



Fact sheet

August 30, 2012

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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, the grid needs to be optimised, enhanced and supplemented by new routes.

GRID DEVELOPMENT PLAN - LEGAL BASIS

The four transmission system operators (TSOs), 50Hertz, Amprion, TenneT TSO and TransnetBW, have the common task governed by the Energy Industry Act of producing a plan for the expansion of the transmission networks for the next 10 years. This must be produced annually and submitted to the Federal Network Agency (BNetzA) as the responsible regulating authority. Before producing the GDP, the so-called scenario framework is produced. This presents the bandwidth of probable developments in energy consumption and generation and their regional distribution in three scenarios and forms the basis of the grid development plan (GDP).

GRID DEVELOPMENT PLAN - CONTENT

The grid development plan shows for four generation and consumption scenarios approved by the Federal Network Agency all measures required for optimising, enhancing and expanding the grid to meet the requirements. This enables safe and reliable operation of the grid to be ensured even in 10 years. At the same time, the grid development plan does not describe specific transmission line routes, but documents the necessary transmission requirements between grid nodes and contains specific recommendations for the expansion and building of new onshore transmission networks in Germany. In order to determine the required measures, the TSOs follow the so-called NOVA principle (measures with priority of grid optimization and enhancement prior to new construction).

The lead scenario B 2022 and the resulting requirement for significant expansion of the grid is the outcome of GDP 2012 and forms a reliable development path for expansion of the grid until the year 2022. This is confirmed by the forecast scenario B 2032 and voltage stability studies. The focus here is on high-power north-south connections. As well as the existing grid, the measures which are currently under construction, the planning of which required under public law is well advanced, or is required by law, serve as a basis for the calculation. These form the so-called starting grid.





B 2022 envisages grid enhancements and optimisation on existing routes over a length of 4,400 km. New routes amount to 1,700 km. The investment required for expanding the transmission networks in the next 10 years is approx. 20 billion €. This includes the optimisation, expansion and investment requirements for the starting grid. Along with the expansion of the 380 kV three-phase grid, high-voltage DC links (HVDC) are also envisaged. These enable low-loss transmission on the long stretches from north to south with a total length of 2,100 km and stabilise the three-phase grid. From a technological point of view, it is possible to lay out the cable system for HVDC connections in sections. However, this decision is not part of the GDP.

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GRID DEVELOPMENT PLAN - CONSULTATION

The go-ahead for the consultation was given on 30th May 2012 with the publication of the first GDP draft following its handover to the Federal Network Agency. The public then had the opportunity to comment on the grid development plan until 10th July 2012. A number of citizens, organisations, politicians, companies and scientific bodies took advantage of the opportunity so that 2,100 consultation contributions were received in spite of the short time period allowed. It is notable that 87% of comments were submitted by private individuals.

All comments were checked by the TSOs in order to revise the GDP on this basis. A second version was submitted to the Federal Network Agency and simultaneously published on 15th August 2012. A significant modification is that certain measures have been moved from the starting grid to the resulting grid in order to more sharply demarcate the starting and resulting grids. However, this has no effect on the total scope of the requirement for grid optimisation and expansion.

In addition, the revised draft now also contains detailed explanations of the subjects addressed in the comments, such as scenario frameworks, infrastructure grouping, NOVA principle, technologies, transmission requirements and voltage stability.

NEXT STEPS – THE WAY FORWARD TO GRID EXPANSION

The Federal Network Agency (BNetzA) is to check the revised draft of the GDP and resubmit it together with an environmental report for consultation. The Federal Network Agency will take into account the result of this involvement by the public and the authorities when confirming the grid development plan. Thereafter it will submit the approved GDP to the Federal Government at least every three years. This 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.

