

Wind energy provides hydrogen and drinking water

In Germany, P&T Technology AG has developed a novel plant that provides potable water and clean water suitable for hydrogen generation from river or sea water. Renewable energy installations (wind turbines or solar modules) produce energy that can be fed directly to a grid or a part of it used to produce drinking water by employing reverse osmosis (RO) technology. A notable feature of the unit is an ion exchanger that provides very clean water, which could be split into hydrogen and oxygen in an electrolyser. If the wind is low or the sky cloudy, the hydrogen and oxygen can be used to produce electricity, thereby maintaining a continuous supply of energy and water.

A pilot project planned by P&T will utilize a 600 kW wind turbine to generate power to produce 50,000 l/d of potable water. While Hamburg-based Pall Rochem Wassertechnik GmbH will supply the osmosis plant, the electrolysis facility will be provided by Norsk Hydro Electric, Norway.

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