

**DECISION No 08/2020  
OF THE EUROPEAN UNION AGENCY  
FOR THE COOPERATION OF ENERGY REGULATORS**

**of 6 March 2020**

**on the methodology for short-term and seasonal adequacy assessments**

THE EUROPEAN UNION AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators<sup>1</sup>, and, in particular, Article 9(3)(b) thereof,

Having regard to Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector<sup>2</sup> and, in particular, Article 8(4) thereof,

Having regard to the outcome of the consultation with the European Network of Transmission System Operators for Electricity ('ENTSO-E') and the Electricity Coordination Group ('ECG'), in its formation composed only by representatives of the Member States,

Having regard to the outcome of the consultation with the Agency's Electricity Working Group ('AEWG'),

Having regard to the favourable opinion of the Board of Regulators of 26 February 2020, delivered pursuant to Article 22(5)(a) of Regulation (EU) 2019/942,

Whereas:

**1. INTRODUCTION**

- (1) Regulation (EU) 2019/941 of 5 June 2019 on risk-preparedness in the electricity sector (the 'Risk-Preparedness Regulation') laid down a range of requirements for

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<sup>1</sup> OJ L158, 14.6.2019, p. 22.

<sup>2</sup> OJ L158, 14.6.2019, p. 1.

preventing, preparing and managing electricity crises. These requirements include the development of a methodology for short-term and seasonal adequacy assessments ('STSAA methodology') in accordance with Article 8 of the Risk-Preparedness Regulation.

- (2) Pursuant to Article 8(1) of the Risk-Preparedness Regulation, ENTSO-E has to develop a proposal for the STSAA methodology and submit it to the Agency for approval. The Agency shall amend or approve the proposal within two months of receipt in accordance with Article 9(3)(b) of Regulation (EU) 2019/942 and Article 8(4) of the Risk-Preparedness Regulation.
- (3) The present Decision follows from ENTSO-E's submission of a proposal for the STSAA methodology submitted by ENTSO-E, seeking approval by the Agency; Annex I to this Decision sets out the STSAA methodology as decided by the Agency.

## **2. PROCEDURE**

- (4) On 8 July 2019, ENTSO-E published for public consultation the draft 'Short-term and Seasonal Adequacy Assessments Methodology Proposal in accordance with Article 8 of the Regulation of the European Parliament and Council on risk-preparedness in the electricity sector'. The consultation lasted from 8 July 2019 until 8 October 2019.
- (5) On 6 January 2020, ENTSO-E submitted to the Agency a proposal for STSAA methodology in accordance with Article 8 of the Risk-Preparedness Regulation (the 'Proposal').
- (6) On 6 January 2020, the Agency launched a public consultation on the Proposal, inviting all stakeholders including Member States of the ECG to submit their comments by 12 January 2020. The consultation document asked stakeholders to provide views on the text of the Proposal. The summary and evaluation of the responses received are presented in Annex II to this Decision.
- (7) The Agency cooperated with Member States, national regulatory authorities, the European Commission and ENTSO-E and further consulted on the possible amendments to the Proposal through telephone conference calls and electronic exchanges of documents. In particular, the following steps were taken:
  - (a) 13 January 2020: telephone conference call with ENTSO-E, national regulatory authorities and the European Commission;
  - (b) 16 January 2020: telephone conference calls with ENTSO-E, national regulatory authorities and the European Commission;
  - (c) 28 January 2020: electronic exchange of documents, for consideration, with the ECG;
  - (d) 3 February 2020: the Agency submitted a proposal for the draft Decision to the AEWG for consultation;

- (e) 5 February 2020: telephone conference call with ENTSO-E and the European Commission; and
- (f) 12 February 2020: discussion with all national regulatory authorities in the framework of the AEWG.

