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# OPINION OF THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS No 22/2013

#### of 29 November 2013

## ON THE ENTSO-E SUMMER OUTLOOK REPORT 2013 AND WINTER REVIEW 2012/2013

## 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<sup>1</sup>, 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<sup>2</sup>, and, in particular, Article 9(2) thereof;

HAVING REGARD to the favorable opinion of the Board of Regulators of 5 November 2013, delivered pursuant to Article 15(1) of Regulation (EC) No 713/2009,

#### WHEREAS:

- (1) On 29 May 2013, 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 its annual summer generation adequacy outlook report for 2013 to the Agency for the Cooperation of Energy Regulators ("the Agency") for its opinion. The report is entitled "Summer Outlook Report 2013 and Winter Review 2012/2013" (the "SO&WR 2013").
- 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 (the "TSOs"). Furthermore, the Winter Review 2012/2013 forms an integral part of the document containing ENTSO-E's Summer Outlook 2013 and is



<sup>&</sup>lt;sup>1</sup> OJ L 211, 14.8.2009, p.1

<sup>&</sup>lt;sup>2</sup> OJ L 211, 14.8.2009, p.15



strictly linked to it. In light of the above, it is appropriate therefore to consider in this Opinion not only the Summer Outlook Report 2013 (the "SOR 2013"), but also the Winter Review 2012/2013 (the "WR 2012/2013").

(3) In its Opinion on the Summer Outlook Report 2012 (the "SOR 2012")<sup>3</sup> the Agency outlined several actions by ENTSO-E which it deemed appropriate for future ENTSO-E outlooks and reviews. The actions consequently taken by ENTSO-E are also considered in the present Opinion,

## HAS ADOPTED THIS OPINION:

## 1. Summer Outlook Report 2013

1.1 Objectives and main results of the Summer Outlook Report 2013

The purpose of the SOR 2013<sup>4</sup> is to present TSOs' views on any matters concerning security of supply for the coming summer period. In addition, it also seeks to identify risks and countermeasures proposed by the neighbouring TSOs and the possibility for neighbouring countries to contribute to the generation/demand balance in case of needs.

Further, the SOR 2013 reports the outlook of the national and regional power balances between forecast generation and load on a weekly basis for the upcoming summer period, from 5 June 2013 (week 23) to 25 September 2013 (week 39).

ENTSO-E indicates<sup>5</sup> that the SOR 2013 is based on the information provided by ENTSO-E members before the beginning of April 2013 on a qualitative and quantitative basis in response to the SOR questionnaire<sup>6</sup>.

According to the SOR 2013<sup>7</sup>, Europe has sufficient generation for both normal and severe demand conditions. While various countries may require imports to cover the expected demand, cross border capacity is sufficient to accommodate them.

### 1.2 Glossary of key terms

The Agency noted in its Opinion on the SOR 2012 that a section defining the key terms used in the report would further increase its readability. In the SOR 2013, a glossary of key terms

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<sup>&</sup>lt;sup>3</sup> Agency for the Cooperation of Energy Regulators, "Opinion on the ENTSO-E Summer Outlook Report 2012 and Winter Review 2011-2012", Opinion No. 07/2012, 8 October 2012.

http://www.acer.europa.eu/Official\_documents/Acts\_of\_the\_Agency/Opinions/Opinions/ACER%20Opinion%207-2012.pdf

<sup>&</sup>lt;sup>4</sup> Section 1 of ENTSO-E, "Summer Outlook Report 2013 and Winter Review 2012/2013", May 2013. https://www.entsoe.eu/publications/system-development-reports/outlook-reports/

<sup>&</sup>lt;sup>5</sup> ENTSO-E SO&WR 2013, p.6.

<sup>&</sup>lt;sup>6</sup> Section 7.1 of the ENTSO-E SO&WR 2013.

<sup>&</sup>lt;sup>7</sup> ENTSO-E SO&WR 2013, p.4.



is provided in Section 3.5<sup>8</sup>. Consistency with terms used in the forthcoming Operational Planning and Scheduling Network Code, in the long-term adequacy reports and in the System Adequacy Retrospect Reports should be ensured.

## (Upward) Adequacy assessment

In its Opinion on the SOR 2012, the Agency invited ENTSO-E to enrich the deterministic approach by giving greater attention to the probability of occurrence of the supply/demand forecast conditions and of occurrence of the adequacy risks.

The Agency notes the use in the SO&WR 2013 of the Pan-European Climatic Database in order to model injections by wind and solar photovoltaic plants in the Regional Analysis. The database contains per-country load factors for solar, onshore wind and offshore wind, per hour, for the last 10 years and, for the regional (upward) analysis, the 50<sup>th</sup> percentile is used for normal conditions and the 10<sup>th</sup> percentile for severe conditions<sup>9</sup>.

The Agency considers that the Pan-European Climatic Database represents a first step towards the introduction of a probabilistic approach in the adequacy assessments and is a very important tool to be further exploited (e.g. in areas such as load responsiveness to temperature).

