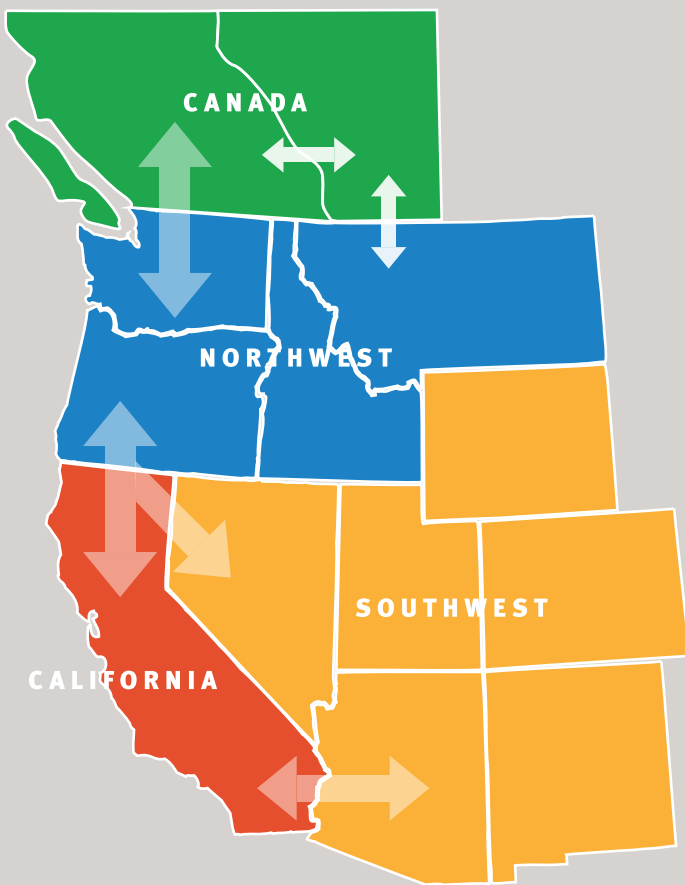


## TRADING POWER ACROSS THE WEST

*The supply of electricity must always match demand because electricity cannot be stored on the power grid. Across the West, power is imported and exported to meet power demand needs. Hydropower's flexibility helps balance the weather dependent availability and reliability of wind and solar power.*



*Electricity in the Northwest is part of a Western Interconnection grid that stretches from British Columbia, Canada to Baja California, in Mexico and eastward over the Rocky Mountains.*

Historically, utilities balanced supply and demand needs through various combinations of buying power, using their own generation sources, and trading with each other. In 1970, transmission lines called the Pacific Intertie created more flexibility by enabling operators to move electricity between California and the Northwest.

As the power generation stack shifts toward renewable and weather dependent sources like solar, wind and hydro, the need to find new ways to mix and match supply and demand across the grid has increased dramatically.

One way to ensure supply is to expand the territory of available power in a way that also complements the renewable strengths of each region. Let's use California and the Northwest as an example. In 2018, solar power represented 14 percent of California's and 15 percent of the Northwest's generating capacity. Increased transmission line capacity and trading can support solar power from California being sent to the Northwest during the winter when our electricity demands for heat are high. Likewise, wind power from the Northwest can be shipped to California in the summer when demands for air conditioning are high. Hydropower's flexibility helps balance the weather dependent availability and reliability of wind and solar power.

Another way to support supply is highly sophisticated power trading. Here, operators trade power in as fast as 5 to 15-minute intervals, using real time or day-ahead trading. In addition to saving customers money by finding needed power at the lowest cost, it opens new markets for clean, carbon-free, low cost renewable energy. 🌍