



## Fact sheet

Berlin, 24.06.2013

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# OFFSHORE GRID DEVELOPMENT PLAN 2012 LEGAL BASIS, CONTENT, CONSULTATION AND WAY FORWARD

### Background

In 2011, the German parliament and the Federal Council agreed on a rapid withdrawal from atomic power and an accelerated entry into the field of renewable energy. As a result, it was necessary to consider connecting the wind energy generated in the North Sea and in the Baltic Sea to the land-based transmission network.

### Offshore Grid Development Plan - legal basis

Since 2012, the four transmission system operators (TSOs), 50Hertz, Amprion, TenneT and TransnetBW, have had the task of producing an annual electrical grid development plan (GDP) for the expansion of the land-based transmission networks in the next 10 or 20 years based on the amended Energy Industry Act (EnWG). Wind energy from the North Sea and the Baltic Sea is expected to provide a significant contribution to supplies derived from renewable energies. To enable the expansion to be carried out efficiently and sustainably within legal bounds, the Offshore Grid Development Plan (O-GDP) was published for the first time in 2013. Like the GDP, this is produced annually and submitted to the Federal Network Agency (BNetzA) as the responsible regulating authority.

### Offshore Grid Development Plan - content

The need to expand the offshore grid based on the requirements of the EnWG is outlined in the 2013 O-GDP. The development of the transmission grid on land, the spatial planning at sea and the technical boundary conditions for a sustained plan with detailed particulars of the nature, timescale, implementation times and costs of the measures necessary for the next 10 or 20 years have been brought together for the first time.

The O-GDP establishes the requirement for grid connection systems and determines the start and end points of grid connection systems taking into account the expected geographic distribution of the offshore wind farms and the connection capacity available at the grid connection points in the transmission network. Specific transmission line routes are not part of the O-GDP but will be defined in the exclusive economic zone as part of the Federal plan by the Federal Maritime and Hydrographic Agency and in coastal waters by the BNetzA in conjunction with the Federal states.

The overall length of the extension of the offshore grid in lead scenario B 2023 amounts to around 2,115 km, wherein 1,705 km are attributed to DC grid connection systems in the North Sea (of which 1,135 km are HVDC transmission lines and 570 km AC connections) and 410 km to AC grid connection systems in the Baltic Sea (of which 350 km are AC transmission lines and 60 km AC connections). The transmission capacity of the extension of the offshore grid in scenario B 2023 is 6.4 GW, of which in turn 5.4 GW are attributed to the North Sea and 1.0 GW to the Baltic Sea. The investment for offshore grid expansion measures comes to a total





of around 22 billion euros. The investment in the initial offshore grid (around 12 billion euros) is already taken into account here.

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#### **Offshore Grid Development Plan - consultation**

Consultation began on 02.03.2013 with the first drafts of the O-GDP and the 2013 GDP. The public were able to comment on both reports up to 14.04.2013. A total of 36 comments relating to the O-GDP were received during the consultation process. Of these, 35 comments were submitted by institutions and only one from a private individual. The initial drafts were also handed over to the BNetzA on 02.03.2013.

All the comments submitted were carefully checked by the TSOs. The O-GDP was then revised based on the submitted contributions. The second revised draft of the O-GDP was published and handed over to the BNetzA on 24.06.2013.

#### **Next steps – the way forward to grid expansion**

The second draft of the electrical grid development plan will be published by the transmission system operators in July. The Federal Network Agency will check the revised drafts of the O-GDP and the GDP and will again present them for consultation. The BNetzA will take the results of this public involvement into account when confirming the O-GDP and the GDP. Thereafter it will submit the approved grid development plans to the Federal Government at least every three years. They will form the basis for the draft of a Federal requirement plan. For its part, the Federal Government is obliged to submit such a draft to the federal legislator for agreement at least every three years.

#### **Factors influencing the grid development – 2013 sensitivity report**

The BNetzA has requested the transmission system operators to investigate the effects of three sensitive areas on the measures included in scenario B 2023. These sensitive areas are:

- Net electricity requirement and annual peak load (sensitive area 1),
- Capping of generation peaks (sensitive area 2),
- Regionalisation (sensitive area 3).

The transmission service operators will publish the sensitivity report on 1st July 2013 at [www.netzentwicklungsplan.de](http://www.netzentwicklungsplan.de).