## 1.3 Treatment of maintenance and overhauls

The SOR spreadsheet includes a field related to maintenance and overhauls (field 7), as explained in Section 7.5 of the SO&WR 2013<sup>10</sup>. It also includes:

- Net generating capacity (field 6);
- Non-usable capacity at peak load under normal conditions (field 8).

The SOR spreadsheet indicates that the available capacity under normal conditions (field 9) is automatically calculated from the data submitted. However, based on the schematic depiction of the methodology<sup>11</sup>, it is not immediately clear whether maintenance is deducted when calculating the available capacity. The Agency expects ENTSO-E to clarify the treatment of maintenance.

## 1.4 Identification of appropriate weekly reference points

Already in the SOR 2012, ENTSO-E recognised the need to use a synchronous point in time for all countries to allow for a meaningful analysis when determining the feasibility of cross-border flows in the Regional Analysis.

<sup>&</sup>lt;sup>8</sup> ENTSO-E SO&WR 2013, p.11.

<sup>&</sup>lt;sup>9</sup> The 10<sup>th</sup> percentile is (a rather low) injection level which (historically/statistically) is exceeded more than 90% of the time

<sup>&</sup>lt;sup>10</sup> ENTSO-E SO&WR 2013, p.142.

<sup>&</sup>lt;sup>11</sup> Figure in ENTSO-E SO&WR 2013, p.8.



The Agency commends the fact that ENTSO-E conducted a load study to identify the most representative synchronous time for covering the global European peak load in summer (the synchronous point turned out to be Wednesday, 12:00 CET).

1.5 Displaying each country's remaining capacity indicator

In its Opinion on the SOR 2012, the Agency indicated that it expects ENTSO-E to display the remaining capacity indicator also in relative terms (percentage of the peak load), in order to facilitate comparability across countries.

The Agency positively acknowledges the introduction of a diagram displaying each country's remaining capacity as a percentage of the peak load in Section 6 of the SO&WR 2013.

## Downward adequacy analysis

1.6 Introducing a probabilistic approach

The Pan-European Climatic Database is also used in the downward regional analyses to model injections by wind and solar photovoltaic plants. In this case, the 90<sup>th</sup> percentile for the past three years is used<sup>12</sup>.

1.7 Identification of appropriate weekly reference points

ENTSO-E identified new weekly reference points (for the downward analysis) based on the elaboration of historical data, in line with the Agency's suggestion in its Opinion on the SOR 2012. Further to the 05.00 Sunday minimum demand scenario used so far, the SOR 2013 downward analysis is also performed for daytime, at 11.00 CET on Sundays, to account for increasing PV generation.

1.8 Displaying each country's export requirements

The Agency also commends the fact that the national analysis is enriched with a new diagram showing the 'Export requirements due to incompressibility of generation' for each country.

1.9 Extension of the downward analysis to other periods of the year

Already in its Opinion on the SOR 2012, the Agency suggested that ENTSO-E assesses the value of extending the downward analysis to other periods during spring or autumn, which are currently not investigated by the Summer and Winter Outlooks.

<sup>&</sup>lt;sup>12</sup> The 90th percentile is (a rather high) injection level which (historically/statistically) is exceeded less that 10% of the time.



### **Data publication**

## 1.10 Transparency and publication of data

In its Opinion on the SOR 2012, the Agency regarded the availability of national datasheets for the Summer Outlook Reports as important. Such datasheets should provide explicit figures e.g. on:

- (a) Expected load increase due to severe conditions, and
- (b) Expected generation constraints due to severe conditions.

In its response to the Agency Opinion<sup>13</sup>, ENTSO-E noted its concerns regarding the publication of sensitive data. The Agency believes that any concern (e.g. on the limited degree of aggregation of data - especially in small countries) should be substantiated by country-specific explanations.

Further, the Agency notes that publication requirements for similar type of data (load on a market time unit basis and generation capacity forecasts per generation unit) exist already in Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council<sup>14</sup>,

#### 2. Winter Review 2012/2013

2.1 Objectives and main results of the Winter Review 2012/2013

The objective of the WR 2012/2013 is to report on the winter season as regards weather conditions and other factors and their consequences on the power system (temperatures, hydro and wind conditions), availability of generating units, market conditions, use/availability of interconnections and imported energy, and to compare what happened in reality with the risks identified in the Winter Outlook Report 2012/2013.

According to the SO&WR 2013<sup>15</sup>, as no extreme weather conditions occurred across Europe during the last winter, the load was mainly held at normal levels and no unexpected situation occurred.

<sup>&</sup>lt;sup>13</sup> ENTSO-E, "ENTSO-E response to the ACER opinion on summer outlook 2012 and winter review 2011-2012 report", 3 December 2012. <a href="https://www.entsoe.eu/fileadmin/user\_upload/library/news/121206">https://www.entsoe.eu/fileadmin/user\_upload/library/news/121206</a> ENTSO-E s response to ACER opinion on SOR 2012.pdf

OJ L 163, 15.6.2013, p.1. See Article 6(2)(e): ,...a year-ahead forecast of total load for every week of the

<sup>&</sup>lt;sup>14</sup> OJ L 163, 15.6.2013, p.1. See Article 6(2)(e): ,...a year-ahead forecast of total load for every week of the following year, which shall for a given week include a maximum and a minimum'; Article 14(2) (b) for forecasts of available generation capacity, and Article 15 for forecasts of unavailability of generation and production units.

