

TVA Activates Delivery of Wind Power

The brisk winds across the Illinois plains have begun blowing power into the Tennessee Valley. The Tennessee Valley Authority has started transmitting electricity from wind power in the first of seven Midwest wind contracts that may provide enough power for about 325,000 average-size homes. TVA said in a statement that it has started transmitting to its customers 300 megawatts of renewable wind power provided by Iberdrola Renewables Inc.'s Streator Cayuga Ridge wind park in Livingston County, Ill

Why wind power? Wind energy is a converted form of solar energy. The sun's radiation heats different parts of the earth at different rates-most notably during the day and night, but also when different surfaces (for example, water and land) absorb or reflect at different rates. This in turn causes portions of the atmosphere to warm differently. Hot air rises, reducing the atmospheric pressure at the earth's surface, and cooler air is drawn in to replace it, the result is wind. Air has mass, and when it is in motion, it contains the energy of that motion ("kinetic energy"). A portion of that energy can be converted into other forms mechanical force or electricity that we can use to perform work.

It is the first delivery from contracts TVA has signed to purchase up to 1,380 megawatts of renewable wind energy from the Midwest. The statement said the Iberdrola Renewables deal is the largest of TVA's wind power contracts. TVA has about 9 million consumers in Tennessee, Alabama, Mississippi, Kentucky, Georgia, North Carolina and Virginia.

“Activation of this new wind-power source is an important milestone in our plans to expand TVA’s clean and renewable energy options,” TVA Senior Vice President John Trawick said.

The next purchased wind addition to the TVA power grid will be 115 megawatts scheduled to arrive this fall from Horizon Wind Energy LLC’s Pioneer Prairie wind farm in Iowa. TVA’s power generation currently comes largely from its 11 coal-fired power plants, with three nuclear plants that supply about 30%. About 10 percent comes from 29 hydroelectric dams, with a smattering of power from other sources.