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Via: UTC Web Portal

January 31, 2019

Mark L. Johnson
Executive Director and Secretary
Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive S. W.
P.O. Box 47250
Olympia, Washington 98504-7250

Re: Docket No. U-180525 – Comments of Avista Utilities

Dear Mr. Johnson,

Avista Corporation, dba Avista Utilities (Avista or Company), submits the following comments in accordance with the Washington Utilities and Transportation Commission's ("Commission") Notice of Opportunity to Submit Written Comments ("Notice") issued in Docket U-180525 on December 21, 2018 regarding the Commission's "Rulemaking to modify existing consumer protection and meter rules to include Advanced Metering Infrastructure (AMI)." Pursuant to the Notice, Avista provides comments to the questions posed in the Notice:

AMI Meter testing and accuracy requirements

1. What types of certification are available for meters?

   Avista Response: For Avista, its OpenWay Riva CENTRON® singlephase and polyphase are UL 2735 approved with the exception of HW 4.1 OpenWay Riva CENTRON

Polyphase meter. HW 4.1 polyphase meters will be UL 2735[1] approved when released in 2019.

The metering platform is compliant to the following standards:

- ANSI C12.1 (American National Standard for Electricity Meters – Code for Electricity Metering)
- ANSI C12.10 (American National Standard for Electricity Meters – Physical Aspects of Watt-hour Meters)
- IEC 62056 – DLMS/COSEM suite of standards
- ANSI C12.20 (American National Standard for Electricity Meters – 0.2 and 0.5 Accuracy Classes)
- ANSI/IEEE C62.45 (Guide to Surge Testing on Low-Voltage AC Power Circuits)
- ANSI MH 10.8 Specification for Bar Code
- ANSI ASQZ 1.4 Sampling Procedures and Tables for Inspection by Attributes
- IEC 61000-4-2
- IEC 61000-4-4
- IEEE C37.90.1 SWC Surge Testing
- IEEE C62.41.2 IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and less) AC Power Circuits
- NEMA SG-AMI 1 Requirements for AMI Meter Upgradeability
- FCC Part 15, Class B
- UL 2735
- NISTIR 7628 Guidelines for Smart Grid Security

2. How is meter accuracy tested?

Avista Response: During the manufacturing process, all OpenWay Riva CENTRON meters are calibrated and then verified at Full Load, Light Load and Power Factor. Measurements are implemented in the manufacturing process to ensure every meter's calibration constants are as close to 100% as possible. Additionally, accuracy verification is performed at the Final Station. When this verification is conducted, the Final Station performs a Full Load test and compares the results to the original Full Load reading found when calibration was performed at the time of manufacture. If a meter fails the accuracy verification check, the Final Station fails the device at which time recalibration of the meter is required.

In addition to accuracy calibration and verification, Quality Control verifies accuracy of 4%-5% of every meter order by performing Full Load, Light Load, Power Factor and Element Full Load accuracy tests.

[1] UL 2735 is a recent addition to electric utility revenue meter certifications. The UL 2735 standard applies additional rigor to smart meter safety standards. This is an added benefit not present in previous generations of smart meters. The long history of trust in UL certifications is another layer of confidence for our customers that smart meters do not pose a safety risk.

The OpenWay Riva CENTRON meters are calibrated at the time they are manufactured and by design, class accuracy of the meters is maintained throughout the life of the meter. Itron validates accuracy for the life of the meter through Accelerated Life Testing (ALT). The goal of this Accelerated Life Test program is to assess whether the product meets the required 20 year lifetime. ALT testing consists of running the following test:

- High Temperature – This test is a constant temperature of 90°C.
  The meters are powered with the appropriate voltage (120 or 240 VAC) and current (typically 10A).
- Temperature Cycling – This test condition involves varying the temperature from -40°C to +85°C at a rate of 5 cycles per day for 1500 hours. The meters are powered with the appropriate voltage and current.
- High Temperature High Humidity ("80/80") – For this test, the conditions are 80°C and 80% relative humidity for 1250 hours. The meters are powered with the appropriate voltage and current.
- Meter Farm – A large number of meters are operated outside, powered with the appropriate voltage, and exposed to the elements. This represents "real-world" field operation.

