## **Spare Transformers for Hub Wind Sites**

This project includes the installation of a spare, single phase transformer at four existing "hub" facilities. These "hub" facilities, as defined by Transmission Planning, are 500/230kV transformer interconnections to the 500kV grid which provide interconnection for several separate wind projects at 230kV. The facilities for this project are Rock Creek, John Day, Slatt and Central Ferry 500/230kV substations. The installation of these transformers will enable BPA to rotate each of the transformers out of service on a 10-year cycle, thereby extending their service lives, reducing long-term replacement costs, and lowering operation and maintenance costs. This investment will bring all the "hub" facilities up to compliance with Transmission's current standard. The spare transformers will also provide comparable reliability for BPA's wind generation customers, which provides customer benefits in the form of avoided loss of generation and the associated production tax credits and renewable energy credits.