ACER
European Union Agency for the Cooperation of Energy Regulators

ACER Decision on the first amendment to the Regional Coordination Centre Regional Sizing of Reserve Capacity Methodology: Annex I

First amendment to the methodology for the regional sizing of reserve capacity

in accordance with Article 37(1)(j) of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity

22 June 2026

Whereas

(1) This document provides an amendment to the methodology for the regional sizing of reserve capacity in accordance with Article 37(1)(j) of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity ('Electricity Regulation') following ACER Decision No 12/2023 of 19 July 2023 on ENTSO-E's proposal for the regional sizing of reserve capacity. With the approval came a request for amendment of specific parts of the methodology, which must be submitted by 1 April 2026.

(2) The following elements of the methodology for the regional sizing of reserve capacity have been amended:

a) definition of the time period for the historical imbalance records;

b) definition of the values of parameters X and Y;

c) geographical delineation for the determination of the minimum reserve capacity at system operation region (SOR) level;

d) implementation deadline for sharing agreements established after 1 July 2026;

e) clarification on the role of replacement reserves (RR) in the sizing process;

f) streamlining and scoping of the reporting obligations;

g) publication of key elements of the established sharing agreements;

h) cross-references to align with the new paragraph numbering within the same article; and

i) general improvements to enhance clarity and/or consistency.

(3) For the purposes of this amendment to the methodology for the regional sizing of reserve capacity, the terms used have the meaning given to them in Article 2 of the Electricity Regulation, Article 2 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing ('EB Regulation'), Article 2 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management ('CACM Regulation'), Article 3 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation ('SO Regulation') and Article 2 of the methodology for the regional sizing of reserve capacity.

Article 1
Subject matter and scope

Article 1 – Subject matter and scope – shall be amended as follows:

a) Paragraph 4 shall be amended and be read accordingly:

"The RCC task 'regional sizing of reserve capacity' considers only FRR (aFRR and mFRR) and RR. The RR volumes may be considered only until the expiry of the derogation period allowed pursuant to Article 8(1a) and (1b) of the Electricity Regulation."

Article 2
Definitions and interpretation

Article 2 – Definitions and interpretation – shall be amended as follows:

a) Paragraph 3 shall be amended and be read accordingly:

"In this methodology, unless specified otherwise, 'imbalance time series' is to be understood as a time series of active power imbalance values calculated in line with the FRCE as defined in Article 3 of the SO Regulation."

b) Paragraph 4 shall be amended and be read accordingly:

"In this methodology, values for the negative direction have a negative sign."

c) A new paragraph 5 shall be included and be read accordingly:

"In this methodology, unless the context requires otherwise:

a. the singular also includes the plural and vice versa;

b. the table of contents and headings are inserted for convenience only and do not affect the interpretation of this methodology;

c. any reference to legislation, regulation, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force; and

d. any reference to an Article without an indication of the document shall mean a reference to this methodology."

Article 3
General principles

Article 3 – General principles – shall be amended as follows:

a) Paragraph 2 shall be amended and be read accordingly:

"To apply the methodology in the SOR, the relevant TSOs, supported by relevant RCC(s), shall determine in a coordinated manner the parameters referred to in this methodology. Following this coordination, ENTSO-E may develop and submit an amendment to this methodology in accordance with Article 27 of the Electricity Regulation, proposing different values for any of the parameters included in Appendix 1 and Appendix 2."