Accuracy is validated at each read point of the High Temperature, Temperature Cycling and High Temperature High Humidity tests. Meters accuracy must remain within specification at each read point.

In addition to our manufactures accuracy testing, Avista conducts accuracy testing in accordance with our Tariff 70. This includes sample testing new meter shipments, as well as conducting sample testing of our installed meter population annually.

At this time, Avista is conducting a review of our tariff to ensure it is in line with new meter technologies that were not available when the tariff was originally written. Additionally, Avista is exploring other testing policies that would align better with digital metering technology allowing for a proactive approach to identifying inaccurate electric meters.

3. Are there concerns related to power quality that could affect performance and accuracy of the meters?

Avista Response: The OpenWay Riva CENTRON product line meets all applicable ANSI standards therefore ensuring accuracy of the meter to these standards. There have been recent inclusions to the ANSI C12.20 test suite which supports testing meters in the presence of harmonics and non-linear loads ensuring These standards are the following:

ANSI C12.20-2015 Test 5.5.6.1 Effect of Harmonic Influence - 90 degree phase fired waveform
ANSI C12.20-2015 Test 5.5.6.2 Effect of Harmonic Influence – Quadriform Waveform
ANSI C12.20-2015 Test 5.5.6.3 Effect of Harmonic Influence – Peaked Waveform

ANSI C12.20-2015 Test 5.5.6.4 Effect of Harmonic Influence – Multiple Zero Crossings on Current
ANSI C12.20-2015 Test 5.5.6.5 Effect of Harmonic Influence – Multiple Zero Crossings on Voltage

OpenWay Riva CENTRON meters were tested against these recently adopted standards in the ANSI C12.20 test suite and successfully passed all required test criteria.

4. Please refer to Attachment B. In the article, *Challenges for Smart Electricity Meters due to Dynamic Power Quality Conditions of the Grid: A Review*, the author states, "The understanding of the relationship between power quality and the accuracy of electricity meters I useful to evaluate the impact of including a standardized procedure to properly calibrate meters under distorted waveform. Further and continuous investigation is required to minimize the error of electricity meters under any possible working condition. The current permissible error in applicable accuracy related standards could be a cause of significant revenue losses for utilities."

   a. Does the company know of any modifications to current standards to address this issue?

      Avista Response: Yes, the ANSI Committee in 2015 adopted their ANSI C12.20 suite of standards as noted in the Company's response to Question 3 above.

   b. Do companies know of any circumstance where meter reading are not accurate? If inaccuracy of meters in known under certain circumstances, what circumstances trigger the inaccuracy? What can Companies do to correct this problem?

      Avista Response: The Company and its meter manufacturer Itron are not aware of any circumstance where harmonics would cause a meter to be inaccurate.

   c. Does the company know if the meters have been tested for current waveform distortion caused by LED, CFL, and dimmers?

      Avista Response: Characteristics and waveform signatures differ between manufactured LED, CFL and dimmers. The ANSI C12.20-2015 test 5.5.6.x suite was developed to test these signatures provided that these manufacturers are adhering to their required standards.

   d. Are meters tested in their capability to measure accurately under distorted waveform conditions?

      Avista Response: Yes. The OpenWay Riva CENTRON meter was tested against all applicable ANSI standards which focus on harmonics/distorted waveforms. Please see the Company's response to Question 3 above.

5. Has the company considered adopting standard ANSI C12 – Smart Grid Meter Package? Please provide the rational for your response.

   Avista Response: Avista's OpenWay Riva CENTRON meters meet all applicable solid state meter standards included in the ANSI C12 – Smart Grid Meter Package.

Remote Disconnect

6. Do companies have restrictions in tariff or in practice for disconnecting service during times when the temperature will be low or high? If so, please describe.