### **3. THE AGENCY'S COMPETENCE TO DECIDE ON THE PROPOSAL**

- (8) Pursuant to Article 9(3)(b) of Regulation (EU) 2019/942 and Article 8(4) of the Risk-Preparedness Regulation, the Agency shall amend, where necessary, and approve the proposal for a methodology for short-term and seasonal adequacy assessments within two months after receiving this proposal from ENTSO-E.
- (9) Since ENTSO-E submitted the Proposal in accordance with Article 8(1) of the Risk-Preparedness Regulation, the Agency is competent to decide on this Proposal according to Article 9(3)(b) of Regulation (EU) 2019/942 and Article 8(4) of the Risk-Preparedness Regulation.

### **4. SUMMARY OF THE PROPOSAL**

- (10) The Proposal consists of the following elements:
  - (a) The 'Whereas' section and Articles 1 and 2, which include general provisions on the subject matter and scope and definitions and interpretation;
  - (b) Article 3, which contains general provisions, requirements and procedures for performing seasonal adequacy assessments led by ENTSO-E;
  - (c) Article 4, which contains general provisions for performing short-term adequacy (namely monthly, week-ahead to at least day-ahead adequacy) assessments;
  - (d) Article 5, which contains general provisions for performing month-ahead adequacy assessments led by ENTSO-E with possible derogations to Regional Coordination Centres ('RCCs');
  - (e) Article 6, which contains general provisions for performing week-ahead to at least day-ahead adequacy assessments led by RCCs in cooperation with ENTSO-E;
  - (f) Article 7, which contains the requirements and the procedures for performing data collection and data checks to ensure consistency;
  - (g) Articles 8 to 9, which describe how the assessment analysis will be performed and disseminated, taking into consideration the set of actions to be carried out by relevant bodies in case an adequacy risk is identified;
  - (h) Articles 10 to 11, which address the publication of the methodology and language;
  - (i) Annex I, which describes in detail the process to follow in performing short-term and seasonal adequacy assessments, the probabilistic assessment methodology and specific aspects related to modelling of demand, supply and transmission system;

- (j) Annex II, which contains an high-level information flow scheme linking ten-years-ahead resource adequacy assessments, performed through the European Resource Adequacy Assessment methodology as referred in Article 23 of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity<sup>3</sup>, the seasonal adequacy assessments and the short-term adequacy assessments; and
- (k) Annex III, which contains a scheme of the principal processes for adequacy assessments and the foreseen week-ahead short-term adequacy assessment process.

## **5. SUMMARY OF THE OBSERVATIONS RECEIVED BY THE AGENCY**

### **5.1. Interaction with ENTSO-E, national regulatory authorities and the European Commission**

- (11) During the cooperation between the Agency, Member States, ENTSO-E, national regulatory authorities and the European Commission as detailed in paragraph (7) above, the Agency:
  - (a) Discussed the comments received during the public consultation (see section 5.2) and received following the consultation with Member States in the ECG (see section 5.3);
  - (b) Discussed changes to the STSAA methodology (see sections 5.3 and 5.5), which ENTSO-E agreed to be necessary for clarity and consistency; and
  - (c) Discussed and agreed necessary editorial changes to the STSAA methodology.

### **5.2. Public consultation**

- (12) Responses to the public consultation (see paragraph (6) above) are compiled and evaluated in Annex II. They shed light on stakeholders' concerns, outlined below:
  - (a) One stakeholder (Transmission System Operator) raised the point that ENTSO-E shall duly take into account the results of the consultation conducted according to Article 8(3) of the Risk-Preparedness Regulation. The same stakeholder provided the list of the comments sent to ENTSO-E, the replies received by ENTSO-E and its new comments on the replies. The same stakeholder provided documents related to its methodology used for national short-term and seasonal adequacy assessments;
  - (b) One stakeholder commented that the methodological framework provided in the Proposal does not prescribe sensitivity analyses to assess the role of non-market based measures to mitigate adequacy concerns in short-term adequacy

