

KLONDIKE Wind Power Projects



Project Overview

The Klondike Wind Power Developments encompass four individual wind power projects: Klondike I, Klondike II, Klondike III and Klondike IIIa, located in Central Oregon on private ranches and farms on the Columbia River Plateau. Together, these wind energy projects generate a total of 400 megawatts (MW). Typically a 400 MW wind project can generate power for more than 115,000 homes, according to the American Wind Energy Association's calculation.

Named for an original Sherman County settlement, the wind power projects are located five miles east of the town of Wasco, Ore. The projects support the local economy through lease payments to landowners and property tax or in-lieu payments to Sherman County. Hundreds of jobs were created during the projects' four construction periods spanning 2000 to 2008. While the project spans thousands of acres of private land, the actual footprint is less than two percent of the total area. Landowners continue using the remainder of the land for wheat farming, ranching and other traditional activities.

Klondike I Project Details

Project Capacity: 24 MW

Online: 2001

Wind Turbines: 16 GE Energy 1.5 MW turbines

Customer: Bonneville Power Administration



Klondike IIIa Project Details

Project Capacity: 76.5 MW

Online: July 2008

Wind Turbines: 51 GE Energy 1.5 MW wind turbines

Customer: Pacific Gas and Electric Company with a callback option of half the energy for Bonneville Power Administration

Klondike II Project Details

Project Capacity: 75 MW

Online: 2005

Wind Turbines: 50 GE Energy 1.5 MW turbines

Customer: Portland General Electric

Klondike III Project Details

Project Capacity: 224 MW

Online: Late 2007

Wind Turbines: 44 Siemens 2.3 MW wind turbines, 80 GE Energy 1.5 MW wind turbines and one Mitsubishi 2.4 MW wind turbine

Customers: Pacific Gas and Electric Company (99 MW), Puget Sound Energy (50 MW), Eugene Water & Electric Board (25 MW), Bonneville Power Administration (50 MW)





Project Benefits

In addition to producing emission-free, renewable power, the project generates tens of thousands of dollars annually in direct economic benefit to the local economy through a combination of job creation, taxes, easement payments and landowner revenue participation payments.

Developer and Owner: IBERDROLA RENEWABLES

IBERDROLA RENEWABLES is currently the world's leading provider of wind power with more than 8,000 MW of wind power in operation globally now. Between 2008-2012, the company will invest €18.8 billion globally to achieve installed capacity of close to 18,000 MW and production of more than 42,000 GWh. IBERDROLA RENEWABLES will invest \$8 billion in the U.S. between 2008 and 2012 and plans to install 1,000 MW of wind power each year in the US.

www.iberdrolarenewables.us

Turbine Facts

Average height of turbines: About 30 stories tall

Average weight of turbines: About 235 tons

Average amount of concrete for foundations:
About 22 truckloads

Testing New Technology

Klondike is a testing ground for the latest wind turbine technology. Klondike's four wind power developments employ two types of GE Energy wind turbines and Siemens wind turbines. In addition, Klondike is testing next-generation wind turbine technology from Mitsubishi. This prototype wind turbine manufactured in Japan is designed for superior resistance to lightning strikes while delivering optimum performance and safety features.

Wind Energy

In 2008, U.S. wind power sailed past the 20,000 megawatt (MW) landmark, achieving in two years what had previously taken two decades – installing 10,000 MW of wind power capacity in the United States. Wind power now generates 20,152 MW, enough electricity to serve 5.3 million American homes. That's enough to generate as much electricity every year as 28.7 million tons of coal or 90 million barrels of oil. Wind generation currently displaces 34 million tons of carbon dioxide annually, equivalent to taking 5.8 million vehicles off the road. A U.S. Department of Energy study released in May found that wind could provide 20% of U.S. electricity by 2030. At that level, wind power would support 500,000 jobs and reduce greenhouse gas emissions as much as taking 140 million vehicles off the road.



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