

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

AVISTA CORPORATION d/b/a AVISTA UTILITIES,

Respondent.

DOCKET NOS. UE-200900 and UG-200901 (*Consolidated*)

PAUL J. ALVAREZ AND DENNIS STEPHENS
ON BEHALF OF THE
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL
PUBLIC COUNSEL UNIT

EXHIBIT PADS-24

Avista Response to Public Counsel Data Request No. 116

April 21, 2021

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

JURISDICTION:	WASHINGTON	DATE PREPARED:	02/06/2021
CASE NO.:	UE-200900 & UG-200901	WITNESS:	Heather Rosentrater
REQUESTER:	Public Counsel	RESPONDER:	Kyle Jonas
TYPE:	Data Request	DEPT:	Asset Maintenance
REQUEST NO.:	PC - 116	TELEPHONE:	(509) 495-2695
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SUBJECT: Capital Additions, Test Year (Electric)

REQUEST:

Please refer to Heather L. Rosentrater, Exhibit HLR-11, at 8, regarding feeder prioritization, which states “Once metrics are gathered; individual feeders are evaluated to determine how they rank in comparison to the rest of the electric distribution system.”

- a) Provide a list of the “metrics” that are gathered. Describe in detail how the metrics are used to evaluate feeders and “determine how they rank in comparison to the rest of the electric distribution system.”
- b) For each of the metrics listed in response to subpart (a), provide the values for each feeder “modernized” in 2018 for 2015, 2016, and 2017, and for 2019 and 2020.
- c) For each of the metrics listed in response to subpart (a), provide the values for each feeder “modernized” in 2019 for 2016, 2017, and 2018, and for 2020.
- d) Provide the feeder ranking list for (i) 2018; (ii) 2019; (iii) 2020; and (iv) 2021.
- e) If feeders are ranked by a scoring system, provide an explanation of that scoring system, including descriptions of how the scores are calculated.

RESPONSE:

a) Starting in 2018, the Grid Modernization program began using the criteria of reliability, health, and criticality to rank the feeders in Avista’s distribution system. These criteria are compiled in the annual Feeder Status Report which scores health, performance, and criticality based on the following:

1. Feeder Health
 - a. Age
 - b. OH/UG ratio
 - c. Pole rejection rate
 - d. Reliability Health (CEMI and SAIFI)
2. Performance
 - a. Thermal utilization
 - b. Voltage regulation
 - c. Reliability performance (MAIFI and CAIDI)
 - d. Power Factor
 - e. FDR imbalance

