



Bayreuth, Berlin, Dortmund, Stuttgart, 16 March 2026

Press Release

Transmission system operators publish second draft of Network Development Plan Electricity 2037/2045 (2025)

- › Transmission system operators address consultation submissions
- › Results from scenario C complement network development planning
- › German Federal Network Agency responsible for next steps

Transmission system operators (TSOs) 50Hertz, Amprion, TenneT Germany and TransnetBW have submitted the second draft of Network Development Plan (NDP) Electricity 2037/2045 (2025) to the German Federal Network Agency and have published it today at netzentwicklungsplan.de. The second draft updates the first draft of the Network Development Plan based on the preceding consultation phase and changes to the technical framework conditions, and now also includes scenario pathway C for the target years 2037 and 2045.

Broad response to consultation enables more confident planning

A total of 990 submissions were received in the consultation process, representing 232 different positions. Subjects covered in the submissions included the broader scenario bandwidth, current developments and outlooks in electricity consumption, the role of battery storage systems, flexible loads and electrolyzers, the need for offshore network expansion, the implementation of high-voltage direct current (HVDC) in the form of overhead lines or underground cables, and coordination between transmission and distribution system operators. All of the comments received were systematically evaluated and, where possible, taken into consideration in the second draft. The comments can be viewed in detail [here](#).

Second draft highlights additional prospects

The results of Scenario C show an extended image of the potential need to expand the network by 2037 and 2045. The assumptions from the first draft with scenarios A and B are complemented by a further scenario that builds on an assumption of higher electricity consumption and higher generation capacities from renewables compared to scenarios A and B. Scenario C for 2045 also includes two new HVDC connections. DC43, which serves as an east-west cross-connection, and DC44, which runs north-south, are highly effective in terms of reducing shortfalls, but the cost-benefit relationship is negative based on the assumptions in NDP 2037/2045 (2025). If the criterion of economic efficiency is watered down in favour of avoiding further redispatch, both of these HVDC connections will represent an effective planning option.

In principle, the TSOs assume that the probable development identified in scenarios A and B as published in the first draft will actually happen. These scenarios represent a reliable basis for further network expansion planning. HVDC connection DC42 remains robustly included in all scenarios, and the DC42plus extension is included in all scenarios with the exception of A 2037.

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Conversely, HVDC connections DC40, DC40plus and DC41 in this NDP are no longer components of an economically efficient grid designed for climate neutrality.

For the AC grid, the second draft of NDP 2037/2045 (2025) involves a need for slightly greater expansion compared to the first draft, on account of an adjustment to the maximum current limits in the 380 kV AC grid.

The calculated investment costs through to 2045 amount to about €365 to €392 billion in the various scenarios. There is significant potential for savings in reducing the offshore grid connection systems and the onshore connections in particular, as well as in implementing the remaining HVDCs as overhead lines.

Further stages in the process

In a special publication in April, the TSOs will present the results of the mandatory additional scenario A 2037+, which involves 14 GW more onshore wind compared to scenario A 2037. In this connection, the calculated demand for reactive power compensation units for the 2032 trend scenario is also being published. This also forms a basis for the 2027 system stability report.

With the publication of the second draft, the German Federal Network Agency assumes responsibility for the remainder of the process. It will review the first and second draft, make the provisional review results available for further consultation, and then confirm the Network Development Plan. This serves as a draft for the Federal Requirements Plan, which legislators will use to establish the necessity for the undertakings contained in the plan from an energy industry perspective, and the urgent requirement for them, all with binding force.

About the Network Development Plan Electricity

The Network Development Plan Electricity is the primary planning tool for the sustainable expansion of the German extra-high voltage grid on the path to achieving a climate-neutral electricity supply. The four transmission system operators, 50Hertz, Amprion, TenneT Germany and TransnetBW, draw up the plan every two years in accordance with the provisions of the Energy Industry Act.

The Network Development Plan Electricity not only offers a concrete outlook for the electricity grid over the coming decades, but also provides a continuously updated and well-founded information base for energy and economic policy decision-making.

For further information, please visit: www.netzentwicklungsplan.de