



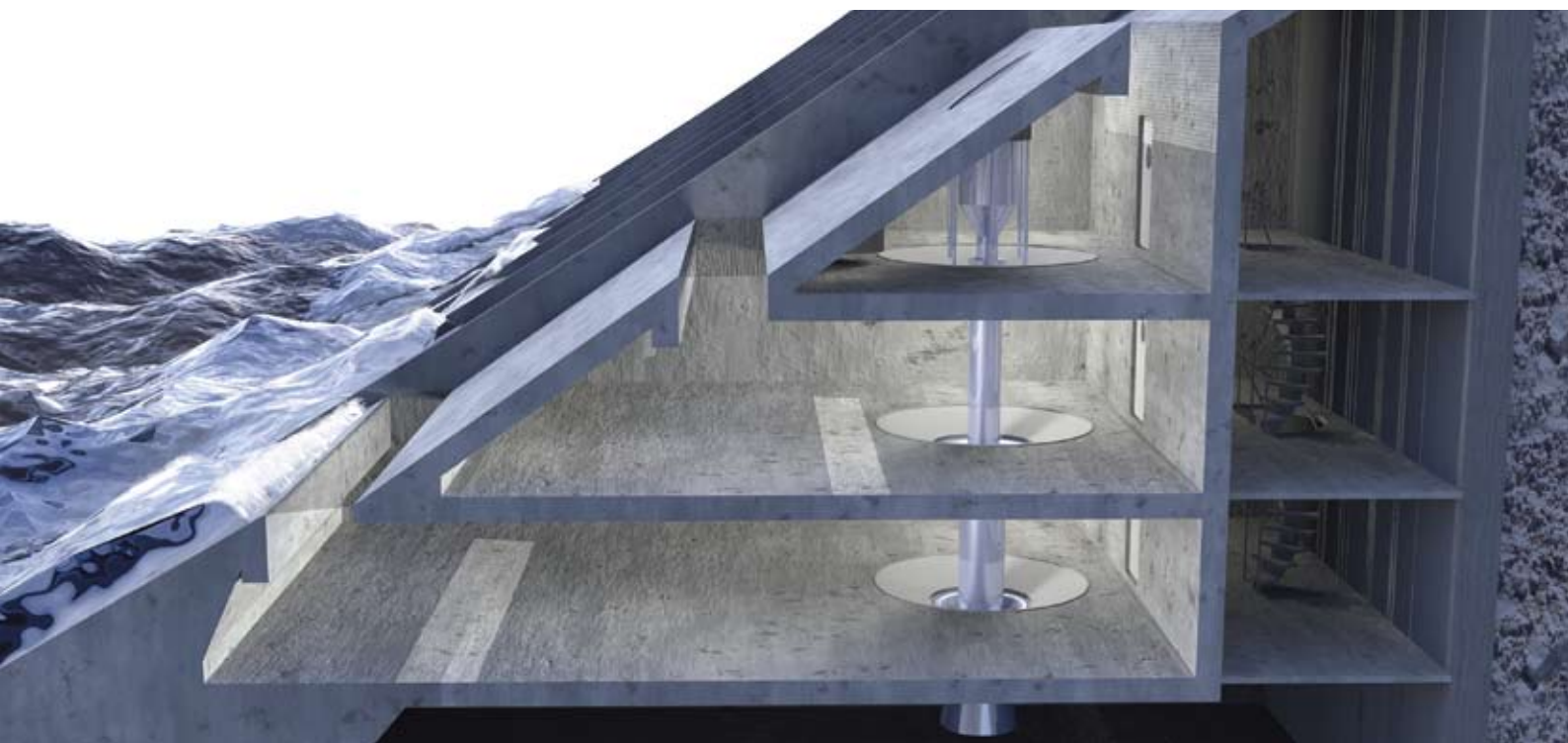
**WAVE**energy

## harvesting the **power of the ocean**

**WAVEenergy AS is a Stavanger (Norway) based company set up in April 2004** to develop the Seawave Slot-cone Generator (SSG) concept. The SSG is a wave energy converter based on the wave overtopping principle utilizing a total of three reservoirs placed on top of each other in which the potential energy of the incoming wave will be stored. The water captured in the reservoirs will then run through the multi-stage turbine. Using multiple reservoirs will result in a higher overall efficiency.

The SSG is built as a robust concrete structure with the turbine shaft and the gates controlling the water flow as virtually the only moving part of the mechanical system.

The SSG concept will make use of the innovative patent pending multi-stage turbine developed by WaveEnergy. The multi-stage turbine has the advantage to utilize different heights of water head on a common turbine wheel. The multi-stage technology will minimize the number of start/stop sequence on the turbine even if only one reservoir is supplying water to the turbine, resulting in a high degree of utilization.





## SSG Range of applications



SSG pilot project, Kvitsøy.

**Break**Water

**Onshore**Installation

**Offshore**Installation

**SSG pilot project, Kvitsøy.** The objective of the project is to develop a full-scale technical prototype of the SSG breakwater structure and install this on the west coast of the island of Kvitsøy in an estimated 15kW/m wave climate.

**The project is executed in four parts:**

1. Data collection and design
2. Manufacture and installation of the SSG civil structure
  - Measure water level in reservoirs
  - Measure force on structure
3. Installation of a multi-level water turbine with approx 200 kW installed capacity
4. Installation of electricity generator and grid connection



**Pilot project is part funded by the European Commission FP6-2004-Energy-3.**

**MST prototype.** The objective of the project is to develop a multi-stage water turbine, and to install this in the pilot at the island of Kvitsøy. The MST project started up in January 2005 in cooperation with NTNU (Norwegian University of Science and Technology) The project is supported by the Renergi program at the Norwegian Research Council.

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