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April 24, 2019

Diane Hanian, Secretary  
Idaho Public Utilities Commission  
W. 472 Washington Street  
Boise, Idaho 83720

RE: Avista Utilities 2018 Idaho Service Quality Program Report

Dear Ms. Hanian:

Enclosed for filing with the Commission is an original and 7 copies of Avista Corporation's, dba Avista Utilities' ("Avista" or "the Company"), 2018 Idaho Service Quality (ISQ) Program Report.

Pursuant to the Company's electric tariff Schedule 85 and natural gas Schedule 185, approved by the Commission on November 1, 2018 in Case Nos. AVU-E-18-10 and AVU-G-18-06 (Order No. 34181), Avista is to file its annual ISQ program report on or before April 30<sup>th</sup> of each year. This is the Company's first year reporting on the program.

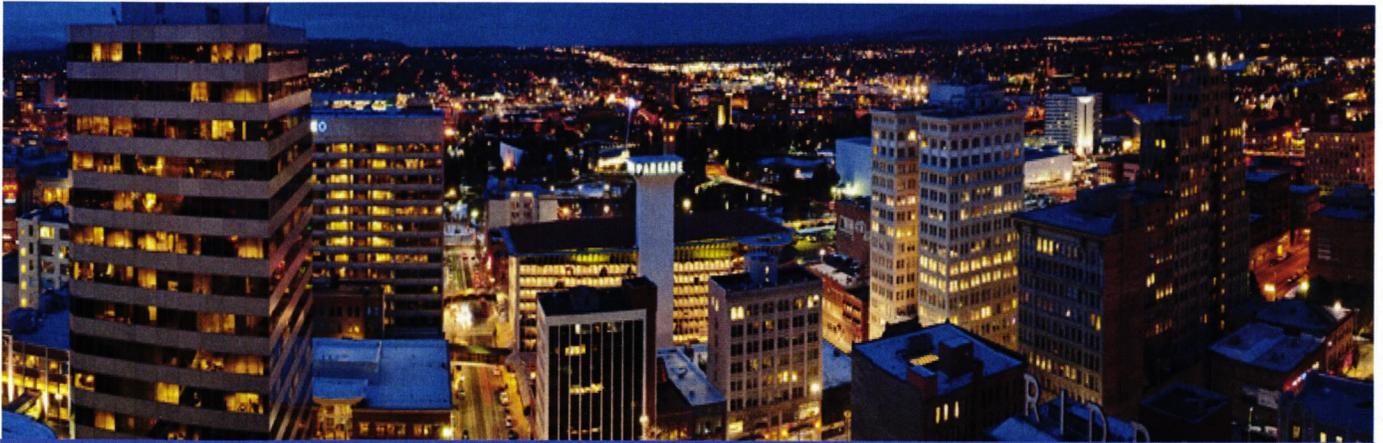
Please direct any questions regarding this report to Jaime Majure at (509) 495-7839 or myself at 509-495-4975.

Sincerely,

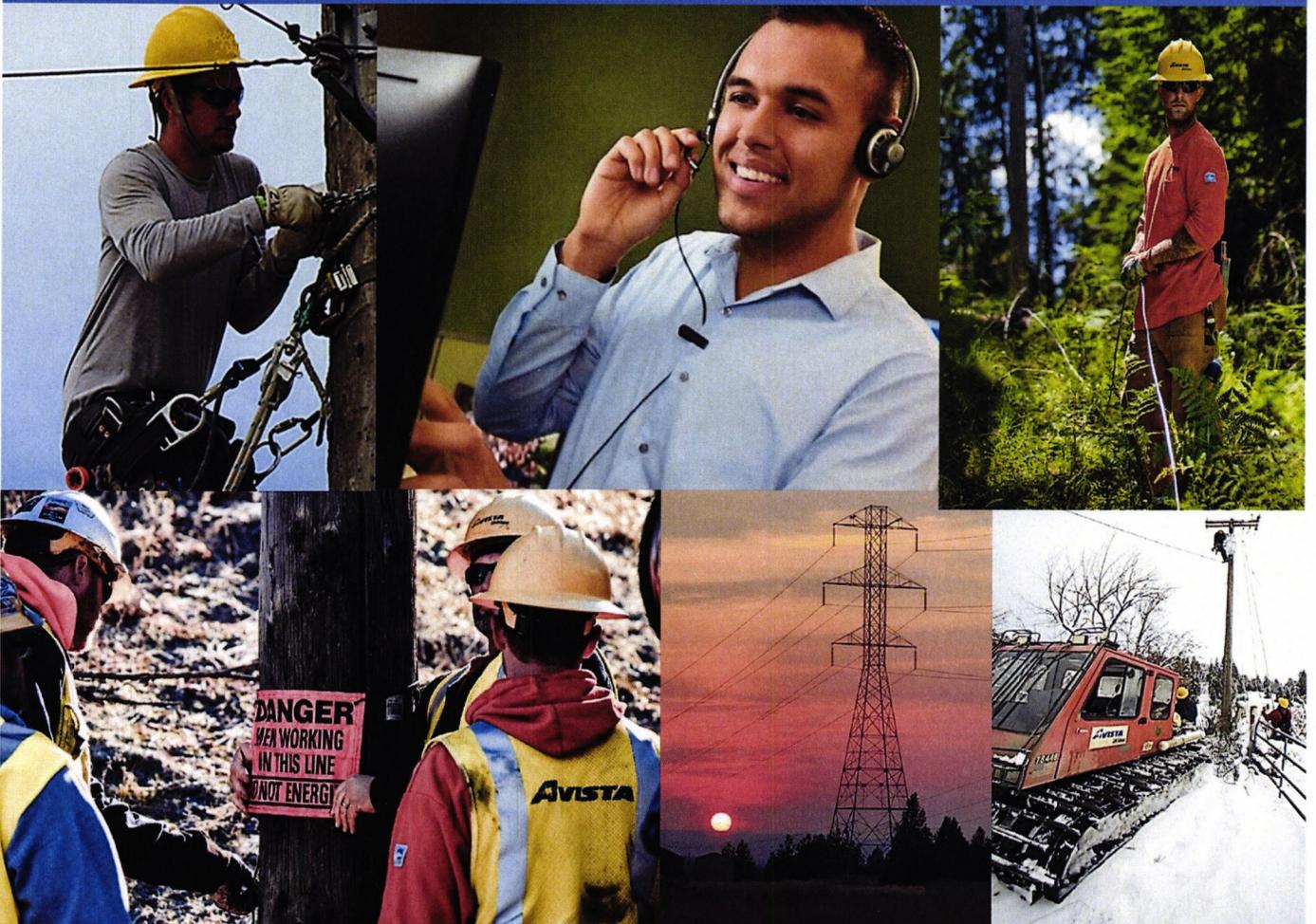
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Enclosure

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Avista Utilities  
2018  
Idaho Service Quality Program Report

