



The Bingen Substation has been modernized through the years, including a recent installation of regulators to support the 2017 transformer addition.

# Increasing Loads Drive System Upgrades

Much of the backbone for the Klickitat PUD electric distribution system was originally built in the mid-1900s and expanded over time. Substations provide capacity, and power is transported over multiple circuits and ultimately delivered to the end user.

The electric system was designed with capacity to support growth over several decades. The system's design provided excess capacity that has allowed KPUD to support development and growth within Klickitat County.

The KPUD engineering department regularly evaluates the location of new construction and monitors available system capacity in those areas based on the present-day electrical demands compared to previous years. We use this information to complete five-, 10- and 20-year forecasts to prioritize the location and timing of system upgrade projects throughout the county. The projects replace aging infrastructure, upgrade power lines to

support continuing load growth and maintain the system's reliability.

For many years, most load growth occurred near the incorporated areas of Bingen, White Salmon and Goldendale. Today, it's much easier for people to develop land and build homes in the rural parts of the county.

In the past several years, load growth has been greater than anticipated. In addition, a large portion of the growth is in the farthest reaches of KPUD's electric distribution system. The surrounding areas of Trout Lake, BZ, Snowden, Lyle and the area north of Goldendale have seen an influx of development.

Recently completed projects have spanned Klickitat County, including:

- Expansion of the Bingen Substation in White Salmon and the M.A. Collins Substation in Alderdale to support load growth in both ends of the county.
- Installation of several miles of larger overhead wire along Jewett Boulevard

and in the areas of Snowden, Box Canyon Road and Garrison Road to support load growth.

- Reconstruction of several miles of transmission line originally built in the mid-1940s along Bickleton Highway and Dot Road to maintain reliability.
- Replacement of faulty underground wire in the areas of Goldendale's 21st Street and downtown Dallesport. Faulty underground wire that serves the water system for the town of Klickitat was also replaced.
- Conversion of several miles of overhead power line to underground line north of Trout Lake to support KPUD's ongoing fire mitigation efforts.

In addition to these projects, many others have been completed in the past several years. All have been critical to maintaining and improving system.

Klickitat PUD continues to have a robust maintenance and construction plan that allows the utility to address aging infrastructure and maintain the system's reliability. In addition to maintenance projects, there is an increased focus on adding capacity at substations and improving infrastructure to provide growth capabilities for many years to come. ■