   Avista Response: No. However, it is and always has been Avista's practice to stop collection disconnects, both in the field and remotely, when the daily temperature by location is forecasted to be below 25 degrees or above 100 degrees.

7. Public Counsel suggests limiting disconnections for non-payment on days that are forecast to be 32 degree Fahrenheit or less.

   a. What are the advantages of this limitation?

      Avista Response: Avista recognizes the importance of keeping customers' energy connected during colder temperature days for their safety and well-being, as well as for the properties it serves. As stated in the Company's response to Question 6, Avista currently postpones disconnects when daily temperatures are forecasted to have a high temperature of 25 degrees or below. This temperature threshold balances the needs of the customers and premises while also ensuring that the number of disconnect days per year is not exorbitant.

   b. What are the disadvantages of this limitation?

      Avista Response: Table No. 1 below represents the number of days in Avista's Washington service territory, between December 1, 2017 and December 1, 2018 that met the 25 degree threshold at which the Company put into effect a moratorium on disconnections for nonpayment. For comparison, the number of days that met the 32 degree threshold as suggested by Public Counsel is also represented in Table No. 1.

Table No. 1

Colville	Davenport	Deer Park	Goldendale	Othello	Pullman	Spokane	Total System
25 DEGREES AND BELOW							
6	**5**	**0**	**0**	**0**	**4**	**4**	**7**
32 DEGREES AND BELOW							
27	**30**	**15**	**1**	**13**	**16**	**31**	**38**

If a policy limiting disconnections for non-payment on days that are forecast to be 32 degree Fahrenheit or less was implemented, Avista would see a more than 400% increase in the number of temperature-based moratorium days in its Washington service territory, from 7 total days to 38 days per year. Placing a moratorium on disconnects during the winter months could have a detrimental impact on all customers, as it would allow higher winter bills to accumulate further without the appropriate collections process ensuing. That could drive up uncollectibles.

c. Should Washington restrict disconnections for non-payment during cold weather? If so, describe alternative policy recommendations.

Avista Response: Avista suggests maintaining such restrictions through tariff revision or Company standards rather than through administrative rule, as the Company is regulated by the three separate Commissions of Washington, Idaho and Oregon and as such, maintains compliance with all three jurisdictions. For continuity, the Company's current disconnect practices during cold weather, as explained in response to Question 6, are standard across all three of its jurisdictions.

8. In regards to placing limitations on the time of day utility service can be disconnected remotely, what does a policy look like that would allow the customer time to resolve the reasons of the disconnection on the same day?

Avista Response: Avista's current practice is to perform remote disconnects between the hours of 9:00am and 3:00pm to allow the customer time to resolve the reasons for their disconnection on the same day, and to be reconnected the same day.

The Company offers a number of no-cost payment methods for customers. In addition to making a payment at pay stations, drop boxes, or paying by cash at pay stations or the Company's office, Avista also offers customers online payment through the Company's website and pay-by-telephone payment options which provide almost immediate account updating and the customer can make these payments without leaving their home.

a. Does the utility have a policy to temporarily delay a disconnection, if the dispatched utility representative finds a vulnerable resident such as, but not limited to a low-

income resident or a resident with a medical issue (who has not declared a medical emergency)?

Avista Response: Yes. Vulnerable customers can be referred to Avista's Customer Assistance Referral and Evaluation, or "CARES" Department,[2] at any time during the collections process.

b. On average, what percentage of utility customers are disconnected per day? Please include all disconnections, not just those directed by the utility with notice. Please provide electric and gas customer information separately.

Avista Response: Avista disconnects approximately 0.007% of its utility customers in Washington per day.[3]

9. When a customer is disconnected for non-payment, how long will the company take to remotely reconnect service after payment has been received? Will service be reconnected the same day?

Avista Response: Based on the Company's existing AMI customers (Pullman, WA), there were 1,467 total remote disconnects between January 1, 2018 and December 31, 2018. Approximately 78% of the total remote disconnects were reconnected in under one minute after the customer satisfied payment, and nearly 97% of remote reconnects occurred within one hour.