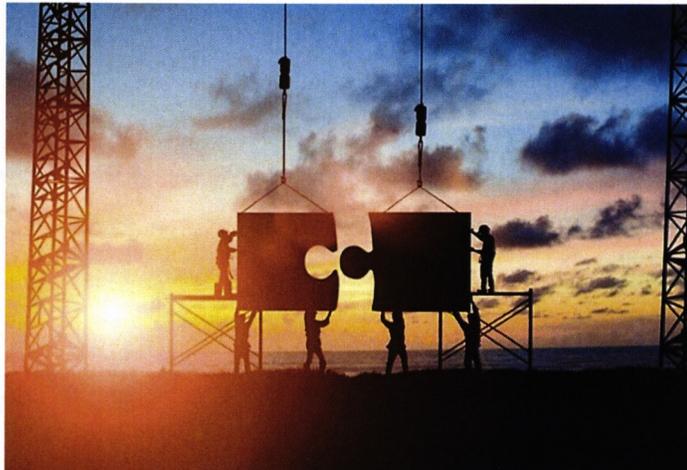


## Table of Contents

I. Introduction.....	2
II. Executive Summary.....	3
Customer Service Measures - Results for 2018.....	3
Electric System Reliability - Results for 2018 .....	4
Customer Service Guarantees.....	6
III. Customer Service Measures .....	8
Measure 1: Customer Satisfaction with the Telephone Service provided by Avista’s Customer Service Representatives .....	9
Measure 2: Customer Satisfaction with Avista’s Field Service Representatives .....	10
Measure 3: Answering Our Customers’ Calls Promptly.....	12
Measure 4: Avista’s Response Time for Electric Emergencies .....	13
Measure 5: Avista’s Response Time for Natural Gas Emergencies .....	15
IV. Electric System Reliability .....	16
Measure 1: Number of Electric System Outages .....	18
Measure 2: Average Duration of Electric System Outages .....	19
V. Customer Service Guarantees.....	20
Guarantee 1: Keeping Electric and Natural Gas Service Appointments.....	20
Guarantee 2: Prompt Restoration of Electric System Outage .....	20
Guarantee 3: Promptly Turning on Electric or Natural Gas Service Upon Request .....	21
Guarantee 4: Promptly Providing Cost Estimates to Customers for New Service ....	21
Guarantee 5: Promptly Responding to Customers’ Bill Inquiries .....	21
Guarantee 6: Promptly Responding to Customers’ Requests for Meter Testing .....	21
Guarantee 7: Providing Customers Advance Notice of Scheduled Electric Interruptions.....	22
Appendix A – Service Quality Measures Report Card.....	23
Appendix B - Definitions and Index Calculations.....	24

## I. Introduction

On December 28, 2017, the Commission issued Order No. 33953 in the Company's general rate case<sup>1</sup>, approving the Settlement Stipulation filed by the Parties<sup>2</sup> and requiring the Company to make additional compliance filings to meet the terms and conditions of the Settlement. With respect to Service Quality/Performance Measures, the Parties agreed that:



*Avista has established Service Quality Performance, Customer Guarantees and a Service Quality Measure Report Card for its customers in Washington. The Company and interested parties will work to develop similar performance standards, customer guarantees and a reporting mechanism for its Idaho customers. Following those discussions, the Company will file its proposal with the Commission requesting implementation on or before July 1, 2018. (Stipulation and Settlement Para. 21)*

An initial draft of the proposed Idaho Service Quality (ISQ) Program was provided to Commission Staff (Staff) on February 15, 2018. Through the course of subsequent discussions and collaborative efforts, Avista and Staff agreed on a set of service measures and accompanying benchmarks and reporting requirements that, taken together, provide an overall assessment of the quality of the Company's service to its Idaho customers. Referred to collectively as Avista's "Idaho Service Quality Program," and approved by the Commission on November 1, 2018 with associated tariff Schedule 85 for electric service and Schedule 185 for natural gas service, these measures include:

- ✓ Five (5) individual measures of the level of customer service and satisfaction that the Company must achieve each year<sup>3</sup>;
- ✓ Reporting on two (2) measures of electric system reliability;
- ✓ Seven (7) individual service standards where Avista provides customers a payment or bill credit in the event the Company does not deliver the required service level (Customer Service Guarantees).

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<sup>1</sup> Case Nos. AVU-E-17-01 and AVU-G-17-02

<sup>2</sup> Stipulation "Parties" include Avista, IPUC Commission Staff, Clearwater Paper Corporation, Idaho Forest Group, LLC, and the Community Action Partnership Association of Idaho (CAPAI).

<sup>3</sup> Four individual customer service measures exist within each of Avista's approved tariff schedules; the fourth benchmark differs in its requirements between electric and natural gas service, resulting in five separate measures altogether.

Under this agreement, the Company also reports to its customers and the Commission annually on its prior-year performance in meeting these customer service quality and reporting requirements. The following report includes a summary of the 2018 annual results of its Idaho Service Quality Program, followed by a more in-depth explanation of the measures themselves and associated annual outcomes.

## II. Executive Summary

In compliance with Order No. 34181 in Case Nos. AVU-E-18-10 and AVU-G-18-06, Avista’s 2018 Idaho Service Quality Program Report (“Report”) provides the annual performance results for the Company’s ISQ Program for 2018. This is the Company’s first year reporting of such information for its Idaho service territory, and pursuant to the Commission-approved tariffs in the above-referenced dockets, this Report contains information regarding Avista’s performance with respect to its Customer Service Measures and Electric System Reliability.<sup>4</sup> During its 2018 ISQ Program year, Avista not only met but exceeded all benchmarks set for Customer Service Measures and Electric Service Reliability.

### Customer Service Measures - Results for 2018

Listed in Table No. 1 below are the five customer service measures, including their respective service requirements (benchmarks), and the Company’s performance results in meeting them for 2018. Avista achieved all of its customer service benchmarks for the year.

*Table No. 1 – 2018 Results for Avista’s Customer Service Measures*

Customer Service Measures	Benchmark	2018 Performance	Achieved
Percent of customers satisfied with our Contact Center services, based on survey results	At least 90%	96%	✓
Percent of customers satisfied with field services, based on survey results	At least 90%	97%	✓
Percent of calls answered live within 60 seconds by our Contact Center	At least 80%	81.5%	✓
Average time from customer call to arrival of field technicians in response to electric system emergencies, per year	No more than 65 minutes	42.4 minutes	✓
Average time from customer call to arrival of field technicians in response to natural gas system emergencies, per year	No more than 55 minutes	41 minutes	✓

<sup>4</sup>Tracking of the Company’s performance on Customer Service Guarantees (Guarantees), including the application of customer credits, began on January 1, 2019; as such, data pertaining to these Guarantees will be included once a full program year has passed, in Avista’s 2019 Idaho Service Quality Report.

## Electric System Reliability - Results for 2018

Table Nos. 2 and 3 below list the two measures of electric system reliability to be reported by Avista each year as part of its ISQ Program. Because the annual electric reliability results often vary substantially year-to-year (the case for any electric utility's system), it is difficult to derive a meaningful assessment of the Company's system reliability from any single-year's result. Consequently, in addition to reporting the current-year

result for each measure, Avista also reports the average value of each measure for the previous five year period, the average for the current five-year period (which includes the results for the current year - 2018), and the "five-year rolling average" from 2005 – 2018. This data provides some context for better interpreting each year's reliability results.

