



Press release

Bonn, 4 May 2020
Page 1 of 3

Electricity grid reserve capacity requirements for 2020/2021 and 2024/2025

The Bundesnetzagentur has confirmed the grid reserve capacity requirements for the coming winter 2020/2021 and for winter 2024/2025.

The transmission system operators (TSOs) presented their system analysis and the resulting grid reserve capacity requirements to the Bundesnetzagentur for confirmation on 31 March 2020. The Bundesnetzagentur has now confirmed these requirements.

Development of grid reserve capacity requirements

A total of 6,596 megawatts (MW) of grid reserve capacity will be needed for winter 2020/2021, which is similar to that contracted in the last few years. The reserve capacity is still needed primarily to make up for insufficient grid expansion.

The forecast of the conditions and requirements for next winter was based on a plausible scenario on a January morning. If high wind generation output and electricity imports to northern Germany were to coincide with high demand and very low solar generation in southern Germany, the large amounts of electricity to be transported from north to south would overburden the grid. At the same time, low wholesale electricity prices would lead to very high energy exports, especially to southern European countries.

Until the necessary grid expansion has been completed, the TSOs will need additional reserve capacity for redispatching alongside the power plants active in the market in order to manage such situations. The actual amount of reserve capacity needed is underpinned by the demand analysis presented.

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Bonn, 4 May 2020

Page 2 of 3

Increase in grid reserve capacity requirements

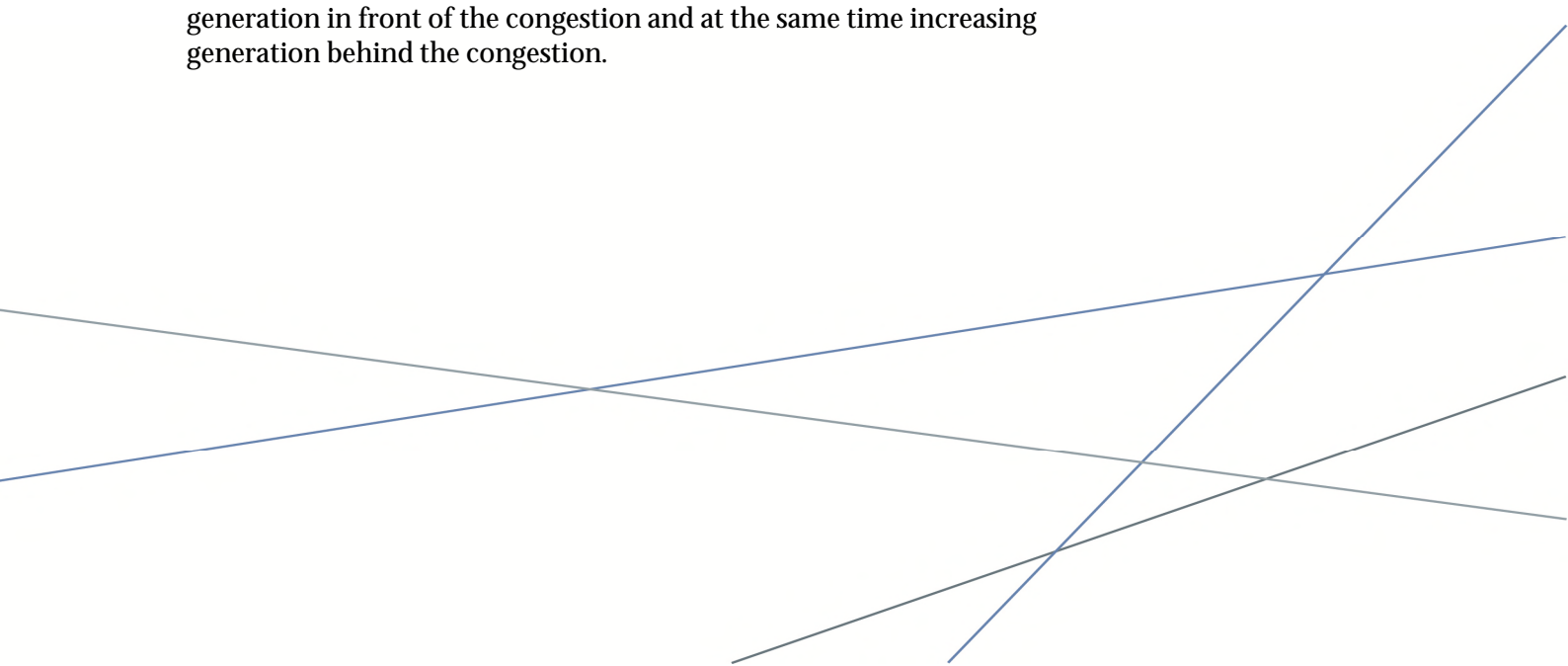
As well as the requirements for the forthcoming winter, the requirements for a winter further ahead are routinely identified. For winter 2024/2025, the required grid reserve capacity has been put at 8,042 MW.

This upward trend is due to various factors. EU legislation requiring more trading capacity between member states will increase the amount of capacity needed. Network expansion projects completed by 2024/2025 will lower capacity needs. This effect is reflected in the clear decrease overall both in the amount of plant capacity required for redispatching (down 17%) and in the volume of redispatched energy (down 53%).

The phase-out of coal lowers redispatching requirements overall, as less coal-produced electricity is exported, which eases the burden on the transmission lines. At the same time, coal-fired power plants are taken from the market and become part of the grid reserve. This is the reason why there is a nominal increase in the capacity of the power plants in the grid reserve but a decrease in the total capacity actually required for redispatching. If these power plants did not become part of the grid reserve, they would continue to be operational in the market and would take on a role in supporting the network. In this case, however, the carbon dioxide emissions from the plants would be several times higher.

Generation capacity for system stability

Grid reserve capacity is contracted to prevent overloading in the transmission system that occurs because of insufficient grid expansion. If high demand for electricity coincides with high wind generation, the overloaded network needs to be stabilised. This is done by reducing generation in front of the congestion and at the same time increasing generation behind the congestion.





Bonn, 4 May 2020

Page 3 of 3

This mechanism, known as redispatching, is carried out in the first place using power plants that are active in the market. In certain situations, however, the active plant capacity is not sufficient to relieve the congestion. In such cases, additional grid reserve power plants need to be used. The grid reserve comprises power plants which have been marked for closure but which may not be shut down because they have been categorised as essential for the system.

Power plants in the grid reserve may no longer participate in the electricity generation market and may only be used when instructed by the network operators for redispatching. The grid reserve plants are therefore in operation for only relatively few hours a year.

The report (in German) has been published at www.bundesnetzagentur.de/netzreserve.

The Bundesnetzagentur is an authority under the responsibility of the Federal Ministry for Economic Affairs and Energy. Its core tasks include supervising the energy, telecommunications, postal and railway markets.

As part of its mandate, the Bundesnetzagentur ensures that as many undertakings as possible can use the infrastructure in these sectors so that consumers benefit from competition and favourable prices.

The authority employs over 2,900 people at its headquarters in Bonn and Mainz and its 46 regional offices.