10. Do you currently reconnect service 24 hours a day, seven days a week? If not, what is your practice?

Avista Response: Yes. Remote reconnects are available 24 hours a day, 7 days a week.

Table No. 2 below illustrates the Company's reconnection practice without AMI remote capability.

[2] Avista's CARES Department works with customers experiencing circumstances such as medical crisis, unemployment, family hardships, or other special conditions that may impact the customer's ability to pay their utility bill. CARES works with the customer to connect them with energy assistance, provide specialized payment arrangements, and often delays disconnect to accommodate this process.

[3] The percentage of utility customers disconnected per day is based on disconnects occurring 247 days per year, as Avista does not disconnect on weekends or holidays.

Table No. 2

WASHINGTON RECONNECT TIMES	
Customer Calls In:	**Reconnect Will Occur:**
Monday - Friday, Before 7pm	SAME DAY
Monday - Thursday, After 7pm	NEXT DAY
Friday, After 7pm	NEXT DAY (After 12:00pm (noon) on Saturday)
Saturday, Before 12:00pm	SAME DAY (After 12:00pm (noon) on Saturday)
Saturday, After 12:00pm	NEXT DAY (After 12:00pm (noon) on Sunday)
Sunday	NEXT DAY

Meter testing and accuracy requirements

11. Should companies be allowed to collect and release, with no restrictions, aggregate load information that enables the identification of customer class consumption behavior?

Avista Response: Yes, as long as the information does not provide personally identifiable information. We currently utilize aggregated, de-identified customer data for some of our energy efficiency programs, looking at overall behavior changes and associated energy consumption and reduction in order to effectively shape and evaluate our current and new programs energy conservation programs. The Company also utilizes aggregated, non-identifiable customer data in more complex analytics (such as combining consumption with average daily temperature) in order to provide better recommendations for our customers.

General Comments and Suggested edits to the Draft Rules

Avista has reviewed the Draft Rules and provides some suggested changes in strike and underline, and offers the Company's rationale set forth below:

1. WAC 480-100-023 Definitions

"Primary purpose" means the collection, use, or disclosure of Personally identifiable information collected by the utility or supplied by the customer where there is ~~an authorized~~ a legitimate business need in order to: (1) provide, bill, or collect for, regulated electric service; (2) provide for system or operational needs; (3) provide services as required by state or federal law or as specifically authorized in the utility's approved tariff or; (4) plan, implement, or evaluate energy assistance, energy management, renewable energy, or as part of a commission-authorized program conducted by an entity under the supervision of the commission, or pursuant to state or federal statutes governing energy assistance.

Avista appreciates the opportunity to clarify the acceptable uses of customer information so that the Company has clear guidance. Avista would like to ensure that this definition is comprehensive enough to cover the activities that utilities are typically involved in. Avista would request some clarity regarding the sections including whether the primary purpose in (2) would include the use of cloud based service providers; and whether sending surveys to our customers would fit within (4)?

> **"Personally identifiable information"** means information that can be used to distinguish or trace an individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual, including information related to the quantity, technical configuration, type, destination of service or products subscribed to by a customer of a regulated utility that is available to the utility solely by virtue of the customer-utility relationship. For purposes of these rules, personally identifiable information does not include information that is publicly available or otherwise legally obtained.

Avista is concerned that the definition of personally identifiable information may be too broad. If there is going to be a comprehensive definition that takes into account customer information, as well as other information that is personally identifiable, the Company would like to utilize the RCW definition from 19.255.010 which defines "personal information" as:

> *an individual's first name or first initial and last name in combination with any one or more of the following data elements:*
> *(a) Social security number;*
> *(b) Driver's license number or Washington identification card number; or*
> *(c) Account number or credit or debit card number, in combination with any required security code, access code, or password that would permit access to an individual's financial account.*

By using this definition it would keep the privacy rules consistent with state law regarding Personally identifiable information which then we could maintain the current examples of customer information. In combination, these two areas of information should adequately address the potential areas of harm or concern for customers. The implications of defining "Personally identifiable information" as proposed could be quite substantial and could involve added costs and resources to protect combinations of data that may not even be concerning for the customer. Finally, we might suggest using a different term than "Personally identifiable information,"

perhaps something like "private customer information" since the conventional use of personally identifiable information has a different meaning in various state laws and statutes and could cause confusion.