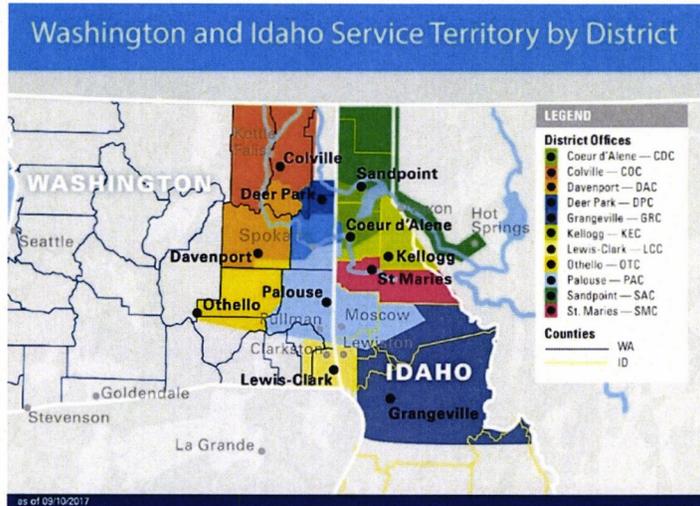


Table No. 2 – 2018 Results for Number of Outages on Avista's System (SAIFI)

Number of Outages	2018 System Results	Current 5-Year Average (2014-2018)	Previous 5-Year Average (2013-2017)
Average number of sustained outages (interruptions) per customer for the year (SAIFI) <sup>5</sup>	0.81 Per Customer	1.01 Per Customer	1.05 Per Customer

Table No. 3 – Results for Duration of Outages on Avista's System in 2018 (SAIDI)

Outage Duration	2018 System Results	Current 5-Year Average (2014-2018)	Previous 5-Year Average (2013-2017)
Average duration of sustained outages (interruptions) per customer for the year. (SAIDI) <sup>6</sup>	126 Minutes	149 Minutes	151 Minutes

<sup>5</sup> See Appendix B for a more detailed definition of these reliability measures and calculation of indices.

<sup>6</sup> See Appendix B



Figure Nos. 1 and 2 below show the “five-year rolling average” for each reliability measure from 2005 through 2018. As shown in the figures, the long-term trend for each reliability measure is fairly stable during this period. The trend in number of outages is slightly declining, while that for outage duration is variable but steady, showing an overall trend toward improved system reliability. Though the Company formally reports its

reliability results for its entire electric system in its Washington Electric Service Reliability Report, provided annually to Idaho as a courtesy, Avista also agreed to track and report its Idaho-specific annual results as part of the ISQ Program. The Idaho-only number of average electric system outages per customer in 2018 was 0.83, and the average total outage duration per customer was 143 minutes.

*Figure No. 1 – Historic Five-Year Rolling Average for Number of Electric Outages on Avista’s Electric System (SAIFI)*

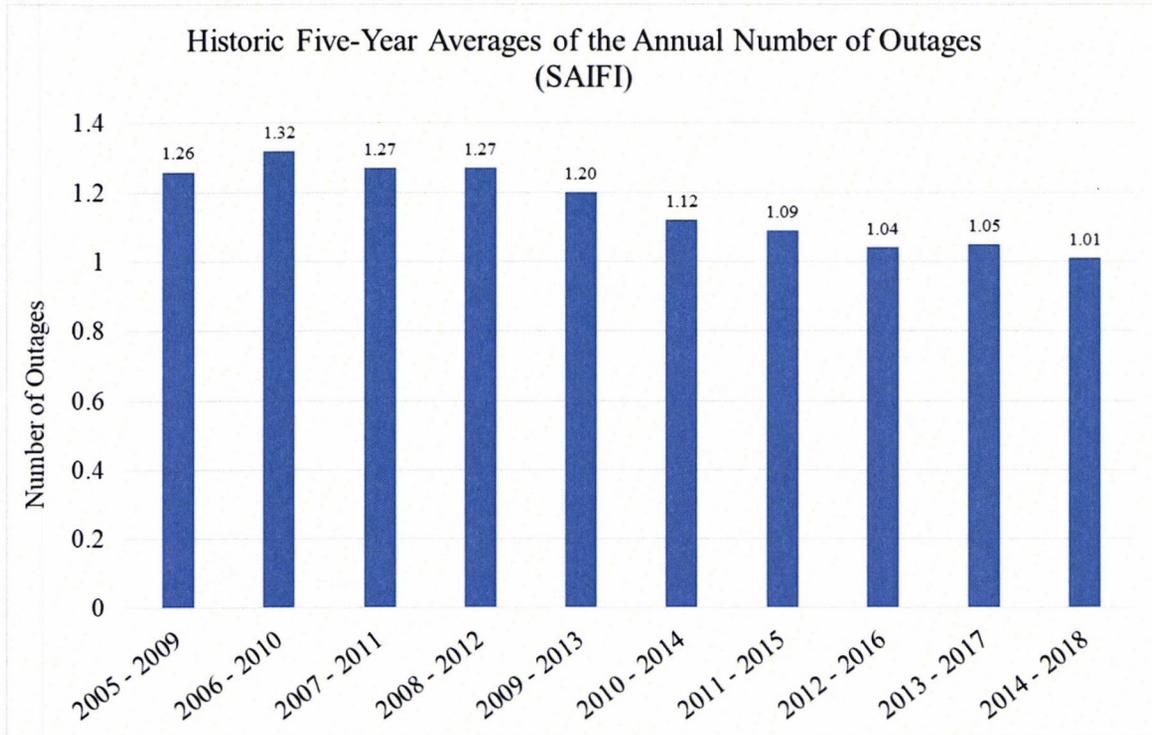
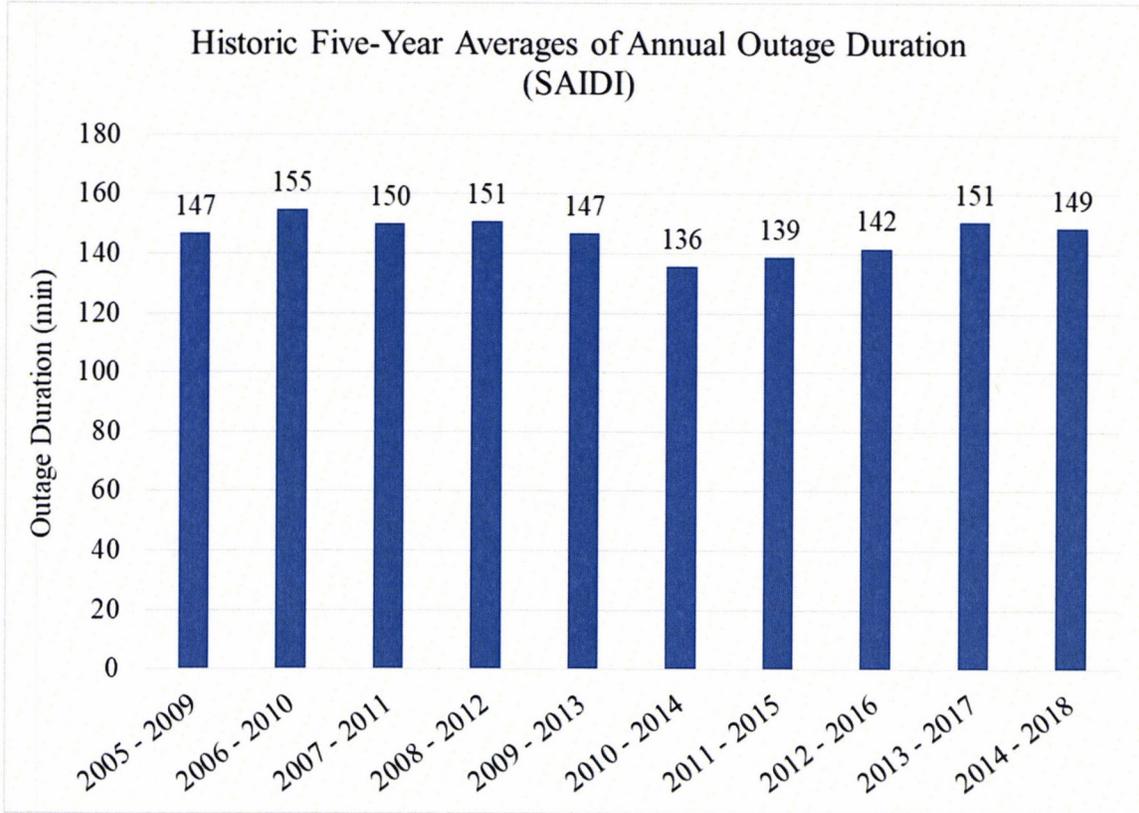


