U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Large-Scale Application of Wind Energy B-Roll

Scene-by-Scene Description

Get the facts behind the footage available on the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) B-Roll Web site at **eere.energy.gov/news/b_roll.cfm**.

Video Title: Wind Turbine B-Roll
Video Only/No Audio
Location: Tehachapi, California
Shoot Date: April 9, 2010
Total Running Time: 1:32 (single clip)

A sea of wind turbines near the Tehachapi Pass in California populates the landscape. With around 3,400 wind turbines (and growing), Tehachapi holds the second-largest collection of wind generators in the world and is the largest in terms of energy output. Operated by a dozen private companies, the wind farms collectively produce about 710 megawatts (MW) of electricity annually—enough to meet the needs of about 213,000 homes every year.

Learn More about Wind Energy Technologies and Initiatives

Although wind power has been used for centuries, only recently has technology advanced sufficiently to allow for the large-scale production of wind energy to integrate into the electrical grid. Today, wind farms pump energy into the power grid. As part of the DOE Wind and Water Power Program, researchers from the National Renewable Energy Laboratory (NREL) and other facilities play a vital role in advancing large scale applications of wind energy. NREL has partnered with industry to develop today's highly efficient and successful wind turbines, and its researchers are continually finding more effective ways to integrate wind power into the nation's energy portfolio.

In 2008, DOE published a report examining the technical feasibility of using wind energy to generate 20% of the nation's electricity demand by 2030. The report examines the costs, major impacts, and challenges associated with this goal. For more information on wind energy, visit **eere.energy.gov/windandhydro**.