2. WAC 480-100-128 Disconnection of Service

> (4)(a)(i) The utility must provide the first written disconnection notice by email, text, or other electronic communication, if the utility has such contact information for the customer, ~~and~~ or by delivery of a hard copy to the service premises depending on the customers' stated preference. The notice must include a disconnection date that is not less than eight business days after the date the utility either delivers the notice to the service premises and attaches it to the customer's primary door or mails the notice, if the utility mails the notice from inside the states of Washington, Oregon, or Idaho. The disconnection date in the notice may not be less than eleven business days from the mailing date, if the utility mails the notice from outside the states of Washington, Oregon, and Idaho.

Avista suggests a more reasonable approach would be to leave the option of mailed notice intact, but add electronic communication as an option to the utility per the customers stated preference, rather than a requirement, for customers who have provided e-mail or cell-phone contact information. Under such circumstances, electronic notice should be treated in the same manner as delivered notice (*i.e.,* require 8 business days' notice in the first communication, and 2 business days' notice in the second). This is consistent with the manner in which electronic communications are handled in most other areas—most notably in the state and federal court systems, where electronic communications are treated in the same manner as personal delivery in virtually all contexts. This would provide the utility with flexibility to tailor its communication to the customer's indicated communication preference and eliminate the ambiguity created by the current proposed revisions, while still embracing the alternative methods of communication now available to customers.

> (6) **Remote Disconnection.**
> When disconnecting services remotely, the utility must:
> (a) Set a reasonable number of remote disconnections per 24 hour period, which its system cannot exceed, or take other reasonable measures to prevent unauthorized disconnections;
> (b) Perform all remote disconnections for non-payment between the hours of ~~8~~ 9 a.m. and ~~noon~~ 3 p.m.;
> (c) Visit the customer's premises and provide the customer with an opportunity to pay via appropriate methods including providing payment to the dispatched utility representative

prior to disconnecting a customer who has ~~had~~ a medical emergency verified ~~in the prior two years,~~ in accordance with subsection (8) of this section;
~~(d) Visit the customer's premises and provide the customer with an opportunity to pay via appropriate methods including providing payment to the dispatched utility representative prior to disconnecting a customer who has received low-income assistance in the prior two years;~~
(~~e~~d) If a site visit is not required to disconnect the service, the utility may not charge any fees for the disconnection unless the utility's tariff includes a specific charge for remote disconnection.

The Company believes that restricting remote disconnections to between 8:00 a.m. and 12:00 p.m. places an unreasonable administrative burden on the utility, which is exacerbated by the requirement that the utility not charge the customer for a remote disconnection unless its tariff provides otherwise. A more reasonable window, which would allow the utility flexibility while still maximizing the possibility of reconnecting a customer, would be between the hours of 9:00 a.m. and 3:00 p.m.

Also problematic is the requirement that the utility visit any customer who has received low-income assistance or experienced a medical emergency in the prior two years. Because low income assistance programs are run separately from connection and disconnection procedures (and in some cases outside the utility entirely), attempting to track a customer's receipt of assistance, on a rolling basis, to ensure compliance with this requirement is not feasible. Moreover, identifying customers who are eligible for low-income assistance, or whose medical condition renders disconnection inequitable, is already addressed through the notice and medical emergency provisions in the rule. Consequently, the additional requirements set forth in proposed subsection 6 are neither reasonable nor necessary under the circumstances.

3. **WAC 480-100-153 Protection and disclosure of private information.**
A utility must safeguard all personally identifiable information within the utility's possession or control from unauthorized access or disclosure to the ~~maximum~~ extent ~~possible~~ it is commercially reasonable. For purposes of this section, "safeguard" includes but is not necessarily limited to encrypting the information in a manner that meets or exceeds the National Institute of Standards and Technology (NIST) standard.