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<sup>3</sup> OJ L158, 14.6.2019, p. 54.

assessments: consequently, the same stakeholder suggested that Loss Of Load Expectation ('LOLE') values should be published also taking into consideration the use of all of the resources available to TSOs. The same stakeholder expressed concern on the approach adopted to estimate cross-border capacity. Furthermore, the same stakeholder raised a couple of questions regarding the geographical perimeter of the Expected Energy Not Supplied ('EENS') and LOLE; and

- (c) One stakeholder argued that the definition of 'supply' in the Proposal does not take into full consideration the role of Distributed Energy Resources ('DER') and expected available imports from non-explicitly modelled neighbouring countries.

### **5.3. Consultation of Member States in the ECG**

- (13) Responses to the consultation of Member States in the ECG reflected the concerns outlined below:

- (a) One stakeholder (Member State) raised the point that the definition of statistical indicators such as EENS, LOLE, Loss of Load Probability ('LOLP') and Adequacy Probability Metric ('APM') should be enhanced by defining the statistical time period and by specifying in each case the nature of the resource devoted to meet the demand needs;
- (b) The same stakeholder referred in point (a) above suggested to amend the text of Article 9(3) to mention to 'relevant national authorities' instead of 'national regulatory authorities'; and
- (c) Another stakeholder (Member State) noted that the concept of 'system cost' in the definition of Unit Commitment Economic Dispatch in Article 2(2)(c) of the Proposal should be clearly explained.

### **5.4. Consultation of the AEWG**

- (14) No comments from national regulatory authorities have been received during the consultation with the AEWG.

### **5.5. Comments from other stakeholders**

- (15) The Agency also received comments from another stakeholder (intergovernmental organisation) who raised the point that the STSAA methodology should include a clear link with the reliability standard as referred in Article 25 of Regulation (EU) 2019/943. The stakeholder argued that, given the fact that the STSAA methodology could serve as a basis for the justification of interventions to ensure secure supplies, the same reliability standard should be consistently applied among the STSAA methodology, the methodology for identifying regional electricity crisis scenarios as referred in Article 5(1) of the Risk-Preparedness Regulation and the methodology for European resource adequacy assessments ('ERAA methodology') as referred in Article 23(3) of Regulation (EU) 2019/943.

## **6. ASSESSMENT OF THE PROPOSAL**

### **6.1. Legal framework**

(16) Article 8 of the Risk-Preparedness Regulation sets out the requirements of the Proposal. In terms of process, it requires ENTSO-E to consult on the proposed methodology (Article 8(3)) and to submit the proposal to the Agency by 5 January 2020 (Article 8(1)). Contentwise, it covers the uncertainty of inputs, the probability of occurrence of an electricity crisis and of a simultaneous electricity crisis (Article 8(1)) and the minimum elements that the proposed methodology has to include (Article 8(2)).

### **6.2. Consultation and submission of the Proposal**

(17) Article 8(3) of the Risk-Preparedness Regulation requires ENTSO-E to consult at least the regional coordination centres, industry and consumer organisations, producers or their trade bodies, transmission system operators, relevant distribution system operators, competent authorities, national regulatory authorities and other relevant national authorities, to duly take into account the results of the consultation and present them, together with the proposed methodology, at a meeting of the ECG.

(18) As indicated in paragraph (4) above, ENTSO-E conducted a public consultation from 8 July 2019 until 8 October 2019. The results of the consultation were presented during the ECG meeting on 22 November 2019. In addition, ENTSO-E regularly informed and consulted the Agency and national regulatory authorities.

(19) Therefore, ENTSO-E fulfilled the requirements of Article 8(3) of the Risk-Preparedness Regulation regarding the involvement of stakeholders.

(20) Article 8(1) of the Risk-Preparedness Regulation requires ENTSO-E to submit the Proposal to the Agency by 5 January 2020.

