



Bayreuth, Berlin, Dortmund, Stuttgart, 10 December 2025

Press Release

Transmission system operators open public consultation on first draft of Network Development Plan Electricity 2037/2045 (2025)

- › Broader scenario funnel as basis
- › NDP shows significant savings potential
- › Public consultation to start immediately

The transmission system operators (TSOs) Amprion, 50Hertz, TenneT Germany and TransnetBW today published the first draft of the Network Development Plan (NDP) Electricity 2037/2045 (2025) on www.netzentwicklungsplan.de. This marks the beginning of the consultation, in which the public can participate online or by email up to 14 January 2026. The responses will be included in the second draft, which the TSOs will then submit to the Federal Network Agency (BNetzA) for review.

Broader scenario funnel as basis

In April, the BNetzA confirmed a scenario framework with a broader scenario funnel compared to NDP 2037/2045 (2023), incorporating current technological and energy industry developments and reflecting the changed framework conditions. On this basis, the NDP 2037/2045 (2025) focuses for the second time on the climate neutrality network by 2045. The first draft contains a scenario pathway A and a scenario pathway B for the target years 2037 and 2045 respectively. In scenario pathway A, the TSOs see a robust scenario which, in their opinion, forms a reliable basis for Network development planning. Scenario pathway C is being developed for the second NDP draft, together with a trend scenario for 2032. A further scenario, A 2037+, which includes a higher capacity of onshore wind energy compared to A 2037, will also be published in 2026 as a special report on the NDP, probably at the end of April.

In concrete terms, scenario pathway A anticipates a lower and more slowly growing demand for electricity. The expansion of photovoltaics and wind power is more moderate than in scenario pathway B, which is based on energy and climate policy targets, while the importance of large-scale battery storage systems increases significantly in all scenarios.

Economic optimum takes centre stage

Individual grid expansion measures stated in the previous NDP 2037/2045 (2023) for 2037 will only demonstrate their robustness in the NDP 2037/2045 (2025) in the long term in 2045. In the opinion of the TSOs, these measures, together with the new ones identified for 2045, offer the opportunity to stagger the expansion projects up to 2045, thus enabling the necessary grid expansion requirements to be spread out over time compared to the NDP 2037/2045 (2023).

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Compared to the previous NDP 2037/2045 (2023), there is a significantly reduced need for high-voltage direct current (HVDC) connections. While the HVDC connections DC40, DC40plus and DC41 are no longer shown to be necessary components of an economically efficient grid in this NDP, the DC42 connection is robustly included in all scenarios and the DC42plus extension is included in all scenarios with the exception of A 2037.

Offshore optimisations reduce grid expansion requirements

The current NDP draft applies offshore optimisation measures for the first time, focusing not on the installed capacity, but on the actual energy yield. Consideration is given to the reallocation of offshore development areas in the North Sea in order to reduce the shadowing effects of offshore wind turbines, as well as the optimal utilisation of grid connections and European links. Depending on the scenario, this could result in savings of four to seven offshore grid connection systems compared to the BNetzA confirmation of NDP 2037/2045 (2023) – a crucial step towards achieving greater efficiency and cutting costs in offshore grid expansion.

Changing market conditions shape the cost base

The market shortage of technical components and services has led to a sizeable increase in the cost of grid expansion projects compared to previous expectations. The new NDP focuses more strongly on finding the optimum balance between investment costs and remaining congestion management requirements while maintaining grid security – an essential lever for boosting economic efficiency. For the DC projects DC42 and DC42plus, the NDP 2037/2045 (2025) also uses cost rates for overhead lines as a basis, in line with the coalition agreement and the recommendations of the Energy Transition Monitoring.

First draft of NDP 2037/2045 (2025) shows significant savings potential

Depending on the scenario, the total investment resulting from the NDP measures implemented up to 2045 will be between €360 billion and €390 billion. The optimisations presented in the current NDP reduce costs in scenario A by just under €80 billion.

Consultation open until 14 January 2026

The TSOs invite citizens, businesses, associations, academia and policymakers to a consultation on the first draft. Further information on the consultation is available here:

www.netzentwicklungsplan.de/beteiligung/laufende-beteiligung-und-einsicht

After assessing the responses, the TSOs will present the second draft of the NDP 2037/2045 (2025) and submit it to the BNetzA for review.



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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