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**COMMISSION OPINION**

**of 1.9.2023**

**pursuant to Article 20(5) of Regulation (EU) 2019/943 on the implementation plan of  
Sweden**

(ONLY THE SWEDISH VERSION IS AUTHENTIC)

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## I. PROCEDURE

On 22 February 2023, the Commission received a report (hereafter “the updated report”) from Sweden monitoring the application of their implementation plan, which updates the implementation plan that was published by Sweden on 2020<sup>1</sup>. This report was prepared pursuant to Article 20(3) of Regulation (EU) 2019/943<sup>2</sup> (hereinafter “Electricity Regulation). Article 20(3) of the Electricity Regulation requires Member States with adequacy concerns to set out measures to eliminate regulatory distortions or market failures on their markets in an implementation plan.

Pursuant to Article 20(5) of the Electricity Regulation, the Commission is required to issue an opinion on whether the proposed measures and the timeline for their adoption are sufficient to eliminate the regulatory distortions or market failures.

## II. DESCRIPTION OF THE IMPLEMENTATION PLAN

The implementation plan was adopted by the Government Offices of Sweden (Ministry of Infrastructure), based on a proposal by the Swedish regulator (“Ei”) as a measure to improve the functioning of the electricity market. In its updated report, the Swedish authorities report on the progress and implementation of nine of the measures that were identified in the implementation plan in 2020. The focus lies on appropriate measures, such as the need for accelerating demand side flexibility, and the evolution of the balancing market. According to the Swedish authority's assessment, five measures have been successfully implemented one has been partly implemented, while three measures have not been implemented. The evaluation of obstacles for demand side flexibility is designed as continuous activity.

The Swedish regulator concludes that the measures in the implementation plan are still relevant and shall continue to be implemented, in order to contribute to the well-functioning of the Swedish electricity market. An annual monitoring on the measures as foreseen in the implementation plan, will be published yearly and submitted to the Commission for an opinion, in accordance with article 20(6) of the Electricity Regulation.

### 1. General wholesale market conditions

The Swedish authorities indicate that there is neither a maximum nor a minimum limit to the wholesale electricity price in Sweden, in line with Article 10 (1) of the Electricity Regulation. They note that the only limits applied are the harmonised maximum and minimum clearing prices for single day-ahead and intraday markets, in accordance with Articles 41(1) and 54(1)

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<sup>1</sup> Swedish Energy Markets Inspectorate (2020) Genomförandeplan med tidsplan för att förbättra elmarknadens funktion (Implementation plan to improve the functioning of the electricity market), Ei R2020:09.

<sup>2</sup> Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity, OJ L 158, 14.6.2019, p. 54–124

of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter ‘CACM Guideline’)<sup>3</sup>.

Sweden indicates in its implementation plan that it has a strategic reserve (so-called “peak load reserve”) in place since before the entry into force the Electricity Regulation. The strategic reserve has a size of 562 MW during the winter season from 16 November to 15 March and is procured by the Swedish TSO (Svenska Kraftnät). Sweden claims that no new contracts were concluded under the strategic reserve since the entry into force of the Electricity Regulation, and those that were signed before the entry into force of the Regulation run until 15 March 2025 at the latest. These contracts have benefitted from the grandfathering clause under Article 22(5) of the Electricity Regulation.

The Swedish authorities indicate in their implementation plan that they have asked Ei to propose by 26 February 2021 a reliability standard in accordance with Article 25(2) of the Electricity Regulation. The government has adopted the reliability standard on 17 November 2022<sup>4</sup>.

## **2. Balancing markets**

Sweden describes that it participates in the joint Nordic balancing market. Within that market, imbalances are handled and settled according to common rules defined in the System Operation Agreement between the Nordic transmission system operators (hereafter “TSOs”). Balancing is managed within the Nordic control areas as one system consisting of all four Nordic TSOs. Therefore, a Nordic merit order list is generated out of which the most efficient orders are picked. The report follows-up on seven measures that aim to ensure the further development of the balancing market.

