuals to a 15-year moving average for both heating degree days (HDD) and cooling degree days (CDD) with a 65 degree basis. Staff found that PGE's previous methodology was off by 1165 cumulative days for both HDD and CDD over the last twenty years. To put that into perspective, PGE's previous forecast methodology produced an error of about one tenth of a degree per day.

Q. Does the fact that PGE utilizes this methodology in its IRP influence Staff's recommendation?

A. No. Staff understands it can be efficient to utilize a single forecast methodology for both IRP and general rate case purposes. However, the two forecasts have differing goals and the forecast methodologies should cater to those goals. A warming trend may be a concern for long-term planning, which is what IRP forecasts are used for, but it is has little impact on year-ahead forecasts used in general rate cases.

The paper relied on by PGE from Robert Livezey et al., "Estimation and Extrapolation of Climate Normals and Climatic Trends,"[7] notes that moving average approaches only begin to fail in longer forecasts and under "very

[7] PGE/1111, Riter-Lucas/2.

strong underlying trends".[8] This paper is of limited relevance to the shorter-term forecast used for general rate cases.

Q. PGE notes that the impact of substituting the hinge fit method for the 15-year rolling average is relatively minor, does Staff believe this should influence the decision?

A. No. Staff notes that this is a change to methodology and will most likely have impacts beyond this single filing. Being that Staff's main concern for the load forecast is how it pertains to rates in this filing, Staff believes that the model should be optimized to industry standards.

Q. Does this conclude your testimony?

A. Yes.

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[8] See Livezey, Robert E. et al. "Estimation and Extrapolation of Climate Normals and Climatic Trends." Journal of Applied Meteorology and Climatology, vol. 46, 2007, pp. 1759-1776, http://journals.ametsoc.org/doi/pdf/10.1175/2007JAMC1666.1. Accessed August 2018.