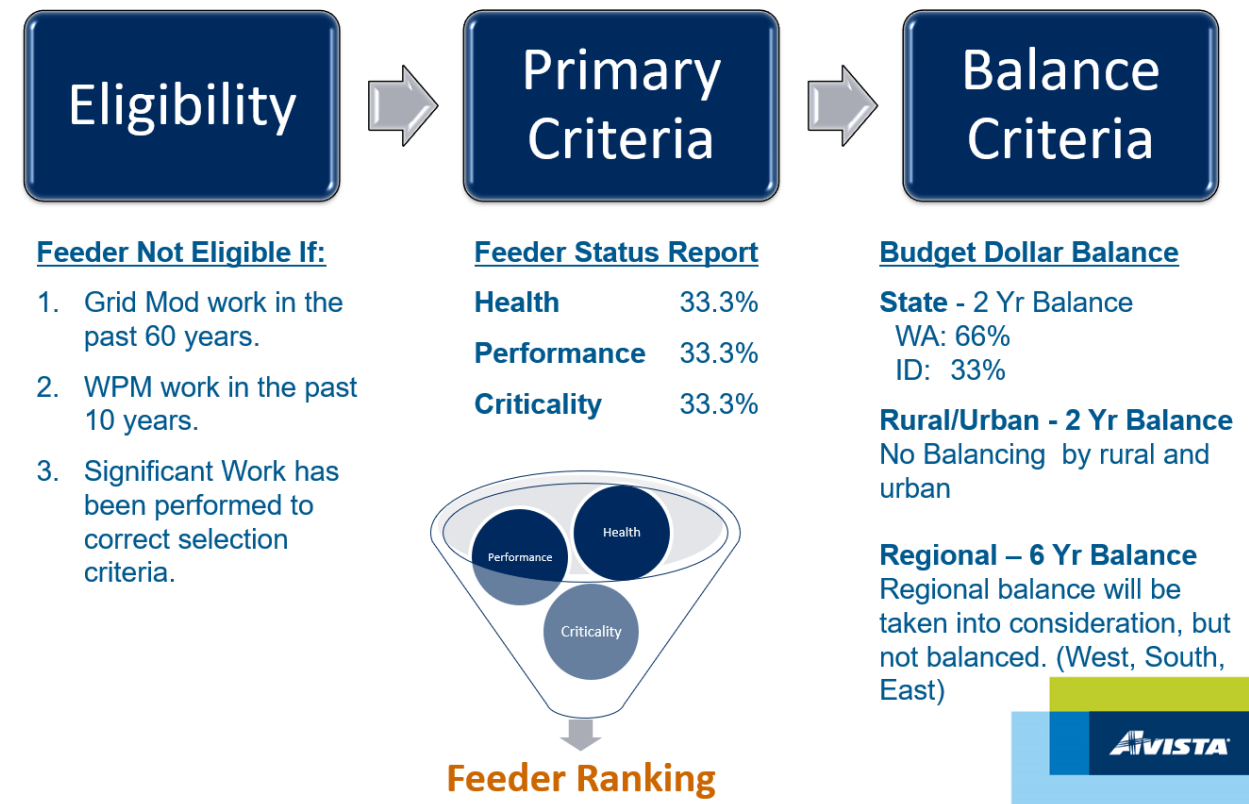
3. Criticality

- a. Essential service (Fire, police, EMS, Hospitals, Schools, Water Supply, Sewage treatment, prison, etc.)
- b. Commercial account density
- c. Customer Density
- d. Load Density

The scores from the feeder status report are combined with equal weighting applied to criticality, performance, and health. Feeders with the greatest potential benefit from the Grid Modernization program would be those with the lowest health, poorest performance, and highest criticality. Feeders with the lowest combined score are thus ranked the highest for selection.

$$\text{Combined score} = - \text{Criticality} + \text{Health} + \text{Performance}$$

A low score, as noted above, indicates a combination of poor asset condition, performance issues, and higher criticality. In addition to the ranked scoring (primary selection criteria), additional eligibility criteria are taken into account, including the balance of work accomplished and planned between our jurisdictions and operating regions, as depicted in the diagram below.



Further, in order for a feeder to be eligible for selection, the following criteria are considered:

- Grid Modernization work has not been performed previously on the feeder.
- Wood Pole Management has not been performed in the past 10 years.
- Significant work that could impact the health, performance, or criticality scores has not been performed recently.

- b) Many of the metrics in the feeder status report are based on metrics averaged over multiple years therefore we do not look at the evolution of that score over time when selecting, but look at the score at the time the selection is being performed. Please see a copy of the Company's Feeder Status Report for 2019, provided as PC-DR-116 Attachment A. Avista's Feeder Status Report for 2020 will not be available until later in 2021 due to the time required for analysis and completion.

Also, as the Grid Modernization Program addresses feeders over multiple years through a multiple step process (engineering analysis-> design--> construction), actual construction on feeders selected in a given year may not begin for several years (also dependent on budget and progress of feeders that are currently under construction).

- c) Please refer to our response in part (b), above.

- d) Prior to 2018, feeder selection was performed based on jurisdictional balance, rural and urban balance, and regional balance. In addition, selection was performed based on performance, avoided costs, and capital offset of future O&M. These metrics depended in forecasting and analysis that were more difficult to quantify, requiring use of several simplifying assumptions. In addition, the balancing among so many areas was difficult to track and maintain with budget variability and the allocation of workload and resources across our service territory. The Company's feeder selection data as organized in 2016 are provided in the file PC-DR-116 Appendix B.

In 2018, the feeder selection process was updated to reduce balancing among every region, and to leverage data created annually in the Feeder Status Report that would not require additional analysis. This updated selection method is the one summarized in part (a) of this response. The feeder ranking list for 2018 is provided as PC-DR-116 Appendix C. The Company's feeder ranking for 2020 is provided as PC-DR-116 Attachment D. The Company is not planning to perform a new ranking for 2021.

As noted above, the Grid Modernization program addresses feeders over multiple years. Once a feeder is selected and undergoes engineering analysis, the feeder is then included in the overall work plan. As there are already multiple feeders in some phase of construction, which were selected in years prior, the number of new feeders that can be selected and placed into the workplan is dependent on the work already in flight and the capital budget anticipated over the next several years. Because of this complexity, the selection process is typically revisited every other year.

- e) The scoring process is discussed in part (a) above.