In its implementation plan, Sweden committed to adjust the maximum clearing price of the balancing energy to a level at least equal to the maximum clearing prices for single day-ahead and intraday markets. In its updated report, Sweden indicates that it will align with the ACER Methodology for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process (hereafter “pricing methodology”)<sup>5</sup>, in accordance with Article 30 of Commission Regulation (EU) 2017/2195 (‘Electricity Balancing Guideline’)<sup>6</sup>.

Sweden committed in its implementation plan to have procedures in place so that Svenska kraftnät can publish price information from the balancing market as close as possible to real time. When Sweden will join the European balancing platforms for manual Frequency Restoration Reserves (mFRR) and automatic Frequency Restoration Reserves (aFRR), the information will be published 15 minutes after gate closure time for placing bids for the current market time unit.

According to the implementation plan, Sweden committed to analyse the effect on prices of balancing energy or the settlement of imbalances due to the activation of balancing energy for other reasons than balancing. The Swedish energy regulator considers this measure as not implemented and has therefore requested the TSO to annually report on how activations of balancing energy for other reasons than balancing affect the prices of balancing energy or the

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<sup>3</sup> Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management, 25.7.2015, OJ, L 197, p.24

<sup>4</sup> Regeringen beslutar om en tillförlitlighetsnorm för Sverige - Regeringen.se

<sup>5</sup> ACER Decision 03/2022 on the amendment to the methodology for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process.

<sup>6</sup> OJ L 312, 28.11.2017, p. 6.

settlement of actors' imbalances on the Swedish and Nordic electricity markets. Furthermore, the reasonableness of the pricing of those bids activated for purposes other than balancing should be further analysed

However, Sweden supports the cooperation of Nordic TSOs to assess the potential impact of special regulation on balancing energy and imbalance prices. They criticise that the settlement for special regulation (pay-as-bid) differs from those for balancing (pay-as-cleared) and announce that the Swedish regulator will publish a position on the pricing methods.

In its implementation plan, Sweden committed to review the charges levied by the TSO on the balancing responsible parties (BRPs) in order to correspond to the costs incurred by each operator. In its updated plan, the Swedish energy regulator considers this measure to be partly implemented and expresses the need for a continued investigation of the relationship between the volume fee and the imbalance fee.

Sweden committed in its implementation plan to examine whether the pricing of frequency containment reserves (FCR) using the pay as bid method is the most appropriate. In its updated plan, Sweden indicated that pay-as-cleared shall apply no later than 1 February 2024.

In its implementation plan, Sweden committed to review the prequalification process for balancing reserves to facilitate the participation of actors and to ensure that all types of technology can participate under the same conditions. In its updated plan, Sweden indicates that the measure is implemented.

Sweden committed in its implementation plan to evaluate the relatively high minimum bid size requirements (10 MW) for participation in the procurement of manual and automatic FRR to reduce entry barriers. In its updated plan, Sweden committed to implement a minimum bid size of 1 MW at the latest by 24 July 2024 when joining the European balancing platforms for mFRR and aFRR.

In its implementation plan, Sweden commits to removing the requirement for cost-based bids in the FCR, so that market actors can participate based on equal conditions regardless of the type of the resource. In the updated plan, Sweden reports that this has been implemented.

### **3. Interconnection capacity and cross-border trade**

In its implementation plan, Sweden provided information regarding interconnection capacity and cross-border trade. It had an interconnection rate of 24% in 2020, hence meeting the requirements of Article 4(1)(d) of Regulation (EU) 2018/1999<sup>7</sup>. Sweden also indicates that it will increase the total amount of interconnectors in the coming years, including through additional connection to northern Germany and the reinforcement of the Northern Sweden/Northern Finland connection. It indicates that there is a need for national reinforcements within Sweden too.

Concerning cross-border trade, the Swedish authorities indicate that there are no administrative restrictions on the allocation of transmission capacity to/from/ between Swedish bidding zones. Sweden has signalled that the Swedish TSO has requested a derogation under Article 16(9) of the Electricity Regulation from the 70% requirement for nine bidding zone borders. This derogation has been granted by ACER<sup>8</sup>.

