

**OPINION OF THE AGENCY FOR THE COOPERATION OF ENERGY
REGULATORS No 17/2017**

of 7 November 2017

**ON THE ENTSO-E SUMMER OUTLOOK REPORT 2017
AND WINTER REVIEW 2016/2017**

THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

HAVING REGARD to Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators¹, and, in particular, Articles 6(3)(b) and 17(3) thereof,

HAVING REGARD to Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003², and, in particular, Article 9(2) thereof,

HAVING REGARD to the favourable opinion of the Board of Regulators of 18 September 2017, delivered pursuant to Article 15(1) of Regulation (EC) No 713/2009,

WHEREAS:

- (1) On 2 June 2017, the European Network of Transmission System Operators for Electricity (“ENTSO-E”), pursuant to Articles 8(3)(f) and 9(2) of Regulation (EC) No 714/2009, submitted to the Agency for the Cooperation of Energy Regulators (“the Agency”), its annual summer generation adequacy outlook report for 2017 together with the review of the main events which occurred during the winter 2016/2017. The report is entitled “Summer Outlook Report 2017 and Winter Review 2016/2017” (the “SOR 2017 & WR 2016/17”)³.
- (2) Pursuant to Article 6(3)(b) of Regulation (EC) No 713/2009, the Agency shall provide an opinion to ENTSO-E in accordance with the first subparagraph of Article 9(2) of Regulation (EC) No 714/2009 on relevant documents referred to in Article 8(3) of Regulation (EC) No 714/2009. Point (f) of Article 8(3) of Regulation (EC) No 714/2009 refers to annual summer and winter generation adequacy outlooks to be adopted by ENTSO-E. It does not explicitly refer to the summer and winter reviews. However, such reviews are of utmost relevance for the preparation of future outlooks and, equally, constitute a long-standing

¹ OJ L 211, 14.8.2009, p. 1.

² OJ L 211, 14.8.2009, p. 15.

³ ENTSO-E, “Summer Outlook Report 2017 and Winter Review 2016/2017”, June 2017.

https://www.entsoe.eu/Documents/Publications/SDC/Summer_Outlook_2017.pdf.

practice of the associations of transmission system operators (“TSOs”). In light of the above, it is appropriate to consider in this Opinion not only the Summer Outlook Report 2017 (the “SOR 2017”), but also the Winter Review 2016/2017 (the “WR 2016/17”) and the dedicated ENTSO-E report on the cold spell of January 2017, entitled “Managing critical grid situations”⁴,

HAS ADOPTED THIS OPINION:

1. Summer Outlook Report 2017

The SOR 2017 reports on the outlook of the national and regional power balances of forecast generation and load on a weekly basis for the summer period, from 31 May 2017 to 1 October 2017. It is based on data provided by the TSOs through a questionnaire and historical weather data from the Pan-European Climate Database. Its main objective is to address power balances and flag potential threats to the adequacy of individual countries or the European synchronous grid as such. The SOR 2017 also raises awareness of neighbouring TSOs to the potential risk of inadequacy of their neighbour(s), which can trigger implementation of potentially required coordinated measures to keep the system secure and demand uninterrupted.

The SOR 2017 concludes that there are no adequacy-related issues expected under normal weather conditions, however, under severe weather conditions, Italy and Poland may face some challenges. Regarding downward regulation, ENTSO-E analysed the potential of photovoltaic and wind spillage, which might occur in Southern Italy, Sicily and Sardinia during some sunny Sundays.

In terms of missing elements or further improvements to be made to the seasonal outlook methodology, the Agency reiterates its requests/recommendations formulated in the previous related Opinion⁵ that ENTSO-E should:

- monitor the behaviour of the system, namely the stability of the frequency and, locally, also of voltage;
- get feedback from its TSO members on constraints of voltage regulation in their reviews of the past season, by complementing ENTSO-E’s questionnaire⁶ with questions dedicated to the quantification of voltage issues;
- perform market simulations to understand how periods of both upward and downward adequacy problems affect electricity prices and market behaviour;

⁴ https://www.entsoe.eu/Documents/News/170530_Managing_Critical_Grid_Situations-Success_and_Challenges.pdf.