<sup>&</sup>lt;sup>15</sup> ENTSO-E SO&WR 2013, p.13.



## 2.2 Availability of retrospect information

In its previous Opinion on the SOR 2012 and the Winter Review 2011/2012, the Agency recommended ENTSO-E to collect and publish quantitative information as an element of the winter review. Priority should be given to the actual weekly peak load levels and the actual average temperatures and their deviation in relation to the forecasts.

Further, in the SO&WR 2013<sup>16</sup> it is stated that the objective of the WR 2012/2013 is

to present what happened during this Winter as regards weather conditions and other factors and their consequences on the power system (temperatures, hydro and wind conditions), availability of generating units, market conditions, use/availability of interconnections and imported energy, and to compare what happened in reality with the risks identified in the Winter outlook.

In addition, in the Winter Review Questionnaire<sup>17</sup> TSOs are urged, beyond narrative elements, to provide

quantitative data to illustrate how the Winter out-turned against what was forecast (e.g. actual peak load and difference compared with forecast in normal and extreme conditions, major disturbances and their effect on generation or transmission capability etc.).

The Agency notes that such comparison data does not appear in the SO&WR 2012/2013, while the ENTSO-E System Adequacy Retrospect (the "SAR") and the ENTSO-E Statistical Yearbook (the "SYB") are not yet published for 2012<sup>18</sup>.

The Agency commends the efforts by ENTSO-E to collect data such as the aforementioned for information but also for comparison purposes. Given the importance attributed to such information both by the Agency and ENTSO-E, the Agency urges ENTSO-E either to insist on TSOs enriching their responses to the Review Questionnaires or developing other approaches to collect information for future publication in the framework of SAR or SYB or WR.

Whichever the ENTSO-E approach for publishing information will be, the Agency believes that obtaining structured feedback responses further enhances the quality of the review reports and raises their value for stakeholders. As already emphasised in its Opinion on the Winter Outlook Report 2012/2013 and Summer Review 2012, the Agency repeats the suggestion that ENTSO-E provides information on the following:

<sup>&</sup>lt;sup>16</sup> ENTSO-E SO&WR 2013, p.151. <sup>17</sup> ENTSO-E SO&WR 2013, p.151.

<sup>&</sup>lt;sup>18</sup> In its response to the Agency Opinion on SO&WR 2012, ENTSO-E noted that "consolidated retrospect data is published yearly in the Statistical Yearbook and in the System Adequacy Retrospect Report".



- events which occurred during the period under 'review' (causes, effects and countermeasures);
- curtailments of Renewable Energy Sources.

## 3. Timing of publication

Taking into account the publication of the SOR 2012 on 11 June 2012 and the Agency's expectation of ENTSO-E delivering future summer outlooks further in advance of the summer period, the Agency positively acknowledges:

- The publication of the SOR 2013 on 30 May 2013;
- The draft plan by ENTSO-E<sup>19</sup> to publish short-term adequacy reports as proposed by the draft Network Code on Operational Planning and Scheduling, i.e. by 21 May 2014 for the SOR 2014.

## 4. Further improvements of summer and winter outlooks and review reports

In its response to the Agency Opinion on the SOR 2012 and in its Draft Work Programme, ENTSO-E explained its views to include appropriate adjustments of the methodology and structure of future summer and winter outlook reports<sup>20</sup>, as well as its intention "to involve all stakeholders in making those choices through a public consultation at the end of 2013, the results of which shall be evaluated and specific proposals on methodological advancements to be elaborated by the relevant working groups"<sup>21</sup>.

The Agency positively acknowledges the recent efforts by ENTSO-E for the enhancement of the outlook reports. Yet, the Agency still expects ENTSO-E to carefully examine further possible improvements both in the outlooks and in the review reports, in the light of the stakeholders' contribution to the forthcoming public consultation.

Done at Ljubljana on 29 November 2013.

For the Agency:

Alberto Pototschnig

Director

<sup>21</sup> ENTSO-E, "Draft ENTSO-E Work Programme Autumn 2013 through December 2014", p.13.

<sup>19</sup> ENTSO-E, "Draft ENTSO-E Work Programme Autumn 2013 through December 2014". https://www.entsoe.eu/fileadmin/user\_upload/\_library/consultations/Work\_Program\_2014/130701-draft ENTSO-E Work Programme 2013 through 2014 Assembly Approved.pdf

draft ENTSO-E Work Programme 2013 through 2014 Assembly Approved.pdf

20 ENTSO-E, "ENTSO-E response to the ACER opinion on summer outlook 2012 and winter review 2011-2012 report", p.3.



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