(21) ENTSO-E submitted the Proposal on 6 January 2020. Indeed, 5 January 2020 was a Sunday so the Proposal was actually submitted on the next working day. In addition, Article 8(1) of the Risk-Preparedness Regulation does not declare a submission after 5 January 2020 as invalid. In the Agency's view, it is not the purpose of the deadline of 5 January 2020 to exclude any later submission.

(22) Therefore, the Agency considers the submission of the Proposal as valid.

### **6.3. Required content of the Proposal**

(23) The Proposal meets the requirements of Article 8(1)(a) of the Risk-Preparedness Regulation because in Annex I it addresses the probability of a transmission capacity outage, the probability of an unplanned outage of power plants, severe weather conditions, variable demand depending on weather conditions with a hourly temporal granularity, and variability of production of energy from renewable sources.

- (24) The Proposal meets the requirements of Article 8(1)(b) and Article 8(1)(c) of the Risk-Preparedness Regulation because in Article 3(8)(d) it addresses the probability of the occurrence of an electricity crisis and the probability of the occurrence of a simultaneous electricity crisis.
- (25) The Proposal meets the requirements of Article 8(2) of the Risk-Preparedness Regulation because:
- (a) In Annex I it provides a probabilistic approach;
  - (b) In Article 3(8)(e) it envisages to analyse multiple scenarios in terms of sensitivity analyses to assess possible measures to prevent or mitigate adequacy risks in seasonal adequacy assessments, in particular with respect to the use of non-market measures;
  - (c) In Article 3(1), Article 4(1) and Annex I it takes into consideration the national, regional and Union context, including the level of interconnection between Member States and with third countries within synchronous areas of the Union; and
  - (d) In Annex I it takes into account the specificities of each Member State's energy sector, including specific weather conditions and external circumstances.
- (26) The Proposal meets the requirements of Article 8(5) of the Risk-Preparedness Regulation because in Article 10(3) the process for the methodology is described.

#### **6.4. Assessment of the replies received in the public consultation**

- (27) With respect to the position of the stakeholder (Transmission System Operator) highlighted in point (a) of paragraph (12) above and on the basis of the available information, in particular ENTSO-E's, the Agency does not identify currently concerns requiring an amendment of the Proposal. A detailed description of the Agency's view on this position is provided in Annex II.

#### **6.5. Assessment of the comments received from Member States in the ECG**

- (28) With respect to the stakeholders' concerns described in paragraph (13) above, the Agency observes the following:
- (a) Concerning in particular to the position of the stakeholder highlighted in point (a) of paragraph (13), the Agency notes that statistical indicators (EENS, LOLE, LOLP, APM) are defined for a "given time period". The 'time period' is adapted taking into consideration the timeframe of each typology of adequacy assessment (seasonal and short-term). The Agency thus sees no need to amend the Proposal in this respect;
  - (b) Concerning in particular to the position of the stakeholder highlighted in point (b) of paragraph (13), the Agency agrees and found it necessary to amend the text in

Article 9(3) of the Proposal to refer exclusively to ‘relevant national authorities’: this amendment has been welcomed by ENTSO-E as well; and

- (c) Concerning in particular to the position of the stakeholder highlighted in point (c) of paragraph (13), the Agency agrees and found it necessary to amend the definition of Unit Commitment Economic Dispatch in Article 2(2)(c) of the Proposal in order to highlight the concept and the meaning of ‘total system operating cost’: this amendment has been welcomed by ENTSO-E as well.

