Publishing date: 12/02/2016

Document title: on ENTSO-E WOR 2015-16 and SR 2015

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ACER
Agency for the Cooperation of Energy Regulators

OPINION OF THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS No 01/2016

of 5 February 2016

ON THE ENTSO-E WINTER OUTLOOK REPORT 2015/2016 AND SUMMER REVIEW 2015

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 Regulators[1], 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 1228/2003[2], and, in particular, Article 9(2) thereof,

HAVING REGARD to the favourable opinion of the Board of Regulators of 27 January 2016, delivered pursuant to Article 15(1) of Regulation (EC) No 713/2009,

WHEREAS:

(1) On 14 December 2015, 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 winter generation adequacy outlook report for 2015/2016 together with the review of the main events which occurred during summer 2015. The report is entitled "Winter Outlook Report 2015/2016 and Summer Review 2015" (the "WOR 2015/16 & SR 2015")[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 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 Winter

[1] OJ L 211, 14.8.2009, p. 1.
[2] OJ L 211, 14.8.2009, p. 15.
[3] ENTSO-E, "Winter Outlook Report 2015/16 and Summer Review 2015", December 2015. https://www.entsoe.eu/Documents/Publications/SDC/Winter_Outlook_15-16-REPORT_web.pdf

Outlook Report 2015/2016 (the "WOR 2015/16"), but also the Summer Review 2015 (the "SR 2015").

HAS ADOPTED THIS OPINION:

1. Winter Outlook Report 2015/2016

1.1 Objectives and main results

The WOR 2015/16 reports on the outlook for the national and regional power balances of forecast generation and load on a weekly basis for the upcoming winter period, from 1 December 2015 (week 49) to 3 April 2016 (week 14). Its main objective is to address power balances and to present TSOs' views on any matter concerning security of supply for the forthcoming winter period. Such a report provides a good platform to raise awareness regarding system adequacy issues and, if needed, warns TSOs in time to implement the required and, where relevant, coordinated measures to keep the system secure and demand uninterrupted.

According to the WOR 2015/16, there are no adequacy-related issues under normal weather conditions. However, under severe weather conditions, several countries may require imports to meet their peak load and some of them may have to rely on their strategic reserves and demand-side management to cope with the worst-case scenarios. The worst situation is that of Poland, where the amount of unscheduled flows on the DE+SK+CZ profile is foreseen to limit its possibility to import and leads to serious adequacy problems, despite the contribution of the new HVDC interconnector between Poland and Lithuania, placed in operation at the end of 2015. As stated in the report, ongoing talks in the context of the TSO Security Cooperation (TSC)[4] aim at solving this issue. The Agency welcomes the efforts to find a solution to the possible adequacy risk of Poland through regional cooperation and proposes that ENTSO-E publishes the action plan as soon as it is finalised by the TSC. The Agency would also like to highlight the need for a permanent solution to the problem of unscheduled flows, which is affecting all aspects of system operation. This regional experience might help other regions facing similar situations in the future.

The situation in Belgium, France and Great Britain could also become stressed in severe weather conditions, according to the assessment carried out in the WOR 2015/16. The report states that the conditions in Belgium will most likely improve due to a very recent decision of the Belgian nuclear authority to re-open two Belgium nuclear units (2000 MW), which could not be accounted for in the calculations. In comparison to last winter, France, Belgium and Great Britain have contracted additional volumes of load reduction, as well as strategic and balancing reserves to cope with the situation.

[4] Regional Security Coordination Initiative (RSCI)

The Agency notices that ENTSO-E received a late warning on a possible adequacy crisis in Switzerland[5], due to special external circumstances affecting the 220 kV grid. As Switzerland is often involved in the multilateral re-dispatch to help solve the potential problems on the DE-PL border, the Agency calls on ENTSO-E, if needed, to coordinate regional initiatives and help create fallback solutions if the Swiss system is unable to provide re-dispatch.

The Agency notes a significant reduction of 22 GW of thermal generation in the ENTSO-E perimeter. As a steady decline of "classical" generation (thermal, nuclear, large hydro) continues, the Agency points out to the increasing need to monitor the behaviour of the system and calls on ENTSO-E to provide impact assessments also through adequacy reports.

In terms of "downward" adequacy, the report foresees some countries (Germany and Poland during night-time, Germany and Romania during day-time) being forced to curtail RES generation due to the limited amount of cross-border export capacity and simultaneous high infeed of inflexible generation.

The Agency considers operational issues arising during high RES infeed with simultaneous low demand as related to adequacy and, thus, reiterates its request to ENTSO-E to include a chapter on voltage (and possibly also frequency) stability in the future adequacy reports and reviews.

