



PRESS RELEASE

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## FIRST WIND TURBINE USING SUPERCONDUCTOR TECHNOLOGY

THEVA company part of the EU-supported EcoSwing project

Ismaning, 5 June 2015 – Together with eight European industrial and research partners, THEVA Dünnschichttechnik GmbH near Munich will build the world's first superconducting wind turbine generator as a part of the the EcoSwing project. It will replace the existing permanent magnet generator in a modern 3MW+ wind turbine operated commercially by the Danish company Envision Energy Aps. THEVA CEO Dr. Werner Prusseit noted, "THEVA began superconductor production this year and we are very glad that we have already received a major order and had the opportunity to put this pioneering technology into practice." The European Commission is subsidizing EcoSwing as part of its Horizon 2020 program in the amount of 10.5 million euros.

Heretofore there had only been concept studies on superconducting wind power generators. This is the world's first implementation in conditions of real use. The goal of EcoSwing is to develop a direct-drive generator that is 40 percent lighter than previous models. Second-generation superconductors developed and manufactured by Theva make a major contribution. Superconductors can conduct over two hundred times as much current as copper wire with the same cross-section, with almost no loss. The result is higher power transmission efficiency, and lighter, more compact design of all components. For wind turbine nacelles that means much lower weight and less material use.

"EcoSwing is an important milestone in executing our strategy of supplying major projects in key markets," said Prusseit. In addition to the energy business, Theva supplies industrial manufacturers. The intention is to bring the cost of volume production down to a level that is competitive with copper wire. "That will give us major growth opportunities for the future."

*EcoSwing received assistance under financial aid agreement No. 656024 as part of the Horizon 2020 research and innovation initiative of the European Union. "This text reflects only the opinion of the author. The Commission is not responsible for any use of the contents."*

## **About THEVA**

With around 20 years' experience in coating technology and equipment engineering, THEVA today stands for a unique approach in superconductor production. In 2012, after investing over 15 years in research and testing phases, the company brought powerful partners on board: Target Partners and the Bayerische Beteiligungsgesellschaft. With the new superconductors in the THEVA Pro-Line Series, THEVA will initially address central markets such as the electricity industry or the manufacturing industry. In a second phase, the focus will be on future-oriented applications in the magnet and drive technology sectors.

THEVA Dünnschichttechnik GmbH was founded in 1996 and today has around 40 employees. Headquartered in Germany, and with contacts in Asia, the USA and Russia, the company has a global presence for its customers.

## **About the EcoSwing project**

The total budget of the project is 13.8 million euros, of which 10.5 million are from the EU's Horizon 2020 framework program. Envision Energy (Denmark) Aps is acting as the project coordinator and will provide the test platform. More information on the project can be found at [www.ecoswing.eu](http://www.ecoswing.eu).

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