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## **Vattenfall converts wind energy to hydrogen gas**

**Vattenfall is now participating in a unique project that allows wind energy to be stored and converted to hydrogen gas. The hydrogen can subsequently be used to generate electricity and heat in power plants or as fuel for cars. The hybrid power plant is located 75 miles north of Berlin and is the first in Europe.**

“This is a unique project both for Germany and Europe as a whole. It combines the generation of renewable electricity, heat and hydrogen,” says Oliver Weinmann, Head of Vattenfall Innovation in Germany.

Renewable energy is gaining ground, but the challenge is to store it. A wind farm generates electricity for direct input to the power grid, but when supply exceeds demand, the current problem is to find a way to store the energy.

“There is currently no system designed to compensate for the differences between supply and demand within the sector of renewable energy. But this project allows us to find a balance in the system and it’s also good business,” adds Oliver Weinmann.

Vattenfall is now participating together with its partners in a project that uses a hybrid power plant to convert wind energy to hydrogen, which can then be used to co-fire the power plant and also as fuel for cars.

In Prenzlau, 75 miles north of Berlin, Vattenfall is seeking new solutions for the future. The project consists of a biogas unit, three wind turbines of 2 MW each, two combined heat and power plants and an electrolysis unit that generates the hydrogen.

Together with its partners, Vattenfall is now planning to expand its pilot activities for generating hydrogen to store wind energy in several major projects, including one in the state of Brandenburg.

The project brings together energy supplier Enertrag, French oil and gas company Total and Siemens, as well as research institutions and environmental organisations. The initiative is supported by several German states and the German Ministry of Transport and is known as the Performing Energy Alliance for Hydrogen from Wind.

Vattenfall is the global number two in generating offshore wind power. The company is now planning to build two large wind farms off the German coast that will supply up to 800,000 German residents with power. Vattenfall's extensive wind energy investment fits well with efforts to store wind energy in different ways.

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