## 6.6. Assessment of other comments received

(29) With respect to the stakeholder’s concern described in paragraph (15) above, the Agency observes the following:

- (a) According to Article 25(1) of Regulation (EU) 2019/943, Member States shall have a reliability standard in place when applying capacity mechanisms.
- (b) According to Article 21(4) of Regulation (EU) 2019/943, Member States shall not introduce capacity mechanisms where both the European resource adequacy assessment as referred in Article 23 of Regulation (EU) 2019/943 and the national resource adequacy assessment as referred in Article 24 of Regulation (EU) 2019/943, or in the absence of a national resource adequacy assessment, the European resource adequacy assessment have not identified a resource adequacy concern.
- (c) The Agency believes that there is a fundamental difference in the intent and the issues the ERAA methodology and the methodologies as referred in Articles 5(1) and 8(1) of the Risk-Preparedness Regulation are required to address: the ERAA methodology shall mainly be used to identify adequacy concerns and to assess the need for capacity mechanisms. On the other hand, seasonal assessments performed using the STSAA methodology shall be used to analyse risks that might occur six months ahead and that are likely to result in a deterioration of the electricity supply situation.
- (d) The Agency thus sees no need to amend the Proposal in this respect.

## 6.7. Other changes to the Proposal

(30) Further to assessing the required content of the Proposal as detailed above and making the necessary changes, the Agency assessed the Proposal’s contents for consistency and completeness, taking into consideration stakeholders’ views. As a result, the following changes, welcomed by ENTSO-E as well, have been introduced:

- (a) The Agency found it necessary to amend the definition of Unit Commitment Economic Dispatch in Article 2(2)(c) to the effect that the goal of the model is to minimise, as part of the objective function, also the cost of the Energy Not Served (‘ENS’), while satisfying the operational constraints of the power system;
- (b) Because of the introduction of the concept of ENS, the Agency added its definition in Article 2(2)(l) of the Proposal as amended and approved by the Agency.



Consequently, the content of Article 2(2)(l) to Article 2(2)(p) of the Proposal corresponds to the content of Article 2(2)(m) to Article 2(2)(q) of the Proposal as amended and approved by the Agency; and

- (c) Finally, the Agency made minor editorial changes to recitals (5) and (8) of the “Whereas” section, Article 1(4), Article 1(6), Article 1(7), Article 2(2)(d), Article 2(2)(e), Article 2(2)(p), Article 2(3), Article 3(6), Article 3(7), Article 4(1), Article 5(2), Article 6(4), Article 7(4), Article 9(2), Article 9(3), Article 9(5) and Article 11 of the Proposal, as well as to paragraph (20) of Annex I of the Proposal to fix typos and punctuation as well as added omitted words in order to improve readability.

## **7. CONCLUSION**

- (31) For all the above reasons, the Agency considers the Proposal in line with the requirements of the Risk-Preparedness Regulation, provided that the amendments described in this Decision are integrated in the Proposal, as presented in Annex I.
- (32) Therefore the Agency approves the Proposal subject to the necessary substantive amendments and to the necessary editorial amendments. To provide clarity, Annex I to this Decision sets out the Proposal as amended and approved by the Agency,

HAS ADOPTED THIS DECISION:

### *Article 1*

The methodology for assessing short-term and seasonal adequacy in accordance with Article 8 of Regulation (EU) 2019/941 is adopted as set out in Annex I to this Decision.

### *Article 2*

This Decision is addressed to ENTSO-E.

Done at Ljubljana, on 6 March 2020.

**- SIGNED -**

*For the Agency  
The Director*

C. ZINGLERSEN

Annexes:

Annex I – Methodology for short-term and seasonal adequacy assessments in accordance with Article 8 of Regulation (EU) 2019/941.

Annex II (for information only) – Evaluation of responses to the public consultation on the amendments of the proposal for a methodology for short-term and seasonal adequacy assessments.

*In accordance with Article 28 of Regulation (EU) 2019/942, the addressee may appeal against this Decision by filing an appeal, together with the statement of grounds, in writing at the Board of Appeal of the Agency within two months of the day of notification of this Decision.*

*In accordance with Article 29 of Regulation (EU) 2019/942, the addressee may bring an action for the annulment before the Court of Justice only after the exhaustion of the appeal procedure referred to in Article 28 of that Regulation.*