

## **Microwave Analog Replacement Project - #NC Northwest Washington**

This project completes the installation of digital communications in northwest Washington by building microwave and synchronous optical network (SONET) radio spurs to sites that were not included on the main fiber optic ring (#NC). This project will also complete the #NC01 ring in the Bellingham area and connect it to the main ring, which will provide a connection to the Dittmer control center. When complete, digital communications will be in place at all substations and VHF sites in western Washington from Bellingham to Dittmer and to the Ellensburg area. After installation of and cutover to the digital system, all analog circuits and all BPA analog microwave equipment in northwest Washington will be retired.

This project is part of a larger BPA strategy to replace all analog communications with digital communications. BPA has the major backbone SONET rings installed and is now in the process of installing digital communications to those areas not on the SONET rings. The #KC spur healing project was approved in May 2009 and is underway to complete digital installations in Oregon. This project will complete digital installations in western Washington. Following this project, the next phase is to install digital communications in eastern Washington (connect spurs to the #DC) including building a SONET ring between the Bell substation and the Boundary substation on the Canadian border. The final phase of the strategy will be to install digital communications along the lower Snake River and connect all of the powerhouses on the lower Snake to the BPA digital communications system.

The proposed project's capital cost, including AFUDC and overheads, is estimated to be \$18.2 million. The project is expected to be completed by September 1, 2013.