Figure No. 2 – Historic Five-Year Rolling Average for Duration of Outages on Avista’s Electric System (SAIDI)



### Customer Service Guarantees

Our Idaho Service Quality Program includes seven types of service for which we provide Customer Service Guarantees (Guarantees). In the event that the Company fails to meet a Customer Service Guarantee, Avista provides the customer or applicant a bill credit or payment in the amount of \$50 in recognition of the inconvenience. All costs associated with the payment of Customer Service



Guarantees are paid by the Company’s shareholders, and are not paid by our customers in their rates for service or otherwise. Table No. 4 below provides a list of the services covered in the ISQ Program Guarantees, as well as an example of the format by which they will be reported in subsequent program years:

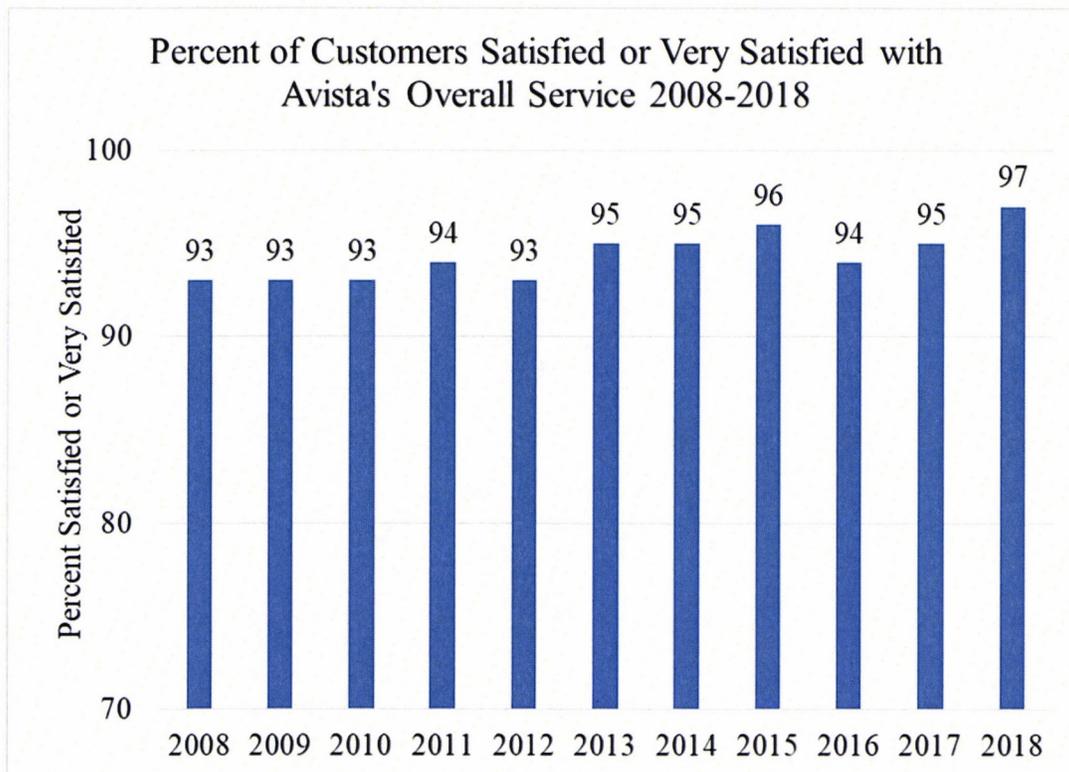
Table No. 4 – Results for Avista’s Customer Service Guarantees

Customer Service Guarantee	Successful	Missed	\$ Paid
Keeping Our Electric and Natural Gas Service Appointments scheduled with our customers			
Restore service within 24 hours of a customer reporting an outage (excluding major storm events)			
Turn on power the same day the request is received	As noted above, tracking of the Company’s performance on Customer Service Guarantees, including the application of customer credits, began on January 1, 2019; as such, data pertaining to these Guarantees will be reported for the first time once a full program year has passed, in Avista’s 2019 Idaho Service Quality Report.		
Provide a cost estimate for new electric or natural gas service within 10 business days of receiving the request			
Investigate and respond to a billing inquiry within 10 business days if unable to answer a question on first contact			
Investigate a reported meter problem or conduct a meter test and report the results within 20 business days			
Notify customers at least 24 hours in advance of a planned power outage lasting longer than 5 minutes			
<b>Totals</b>			

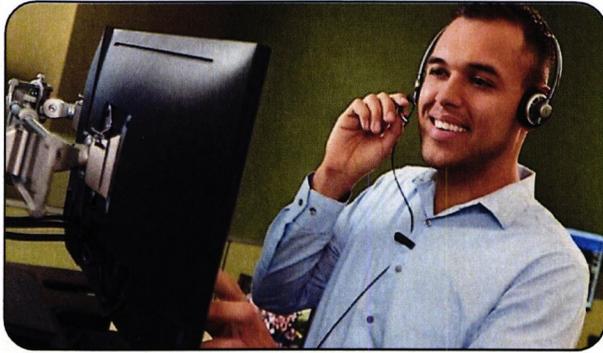
### III. Customer Service Measures

There are many points of service customers may have with Avista, and each contributes to the overall impression of the Company and the level of satisfaction associated with our services. While Avista has tracked its customers' satisfaction with primary services such as customer contact center and field services for many years, the Company has also been interested in knowing whether its performance is meeting customers' broader service expectations. To accommodate this interest, Avista's Voice of the Customer survey asks customers to rate their level of satisfaction with the overall service they receive from the Company. This overall measure is believed to be an important barometer of our customers' satisfaction with the entirety of the integrated services and value they receive from Avista. As show in Figure No. 3 below, the overall satisfaction of Avista's customers (either satisfied or very satisfied) has ranged between 93% and 97% over the past ten years.

*Figure No. 3 – Percent of Customers Satisfied or Very Satisfied with Avista's Overall Service Level 2008-2018*



These results are similar to our customers' satisfaction with our contact center and field services, as reported for the ISQ Program for this same time period. Accordingly, we believe the results of the five customer service measures described in the following sections, taken together, provide a reasonable assessment of our customers' overall satisfaction with the quality and value of our service.



### **Measure 1: Customer Satisfaction with the Telephone Service provided by Avista's Customer Service Representatives**

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*As part of Avista's Idaho Service Quality program, the level of our customers' satisfaction with the telephone service provided by the Company's contact center will meet or exceed a benchmark of 90%.<sup>7</sup>*

Several factors influence our customers' satisfaction with the quality of telephone service provided by our customer service representatives and contact center. We measure the importance of these factors to customers as well as their satisfaction with them each year. These factors, including our customers' satisfaction (either satisfied or very satisfied) for each factor in 2018 are listed below.

