AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	WASHINGTON	DATE PREPARED:	09/11/2017
CASE NO.:	UE-170485 & UG-170486	WITNESS:	Kevin Christie
REQUESTER:	UTC Staff	RESPONDER:	Shawn Bonfield
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff - 174	TELEPHONE:	(509) 495-2782
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REQUEST:

Referring to docket UG-152394, Avista Natural Gas Line Extension Allowance Program Semi-Annual Report No. 2: Please provide the analysis that forms the basis for the quantified environmental benefit in the final paragraph of the report on page 7. Identify the source of all assumptions used in the analysis and clarify if the CO_2 saved is actual CO_2 or CO_2 equivalent. Please provide responsive materials in a fully functional Excel format with all workbooks, worksheets, data and formulae left intact.

RESPONSE:

After further review the Company realized it incorrectly calculated the environmental benefit in the final paragraph on page 7 of the Natural Gas Line Extension Allowance Program Semi-Annual Report No. 2. Per the Company's 2015 Washington Electric Business Plan, on average when a customer converts their space heat from electric to natural gas they save 7,485 kWh per year, water heaters save 3,790 kWh per year, and for both pieces of equipment together they save 11,275 kWh per year. See Staff_DR_174 Attachment A (Res Conv tab) for the kWh savings information, which is included as part of the Company's 2017 Electric Demand-Side Management Annual Conservation Plan.

The emissions profile for the average customer that uses electric space heat and hot water is as follows:

Average Electric (Resistance) Customer			
End Use	**Electric Use (kWh)**	**AVA Mix CO_2 lbs/yr**	**AVA Mix CO2 Metric Tons/Year**
Furnace	7,485	5,809	2.636
Water Heat	3,790	2,941	1.335
Combined	**11,275**	**8,750**	**3.970**

The emissions profile for a customer that uses natural gas as their fuel source for space heating and water heating as required to receive a LEAP allowance is as follows:

Average Natural Gas Customer			
End Use	**Therms @ 90% Efficient Furnace and 67% Water Heat**	**CO_2 lbs/yr**	**Direct Use Metric Tons/Year**
Furnace	244	2,851	1.294
Water Heat	166	1,939	0.880
Combined	**409**	**4,790**	**2.173**

Based on the information in the tables above, the actual savings range of CO_2 for a customer that converts their space heat and/or hot water heat through the LEAP program is 0.31 – 1.44 metric tons per year.

The Company calculated the average customer emissions by using its 2015 fuel supply mix and 2015 regional emissions data from the Fuel Mix Disclosure information provided by Department of Commerce. Please see Staff_DR_174 Attachment B for all calculations and data.