**AVISTA CORP.**

### RESPONSE TO REQUEST FOR INFORMATION

# JURISDICTION: WASHINGTON DATE PREPARED: 07/01/2016

# CASE NO.: UE-160228 & UG-160229 WITNESS: Heather L. Rosentrater

# REQUESTER: Public Counsel/Energy Project RESPONDER: C. Kirkeby / L. La Bolle

# TYPE: Data Request DEPT: State & Federal Regulation

# REQUEST NO.: PC/EP – 059 Revised TELEPHONE: (509) 495-4710

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**REQUEST:**

With respect to Avista’s response to Public Counsel and The Energy Project Joint Data Request Nos. 29 and 30, please document where in the evaluation of the Pullman conservation voltage reduction results (and the resulting report) that the existence of or potential impact of the AMI meters was identified or evaluated in the study of the conservation voltage reduction impacts.

**RESPONSE:**

Conservation voltage reduction is an energy conservation program that relies on a method of operational control of the distribution system that corrects the power factor and simultaneously lowers the voltage (v) to the lower portion of the range Avista is required to operate within for serving its customers (114v to 126v). The reduction in operating voltage reduces the electricity requirement for meeting our customer’s end use needs and reduces the “losses” of electricity that occur as it “travels” on the distribution system. In the conventional operation of the distribution system, the utility uses “voltage regulators” in the substation to either boost or reduce the voltage on the feeder as needed, based on preset triggers that reflect the characteristics of the feeder and its loading (number of amps) at any given point in time. Because the utility does not know the actual voltage along the feeder (other than when readings were taken as part of the process of adjusting the voltage regulator settings), the voltage regulator is set to maintain the voltage in the upper part of the allowed range (known as a “buffer”) in order to ensure that the voltage will not fall below the required lower limit for any customer as the demand, types of loads such as motors, and usage fluctuates on a continuous basis.

Avista’s Smart Grid Projects in Pullman and Spokane provided the opportunity for Avista to dramatically increase its energy conservation savings achieved through the deployment of conservation voltage reduction on 72 electric feeders. Because Avista intended to apply these savings toward its state-mandated energy conservation targets, it was required to independently verify the distribution system energy efficiency savings it estimated and reported to the Commission. Specifically, Avista had to verify the values (savings) that were calculated using applicable parts of the Regional Technical Forum (RTF) “Automated CVR Protocol No. 1,” Voltage Optimization Protocol” (Protocol #1). The resulting study, commissioned by Avista and the Northwest Energy Efficiency Alliance, was performed by Navigant Consulting and was designed to verify the accuracy of the Automated CVR Protocol #1, and the resulting energy savings claimed by the Company. The Navigant study also evaluated two additional models for estimating CVR energy savings. As noted in PC/EP-086 and others, the study validated the accuracy of the Protocol #1 model and the amount of the energy savings (MWh) estimated by the Company. It was not within the scope of the Navigant study to evaluate the potential of various approaches or strategies (including the potential of advanced meters) for implementing conservation voltage reduction programs. The Navigant study is provided as PC/EP\_DR\_059 Revised Attachment A.