Article 4
Determination of minimum reserve capacity at SOR level

Article 4 – Determination of minimum reserve capacity at SOR level – shall be amended as follows:

a) Paragraph 2 shall be amended and be read accordingly:

"The minimum amount of required reserve capacity at SOR level per direction equals

a. For positive direction the maximum of

i. the positive sizing incident determined following Paragraph 3 of this Article and

ii. the positive reserve capacity required by the probabilistic approach following Paragraph 5 of this Article.

b. For negative direction the minimum of

i. the negative sizing incident determined following Paragraph 3 of this Article and

ii. the negative reserve capacity required by the probabilistic approach following Paragraph 5 of this Article."

b) Paragraph 3 shall be amended and be read accordingly:

"Each RCC shall determine separately for the positive and the negative direction the sizing incident for the relevant SOR. Depending on the number of the LFC blocks in the relevant SOR, the following cases are identified for the determination of the sizing incident:

a. The sizing incident of a SOR containing more than two LFC blocks shall be equal to the largest active power imbalance that may result at SOR level from:

i. the instantaneous change of active power generation such as that of a simultaneous loss of the two largest power generating modules in the SOR, or

ii. the maximum instantaneous loss of active power consumption due to a simultaneous loss of the two largest connection points in the SOR, or

iii. iii. the simultaneous tripping of the two largest HVDC interconnectors in the SOR, or

iv. each combination of two of the mentioned incidents in (i) to (iii) above, but on a single asset.

b. The sizing incident of a SOR containing two LFC blocks shall be equal to the sum of the dimensioning incidents determined by the SOR TSOs pursuant to Article 157 of the SO Regulation.

c. The sizing incident of a SOR containing only one LFC block shall be equal to the dimensioning incident determined by the SOR TSO(s) pursuant to Article 157 of the SO Regulation.

The TSOs of the SOR shall provide the required information to the relevant RCC for of the sizing incident determination at the SOR. If there are changes to the submitted data listed resulting from (de)commissioning of underlying assets, the concerned TSO(s) shall inform the relevant RCC without undue delay. If the change affects the sizing incident of the SOR, the RCC shall re-calculate the overall amount of required reserve capacity at SOR level as described in this Article."

c) Paragraph 4 shall be amended and be read accordingly:

"Each RCC, in close coordination with the TSOs of the SOR, shall define a geographical delineation within the competent SOR for the application of this Article. The delineation shall be limited to the LFC block, LFC area or the bidding zone, whichever the RCC considers most appropriate for the purpose of this methodology and shall take into account, where relevant, geographical and network-related limitations that may affect the sharing of reserves among LFC blocks, in line with operational security limits."

d) Paragraph 5 shall be amended and be read accordingly:

"To determine the reserve capacity at SOR level required to respect the FRCE target parameters in Article 128 of the SO Regulation, a probabilistic approach shall be applied additionally.

a. The TSOs of the relevant SOR shall provide to the relevant RCC data on the imbalance time series within the geographical delineation defined pursuant to paragraph (4). The sampling of those time series shall be 15 min. The time period considered for those historical records shall be representative and include at least one full year period ending not earlier than six months before the calculation date. The time period considered shall be the same for all imbalance time series within the geographical delineation defined pursuant to paragraph (4) within the relevant SOR and included in this methodology, following the process described in Article 3(2).

b. Each RCC shall sum up per sampling time the imbalance time series within the geographical delineation defined pursuant to paragraph (4) of the relevant SOR received under point (a) without separating positive and negative values.

c. Each RCC shall calculate the reserve capacity needed to cover the positive SOR active power imbalances for at least X% of the time based on the historical records summed up at SOR level referred to in point (b). The value of X to be applied in each SOR is defined in Appendix 2.

d. Each RCC shall calculate the reserve capacity needed to cover the negative SOR active power imbalances for at least Y% of the time based on the historical records summed up at SOR level referred to in point (b). The value of Y to be applied in each SOR is defined in Appendix 2."

e) Paragraph 6 shall be amended and be read accordingly:

"Each RCC shall calculate the summed up reserve capacity requirements of the relevant SOR. Therefore, the RCC shall collect the reserve capacity requirements per geographical delineation defined pursuant to paragraph (4) of the relevant SOR resulting from the dimensioning process pursuant to dimensioning rules as referred in Articles 157 and 160 of the SO Regulation after including sharing amounts per direction and sum them up per direction."

f) Paragraph 7 shall be amended and be read accordingly:

