Service Date: October 25th, 2021

UG-210729

STATE OF WASHINGTON

UTILITIES AND TRANSPORTATION COMMISSION

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October 25th, 2021

Amanda Maxwell, Executive Director and Secretary
Washington Utilities and Transportation Commission
621 Woodland Square Loop S.E.
Lacey, Washington 98503
P. O. Box 47250
Olympia, Washington 98504-7250

Re: Notice of Item to be Considered at the Commission's Regularly Scheduled Open Meeting and Notice of Opportunity to File Written Comments, **Docket UG-210729**

Dear Amanda Maxwell:

On September 21, 2021, the Washington Utilities and Transportation Commission (Commission) issued a notice of opportunity to provide comments on a motion by Chair Danner addressing whether natural gas utilities should continue to use the Perpetual Net Present Value (PNPV) methodology for calculating natural gas line extension allowances.

Commission staff (Staff) appreciates the opportunity to provide feedback. Overall, Staff recommends retaining the PNPV method but updating the discount timeframe as a matter of policy.

1. Advantages of the Perpetual Net Present Value (PNPV) Method

In general, Staff supports the use of the PNPV method because it results in a simpler tariff structure, makes the relevant calculations easier to understand, perform, and apply, and it ensures that line extension allowances are economically justified. The PNPV method is calculated using the anticipated revenue from the customer divided by the authorized rate of return which results in the net present value of the customer's presence on the system. This metric is a good proxy for

the financial break-even point of adding new customers to the system. The PNPV method requires only a single assumption, the length of time the service will be installed. This makes the PNPV method simple to calculate while relying on information from recent rate cases.

Alternative methods for calculating margin allowances generally rely on a discounted cash-flow calculation. For instance, PSE's Facilities Investment Analysis (FIA) model, which the company used before using the PNPV method, takes multiple assumptions as inputs like operating expenses, discount rates, and square footage. The more a model relies on external inputs the less it ends up reflecting actual operations, especially over a long timeframe.

Critically, the FIA model requires the same assumption the PNPV method does regarding the length of service life. The FIA model limits the timeframe to 20-years. The PNPV implicitly assumes this length of service to be "infinite."[1]

2. Options for Updating and Changing the PNPV Method

The PNPV method can be easily modified to just a regular Net Present Value (NPV) method by limiting the time frame used in the calculation. The chart and table below summarize the potential impacts from varying the length of time used in an NPV method on PSE's current residential margin allowance.

Current Margin Allowance	$4,328
Time Frame	Margin Allowance
1 Year	$400
8 Years	$2,194
10 Years	$2,539
20 Years	$3,178
30 Years	$3,853
40 Years	$4,202
50 Years	$4,276
60 Years	$4,306
75 Years	$4,322
100 Years	$4327

As represented by the table, the margin allowance is reduced as the length of time in the calculation is lowered. Choosing a specific length of service for the margin allowance is fundamentally a question of risk: How long will natural gas continue to be used as a primary fuel source for homes? This question should balance the competing policy factors that underly the use of natural gas in homes such as:

[1] Practically speaking, the PNPV method results in the approximate value of the current margin allowance after 100 years, even though the discount period is considered "infinite".

- The cost of greenhouse gas emissions.
- Environmental impact from oil furnaces and wood-burning stove emissions.
- Economic development from expanding service to areas not currently served by natural gas.
- Increasing energy efficiency.
- The historical equity in access to natural gas for marginalized communities and vulnerable populations.

Another key consideration is the treatment of natural gas versus electric infrastructure by the State of Washington. The State has not required utilities to incorporate the price of carbon into natural gas rates but requires electricity to do so through the Clean Energy Transformation Act (CETA). This causes a mismatch in the treatment of the fuels and makes comparing the incentives for expanding the infrastructure of the two fuel types difficult. One way of addressing the policy questions above is by incorporating the social cost of carbon into the marginal allowance calculation or into the cost of natural gas service itself.

3. Recommendations

Staff recommends adopting an NPV method that updates the discount timeframe based on the policy factors identified above. Each of these policy questions could be examined with margin allowances specifically in mind. However, the State of Washington through CETA did address these policy questions (and others) for electricity. CETA's first implementation goal for carbon reductions for electricity production is 2030. Using eight years in the NPV method aligns the margin allowance discount timeframe with the implementation of CETA. Additionally, the result of this calculation using the eight-year timeframe would be close to or lower than an updated margin allowance calculation that relied on the FIA model.[2]

Staff recommends adopting a balanced approach using the NPV method with an eight-year discount period. Staff does not support returning to an FIA model, or other discounted cash-flow based approach.

Staff appreciates the opportunity to file comments on this topic and looks forward to continued engagement with the Commission and Stakeholders on this issue.

Sincerely,

Jason L. Ball

Assistant Director, Energy Regulation

[2] The FIA model used a 20-year time frame to calculate a margin allowance of $1,932 in 2016 (the last time it was used). Staff's recommended NPV method uses 2020 data, an 8-year time frame, and results in a margin allowance of $2,194. If the FIA model were updated to use 2020 data, the FIA margin allowance would most like increase above Staff's proposed margin allowance.