

#JC Microwave Upgrade

This project will complete the digital conversion for the upper part of the #JC communications ring. This will involve the installation of seven radio hops and the addition of multiplexers at seven additional sites.

Prior to the mid 1990s, the BPA telecommunication system used an analog microwave radio backbone to carry data and voice between geographic areas and adjacent substations. Analog microwave radio systems are now outdated and no longer manufactured or supported, as they have been replaced by digital systems. Beginning in the late 1990's BPA began installing digital communications systems, primarily Synchronous Optical Network (SONET) communications systems over fiber optic cable. The lower Snake River transmission system was one of the last areas to be converted to digital communications. The digital system that is installed is an interim solution, installed to support schedules for wind projects connecting at Central Ferry substation. The interim system is a low capacity system and will not support Operational Multi-gigabit Ethernet Transport (OMET) because of limited bandwidth. Dworshak substation and powerhouse are still analog and obsolete. Also, due to its limited capacity, the interim system does not fully support BPA's future plans in the area. This project will complete the digital conversion for the upper part of #JC through a series of replacements, upgrades and additions.