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<sup>7</sup> Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, OJ L 328, 21.12.2018, p. 1–77

<sup>8</sup> [ACER Decision 17-2022 on Svenska kraftnät's request for a derogation from the 70% requirement.pdf \(europa.eu\)](https://europa.eu/press-room/en/infographic-acer-17-2022-on-svenska-kraftnät-s-request-for-a-derogation-from-the-70%-requirement)

The main reasons claimed are a lack of remedial actions, congestions in the West Coast Corridor inside SE3 in combination with lack of available downward regulation, recent flow change in the Swedish grid towards east-west flows resulting in insufficient availability of remedial actions. The TSO is working on a number of additional short term measures to mitigate the negative effect, including increasing procurement of redispatch capacity, increased cooperation with the Norwegian TSO (Statnett)<sup>9</sup>, piloted dynamic line rating.

#### **4. Demand side response, storage, self-consumption and energy efficiency**

The Swedish authorities claim, that Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity (hereafter “the Electricity Directive”)<sup>10</sup> is now fully transposed into national legislation, including the implementation of an independent aggregator. Sweden applies a central settlement model and further details will be developed by the Swedish TSO for approval of the energy regulator.

Sweden indicates that it does not discriminate or provide unnecessary technical requirements which hinder the participation of demand response, production or storage on energy markets. The Swedish authorities have ongoing initiatives to facilitate demand-side response participation in all markets.

The Swedish authorities claim, that the roll-out of smart meters has progressed well. All customers with a grid connection of 80 A or above are subject to hourly metering and settlement. In case the customer enters into a dynamic supply agreement that requires an hourly metering data, the customer can request such a meter free of charge. By 1 January 2025, all customers shall be equipped with a smart meter that allows hourly metering.

The Swedish energy regulator is mandated by the Swedish government to regularly report on the development of smart grids in accordance with Article 59(1) of the Electricity Directive. In addition, there is ongoing work to design network tariffs that promote efficient network usage, to test local flexibility solutions, and to involve in customer dialogues to better reflect on consumer perspectives.

#### **5. Retail markets and regulated prices**

Sweden indicates in its implementation plan that there are no regulated prices in the Swedish retail market.

### **III. COMMENTS**

On the basis of the information submitted by the Swedish authorities the Commission has the following comments on the measures described in the updated report. On 8 May 2023, the Commission has launched a public consultation on the updated report submitted from Sweden. The Commission did not receive any observations in response.

#### **1. General wholesale market conditions**

The Commission welcomes that there are no price caps for day-ahead and intraday markets in Sweden other than the harmonised maximum and minimum clearing prices for single day-ahead and intraday coupling in accordance with Articles 41(1) and 54(1) of CACM Guideline.

In view of Sweden’s participation to MARI and PICASSO platforms by mid-2024, the Commission considers that Sweden should adjust the maximum clearing price of balancing

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<sup>9</sup> [Økt kapasitet i strømmettet mellom Norge og Sverige | Statnett](#)

<sup>10</sup> Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity, OJ L 158, 14.6.2019, p. 125–199

energy as soon as possible, in accordance with the price level defined by ACER in the pricing methodology.

The Commission invites Sweden to continue to ensure that the design of its capacity mechanism complies with the requirements of the Electricity Regulation and adapt its mechanism, where necessary, as required by Article 22(5) of the Electricity Regulation. The Commission encourages Sweden to bring its strategic reserve in line with the requirements of Article 22 (2) the Electricity Regulation. In particular, Sweden should ensure that the resources committed in the strategic reserve are held outside of the market for at least the duration of the contractual period. In addition, during imbalance settlement periods where resources in the strategic reserve are dispatched, imbalances in the market are to be settled at least at the value of lost load or at a higher value than the intraday technical price limit as referred in Article 10(1), whichever is higher.

The measure shall also comply with Article 107 of the Treaty on the Functioning of the European Union<sup>11</sup>.

## **2. Balancing markets**

The Commission welcomes the actions taken by Sweden, in cooperation with the Nordic market, to adjust the technical price limit in the balancing timeframe in accordance with Article 10 of the Electricity Regulation. The Commission is of the view that technical bidding limits should be set at least at a level that does not risk crowding out generation resources or demand response from participation.

