Write NO MORE THAN TWO WORDS AND/OR A NUMBER for each answer.

Ocean Energy

The water of the oceans of the world is almost always in motion, hardly ever interrupted. Waves break at the sometimes strong sometimes weaker. There is an enormous energy potential that is available around the clock and free-of-charge. A potential that if fully could satisfy 40% of the worldwide demand for power. This equals the output of 700 to 800 nuclear power stations. Voith Hydro Wavegen is developing technologies to convert this inexhaustible energy into electric power without the emission of harmful . The operating principle of this wave power station is as simple as it is . An enclosed chamber has an opening beneath sea level which allows water to flow from the sea to the chamber and back. The water level in the chamber rises and falls with the of the waves and air is forced forwards and backwards through the turbine connected to an upper opening in the chamber. As it is and , the airflow has power to drive the wells' turbine. It is a feature of the wells' turbine named after its inventor that it is driven in the same direction by both forward and air flow through the turbine. Even relatively low wave motions can generate enough airflow to keep the turbine moving and to generate energy. This is how easily energy can be generated with a wave power station, day and night, all year round, as long as there are waves. The world's first power station of this kind was put in service as early as November 2000 on the Scottish island of Isla and has been feeding power to the ever since. Voith Hydro Wavegen is convinced of the commercial potential of wave energy. We are certain that our wave power stations can make a significant contribution to supplying the world with climate-friendly energy.

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