- ✓ The customer service representative handling the customer's call in a friendly, caring manner. **(97%)**
- ✓ The customer service representative being informed and knowledgeable. **(97%)**
- ✓ The customer service representative meeting the customer's needs promptly. **(96%)**
- ✓ The customer service representative giving the customer all the information they need in one call. **(95%)**
- ✓ Being connected to a customer service representative in a reasonable amount of time. **(94%)**

**2018 Results** – The annual survey results for this measure of customer satisfaction show that 96% percent of Avista's customers were satisfied with the quality of the telephone

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<sup>7</sup> The level of Customer satisfaction with telephone service, as provided by the Company's Contact Center, will be at least 90 percent, where:

- a. The measure of Customer satisfaction is based on Customers who respond to Avista's quarterly survey of Customer satisfaction, known as the "Voice of the Customer", as conducted by its independent survey contractor;
- b. The measure of satisfaction is based on Customers participating in the survey who report the level of their satisfaction as either "satisfied" or "very satisfied"; and
- c. The measure of satisfaction is based on the statistically-significant survey results for both electric and natural gas service for Avista's entire service territory (Idaho, Oregon, and Washington) for the calendar year.

service they received from our customer service representatives. Overall, 85% of our customers were “very satisfied” and 11% were “satisfied” with the quality of our service.

*Table No. 5 – Customer Satisfaction with Avista’s Contact Center Representatives in 2018*

Customer Satisfaction with Avista’s Contact Center Representatives	Service Quality	2018 Performance	Achieved
Percent of customers either satisfied or very satisfied with the Quality of Avista’s Customer Contact Center Representatives	90% or Greater Satisfied	96%	✓

For the purposes of reporting our annual service quality performance under this program, the Company will continue to use its system-wide results. Avista will also separately track and report the results for this measure for our Idaho customers only, though it is not a requirement of the ISQ Program. For 2018, the percent of Idaho customers satisfied or very satisfied with the Company’s customer service representatives and contact center was 96%, the same as the system-wide percentage. The specific level of satisfaction, however, differs slightly in that 87% of our Idaho customers were “very satisfied” and 9% were “satisfied” with the quality of our service.



## **Measure 2: Customer Satisfaction with Avista’s Field Service Representatives**

*As part of Avista’s Service Quality Measures program, the level of our customers’ satisfaction with the Company’s field services will meet or exceed a benchmark of 90%.<sup>8</sup>*

The quality of our field services and the satisfaction of our customers is influenced by several factors. Each year we measure the importance of these factors to our customers and

<sup>8</sup> The level of Customer satisfaction with the Company’s field services will be at least 90 percent, where:

- The measure of Customer satisfaction is based on Customers who respond to Avista’s quarterly survey of Customer satisfaction, known as the “Voice of the Customer”, as conducted by its independent survey contractor;
- The measure of satisfaction is based on Customers participating in the survey who report the level of their satisfaction as either “satisfied” or “very satisfied”; and
- The measure of satisfaction is based on the statistically-significant survey results for both electric and natural gas service for Avista’s entire service territory (Idaho, Oregon, and Washington) for the calendar year.

their satisfaction with each aspect of our service. These factors, including our customers' level of satisfaction (either satisfied or very satisfied) with each factor in 2018, are listed below.

- ✓ The service representative keeping you informed of the status of your job. **(93%)**
- ✓ The service representative or service crew being courteous and respectful. **(99%)**
- ✓ The service representative or service crew being informed and knowledgeable. **(98%)**
- ✓ The service representative or service crew leaving your property in the condition they found it. **(97%)**
- ✓ The service work being completed according to the customer's expectations. **(96%)**
- ✓ The overall quality of the work performed by Avista Utilities. **(98%)**

**2018 Results** – The annual survey results for this measure, as reported in Table No. 6 below, show that 97% percent of our customers were satisfied with the service provided by Avista's field service representatives. Overall, 89% of our customers were "very satisfied" and 8% were "satisfied" with the quality of our field services.

*Table No. 6 – Customer Satisfaction with Avista's Field Services Representatives in 2018*

Customer Satisfaction with Avista's Field Services Representatives	Service Quality	2018 Performance	Achieved
Percent of customers either satisfied or very satisfied with the Quality of Avista's Field Service Representatives	90% or Greater Satisfied	97%	✓

As with its contact center customer satisfaction, Avista will continue to use its system-wide results for the purposes of reporting our annual service quality performance under this program. The Company will also separately track and report the results for this measure for our Idaho customers only, although it is not a requirement of the ISQ Program. For 2018, the percent of Idaho customers satisfied or very satisfied with the Company's field service representatives was higher than the system-wide results at 98%, with 93% of customers "very satisfied" and 5% "satisfied" with the quality of our field services.



### **Measure 3: Answering Our Customers' Calls Promptly**

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*As part of Avista's Service Quality Measures program, the percentage of customer calls answered live by a customer service representative within 60 seconds will average 80% or greater.<sup>9</sup>*

This particular customer service measure is one of the subset of service attributes that contribute to the customer's overall satisfaction with our service representatives and contact center. Often referred to as the "Grade of Service" or "GOS", this measure is the average percentage of customer calls to our contact center that are answered live by a customer service representative within 60 seconds for those customers who wish to speak with a service representative. When a customer calls Avista's contact center, their call is initially received by our automated (voice activated) phone system. The customer is presented the option of using the phone system for self-service (e.g. to check their account balance or pay their bill, etc.) or to speak with a customer service representative live to meet their service need. Avista's response time in answering the customer's call is the time that elapses between the customer's request to speak to a representative and when their call is answered live by a representative.

For many years Avista has maintained a service benchmark of 80% or greater, even though some utilities and businesses have established a higher GOS (e.g. 90% or a goal of answering calls within 30 seconds). Because it requires an increased level of staffing and cost to customers to achieve a higher service level, Avista has focused on lower cost/no cost measures, such as effective employee training and coaching to achieve superior standards for attributes such as courtesy, caring, knowledge, and proficiency, to maintain our very-high level of overall customer satisfaction with our service representatives and contact center.

In addition to responding to customers effectively, Avista has implemented measures to help reduce the overall volume of customer calls, which helps reduce the cost of service paid by our customers. These efforts include providing customers a way to communicate

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<sup>9</sup> The percentage of Customer calls answered by a live representative within 60 seconds will average at least 80 percent for the calendar year, where:

- a. The measure of response time is based on results from the Company's Contact Center, and is initiated when the Customer requests to speak to a Customer service representative; and
- b. Response time is based on the combined results for both electric and natural gas Customers for Avista's entire service territory (Idaho, Oregon, and Washington).

with the Company using their preferred “channel” of communication, such as e-mail, customer self-service via website, or the automated phone system. In addition to providing numerous communication channels, the Company has focused on enhancing customer self-service options as discussed above. These efforts not only help reduce the volume of calls to our contact center and maintain a high level of service at lower cost, but also improve customer experience and satisfaction.

**2018 Results** – Avista’s customers made a total of 661,976 qualifying calls to the Company that were answered live by a customer service representative in 2018. Of these calls, 539,510 were answered live in 60 seconds or less, for a score of 81.5%, as shown in Table No. 8 below.

