

Press release

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TRANSMISSION SYSTEM OPERATORS PUBLISH SECOND DRAFTS OF GRID DEVELOPMENT PLANS 2030

- Remarks from the public consultation were taken into account for the grid development plans
- Consultation contributions addressed the basic process and regional concerns
- FRP 2015 measures are robust in GDP 2030

The transmission system operators (TSO) 50Hertz, Amprion, TenneT and TransnetBW submitted the second drafts of the Grid Development Plan (GDP) 2030, version 2017 and the Offshore Grid Development plan (O-GDP) 2030, version 2017 to the Federal Network Agency (Bundesnetzagentur – BNetzA) today, and published them at www.netzentwicklungsplan.de. Remarks from the public consultation on the first drafts of GDP and O-GDP 2030, which was carried out from 31st January to 28th February 2017, were taken into account for the second drafts. A total of 2,133 consultation submissions were received, 2,116 concerning the GDP and 17 concerning the O-GDP.

Consultation of the first drafts

The consultation contributions for the first draft of the GDP 2030 address basic questions concerning the assumptions and requirements for grid development made in the scenarios, as well as regional concerns. Particularly the alternatives for relieving the Grafenrheinfeld grid node (P43mod and P44mod), the Raitersaich – Ludersheim section of project P53, the east coast line in Schleswig-Holstein (P72) and the route of the three large high-voltage direct current (HVDC) connections from North Rhine Westphalia to Baden-Württemberg, from Schleswig-Holstein to Bavaria and from Sachsen-Anhalt to Bavaria were subject to many contributions.

The comments concerning the O-GDP mainly dealt with the timing of measures and project deadlines, the design of the scenario framework, consideration of the area development plan (Flächenentwicklungsplan - FEP), the system change initiated by the WindSeeG as well as the selection of suitable grid links to the onshore grid and the associated onshore grid development.

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Demand to modify and expand the ultra-high voltage grid

The volume of the grid reinforcements on existing routes (re-cabling, construction of stronger power lines on existing routes) lies between 7,600 and 8,500 kilometres. The need for power lines in new routes is slightly below that of the first draft (3,800 km in total, 2,600 km of HVDC connections) at approximately 3,600 kilometres, 2,400 kilometres of which are HVDC connections. The reason for this is the adaptation of the lengths of the direct current lines to the specifications of the federal requirements plan (FRP) monitoring Q1/2017 of the BNetzA. The transmission capacity of the direct current connections for 2030 is a total of 8 GW in all scenarios. All measures of the FRP 2015 are robust to of modified framework conditions in the GDP 2030.

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GDP 2030 investment costs

The investment costs for the extension grid measures are mainly determined on the basis of standard costs in the GDP 2030 and are therefore provisional. Depending on the scenario, the total volume of investment for the target year of 2030 is estimated between 32 and 34 billion euros, under the assumption that the direct current connections DC1 and DC3-5 will be fully implemented as underground cables. The provisional investment costs are also somewhat lower in the second draft of the GDP 2030 compared to the first draft (34 to 36 billion euros) due to the adaptation to the FRP monitoring Q1/2017.

Alternatives to unbundling of Grafenrheinfeld

For the second draft of the GPD 2030, the TSOs carried out independent grid analyses for the P43mod and P44mod alternatives to the projects P43 (Mecklar – Bergrheinfeld/West) and P44 (Altenfeld – Grafenrheinfeld). The analyses confirm a greater grid efficiency of the projects P43 and P44 compared to the alternatives which had already been determined in the GDP 2025.

Project characterisation

The second draft of the GDP 2030 for the first time provides project characterisations as a pilot project. The TSOs used a method which was introduced, made available for public consultation and further developed during the GDP 2025 process. The project characterisations are based on the grid analyses and were conducted for all measures of the extension grid of scenario B 2030. It is used to characterise and illustrate the benefits of a measure, but not to prove the need for it as this is part of the grid analyses. The results of the project characterisations are displayed as spider graphs and descriptive texts in the project flyers of the appendix.

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Offshore grid development

With the O-GDP 2030 the TSOs are presenting the fourth and final O-GDP. It will then be superseded by the so called area development plan (Flächenentwicklungsplan – FEP).

The development measures of the start offshore grid in the O-GDP 2030 have a total length of about 850 kilometres. The investments are estimated at about 4 billion euros. The length of the extension offshore grid measures in scenarios A 2030, B 2030 and C 2030 is 2,277 kilometres, and 3,702 kilometres in scenario B 2035. The total transmission capacity of the extension offshore grid ranges from 7.4 GW for the target year 2030 to 11.4 GW for the target year 2035.

The total volume of investments including the costs for the start offshore grid until 2030 is a total of about 17 billion euros and about 24 billion euros by 2035.

Additional information at www.netzentwicklungsplan.de

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