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Financial crisis and wind power development

After-dinner-speech at windcomm dinner, 16.03.2009 in Marseille/France

Offshore Wind Farms on hold due to Financial Crisis

The first German offshore wind park ALPHA VENTUS has been postponed to 2009. This hold-up is seen as a bad omen by those involved in the project. Some fear the delays for offshore wind farms could get worse - due to storms far away from the North Sea coast on the financial markets. "We are sliding towards a dangerous crisis in off-shore wind power", says Fritz Vahrenholt, director of RWE subsidiary Innogy, which operates wind farms along the British coast. The company intends for its new Offshore Park Innogy Nordsee 1 to generate almost 1.000 MW. The total investment is anticipated to be € 2.8 billion and the wind farm is to be completed by 2015.

RWE can finance this investment, but smaller companies are in trouble. Banks are reluctant to lend money to project development companies, most of which are heavily reliant on outside financing. And the expensive cables that would connect the offshore wind farms to the grid are delayed because none of the turbines are in operation yet.

According to a survey of its members the German Wind Energy Association (BWE) has announced: "Due to the financial crisis, no big offshore projects can be realized at the moment." Nordex reported on March 5, 2009 a decrese of new orders of 20%. Energiekontor is facing similar difficulties with its plans for a wind farm at Nordergründe. The company plans to build 90-MW-wind farm at the mouth of the Weser river, north of Wilhelmshaven. It was only able to keep the project alive after a Dutch bank stepped in to help with financing. The director of the Sandbank 24 offshore wind farm says the "timetable for the government's climate program is being jeopardized by the delays to the construction of the offshore parks."

Slow down also onshore

The credit crisis has hit the energy markets as debt financing and tax equity have essentially dried up. The fortunate projects that are able to secure debt financing are able to do so at higher rates as the cost of such debt financing has risen sharply. Furthermore, project developers are also finding it difficult to secure the tax equity for their projects.

Independent power producers reliant on third-party-financing may find it impossible to finance the development of solar and wind projects in 2009 until the financial markets improve. The largest developers in the solar and wind industries with strong balance sheets are also feeling the pain of the financial crisis. Many of these developers, who use third-party-debt to finance their projects in order to maximize return on equity, have seen the increased cost of credit have a material adverse impact on the project's return

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on equity. As a result, much of the project development for 2009 will be conducted by developers with large equity possibilities.

Big money for the banks, little money for industry

"We are sticking to our goals for the construction of the offshore wind parks", the German Environment Ministry has argued in early 2009, before admitting: "But the finances are in fact causing a problem." Early in 2009 the German Environment Ministry hosted an "Offshore Summit" to address the financial difficulties being encountered by the smaller energy companies. The result of the meeting was an agreement that the offshore industry would be considered in the second stimulus package the German government has come up with to deal with the developing economic crisis. For comparison: The German government has set up funds to support German banks, around \in 100 billion equity and \in 500 billion guarantees. Solely for the small bank Hypo Real Estate the government has spend more than \in 10 billion equity; this corresponds to 5.000 MW wind parks at 2.000 \notin kW investment cost.

Good news: Wind farm prices decrease, feed-in-tariffs are stable

The financial crisis is impacting the solar panel, wind turbine and component suppliers as well. The crisis has caused a delay in orders and cancellations. Within the wind industry, this has resulted in excess turbines becoming available for sale. Material prices as well as prices for wind parks are going down. At the same time feed-in-tariffs increase (Germany) and tax credits are at least stable (USA). This is the basis for a continuing growth of onshore wind power development. Developers, industry supply and service companies with large cash reserves may therefore find the financial crisis has created new opportunities for them. At the same time, however, smaller onshore investors with little equity may also see themselves in a more and more difficult position similar to the respective offshore investors.

Result

Onshore Wind Farms continue to grow even facing the financial crisis. Those investors, who can supply enough equity will benefit by favourable feed-in-prices and tax credits and decreasing wind park prices. But those investors who need high debt financing may find themselves in a very difficult position due to increased interest rates in combination with higher equity requests.

Jarass/Obermair/Voigt: Wind Energy – Reliable Integration into the Energy System. Springer publishing company, Berlin Heidelberg New York, 2nd edition, April 2009.

Additional publications on <u>www.JARASS.com</u>:

- Jarass/Obermair: Upgrading the Grid for Wind Energy. European Wind Energy Conference 2009.
- Jarass/Obermair: Mehr Übertragungsleistung in Höchstspannungsnetzen. energy20, 2009.