*Table No. 7 – Percent of Avista’s Customer Calls Answered Live within 60 Seconds in 2018*

Percent of Avista’s Customer Calls Answered Live Within 60 Seconds	Service Quality	2018 Performance	Achieved
Percent of Avista’s customer calls answered live by a customer service representative within 60 seconds	80% or Greater	81.5%	✓



**Measure 4: Avista’s Response Time for Electric Emergencies**

*As part of Avista’s Service Quality Measures program, the average response time to an electric system emergency will not exceed 65 minutes for the year.<sup>10</sup>*

<sup>10</sup> The Company’s average response time to an electric system emergency in Idaho will not exceed 65 minutes for the calendar year, where:

- a. Response time is measured from the time of the Customer call to the arrival of a field service technician;
- b. Response times are excluded from the calculation for those periods of time when the Company is experiencing an outage that qualifies as a Major Event Day (MED) in Idaho, as defined by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) Guide for Electric Power Distribution Reliability Indices, Standard 1366. This includes the 24 hour period following a Major Event Day.
- c. An “electric system emergency” is defined as an event involving police/fire departments, arcing/flashing wires down, or a feeder lockout.

When customers call Avista to report an electric emergency, the Company works with the customer to quickly ascertain the particular circumstances being reported, and instructs the customer on how best to ensure the safety of themselves and that of others until help arrives. We immediately begin the dispatch of service personnel best situated to respond in the shortest time possible. Once at the scene, Avista's first priority is to make the situation safe for our customers, citizens, other emergency responders, and our employees. Restoration of the problem can begin once the safety of the site is secured and needed resources arrive at the scene. The Company's ability to respond quickly to an electrical emergency is influenced by many factors, some of which include the urban or rural locale, the location of the nearest available respondent (especially in rural areas), the time of day, season of the year, weather conditions, traffic, and the presence of other simultaneous emergency events across the system. For this measure, the response time to an electric emergency is the elapsed time between the confirmation of the emergency with the customer (when the dispatch field order is given) and when the Avista service person arrives at the scene.

**2018 Results** – The average response time for the year is calculated by dividing the sum of all applicable electric emergency response times by the total number of qualifying electric emergency incidents. Avista received 249 qualifying electric emergency reports in its Idaho service area in 2018, which had a cumulative response time of 10,549 minutes. The resulting average for 2018 was 42.4 minutes, as noted in Table No. 9 below.

*Table No. 8 – Avista's Response Time for Electric Emergencies in 2018*

Avista's Response Time for Electric Emergencies	Service Quality	2018 Performance	Achieved
Average time from customer call to the arrival of Avista's field technicians in response to electric system emergencies	80 Minutes or Less	42.4 Minutes	✓



### Measure 5: Avista's Response Time for Natural Gas Emergencies

*As part of Avista's Service Quality Measures program, the average response time to a natural gas system emergency will not exceed 55 minutes for the year.<sup>11</sup>*

When customers call Avista to report a natural gas emergency, the Company works with the customer to quickly ascertain whether the presence of natural gas (via odor or some other characteristic) is likely coming from inside the customer's home or business or from facilities located outside. If inside, the customer is instructed to immediately evacuate the building to a safe distance and await the arrival of emergency responders. If the leak is in facilities outside, instructions to the customer are based on the proximity and type of the leak to their (or others') home or business. Once the nature of the issue has been determined and the customer has been given precautionary instructions on how best to ensure their own safety and that of others until help arrives, the Company immediately begins the dispatch of service personnel best situated to respond at the scene in the shortest time possible. At the scene, Avista's first priority is to make the situation safe for our customers, citizens, other emergency responders, and our employees. Restoration of the problem can begin once the safety of the site is secured and needed resources arrive at the scene.

The Company's ability to respond quickly to a natural gas emergency is influenced by many factors, some of which include the urban or rural locale, the location of the nearest available respondent (especially in rural areas), the time of day, season of the year, weather conditions, traffic, and the presence of other simultaneous emergency events across the system. Natural gas emergencies differ from electric emergencies, however, in that the risk of a potential consequence to a natural gas leak can increase with the passage of time as leaking natural gas may accumulate at the site. For this reason, Avista's work practices and staffing levels aim to provide an average response time of 55 minutes or less. For this measure, the response time to a natural gas emergency is the elapsed time between the

<sup>11</sup> The Company's average response time to a natural gas system emergency in Idaho will not exceed 55 minutes for the calendar year, where:

- a. Response time is measured from the time of the customer call to the arrival of a field service technician; and
- b. A "natural gas system emergency" is defined as an event involving a natural gas explosion or fire, a fire in the vicinity of natural gas facilities, police/fire departments, leaks identified in the field as "Grade 1", high or low gas pressure problems identified by alarms or customer calls, natural gas system emergency alarms, or calls regarding carbon monoxide, natural gas odor, runaway furnace, or delayed ignition.

confirmation of the emergency with the customer (when the dispatch field order is given) and when the Avista service person arrives at the scene.

**2018 Results** – The average response time for the year is calculated by dividing the sum of all applicable natural gas emergency response times by the total number of qualifying emergency incidents. Avista received 2,137 qualifying natural gas emergency reports in its Idaho service area in 2018, which had a cumulative response time of 87,617 minutes. The resulting average for 2018 was 41 minutes as noted in Table No. 10 below.

*Table No. 9 – Avista’s Response Time for Natural Gas Emergencies in 2018*

Avista’s Response Time for Natural Gas Emergencies	Service Quality	2018 Performance	Achieved
Average time from customer call to the arrival of Avista’s field technicians in response to natural gas system emergencies	55 Minutes or Less	41 Minutes	✓

#### IV. Electric System Reliability

Providing safe and highly-reliable electric service for our customers at a reasonable cost is fundamental to our business. We believe our current level of reliability is reasonable, acceptable and cost effective for our customers, and our long-term objective is to generally uphold our current levels of electric system reliability. Achieving this requires an ongoing effort to balance the many investment and other priority needs across our system for today and with implications that project far into the future. As already explained, we monitor and track various aspects of the reliability performance of our system each year, relying on industry-standard measures (or indices). Two of the most-commonly reported measures are very-briefly described below, and are discussed in greater detail in Appendix A to Avista’s Electric Service Reliability Report. For its Service Quality Measures Program, Avista reports its annual reliability results in the context of its historic five-year rolling average for these two measures:

- ✓ **Number of Outages** – known technically as the System Average Interruption Frequency Index or “SAIFI,” is the average number of sustained interruptions (outages) per customer for the year.
- ✓ **Outage Duration** – known technically as the System Average Interruption Duration Index or “SAIDI,” is the average duration of sustained interruptions (outages) per customer for the year.

Many factors influence the number and duration of outages on any electric system. Some of these include the average age of the system, its engineering design, construction standards, general condition, the extent of the system that is rural, terrain, utility equipment and staffing levels, and its day-to-day operation. The type and proximity of surrounding vegetation and local and regional weather patterns, including variability in weather, can have a pronounced impact on system reliability. Because the frequency and duration of the electric system outages that result from these factors can vary substantially from year to

year, there is, naturally, a lot of variability in the annual measures of system reliability over time.

For Avista, weather-related outages tend to have a predominant impact on the reliability of our system. This is because individual weather events often impact large portions of our system and can result in damage to many types of facilities. Weather caused outages, particularly from high winds, ice, and snow can also require substantial effort and time to restore. These storm events can result in many customers without service for an extended period of time. Because the impact of weather events on system reliability is common to all electric systems, the industry has adopted standardized adjustments that remove outages related to weather events of a certain magnitude from the calculation of results for outage frequency and duration. This threshold level of severity is referred to as a Major Event Day or (“MED”). The outages caused by any storm event that qualifies as a MED are removed from the data used to calculate the utility’s annual reliability results. For Avista, the impact of these major storm events is clearly evident in the substantial system outages caused by windstorms in the late summer of 2014, and the very significant wind storm event of November 2015. By contrast, in 2016, the Company did not experience any storm events that constituted major event days, and we experienced a fairly-limited number of major events in 2017 and 2018. Although the year-to-year variability in outage duration is substantially reduced by the adjustment for major events, there can still be a substantial weather impact on the reliability results we report each year. This is the result of storms that, while not qualifying as major events, still result in substantial system outages.