The Commission welcomes the reform of the Nordic balancing market in order to ensure an efficient and secure balancing scheme compliant with the Electricity Balancing Guideline (15 minutes imbalance settlement period, single pricing mechanism for imbalance settlement, etc).

The Commission also welcomes the commitment of Sweden, together with other Member States in the Nordic region, to participate in the European platform for the exchange of balancing energy from frequency restoration reserves with manual activation (MARI), the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation (PICASSO), and the European platform for imbalance netting according to Articles 20, 21 and 22 of the Electricity Balancing Guideline, as well as existing initiatives for joint procurement of frequency containment reserve resources.

## **3. Interconnection**

The Commission welcomes the fact that Sweden is well integrated into the internal energy market through interconnections and also that other interconnections are planned. However, for citizens to fully benefit from investments in interconnection and an integrated market, this infrastructure should be used to the maximum extent possible for energy exchanges with neighbouring bidding zones. According to Article 16(4) of Regulation (EU) 2019/943, the maximum level of interconnection capacity is to be made available to market participants, complying with the safety standards of secure network operation.

Currently however, there are some restrictions to the capacities available for the market on certain Swedish borders. The Commission has been informed that the reason is due to the fact that electricity flows in the Swedish grid have changed significantly in recent years due to

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<sup>11</sup> European Union, Consolidated version of the Treaty on the Functioning of the European Union, 26 October 2012, OJ L. 326/47-326/390; 26.10.2012

structural changes in the power system. In order to maintain operational security, limitations have been placed on the capacities available to the market on certain borders.

To improve market integration and address these challenges, the Commission encourages the Swedish authorities to ensure that the TSO continues to work closely with neighbouring TSOs on short-term alleviation measures and other market and technical measures, such as increasing the procurement of redispatch capacity, introducing sum allocation in the market coupling and piloting dynamic line ratings. As the challenge is different on the various Swedish borders, the Commission invites Sweden to prepare a plan of market and technical actions that will address the need for any cross-border limitations to the capacities available for trade.

In the short-medium term, the Commission also invites the Swedish authorities to consider how the ongoing bidding zone review could potentially alleviate some of the pressure in the Swedish power system.

#### **4. Demand-side response, storage and self-consumption**

The Commission notes the progress made over the last years and the measures taken. However, the measures defined in the implementation plan aim to accelerate demand side flexibility without setting measurable targets. Therefore, it is difficult to assess the achieved progress.

No data on the roll-out of smart metering has been provided. The Commission notes the deadline of 1 January 2025 by which all customers will have a new smart meter. The Commission invites Sweden to further pursue the roll-out of smart meters.

No information has been provided on dynamic price contracts and customer access to dynamic price contracts nor on storage.

To further improve market functioning and comply with its goals the Commission invites Sweden to continue with the introduction of measures aiming to remove barriers to the development of explicit demand side flexibility.

The Commission invites Sweden to provide the relevant data under this section, or where it does not exist, to improve the quantitative monitoring and target-setting, in order to make a proper assessment possible under the reporting obligations set by Article 20(3) of Regulation (EU) 2019/943.

#### **IV. CONCLUSION**

Pursuant to Article 20(5) of the Electricity Regulation, the Commission invites Sweden to amend its implementation plan to take utmost account of the above comments of the Commission. Sweden is invited to publish its amended plan within three months and inform the Commission.

Pursuant to Article 20(6) of the Electricity Regulation, Sweden shall monitor the application of its implementation plan and shall publish the results of the monitoring in an annual report and submit that report to the Commission. In this report, Sweden is invited to explain whether and to what extent the market reforms have been implemented according to the planned timeline, and if not explain the reasons why.

The Commission's position on this particular notification is without prejudice to any position it may take on the compatibility of any national implementing measure with EU law.

The Commission will publish this document on its website. The Commission does not consider the information contained therein to be confidential. Sweden is invited to inform the

Commission within ten working days following receipt whether and why they consider that, in accordance with EU and national rules on business confidentiality, this document contains confidential information which they wish to have deleted prior to such publication.

Done at Brussels, 1.9.2023

*For the Commission*  
*Kadri Simson*  
*Member of the Commission*