The Agency recognises improvements of transparency through the publication of input datasets[6]. To improve transparency further, as already requested by the Agency in a previous Opinion on the topic[7], the questionnaire that was used to gather information from TSOs should be included in the Annex, to provide the basis for the development of the future outlook reports.

Although a detailed market analysis was not envisaged as part of the adequacy report, it would also be of interest to understand how adequacy crisis affects electricity prices and market behaviour.

1.2 On the methodology for the Winter Outlook Report

The Agency welcomes ENTSO-E's consistent evolution of adequacy reports and recognises the effort to improve them. In the WOR 2015/16, the Agency notes a step forward with regard to transparency (e.g. the publication of input datasets in a separately published Excel sheet), the inclusion of the Turkish system in the assessment and the introduction of a merit-order market simulation approach. As pointed out in the WOR 2015/2016, the evolution of the adequacy methodology is mostly governed by the integration of RES, as well as by the development of the internal energy market and new technologies, especially storage and demand response.

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[5] https://www.entsoe.eu/publications/system-development-reports/outlook-reports/Pages/default.aspx

[6] https://www.entsoe.eu/Documents/Publications/SDC/Winter_Outlook_2015-16_input-data.xlsx?Web=1

[7] http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2010-2015.pdf

The analysis of inputs provided by TSOs is conducted, firstly, on a per-country basis and, then, at a regional level, using a synchronous point in time. The Pan-European Climatic Database was used to obtain weather data, to scale the national load and to define the renewables infeed. The regional adequacy analysis checks whether individual country's adequacy is influenced by other countries of the region, focusing on interconnection capacities and the grid's ability to exchange power to cover the demand.

The Agency welcomes the use of a probabilistic approach focusing on import needs of individual countries during different atmospheric conditions and encourages ENTSO-E further to develop its use in future adequacy outlook reports. For example, the Agency notices that ENTSO-E used individual TSOs' inputs on the remaining capacity and the minimum Net Transfer Capacity (NTC) per border for the regional assessment of adequacy, without checking the probability of simultaneous occurrence of low NTC, unavailability of generation, etc. The Agency thus reiterates its proposal to take into account uncertainties of all inputs, i.e. probability of transmission capacity outage (influencing cross-border capacity), of severe weather conditions, of unplanned outage of power plants, variability of demand, etc. The Agency would also deem it beneficial if ENTSO-E reported on the probability of not-fulfilled adequacy in relative terms, rather than solely depicting the results on charts. As the aim is to be able to indicate the probability level of an issue occurring, ENTSO-E should report on what they expect is the probability of a critical situation actually occurring, instead of linking the possibility of occurrence with certain weather conditions. From the current depiction[8] of the probabilistic analysis results, the reader is unaware of the actual probability of e.g. low temperatures and low wind occurring at the same time.

2. Summer Review 2015

The SR 2015 covers the period from 1 June 2015 (week 23) to 20 September 2015 (week 38). It outlines the main events during this summer period, which, according to TSOs, impacted the security of electricity supply.

Due to a long heatwave and unfavourable hydrological conditions, a critical situation occurred in Poland. Load reductions had to be implemented for industrial consumers, as high demand could not be met by national generation and import capacities. The latter were limited due to high levels of unscheduled flows on the DE-PL border, from Germany through the Polish grid to the south, which required a massive multilateral redispatch to keep the system secure.

The forecast from the Summer Outlook Report 2015[9] with regard to critical situations has partially materialised in Belgium, where international remedial actions (international multilateral re-dispatch) were required in real time. The adequacy crisis also greatly influenced the spot prices, pushing them to values ten times higher than usual. The Agency acknowledges TSOs' efforts to coordinate remedial actions in the Central West Europe (CWE) region and would like to highlight the importance of

[8] ENTSO-E, "Winter Outlook Report 2015/2016 and Summer Review 2015", Chapter 4.5.
[9] ENTSO-E, "Summer Outlook Report 2015 and Winter Review 2014/2015".

preparing coordinated action plans in advance of such situations. As can be seen from the Belgian case, the economic effect of the adequacy crisis was most likely substantial as it included both the costs of international re-dispatch and the impact on electricity prices. The Agency thus calls on ENTSO-E and the relevant TSOs and Member States better to coordinate planned infrastructure works and planned outages of generation units, in particular in forecasted situations of inadequacy.

Done at Ljubljana on 5 February 2016.

For the Agency:

Alberto Pototschnig
Director

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