The important point of this discussion is that the reliability results for any single year, considered in isolation, do not provide a meaningful measure of the overall reliability of the utility’s system, or an assessment of whether the performance that year was “acceptable” or “unacceptable.” The reliability performance of our system (or any utility system) should be evaluated over the long term as the basis for evaluating whether our reliability is trending stably, improving, or degrading.<sup>12</sup> Avista has agreed to report its annual reliability results to its customers in the context of its historic five-year rolling average. This approach helps our customers better understand how each year’s reliability results fit into our long-term trend in overall system reliability.

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<sup>12</sup> This is similar to the approach now used by the California Public Utilities Commission to evaluate electric utilities’ system reliability. In: Approaches to Setting Electric Distribution Reliability Standards and Outcomes, pages 130 - 136. The Brattle Group, Ltd. 2012.



### **Measure 1: Number of Electric System Outages**

*As part of Avista’s Service Quality Measures program, the Company will report its annual electric system reliability measure for the number of non-major storm power outages experienced per customer for the year (SAIFI).<sup>13</sup>*

**2018 Results** – This measure, as noted earlier, represents how often on average an Avista electric customer experienced a sustained<sup>14</sup> service outage during the year. This measure is calculated by summing the total number of customer outages recorded for the year, divided by the total number of customers served by the Company in that year. The 2018 result of 0.81 is well below the average value for the previous five-year period (2013-2017) of 1.05, as well as for the current five-year period (2014-2018) of 1.01. For 2018, our Idaho-only result was 0.83, which, though better than the previous and current five-year ‘system’ averages of 1.05 and 1.01, respectively, is slightly higher than the 2018 system-wide total of 0.81.

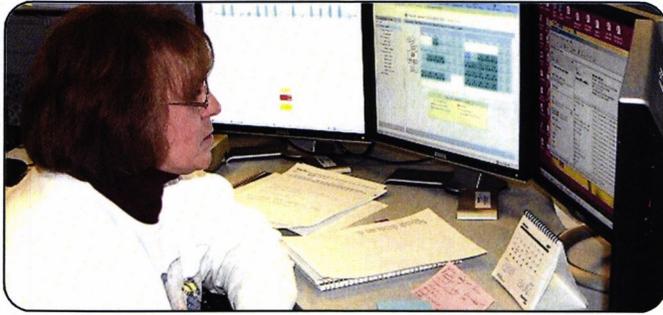
*Table No. 10 – Number of Electric System Outages for the Average Avista Customer in 2018*

Number of Electric System Outages for the Average Avista Customer	2018 System Results	Current 5 Year Average (2014-2018)	Change in 5 Year Average
Number of sustained interruptions in electric service for the average Avista customer for the year (SAIFI)	0.81 Per Customer	1.01 Per Customer	-0.04 Minutes

<sup>13</sup> The Company will report the frequency of electric system interruptions per Customer for the calendar year, where:

- The interruptions are measured as the System Average Interruption Frequency Index (“SAIFI”), as calculated by IEEE Std. 1366;
- The calculation of SAIFI excludes interruptions associated with any MED in Idaho;
- The report will provide a brief description of the predominant factors influencing the current-year results, the previous year’s system results, and the Company’s historic five-year rolling average of SAIFI; and
- The results will be reported on a system basis for Washington and Idaho as well as for Idaho only.

<sup>14</sup> Any service interruption that is greater than five minutes in duration.



## Measure 2: Average Duration of Electric System Outages

*As part of Avista’s Service Quality Measures program, the Company will report its annual electric system reliability measure for the total duration of non-major storm power outages experienced per customer for the year (SAIDI).<sup>15</sup>*

**2018 Results** – This measure, as noted earlier, represents the average duration or length of outages for the year. Outage duration (SAIDI) is calculated by summing all of the customer outage time occurring in the year, divided by the total number of customers served by the utility in that year. The 2018 value for outage duration was 126 minutes, which was notably less than the 183 minute duration reported for Avista’s system in 2017, and brought the average value for the current five-year period (2014-2018) down by two minutes, to 149 minutes as shown below in Table No. 12. For 2018 the Idaho-only value was 143 minutes, which, though higher than the 2018 system-wide average of 126 minutes, is still better than the current five-year average of 149 minutes.

Table No. 11 – Outage Duration for the Average Avista Customer in 2018

Total Outage Duration for the Average Avista Customer	2018 System Results	Current 5 Year Average (2014-2018)	Change in 5 Year Average
Total duration of all electric service outages for the average Avista customer for the year (SAIDI)	126 Minutes	149 Minutes	-2 Minutes

<sup>15</sup> The Company will report the duration of electric system interruptions per Customer for the calendar year, where:

- The interruption duration is measured as the System Average Interruption Duration Index (“SAIDI”), as defined by the IEEE Std. 1366;
- The calculation of SAIDI excludes interruptions associated with any MED in Idaho;
- The report will provide a brief description of the predominant factors influencing the current-year system results, the previous year’s system results, and the Company’s historic five-year rolling average of SAIDI;
- The results will be reported on a system basis for Washington and Idaho as well as for Idaho only.



## V. Customer Service Guarantees

Avista's Idaho Service Quality Program includes seven types of service for which Avista provides Customer Service Guarantees. Our service commitments under these guarantees recognize the customer inconvenience that may result when our delivered service does not meet our stated goal. In such cases we will provide our customers a bill credit or payment in the amount of \$50 in recognition of that inconvenience. All costs associated with the payment of customer service guarantees are paid by the Avista's shareholders, and are not paid by our customers, or included in the rates they pay for service.

As noted above, the Company began offering Customer Service Guarantees in Idaho on January 1, 2019. Avista will begin reporting on the results of these Guarantees once a full program year has passed. As such, this data will be included in Avista's 2019 Idaho Service Quality Report, and in each year following.

For informational purposes, the Customer Service Guarantees included in the Idaho Service Quality Program are as follows:

### **Guarantee 1: Keeping Electric and Natural Gas Service Appointments**

*The Company will keep mutually agreed upon appointments regarding electric or natural gas service, scheduled in the time windows of either 8:00 a.m. – 12:00 p.m. or 12:00 p.m. – 5:00 p.m., except for the following instances:*

- a. The Customer or Applicant cancels the appointment;*
- b. The Customer or Applicant fails to keep the appointment;*
- c. The Company reschedules the appointment with at least 24 hour notice; or*
- d. The Company is experiencing an MED in Idaho. In such cases, the Company will notify the customer and reschedule the appointment. (electric service only)*

### **Guarantee 2: Prompt Restoration of Electric System Outage**

*When the Customer experiences an electric service interruption, the Company will restore the service within 24 hours of notification from the Customer, except for the following instances:*

- a. During periods of time when the outage is associated with an MED in Idaho;*

- b. *An action or event that is outside the control of the Company prevented the Company from restoring supply or accessing the Company's equipment to restore supply;*
- c. *The premise is vacant, disconnected or not receiving service immediately preceding the outage; or*
- d. *The customer notifies the Company that service restoration does not require immediate attention.*

