

The Pitch-O-Matic enables small and medium sized wind turbines to harness up to 50% more energy. It is a rotor hub with a built-in passive mechanism that controls the blade angle, and provides a simpler, cheaper alternative to active blade pitch angle control systems for wind turbines.

Description



Challenger Solutions OÜ is an engineering firm specializing in wind turbine simulation, design, and testing. We have specialized training in wind energy and years of experience in the wind industry in Denmark. We are currently developing The Pitch-O-Matic with the goal of manufacturing in Estonia and exporting the product to the markets in Denmark, Germany, and the US.



Challenger Solutions
Estonia

Business Model



Blade pitch angle control for wind turbines provides significant energy gains. However the only systems available are active, consisting of sensors, controllers, and electronic motors or hydraulic actuators. The result is a complicated and expensive system that is worth implementing at larger scales, but not for small and medium machines. What is missing from the market is a cheaper, simpler alternative to the expensive and complicated active pitch system, geared towards small and medium machines, and that is exactly what our system is.

Category

Energy

Target



By the end of 2017 we will have: 1. Completed the design of our first prototype. 2. Run high fidelity simulations of the prototype operating on our pilot project partner's turbine. 3. Procured all of the prototype parts, assembled, and begun ground testing, with the goal of installing on our pilot project partner's turbine in early 2018.

Contact



Drew Gertz
drew@challengersolutions.eu
<http://www.challengersolutions.eu>

Notes