"Each RCC shall then compare the summed up reserve capacity requirements per geographical delineation defined pursuant to paragraph (4) of the relevant SOR per direction with the determined minimum amount of required reserve capacity at SOR level per direction following the provisions of Paragraph 2.

a. If the summed up reserve capacity requirement of the relevant SOR is less than or equal to the regional sized reserve capacity of the relevant SOR for at least one direction, the RCC shall analyse this shortage in reserve capacity on the SOR level and provide recommendations towards the relevant TSOs with possible improvements:

i. The RCC shall recommend to the TSOs of the SOR to reduce the considered sharing amount(s) to ensure sufficiently available reserve capacity on regional level. If this does not lead to sufficiently available reserve capacity on SOR level, the RCC may additionally recommend to the TSOs of the SOR to review their dimensioning rules as referred in Articles 127, 157 and 160 of the SO Regulation in a coordinated way.

ii. If step i) does not result in a sufficient increase of reserve capacity at SOR level, the RCC shall recommend to the TSOs of the SOR to increase the reserve capacity requirements on LFC block level in a coordinated way to guarantee sufficient reserves at SOR level. The TSOs of the SOR shall guarantee a non-discriminatory and equal distribution of the increase of reserve capacity requirements to all LFC Blocks of the SOR, proportional to their initially held reserve capacity.

b. If the total summed up reserve capacity requirement is greater than or equal to the regional sized reserve capacity for one or both directions, the RCC shall recommend to the TSOs of the SOR to investigate possibilities for increasing the sharing of reserves. The TSOs of the SOR shall take this recommendation into account when analysing the opportunities for the sharing of reserves according to Articles 32(1)(b) and 60(2)(e) of the EB Regulation."

g) Paragraph 8 shall be amended and be read accordingly:

"If a TSO of an SOR does not follow the respective RCC's recommendation issued under Paragraph 7 of this Article, they shall submit a justification for this decision to the RCC(s) having issued the recommendation and to the other TSOs of this SOR without undue delay according to Article 42(3) of the Electricity Regulation."

h) A new paragraph 9 shall be included and be read accordingly:

"The RCC shall assess the values X and Y applied in Paragraphs (5.c) and (5.d) of this Article on a yearly basis. Therefore, it shall take into account the actual amount of netted imbalances using published data according to the Implementation Framework for a European platform for the imbalance netting process in accordance with Article 22 of the EB Regulation for the relevant SOR, where applicable, to determine if the applied security level represent sufficiently real netting possibilities. The security level to be applied under Paragraphs (5.c) and (5.d) of this Article shall be adapted accordingly following the assessment of all TSOs of the relevant SOR and the process described in Article 3(2)."

Article 5
Short-term assessment of availability of sharing amounts

Article 5 – Short-term assessment of availability of sharing amounts – shall be amended as follows:

a) Paragraph 2 shall be amended and be read accordingly:

"Each control capability receiving TSO, according to Article 166(6) of the SO Regulation, of an SOR shall inform the respective RCC about the established sharing of reserves and the respective agreement. For each sharing agreement, at least the following information shall be provided by each control capability receiving TSO to the respective RCC:

a. date of establishment;

b. date of notification from the contracting TSOs to the RCC(s);

c. applicability period (start and end date);

d. contracting TSOs;

e. involved LFC blocks."

b) Paragraph 9 shall be amended and be read accordingly:

"If the RCC detects that more reserves than the initial sharing amount may be provided from the control capability providing TSO to the control capability receiving TSO during the investigated period, the RCC shall inform the relevant TSOs about the possibility to increase the sharing amount during the time period under consideration and issue a recommendation for such an increase. If the control capability receiving TSO has not taken into account the full amount of reserve capacity subject to sharing as agreed in the underlying sharing agreement, it may increase the sharing amount during the time period considered. If the capability receiving TSO does so, it has to inform the control capability providing TSO(s) and affected TSO(s) without undue delay. In any case consistency with sharing limits pursuant to Article 157(2)(j) and (k) and pursuant to Article 160(4) and (5) of the SO Regulation and the maximum sharing amount agreed between reserve capability receiving and reserve capability providing TSO shall be ensured."

