

**Exh. AIW-13
Dockets UE-200900, UG-200901,
UE-200894
Witness: Amy I. White**

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

**AVISTA CORPORATION, d/b/a
AVISTA UTILITIES,**

Respondent.

**DOCKETS UE-200900, UG-200901,
UE-200894 (*Consolidated*)**

**EXHIBIT TO
TESTIMONY OF**

Amy I. White

**STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

*Avista's Response to Public Counsel Data Request No. 256,
as revised on March 23, 2021*

April 21, 2021

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	WASHINGTON	DATE PREPARED:	03/17/2021
CASE NO.:	UE-200900 & UG-200901	WITNESS:	David Howell
REQUESTER:	UTC Staff	RESPONDER:	David James
TYPE:	Data Request	DEPT:	Wildfire Resiliency
REQUEST NO.:	PC-256	TELEPHONE:	(509) 495-4185
		EMAIL:	dave.james@avistacorp.com

RE: Wildfire Plan

REQUEST:

Please refer to David R. Howell, Exhibit DRH-2, at 31, the first table on the page.

- a) The table indicates 92 distribution pole fires in an average year. On average, how many of these pole fires occurred on a distribution pole with a wood cross arm?
- b) On average, how many of the pole fires provided in response to subpart (a) resulted in a fire beyond the pole?
- c) Has Avista ever recorded a pole fire with on poles with fiberglass cross arms? If so how many?
- d) The table indicates 81 primary conductor failures in an average year. On average, how many of these failures are on small copper wire?
- e) On average, how many of the primary conductor failures on small copper wire provided in response to subpart (d) resulted in a wildfire?
- f) The table indicates 557 animal-related outages in an average year. On average, how many of these outages occurred on equipment Avista intends to outfit with a wildlife guard?
- g) On average, how many of the animal-related outages provided in response to subpart (f) resulted in a wildfire?
- h) The table indicates 101 secondary conductor failures in an average year. On average, how many of these failures occurred on secondary wire districts?
- i) On average, how many of the secondary wire district conductor failures provided in response to subpart (h) resulted in a wildfire?
- j) The table indicates 69 primary conductor failures in an average year. On average, how many of these primary conductor failures occurred at a hot tap connection?
- k) On average, how many failures at a hot tap connection provided in response to subpart (j) resulted in a wildfire?

RESPONSE:

At the time of the report, Avista did not have specific breakdowns for the amount of materials required to affect a grid hardening strategy. A parametric cost estimate of \$60,000 per mile was used to estimate the cost exposure of accelerating targeted crossarm conversion, small wire replacement, and other fire mitigation hardware including the installation of wildlife guards. Avista's Grid Modernization experience has provided engineers and planners with rich forecast data with respect to reconstruction. However, Avista acknowledges that cost estimates provided in the Wildfire Cost Report and the subsequent Wildfire Resiliency Plan are based on feasibility level parametric costing. Avista plans to use data from the 2021 construction season to help refine the grid hardening cost estimates both for distribution and transmission.

- a) It is Avista's experience that distribution wood poles are a source of pole fires as discussed in PC-251. Avista does not collect data regarding the type of crossarm when documenting outage events.

- b) Avista has no historical data tying pole fires to wildfires. Historically the Company has not collected data this way.
- c) No such fire has been reported or recorded in the Outage Management dataset.
- d) Avista's outage data does not specify or track wire size in relation to outage events.
- e) Avista does not currently specifically track spark events or wildfire causes.
- f) Wildlife guards are an Avista standard. If the equipment does not currently have a wildlife guard, one will be installed at some point in time.
- g) Avista does not currently specifically track spark events or wildfire causes.
- h) Avista's outage data does not specify or track wire size or districts in relation to outage events.
- i) Avista has no historical data tying secondary wire conductor failures to wildfires. This is not a significant component of grid hardening. Open wire secondary circuits are common in densely populated urban areas like Spokane, but are generally not present in rural, fire prone areas.
- j) The table indicates 69 primary 'connector' failures per year based on the 2014-2018 data. Hot tap connectors are included in that grouping along with other wedge, bolted, and compression type connectors.
- k) Avista has no historical data tying hot tap connectors to wildfires. Avista is not eliminating hot tap connections as part of distribution grid hardening. Crews will be adding a wedge/bail connector in conjunction with hot taps. This is a common industry configuration and prevents hot taps from burning through primary wire. Instead, if a burn through does occur, the sacrificial bail burns through and prevents a downed conductor. Primary conductors hitting the ground are a significant fire-ignition risk and are the objective of distribution grid hardening together with mitigating pole fires by replacing wood crossarms. Avista's Distribution Engineering Standards group has now adopted the wedge/bail connector as standard construction when hot taps are used. Generally, mechanical compression type connectors, such as hot taps, are the least electrically reliable connector used throughout the industry.