**Guarantee 3: Promptly Turning on Electric or Natural Gas Service Upon Request**

*The Company will turn on power or connect natural gas service the same day the Customer or Applicant requests service, except for the following instances:*

- a. *The service request is received by the Company after 7:00pm on weekdays, or on a weekend or holiday;*
- b. *The Customer requests an alternative future date for service connection;*
- c. *The Customer or Applicant is not available at the time of connection (natural gas service only)*
- d. *Construction is required before the service can be energized or connected;*
- e. *The Customer or Applicant does not provide evidence that all required government inspections have been satisfied;*
- f. *Required payments to the Company have not been received;*
- g. *The service was disconnected for nonpayment or theft/diversion of service*
- h. *The service cannot be turned on due to an outage;*
- i. *Electric Service is not connected prior to connecting natural gas service;*
- j. *When applicable, water service is not connected prior to connecting natural gas service; or*
- k. *An action or event that is outside the control of the Company prevents the Company from connecting service.*

**Guarantee 4: Promptly Providing Cost Estimates to Customers for New Service**

*The Company will provide a cost estimate to the Customer or Applicant for new electric supply within 10 business days upon receipt of all the necessary information from the Customer or Applicant.*

**Guarantee 5: Promptly Responding to Customers' Bill Inquiries**

*The Company will respond to most billing inquiries at the time of the initial contact. For those inquiries that require further investigation, the Company will investigate and respond to the Customer within 10 business days.*

**Guarantee 6: Promptly Responding to Customers' Requests for Meter Testing**

*The Company will investigate Customer-reported problems with a meter and/or conduct a meter test and report the results to the Customer within 20 business days from the date of the report or request.*

**Guarantee 7: Providing Customers Advance Notice of Scheduled Electric Interruptions**

*The Company will provide notification to the Customer, through means normally used by the Company, at least 24 hours in advance of disconnecting service for scheduled interruptions, except for the following instances:*

- a. The interruption is a momentary interruption of less than five minutes in duration;*
- b. The safety of the public or Company personnel or the imminent failure of Company equipment is a factor leading to the interruption; or*
- c. The interruption was due to work on the Customer's meter.*

## Appendix A – Service Quality Measures Report Card

### 2018 Idaho Service Quality Program Results

Customer Service Measures	Benchmark	2018 Performance	Achieved
Percent of customers satisfied with our Contact Center services, based on survey results	At least 90%	96%	✓
Percent of customers satisfied with field services, based on survey results	At least 90%	97%	✓
Percent of calls answered live within 60 seconds by our Contact Center	At least 80%	81.5%	✓
Average time from customer call to arrival of field technicians in response to electric system emergencies, per year	No more than 65 minutes	42.4 minutes	✓
Average time from customer call to arrival of field technicians in response to natural gas system emergencies, per year	No more than 55 minutes	41 minutes	✓

Electric System Reliability	5-Year Average (2014-2018)	2018 Result	Change in 5-Year Average
Frequency of non-major-storm power interruptions, per year, per customer (SAIFI)	1.01	0.81	-0.04
Length of power outages per year, per customer (SAIDI)	149 Minutes	126 Minutes	-2 Minutes

Customer Service Guarantees	Successful	Missed	\$\$ Paid
Electric & Natural Gas service appointments	Avista began offering Customer Service Guarantees in Idaho on January 1, 2019. A \$50 bill credit is provided in instances where the Company is unable to meet a qualifying service commitment. Annual results will be included in our 2019 Idaho Service Quality Program Report.		
Electric outage restoration within 24 hours of notification from Customer, excluding major events			
Switch on power within one business day of request			
Provide cost estimate for new electric or natural gas supply within 10 business days			
Investigate and respond to billing inquiries with 10 business days			
Investigate customer-reported problems with a meter, or conduct a meter test, and report results within 20 business days			
Provide notification at least 24 hours in advance of disconnecting service for scheduled electric interruptions			
<b>Totals</b>			

### 2018 Performance Highlights

In its first year, the Idaho Service Quality Program met all benchmarks set for Customer Service Measures and Electric Service Reliability. This only further emphasizes Avista's commitment to providing the best possible customer and field services to its customers, as well as providing safe, reliable electric and natural gas service. Tracking of the Company's performance on Customer Service Guarantees, including the application of customer credits, began on January 1, 2019; as such, the annual results for Customer Service Guarantees in Idaho will be reported for the first time once a full program year has passed. Avista will continue to pursue our mission of improving our customers' lives through innovative energy solutions into 2019, providing safe, affordable, and reliable service now and into the future.

## Appendix B - Definitions and Index Calculations

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**System Average Interruption Frequency Index (SAIFI):** The average number of sustained interruptions per customer, per year

$$\bullet = \frac{\text{The number of customers which had *sustained interruptions*}}{\text{Total number of customers served}}$$
$$\bullet = \frac{\sum N_i}{N_T}$$

**System Average Interruption Duration Index (SAIDI):** The average sustained outage time per customer, per year

$$\bullet = \frac{\text{Outage duration multiplied by the customers effected for all *sustained interruptions*}}{\text{Total number of customers served}}$$
$$\bullet = \frac{\sum r_i N_i}{N_T}$$

Quantities:

$i$  = An interruption event;

$r_i$  = Restoration time for each interruption event;

$T$  = Total;

$ID_E$  = Number of interrupting device events;

$N_i$  = Number of interrupted customers for each interruption event during the reporting period;

$N_T$  = Total number of customers served for the area being indexed;

**Major Event Day (MED):** A day in which the daily system SAIDI exceeds a threshold value,  $T_{MED}$ . For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than  $T_{MED}$  are days on which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). Activities that occur on major event days should be separately analyzed and reported. The purpose of MED is to allow major events to be studied separately from daily operation, and in the process, to better reveal trends in daily operation that would be hidden by the large statistical effect of major events.

$T_{MED}$  is calculated (taken from the IEEE 1366-2003 Standard)

The major event day identification threshold value,  $T_{MED}$ , is calculated at the end of each reporting period (typically one year) for use during the next reporting period as follows:

- a) Collect values of daily SAIDI for five sequential years ending on the last day of the last complete reporting period. If fewer than five years of historical data are available, use all available historical data until five years of historical data are available.

- b) Only those days that have a SAIDI/Day value will be used to calculate the  $T_{MED}$  (do not include days that did not have any interruptions).
- c) Take the natural logarithm ( $\ln$ ) of each daily SAIDI value in the data set.
- d) Find  $a$  (Alpha), the average of the logarithms (also known as the log-average) of the data set.
- e) Find  $b$  (Beta), the standard deviation of the logarithms (also known as the log-standard deviation) of the data set.
- f) Compute the major event day threshold,  $T_{MED}$ , using equation (25).

$$T_{MED} = e^{(a + 2.5 b)}$$

- g) Any day with daily SAIDI greater than the threshold value  $T_{MED}$  that occurs during the subsequent reporting period is classified as a major event day. Activities that occur on days classified as major event days should be separately analyzed and reported.

When an event has reached the threshold to constitute a MED described in subpart (f) above, all outage incidents associated with the MED will be flagged in the Company's Outage Management Tool. As the Company further assesses damage in the field while making repairs, new subsequent outage incidents that were a result of the MED may be created as more accurate information is made available. The subsequent incidents will be flagged and included as part of original outage event and MED.