

FACT SHEET CHELAN TRANSMISSION FIRE HARDENING



WHAT

Results of the customer outreach from the 2015 – 2019 Strategic Plan indicated that “customer-owners were most interested in replacing or rerouting some electric lines to protect against fire and weather risks.” As a result, the PUD conducted a fire risk assessment of the PUD’s high voltage electrical transmission system that was completed in 2017. Improvements to the transmission system between Chelan Falls and Union Valley, including upgrading the poles from wood to steel, was one of several potential projects identified in the study.

WHY

The past decade has brought many large wildfires to Chelan County. The wildfire of 2015 in Chelan burned both transmission lines that serve the Lake Chelan Valley. Power was out for over 36 hours while crews restored the first line. The second line took eleven days to restore. Outages of this duration can have impacts to commerce, tourism, healthcare, agriculture and the quality of life of all who live in the Lake Chelan Valley.

TIMELINE

The PUD is seeking community input in 2019 to determine if there is support for a project to fire harden the transmission system serving the Chelan area. If so, design and procurement of parts would occur in 2020, with construction planned for 2021.

HAVE QUESTIONS?

Website: www.chelanpud.org/firehardening

Contact Jenna Rahm, Customer Outreach Specialist, at jenna.rahm@chelanpud.org or (509) 661-4630.

WILDFIRE RISK ASSESSMENT

Chelan PUD hired a consulting firm in 2017 to conduct a fire risk assessment of our transmission system. The study provided us with a list of transmission line segments that are candidates for fire hardening improvements. These improvements will minimize power outages, shorten outage durations, and improve the resiliency and reliability of the PUD’s transmission system.

Factors evaluated include the expected intensity of the fire based on nearby fuel sources, the ability to combat a fire, potential impacts to customers, the ability for crews to access the lines and anticipated time to complete emergency repairs, and potential impacts to the PUD’s hydro generation facilities.

PROPOSED CHELAN TRANSMISSION FIRE HARDENING TIMELINE





ALTERNATIVE 1: REBUILD TO UNION VALLEY SUBSTATION

Most robust
and fire resilient option.

Directly benefits
the most customers.

Provides the most indirect
benefit to other customers along the
north shore.

**Most expensive, estimated cost
between \$3M and \$4.5M**

ALTERNATIVE 2: REBUILD TO CHELAN SUBSTATION

Provides good coverage for a
vulnerable section of transmission
line but does not extend as far as
Alt. 1 nor provide the extent of
indirect benefits to other north
shore customers.

**Estimated cost between
\$2M and \$3M**

ALTERNATIVE 3: REPLACE ONLY "CRITICAL" STRUCTURES

Identified as the red/blue circles on
the map, these structures are more
difficult to access or take longer to
reconstruct, and by replacing these
structures in steel, downtime could
be shortened after a fire.

Provides the least fire resiliency
of the three options.

**Estimated cost between
\$1.7M and \$2.9M**

REPLACING WOOD POLES WITH STEEL:

- Steel poles allow fires to pass with limited damage to the electrical system
- Same alignment as existing
- Same general look and feel as original