⁵ http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2010-2016.pdf.

⁶ Appendix 3 of the SOR 2017 and WR 2016/2017.

- further work on the identification of probabilities of individual events leading to inadequacy situations (i.e. severe atmospheric conditions and their link to power-plant and infrastructure outages, minimum Net Transfer Capacity, etc.).

2. Winter Review 2016/2017 and dedicated ENTSO-E report on the cold spell of January 2017

The WR 2016/17 covers the period from 30 November 2016 to 2 April 2017. The focal event of that period was the January 2017 cold spell, which is described in detail in a dedicated ENTSO-E report.

The Agency has the following general comments on ENTSO-E's cold spell report.

- The report shows the importance of good regional coordination in adequacy assessment, capacity calculation, operational security analysis in all timeframes and management of crisis situations. It therefore shows the important value of Regional Security Coordinators (RSCs) and the added value that the Risk Preparedness Regulation, System Operation Guidelines and Capacity Allocation and Congestion Management Guidelines could bring to improve the management of such tight situations.
- Demand-side management and other more innovative solutions seem to have played a key role and should as such be recognised as good practices which all TSOs should follow.
- The reasons for export reductions are unclear and deserve better explanations/justifications by TSOs.
- The actual ineffectiveness of such preventive measures seems to confirm that 1) the market can be trusted to deal with tight situations (i.e. there are *a priori* no reasons to fear a resources leakage) and 2) the full integration of the EU electricity market needs a complete paradigm shift in the way cross-border capacities are perceived and calculated: cross-border capacities should not be considered anymore as an adjustment variable in the overall network security equation.
- Cross-border capacities should be based on dynamic line rating and not on static system design assumptions.

In addition to the above-mentioned general comments, the Agency also observed several deficiencies of the report.

- It is not clear if the investigation of Scale 2 incident(s) has formally been launched and NRAs and the Agency informed so that they could get involved, if deemed necessary⁷.

⁷ Pursuant to ENTSO-E's Incidents Classification Scale Methodologies Scale 2 (extensive incidents) is assigned to Wide Area regional incidents (covering Synchronous Area, or beyond Responsibility Areas and Member States due to extensive incidents. The primary failure may lead to: - Degradation of System Adequacy with the necessity to activate at least one measure of the System Defense Plan. Article 15.5 of the SO GL prescribes for TSOs to inform the respective regulatory authorities about an

- The report does not provide an answer as to how far from a synchronous area-wide black-out (or brown-out) the system actually was. For example, according to the report for Bulgaria⁸, if an outage of a large unit were to occur in some critical hours, a widespread incident would have been probable.
- The report falls short of providing information on the TSOs that were not heavily affected by the cold spell and it is thus impossible to tell if all regional and cross-regional remedial actions and mutual emergency assistance were prepared and/or used in order to prevent or mitigate the emergency situations in the countries which the report covers in detail.
- Data and information from individual TSOs cover different timescales and time resolutions, and contain unaligned vocabulary which makes a regional assessment extremely difficult at the very least.
- There is a lack of transparency with regard to RSCs' proposed measures and activities in the sequences of events. The role of RSCs is merely qualitatively explained.
- The question should be raised if the Winter Outlook Report 2016/17 was adequate to forecast the situations faced in January. As noted on p.73 of the WR 2016/17, this was most likely due to unrecognised connection between low temperatures and outages of power plants and other infrastructure. ENTSO-E should thus investigate the interdependency between weather conditions and other system states, impacting security of supply.

The Agency recommends ENTSO-E to include a comparison of the Outlook forecasts to the Reviews of the same season, focusing on potential forecast errors and analysing the reasons for them. This exercise could help improve the forecasts and the overall quality of the seasonal adequacy outlooks.

Done at Ljubljana on 7 November 2017.

For the Agency:



Alberto Pototschnig
Director

investigation in due time before it is launched. Regulatory authorities and the Agency may be involved in the investigation upon their request.

⁸ First paragraph on page 49 of the report.