Wavegen is a wholly owned subsidiary of Voith Siemens Hydro Power Generation.

News

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From Scotland to Spain: First commercial breakwater wave energy plant world-wide to be built in Spanish Mutriku

Tolosa, Spain/Inverness, Scotland: The world-wide first commercial breakwater wave energy plant will be built at the Spanish Atlantic coast.

It is based on Voith Siemens Hydro Power Generation's wave technology. Customer is the Basque Energy Board, Ente Vasco de Energia.

The new plant in Mutriku in Northern Spain will work with the Oscillating Water Column (OWC) technology of Voith Siemens Hydro's Scottish subsidiary Wavegen where it is successfully field-tested for seven years now.

The pioneer in wave power operates the first long-term grid connected wave energy plant.

"Mutriku is a milestone in the history of wave energy. We are proud that the first breakwater wave energy plant will rely on Wavegen's technology", says Dr. Hubert Lienhard, President and CEO of Voith Siemens Hydro.

The new project will see the integration of 16 Wells turbines into Mutriku's new breakwater being constructed by the local government.

Supplying green electricity to

Voith Siemens Hydro Power Generation is a Group Division of Voith and – with a workforce of around 2,500 employees and an order intake of around 720 million Euro in the past business year – Voith Siemens Hydro Power Generation is one of the world-wide leading companies for hydro power equipment.

Voith Group is setting standards in the markets paper, energy, mobility and service. Founded on 1 January 1867, and nowadays with approximately 34,000 employees, a turnover of 3.7 billion Euro and 250 locations worldwide, Voith is one of Europe's large family-owned companies.

around 250 households with a rated power of nearly 300 kW, the plant will be commissioned in the winter of 2008/2009.

Starting signal for green energy from waves

With this innovative power plant concept the production of green energy will be integrated into a marine construction with minimized additional construction costs.

“This project represents a major step towards commercialization of wave power as we continue to develop the technology and demonstrate its reliability under commercial operating conditions”, says David Gibb, General Manager of Wavegen: ”And we already negotiate further projects in other countries.”

How to turn waves into watts

The wave plant will use the Oscillating Water Column principle which has been utilized in Wavegen’s demonstration plant in Scotland since 2000.

An opening in the front of the breakwater allows the sea to rise and fall within a chamber due to the action of the waves.

This motion compresses and decompresses the enclosed volume of air. The energy generated from this pressure differential is then – with the aid of a Wells turbine and a generator – transformed into electricity and fed into the grid.

Construction site of the new breakwater in Mutriku’s harbour

Mutriku’s harbour

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