



Press release

Bonn, 8 July 2022

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Bundesnetzagentur approves electricity scenario framework

Klaus Müller: "Foundation laid for a climate-neutral network in 2045"

The Bundesnetzagentur today approved the electricity scenario framework for the upcoming electricity network development plan (NDP) 2023-2037/2045. The approval provides the basis for determining the expansion of the electricity transmission system in the period up to 2037 and 2045.

"We're focusing for the first time on achieving climate neutrality in the year 2045," said Klaus Müller, President of the Bundesnetzagentur. "The scenario framework takes account of the current energy targets of the federal government from the coalition agreement and the Easter package. The transmission system operators are now called upon to work out the necessary network expansion on the basis of these assumptions and present it to us."

Network planning for three development pathways

Three scenarios each were approved for 2037 and 2045, with three possible pathways to reach climate neutrality described. Development pathway A makes increased use of hydrogen. As well as hydrogen imports, hydrogen produced from domestic electrolysis also plays an important role. The other two pathways, B and C, make greater use of direct electrification. They differ in the size of assumptions they make on efficiency gains and the amount of electricity consumption. The central scenario B is based on the greatest efficiency.

Integrated consideration of all sectors

Unlike in the previous scenario frameworks, this time there is no division into conventional electricity consumption and new electricity applications. Instead the scenario framework 2023-2037/2045 breaks down electricity consumption by sector. Assumptions on the development of electricity

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consumption are made for each sector up to the achievement of climate neutrality in 2045. All scenarios assume a significant increase in electricity consumption caused by the decarbonisation of the transport sector, heat generation and industry. Electrolysers, which are needed to make green hydrogen, will also require additional electricity.

By including an expansion of hydrogen generation in all scenarios, the Bundesnetzagentur is also promoting the integrated consideration of the transmission networks for electricity and for physical, gaseous energy sources.

This integrated consideration of all sectors for 2045 will make it possible to integrate key policy decisions in a system development strategy quickly into the network planning process in future.

Stronger expansion of renewables

All scenarios include the planned expansion of renewable energy sources in line with the goals of the ongoing amendments of the Renewable Energy Sources Act (EEG) and the Offshore Wind Energy Act (WindSeeG). Development pathway C actually slightly surpasses the expansion targets of the EEG. Over 1,000 terawatt hours of electricity are generated from renewable energy in all scenarios for 2045.

Electricity scenario framework as basis for the electricity NDPs 2023-2037/2045

The transmission system operators (TSOs) presented the draft of the electricity scenario framework to the Bundesnetzagentur on 10 January 2022 for examination and approval. The Bundesnetzagentur held a four-week public consultation and discussed the draft in two online events.



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The TSOs have until 10 December 2022 to create a first draft of the electricity NDP based on the electricity scenario framework 2023-2037/2045 that was approved today. The consulted second draft is to be submitted to the Bundesnetzagentur by 8 May 2023.

The approval of the electricity scenario framework is available on the Bundesnetzagentur's website at www.netzausbau.de/szenariorahmen.

The Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen is an independent higher federal authority with its main office in Bonn and is under the responsibility of the Federal Ministry for Economic Affairs and Climate Action (BMWK). Some of its areas of activity fall under the substantive supervision of the Federal Ministry for Digital and Transport (BMDV).