

French company uses wind turbine to create fresh water

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(Phys.org) -- French company Eole Water has announced that they have developed and are now in the process of selling wind turbines that have been modified to produce fresh drinking water. Company reps say the new turbines should be a boon to remote communities that have limited access to fresh drinking water.

The initial product, called the WMS1000 is capable, the company claims, of producing up to 1000 liters of clean fresh water every day in a humid climate. They also say the turbines are based on existing technology and are easy to maintain and use.

The turbines work by combining two current types of technology;

traditional generation of electricity using wind as the driving force, and compressors commonly used by dehumidifiers and refrigerators. Anyone who has ever seen a dehumidifier in action can understand right away how the new turbines work. Air is pulled in, cooled and compressed, causing moisture in it to condense to water where it can be removed and used.

The new turbines create electricity in the same way as other wind generators, some of which is used to run the compressor. The water that is produced drips down to the base of the turbine tower where it is filtered and delivered for use. Most that buy and use such a system would also likely need to add a collecting tank to hold water for use during peak times.

Eole Water has also added extra features to the turbine and tower to make them more robust. One of those is large filters on the front of the turbine to keep out dust and dirt particles. Another is the ability to easily raise and lower the entire turbine and tower for maintenance and repair. The company claims one tower would be able to produce all the water needed for a town of two to three thousand people, though of course that would depend on where the town is located. Those in arid areas would find water output much less as there would be less [water](#) available to pull from the air.

The new turbines do have one major drawback and that is the price, which is close to three quarters of a million US dollars per system, though the company says it expects that figure to decline as more units are made and sold.

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