

LIFE OF THE WIND

The Hague-based company Aenarete is developing an attractive and inexpensive alternative to wind turbines and solar panels. Their drones generate about ten times as much energy.

When you think of a drone, you might think of a flying platform with a number of propellers standing up. The drone of Aenarete is a 2 meter wide rigid wing. It is attached to the ground with a rope and works like a kite. That rope is attached to a generator,' explains founder of Aenarete Uwe Fechner, 'the drone has a pulling force of 70 kilograms. 80 percent of the flight time the drone generates energy.'

Sufficient wind

In the Netherlands there is almost always enough wind, according to Fechner. The drone flies - like a sailboat - diagonally to the wind. Because then you fly faster, which produces more energy. Flying twice as fast produces four times as much power. And thus more energy. A drone generates 12 kilowatt hours of energy per day under optimal conditions. As comparison: an average household in the Netherlands consumes 3000 kilowatt hours per year.

Africa and Asia

It is therefore not surprising that Aenarete also targets the African and Asian markets. A household or company there uses up to ten times less energy. Just because of the climate. The system lends itself better to less urbanized areas. It is also compact, easy to transport and cheap: from €3500. All in all, it weighs 30 kilos.

Simple transport is a major advantage in parts of the world where roads are bad. There, 'building a wind turbine is often practically impossible,' says Fechner. And in refugee camps, for example, authorities do not give permission to build a windmill. Or is that simply too expensive? It is usually the intention that these camps are demolished within 1 or 2 years.

Don't crash

The drone has another advantage over solar panels and wind turbines, Fechner explains. Drones fly much higher than windmills. And at that altitude the wind blows much harder and more constant. A small drone produces as much energy as 20 square meters of solar panels in the Netherlands. A drone doesn't crash when the wind is gone. A small motor keeps it in the air for half an hour, with self-generated electricity. Then it lands automatically on a few square meters. This is done by a small autopilot. The same one that keeps the drone flying at right angles to the wind.

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