

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

AVISTA CORPORATION D/B/A/ AVISTA UTILITIES

Respondent.

DOCKETS UE-220053, UG-220054, and UE-210854 (Consolidated)

**AARON TAM
ON BEHALF OF THE
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL
PUBLIC COUNSEL UNIT**

EXHIBIT AT-27

Avista's Response to Public Counsel Data Request No. 311

July 29, 2022

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

JURISDICTION:	WASHINGTON	DATE PREPARED:	6/24/2022
CASE NO.:	UE-220053 & UE-220054	WITNESS:	David Howell
REQUESTER:	Public Counsel	RESPONDER:	David James
TYPE:	Data Request	DEPT:	Wildfire Resiliency
REQUEST NO.:	PC – 311	TELEPHONE:	(509) 495-4185
		EMAIL:	dave.james@avistacorp.com

SUBJECT: RE: Capital Additions, Response to Public Counsel Data Request No. 208, Attachment F.

REQUEST: Does Avista maintain an equipment inventory? If yes, please answer the following:

- a) What information does the equipment inventory capture?
 - i. Does it include age, state of wear, expected lifecycle?
 - ii. Does it include records of all inspections and repairs?
 - iii. Does it include up-to-date work plans on expected future repairs and replacement?
- b) How frequently is the condition assessment updated?
- c) How granular is the inventory (span level or asset level)?
- d) How frequent are patrol inspections scheduled?
 - i. How are they scheduled? Are they scheduled based on annual periodic schedules, up-to-date static maps of equipment types and environment, or level of risk determined by predictive modeling of equipment failure probability and risk causing ignition?
- e) How frequent are detailed inspections scheduled?
 - i. How are they scheduled? Are they scheduled based on annual periodic schedules, up-to-date static maps of equipment types and environment, or level of risk determined by predictive modeling of equipment failure probability and risk causing ignition?

RESPONSE:

a), b), and c) Avista does maintain an equipment inventory as part of the Asset Management/Maintenance system including the Wood Pole Management program where poles and equipment are tested (wood bore drilling) and visually inspected. However, the wildfire program replacements are not based on condition-based asset management principles. Wood transmission poles are replaced with steel in high fire risk areas based on their location on Avista's WUI map (fire threat rating), typically in high canopy areas. Transmission wood pole wraps are installed based upon location in the same manner, typically in areas of lower vegetation where this treatment is most likely to offer adequate protection. The Wildfire Plan's Distribution Grid Hardening Program replaces several pieces of equipment based on WUI fire risk, but not based upon the condition of equipment. This program is not aligned with condition-based programs but is a risk-based approach focused on replacing equipment and conductors associated with spark-ignition potential (such as wood crossarms, small copper wire, open wire secondary districts), and is focused on circuits located in high fire threat districts.

Transmission Design maintains a list of each structure including age. They also maintain a log of any structures which have been identified via inspections to be in need of repair or which should be monitored. Asset Maintenance also maintains a list of distribution poles and inspection results to track poles requiring repair, replacement or monitoring. These lists are updated continuously as inspections take place, if poles are replaced during the course of routine work or as the result of damage. The expected lifespan for wood poles in Avista's service territory is approximately 70 years, based upon both experience and our primarily dry climate. The expected lifecycle for steel poles may be 80 years or more.

d) and e) For Transmission, Avista has conducted annual aerial and ground inspections for many years as required by NERC regulations and Avista's Transmission Maintenance Inspection Plan (TMIP), which requires inspection of 100% of the transmission system annually. Current inspection programs (ground and aerial) are geared towards identifying reliability risks and are undertaken for all structures regardless of condition or fire potential. The Wildfire Plan adds LiDAR inspections to supplement these routine annual inspections, which will further identify vegetation-related risk, structural issues, or potential defects.

Distribution system inspections are also conducted based on annual schedules. The condition of each pole is assessed during this inspection to determine whether any issues need to be addressed, rather than relying only upon age information to categorize the health of the pole. The inspection process identifies damage from insects, animals, lightning, fire, decay, mechanical damage, equipment failure (such as a leaking transformer), unauthorized attachments, and other issues such as a broken guy wire, grounding, or soil concerns. Decay is the most common reason for pole failure and is generally detectable with proper inspection. Inspectors also assess components including transformers, ground, and guy wires. Distribution risk-based vegetation management inspections include routine annual cycle-based trimming (completing 20% of the distribution system every year), and risk tree inspections of 100% of both transmission and distribution systems annually. For the distribution system, we use ground-based and a satellite-based system (added as a result of Avista's Wildfire Plan) which allows for a system-wide approach rather than conventional human-based collection over a portion of the system. Again, this is undertaken for all structures regardless of condition as this is risk-based rather than condition-based with the goal of identifying vegetation issues which may cause outages or spark ignition events.

These inspections are initiated by Transmission Design and Asset Maintenance and are scheduled based on a variety of factors including weather, accessibility and crew availability but are planned each year.