

Vindby

Customer Success Story

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Inventor took us beyond 3D to Digital Prototyping. It was the deciding factor in quickly getting the approval process underway and gaining a head start on the competition. It also led to a whole raft of concrete optimizations in design and construction.

—Ole Jonsson
Director
Vindby

Blowin' in the Wind

Vindby is First to Market With the Help of Digital Prototyping.



Image courtesy of Vindby.

Project Summary

Denmark-based Vindby is a leading provider of economic energy solutions. Along with wind turbines designed for private home use, the company builds integrated solar panels and geo-thermal energy, and provides advice, consultancy, and support for renewable energy solutions.

Recently, Vindby Directors John Knud Jorgensen and Ole Jonsson announced that their wind turbine, named Vindy, became Denmark's first and only approved wind turbine for private home use. This achievement was the result of hard work and choosing the best tools for the job. By using Autodesk® Inventor® software, Vindby was able to:

- Meet a tight deadline for turbine testing and approvals
- Get a six-month head start on competitors
- Reduce physical prototypes and speed up the development process
- Create cost-effective sales brochures using virtual prototypes
- Include customers in the development process

The Challenge

Denmark's new regulations for wind turbines came into effect in January 2008. All turbines, even small ones like Vindy with a footprint of fewer than five square meters, are now subject to type-approval. Overseen by the Danish Wind Turbine Association, it includes a rigorous six-month test period, of which three months must be winter months.

Vindby wanted to be the first to market and took the necessary steps to get its home-use wind turbine ready for testing. With a tight timeframe of only a few months, its designers needed to make modifications to fit the new requirements.

The Solution

"Inventor took us beyond 3D to Digital Prototyping. It was the deciding factor in quickly getting the approval process underway and gaining a head start on the competition," says Jonsson. "It also led to a whole raft of concrete optimizations in design and construction."

Vindby's designers not only use Autodesk Inventor as a tool for designing and simulating digital prototypes, but also for visualizing, documenting, analyzing, and selling products. They have created sales brochures, which in several instances present products that only exist as virtual prototypes. These are then physically produced when orders come in.

"When we sell our engineering expertise, customers expect us to deliver an optimized product. For that reason it is important that we have the latest and most highly regarded CAD tools at our disposal," adds Jonsson. "We help customers reduce their use of materials and thereby lower production costs. It is this strategy and the way we use Inventor that is currently proving so successful for us."

The Result

In May 2009, Vindby became the first approved household wind turbine available in the country.

"The new requirements for mini-turbines have separated the wheat from the chaff in terms of manufacturers," concludes Jorgensen. "In our case, the rapid development of Vindy was only possible because we were able to form a complete Digital Prototyping workflow with Inventor."

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