**AVISTA CORP.**

### RESPONSE TO REQUEST FOR INFORMATION

# JURISDICTION: WASHINGTON DATE PREPARED: 04/16/2015

# CASE NO.: UE-150204 & UG-150205 WITNESS: Don Kopczynski

# REQUESTER: UTC Staff - Nightingale RESPONDER: Larry La Bolle

# TYPE: Data Request DEPT: State & Federal Regulation

# REQUEST NO.: Staff - 114 TELEPHONE: (509) 495-4710

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**REQUEST:**

See page 16 - section III.K. Please provide the study demonstrating that the AMI project will result in a “potential benefit” of $1,053,322 associated with “identifying more … diversion cases.” Please include all assumptions, worksheets and any other material relied upon by the study to determine the above-referenced cost savings.

**RESPONSE:**

The work processes of curbing theft of energy service and reducing the incidence of unbilled usage is significantly enhanced by the availability of advanced metering systems and data. The four areas of focus are diversion of service (theft), unbilled usage, slow and failing meters, and stopped meters. Each of these situations represents an opportunity to align metering with the actual energy consumption at the premise.

**Theft Diversion**

Diversion of service can include instances of complete diversion, partial diversion, and intermittent diversion. A common trade reference on the significance of service diversion cites a range of revenue impact from 0.5% to 3.0%. Several other articles support this range. For purposes of this analysis, Avista started with a more conservative estimate of 0.4% of Washington revenues as the potential diversion occurring in our service area. We then subtracted our documented level of diversion activity, 0.012% of revenue, for a remaining diversion potential of 0.388 %, or $2.24 million for both electric and gas.

Recognizing that there is a cost associated with investigating and resolving diversion cases, we estimated the cost associated with the initial field visit from Avista’s meter staff, billing analyst’s time to prepare a new bill, and a subsequent cost to perform additional investigation and resolution. That cost was approximately $190 per investigation ($125 dispatch cost for service person + $58.13 service person time to service the meter + $9.75 for billing analyst’s time to rebill). Subtracting these investigation costs (1,387 potential cases X $190) reduces our estimated savings potential to approximately $2.1 million. Finally, Avista assumed it would detect approximately half of these potential diversion cases, resulting in a potential for annual savings of $1.05 million in unbilled revenue, or 0.18% of total revenue.

The computation, determination, or source of these values is provided in Excel format in Staff\_DR\_114 Attachment A, under the tab labeled “Benefits Meter Shop Rev Pro.” This worksheet contains the financial and other information used to calculate the benefit value, and the source of each element of information is also provided. Where values are calculated in the worksheet, the particular computation, as well as the location of the data used, is provided by “mouse clicking” on the referenced cell.

### Sources Supporting Energy Theft and Unbilled Energy Usage

1. Austin Energy : Noted that they had .5% with evidence of theft and or tampering (Conversation post AMI implementation in 2010)
2. SMUD : .7% of revenue (Conversation with Augi - Mgr of corporate performance)
3. ELP - Electric Light and Power Article : A national study found that .5 to 3 % showed evidence of theft.
4. APS : Sample study showed 1.7% of all meters had some tampering with an net .51% loss in revenue
5. BC Hydro & CenterPoint Energy: BC Hydro 3 % of revenue and CenterPoint 2% of Res and Small Customer
6. DTE Energy : Between 1-3 %
7. Seeing the Forest, Then the Trees by By Michael Madrazo, founder and President of Detectent
8. Accenture : Between 2-4 % with up to 80% being theft
9. Detectant - Deputizing Data: Using AMI for Revenue Protection : Greater than 1% (from prior literature)
10. Metering.com : ~1%
11. Idaho Power : < 1% -- Graesch Arnold, Mary [MGraeschArnold@idahopower.com] It tends to vary greatly based on local social acceptance and crime rate. Idaho is low on both counts.
12. MeteringAmerica.com : ~1% - ROI on investigation is 4:1
13. SAP : >1%
14. SDG&E : 1-2%
15. CP&L : 0.40%
16. Portland General : 0.10%
17. UAI : Recent article - comments that Rev Pro is the default first analytics initiative
18. http://sites.energetics.com/MADRI/toolbox/pdfs/background/king.pdf