Exh. BLH-13
UE-240004/UG-240005/UE-230810
Witness: Byron Harmon

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-240004, UG-240005 and UE-230810 (Consolidated)**

EXHIBIT TO TESTIMONY OF

BYRON LLOYD HARMON

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

PSE Response to Staff Data Request No. 203

August 6, 2024

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case

WUTC STAFF DATA REQUEST NO. 203:
REQUESTED BY: Byron Harmon

RE: Equity

In the Direct Testimony of Troy A. Hutson, Exh. TAH-1T, page 41, Table 4 PSE states, "Median percentage reduction in energy burden from energy assistance, among high energy burden customers who receive energy assistance" and "Z*i* = Post-assistance energy burden for residential customer I" Where "Energy Burden Efficacy = Median (Z)". Please answer the following questions:

1. Using the transitive property, this latter definition appears to read "Energy Burden Efficacy = Median (Post-assistance energy burden for residential customers)." Is that accurate?
2. If it is accurate, then "Energy Burden Efficacy = Median (Post-assistance energy burden for residential customers)" appears inconsistent with "Median percentage reduction in energy burden from energy assistance." Please explain this inconsistency.

Response:

1. It is correct that, given the definition of Energy Burden Efficacy presented on page 41, Table 4 of the Prefiled Direct Testimony of Troy A. Hutson, Exh. TAH-1T, it follows that "Energy Burden Efficacy = Median (Post-assistance energy burden for residential customers)." However, this is because the formula that Puget Sound Energy ("PSE") presented in Table 4 is incorrect.

   The correct metric calculation for PSE's proposed Energy Burden Efficacy metric, defined as "median percentage reduction in energy burden from energy assistance, among high energy burden customers who receive energy assistance" should be:

   Energy Burden Efficacy = Median(**Z**), where

   Z_i = Pre-assistance burden – Post-assistance burden of customer *i*

   $= (Bill_i / Inc_i) – (Bill_i – EA_i) / Inc_i$

$= EA_i / Inc_i$,
and

i = energy-burdened customer (customer whose pre-assistance energy burden is higher than 6 percent) who received energy assistance,

Z_i = Reduction in energy burden for residential customer *i* due to energy assistance,

$Bill_i$ = Total annual household energy costs for residential customer *i,*

EA_i = Total energy assistance received by residential customer *i* during the year*,*

Inc_i = Known or estimated household annual income for residential customer *i.*

PSE will note this correction when calculating the proposed metric. As an example, suppose for highly energy-burdened customer *i* = 1, their pre-assistance burden is 0.09 (9 percent burden) and post-assistance burden is 0.05 (5 percent burden). Then their reduction in energy burden from energy assistance is Z_1 = 0.04 (4 percent). (Since energy burden is already thought of as a percentage, with 6 percent as a critical threshold value, PSE finds it more interpretable to consider the reduction as this difference, rather than the percent difference in the burden values (where Z_1 = (0.09 – 0.05) / 0.09 x 100.) PSE's proposed aggregate Energy Burden Efficacy metric would take the median over all such values Z_i, and could be expressed either as a decimal or percentage.

Therefore, Table 4 should read as follows:

Metric	Metric Definition	Revision from 2022	Metric Calculation
Energy Burden Efficacy	Median percentage reduction in energy burden from energy assistance	New (revised June 2024)	Energy Burden Efficacy = Median(**Z**), where Z_i = Pre-assistance burden – Post-assistance burden of customer *i* $= (Bill_i / Inc_i) – (Bill_i – EA_i) / Inc_i$ $= EA_i / Inc_i$, and i = energy-burdened customer (customer whose pre-assistance energy burden is higher than 6

			percent) who received energy assistance, Z_i = Reduction in energy burden for residential customer *i* due to energy assistance, $Bill_i$ = Total annual household energy costs for residential customer *i,* EA_i = Total energy assistance received by residential customer *i* during the year*,* and Inc_i = Known or estimated household annual income for residential customer *i.*

2. See the response to (1) above.