

Press release

Electricity from Renewable Energies

Part Two of the dena Grid Study commences: renewable energy up to 30 percent by 2020/25

Berlin, 26 March 2007. The Deutsche Energie-Agentur GmbH (dena) - the German Energy Agency - has just given the go-ahead for further research into the expansion of wind energy in Germany. The second part of the dena Grid Study will show how the percentage of renewable energies contributing to the electricity supply can be increased to 30 percent between 2020 and 2025.

Stephan Kohler, head of dena stated: "Over the next few years the mechanisms will be put in place for the future supply of energy in Germany. We are being given the opportunity to link the challenges of mitigating climate change with the expansion of renewable energies. The dena Grid Study II will give us a strategic and sustainable concept which guarantees a secure, cost-effective and environmentally friendly supply of electricity. This pre-supposes that the required expansion of the extra-high voltage grid, as discussed in the first part of the dena Grid Study, is brought about in good time."

The project will be looking for answers to the following questions: What impact will an increase in the input of wind energy have on the extra-high voltage grid? How can wind-powered electricity be brought from the North and Baltic seas to land and then transported on to the high demand centres further inland? How can the systems be optimized? Which electricity storage systems are particularly effective? Research will also be made into increasing the flexibility of electricity generation and improving wind forecasts.

The research will primarily focus on securing the supply of electricity even under technically difficult conditions, such as high winds, a lack of wind, or peak load times. The scenarios examined assume that 20,000 megawatts of energy can be fed into the German power grid from offshore wind parks, with a further 28,000 megawatts coming from onshore wind farms. In comparison, Germany had an installed capacity of 20,000 megawatts of onshore wind energy in the year 2006.

The report is being drawn up and financed as an inter-industry project. A syndicate led by the Institute of Energy Economics at the University of Cologne will carry out the research, the other members being Deutsches Windenergie-Institut (the German Wind Energy Institute DEWI), EnBW Transportnetze AG, E.ON Netz GmbH, the Institut für solare Energieversorgungstechnik (ISET - Institute for Solar Energy Technology), RWE Transportnetz Strom GmbH and Vattenfall Europe Transmission GmbH. External experts will also test the results for plausibility during the course of the project.

The research will be financed jointly by public and private project partners, these being the German Economics and Environment Ministries and companies and associations involved in grid operation, the wind industry, plant engineering, the conventional power industry and the supply industry as follows: the Zentralverband Elektrotechnik- und Elektronikindustrie (the German Electrical and Electronic Manufacturers' Association ZVEI), VGB PowerTech, the Power Systems Association of the German Engineering Federation VDMA, the Association of German Network Operators, the German Electricity Association VDEW, Vatten-

Press release

Seite 2/2

fall Europe Transmission, Siemens, RWE Transportnetz Strom, the Offshore Foundation of the Offshore Wind Energy Forum, Energiewerke Weser Ems, EnBW Transportnetze, E.ON Netz, the Federal Wind Energy Association, BARD Engineering, the Federal Ministry of Economics and Technology (BMWi) and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

The project partners are contributing to the research via a project control group led by dena, who is also responsible for coordination of the project as a whole. First results are expected at the end of 2008.

The dena Grid Study II continues on from the first part, which was finalized in the spring of 2005 and developed solutions for the integration of renewable energies by the year 2015 and a contribution of 20 per cent to the generation of electricity.

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