

An official website of the European Union How do you know?



Energy

[Home](#) [Topics](#) [Data and analysis](#) [Funding](#) [Studies](#) [Publications](#) [Consultations](#) [Events](#) [News](#)

Capacity mechanisms

PAGE CONTENTS

Generation adequacy

National implementation plans

Annual monitoring reports

Commission opinions and consultations

Capacity mechanisms enable power plants to be available for generating electricity when needed. In exchange, the mechanisms provide payments to these power plants. These capacity payments are in addition to the earnings power plants gain by selling electricity on the energy market.

However, capacity payments can be an issue in the EU's internal electricity market where systems with capacity mechanisms coexist with systems where electricity producers can only rely on their earnings from sales on power markets, so-called 'energy-only markets'. It is therefore very important that capacity mechanisms are only introduced if necessary. They are designed to minimise the impact on market functioning. They also need to ensure that the mechanism is proportionate to the underlying adequacy problem so that the available and expected energy capacity is sufficient to meet demands at all times.

Generation adequacy

More intermittent renewable energy is changing the structure of power generation capacity. This is why generation adequacy, thus supply-demand balance, is a key tool to assess the security of supply in an electrical system. Therefore, a rigorous adequacy assessment is crucial for identifying risks to security of supply.

To this end, the [EU Electricity Regulation](#) requires an enhanced [EU-](#)

[wide adequacy assessment methodology](#) and annual adequacy assessments conducted by the European Network of Transmission System Operators for Electricity (ENTSO-E). Accordingly, ACER published a [Decision on the European resource adequacy assessment \(ERAA\)](#) in October 2020.

The EU assessment should be based on the latest calculation of future supply-demand scenarios. It should also consider the availability of renewable energy sources, demand side flexibility and cross-border infrastructure in times of system stress. The EU adequacy assessment is required to cover every EU country or bidding zone. In principle, countries with perceived adequacy concerns are required to demonstrate this concern based on the EU assessment.

National implementation plans

The electricity regulation requires all EU countries with identified adequacy concerns to develop an [implementation plan](#). These plans set out how they intend to address the root causes of their problem through market reforms. This requirement reflects the recognition that markets, if well designed, free of regulatory distortions and sufficiently connected to the EU electricity grid, can provide the right amount and type of capacity to meet any demand.

Capacity mechanisms should only be introduced to address residual concerns, such as problems or circumstances that cannot be resolved by market reforms alone. Once the residual concerns are solved and market reforms have started to work, adequacy problems are expected to decrease and ultimately disappear. To enable this, regulatory measures that eliminate distortions and reform markets must be effective and credible for market participants.

Annual monitoring reports

All EU countries with identified adequacy concerns are required to monitor the application of their implementation plans and publish the monitoring results in annual monitoring reports. The Commission provides [guidance for preparing these reports](#).

This assessment of the implementation process is meant to ensure that the market reform plans are properly implemented. The first reports were submitted to the Commission in 2021. The Commission will review the monitoring reports and issue a formal opinion on the reform process.

Commission opinions and consultations

The electricity regulation also requires the Commission to assess whether the proposed market reforms are fit for purpose and to issue an opinion within 4 months from submitting the national implementation plan.

As part of its assessment, the Commission will open the proposed market reforms for consultation. If it concludes that the proposed reforms do not sufficiently address the problems underlying the adequacy concern, it can propose necessary amendments to the implementation plan.

The table below contains links to the opinions and the consultations on the implementation plan, per Member State and language, when relevant.

[Open or close table](#)

Published:
Last update:

22 April 2020
1 December 2021