(2) An electric utility may only collect and retain personally identifiable information that is reasonably necessary for the utility to ~~provide services to customers~~ perform duties directly related to the utility's primary purpose, unless the utility has first obtained the customer's written, verbal, or electronic permission to do so.

(4) A utility may disclose personally identifiable information to third-party vendors only to the extent necessary for the utility to ~~provide services to its customers~~ perform duties directly related to the utility's primary purpose. The utility must require that all third-party vendors that have access to personally identifiable information have policies, procedures, and technological safeguards in place sufficient to prevent the misuse or improper or unauthorized disclosure of such information.

(5) A utility ~~remains responsible for the safeguarding of all personally identifiable information the utility discloses to affiliates, subsidiaries, parent corporations, or third party vendors to the same extent that the utility must safeguard that information when it is in the utility's possession~~ must ensure that it has enforceable contractual obligations with third party vendors, affiliates and subsidiaries that require them to have policies, procedures, and technological safeguards in place sufficient to prevent the misuse or improper or unauthorized disclosure of personally identifiable information.

(11) Subject to agreements with third-parties, a customer has the right to revoke, at any time, any previously granted authorization to ~~transfer~~ disclose in the future personally identifiable information to an affiliate, subsidiary, a parent organization, or a third-party.

(14) This section does not prevent the utility or its approved third-party vendor from inserting any marketing information into the customer's billing package.

(15) The utility may disclose ~~customer information in~~ Aggregate Data ~~form~~ for legitimate business purposes.

(18) The utility must provide customers with access to their ~~own private~~ personally identifiable information through a convenient, user-friendly Internet website interface.

(19) Customers have the right to know what ~~private~~ Personally identifiable information the utility maintains about the customer and the retention period of such information. The utility will make a reasonable effort to respond to requests for such information within five business days of a customer request.

(20) The utility must make reasonable efforts to ensure that the Personally identifiable information it collects, stores, uses, and discloses is reasonably accurate and complete, and otherwise compliant with applicable rules and tariffs regarding the quality of energy usage data.

(21) Each customer must have the opportunity to dispute the accuracy or completeness of the ~~private~~ Personally identifiable information that the utility has collected for that customer. The utility will provide adequate procedures for customers to dispute the accuracy of their ~~private~~ Personally identifiable information and to request appropriate corrections or amendments.

(23) The utility will notify customers as soon as practicable of any security breach ~~and the nature and extent of any actually or potentially compromised or disclosed information~~ involving personally identifiable information in accordance with RCW 19.255.010. The utility must take all reasonable measures, including cooperating fully with law enforcement agencies to recover lost information and prevent the loss of further personally identifiable information. The utility must notify the commission in the same manner as the statute ~~as soon as reasonably possible of any security breach and~~ all measures the utility is taking to remedy the breach.
(24) The utility will perform an annual ~~audit~~ review of ~~data~~ Personally identifiable information collected and review the purpose of the data collection to ensure ~~it collects only necessary data~~ that the collection is reasonably necessary for the utility to perform duties directly relating to the utility's primary purpose.

Avista has modified sections of the rule to include the reference to "primary purpose" and "Personally identifiable information" to make it consistent. Avista understands and appreciates the increased protections around our customers' information. We just have a few items of clarification that the Company would like the Commission to consider in this rulemaking.

Regarding Section (1) we understand this requirement and are comfortable working to safeguard information, however with a reasonableness standard. Also, this requirement will take time and resources to get encryption implemented across multiple systems. Again, going back to the definition of Personally identifiable information, the more defined the better when it comes to putting practical safeguards in place for various systems. It would also be helpful to clarify if the requirement is for both "at rest" data and "in transit."

Avista appreciates the opportunity to provide these comments and we look forward to participating in both the upcoming public comment hearing scheduled February 21, 2019 and the workshop scheduled on March 13, 2019. Please direct any questions regarding these comments to me at 509-495-4975.

Sincerely,

/S/Linda Gervais

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Avista Utilities