PIONEERING WORK ON H2 IN REUSSENKÖGE AND BREDSTEDT

One such stakeholder is the Dirkshof organic farm in Reußenköge, in the district of North Frisia. Its core values include independence, a down-to-earth attitude and sustainability. *"We take a holistic approach and live in harmony with what the region and nature have to offer,"* says managing director and owner Dirk Ketelsen. *"This includes harvesting the wind."* What started with a small 200-kilowatt wind turbine near the farm has now grown into a community wind farm with over 90 wind turbines and a capacity of 300 megawatts. *"When we do something, we do it right,"* says Dirk Ketelsen. His words are backed up by around 70 employees at the farm's locations in Reußenköge and Bredstedt.

Three years ago, the community wind farm initiative led to the idea of exploiting the farm's full potential by promoting the use of green hydrogen. *"We asked ourselves how, within reason, we could refine the energy on site, generate added value and create jobs – green hydrogen is the obvious choice,"* says project manager Henning Boysen. *"Our infrastructure is ideal for the production of green hydrogen. We have the wind, the space, our own plant, a substation – we just had to go for it."* And so they did, with success; the Dirkshof farm is now actively involved in several projects. Initially, 35 subsidised hydrogen fuel-cell vehicles were purchased and sold on to increase the demand for green H2 in the region. That, however, is not the end of it. Dirk Ketelsen: *"We've received funding approval for a filling station and a smaller electrolyser with a capacity of about 700 kW, as well as funding for a larger megawatt plant for industrial use. This represents an investment of around three million euros."*

Breezer Aircraft, a company that is close to the heart of aviation enthusiast Dirk Ketelsen, is located in Bredstedt. It was established as a small-scale technology hub for electric and H2-powered aviation. *"We want to bring this technology into the aviation sector,"* explains Henning Boysen. *"If you can get a fuel cell airborne with competitive range and flight performance, then you can easily integrate it elsewhere as well. That would be a crowning achievement."*

Approximately 2.5 million euros will be invested in the Bredstedt location, including funding for a new hangar. *"The future is happening here,"* says Dirk Ketelsen. *"Some of our hydrogen cars are already on the road – that means we have increased the proportion of H2 vehicles in our region. We plan to start work on the filling station in 2022. We can foresee strong demand in the future. We will need roughly one year of lead time and are doing some exploratory work now, but we want to be ready to go from 2023."*

In Bredstedt, the future is set: From 2022, the filling station for hydrogen-powered vehicles will start operating.