Article 6
Transparency, monitoring and reporting

Article 6 – Monitoring and reporting – shall be amended as follows:

a) The heading shall be amended and be read as "Transparency, monitoring and reporting".

b) Paragraph 1 shall be amended and be read accordingly:

"Each RCC shall prepare a report on the results of the yearly determination of minimum reserve capacity of the respective SOR, performed under Article 4, and on the results of the short-term assessment of availability of sharing amounts, performed under Article 5. Each RCC shall include this report as an annex to the report pursuant to Article 46(3) of the Electricity Regulation."

c) A new paragraph 3 shall be included and be read accordingly:

"Each RCC shall publish on their website and keep up to date, without undue delay, the overview of sharing agreements established pursuant to Article 157 of the SO Regulation for the SOR in which they operate. For each sharing agreement, at least the following information shall be published:

a. SOR where the sharing agreement is in force;

b. date of establishment;

c. date of notification from the contracting TSOs to the RCC(s);

d. applicability period (start and end date);

e. contracting TSOs;

f. involved LFC blocks;

g. type of contracted reserve;

h. volume of the contracted reserve per direction."

Article 7
Implementation timeline

Article 7 – Implementation timeline – shall be amended as follows:

a) Paragraph 1 shall be amended and be read accordingly:

"By 1 July 2026, each RCC shall implement and make operational the process to facilitate TSOs in determining the minimum reserve capacity at SOR level, referred to in Article 4, and, where applicable in accordance with Article 5(1), the short-term assessment of availability of sharing amounts referred to in Article 5."

b) Paragraph 2 shall be amended and be read accordingly:

"In case sharing agreements pursuant to Articles 166(5), 168 and 157(2)(j) and (k) of the SO Regulation are established in a SOR after the deadline referred to in paragraph 1, the RCC(s) of the concerned SOR shall perform the short-term assessment of availability of sharing amounts, referred to in Article 5, within 24 months from the notification by the affected TSOs to the relevant RCC(s) of the establishment of sharing agreements between the relevant LFC blocks."

c) Paragraph 3 shall be amended and be read accordingly:

"All TSOs of each SOR shall set up the necessary procedures for data provision to the process and for processing the respective RCC's recommendations in accordance with the implementation deadlines referred to in paragraph 1 and 2."

d) A new paragraph 4 shall be included and be read accordingly:

"TSOs which were connected to the European platform for the exchange of balancing energy from RR established in accordance with Article 19 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing, and for which the derogation period allowed pursuant to Article 8(1a) and (1b) of the Electricity Regulation does not apply, may continue providing the volumes of RR to the respective RCC(s) until 30 June 2027 for the determination of the minimum reserve capacity at SOR level in accordance with Article 4."

e) A new paragraph 5 shall be included and be read accordingly:

"TSOs within each SORs intending to establish sharing agreement in accordance with Article 157(2)(j) and (k) of the SO Regulation between the relevant LFC blocks shall inform the relevant RCCs of any established sharing agreement without undue delay and in any case no later than one week following their establishment."

f) A new paragraph 6 shall be included and be read accordingly:

"The TSOs, in cooperation with the RCCs, shall evaluate the results of the calculation performed in accordance with this methodology and the issued recommendations with regard to their adequacy, by 24 months after the implementation deadline of this methodology, and every two years after that. Following this evaluation, all TSOs, in cooperation with the RCCs, shall identify options to improve the tasks performed by the RCC according to this methodology. If options for improvement are identified, ENTSO-E shall develop and submit for approval a proposal for amending this methodology in accordance with the procedure set out in Article 27 of Electricity Regulation."

g) A new paragraph 7 shall be included and be read accordingly:

"When implementing this methodology, all RCCs shall duly take into account data and information already available from their other tasks performed, especially the coordinated capacity calculation in accordance with Article 37(1)(a) of the Electricity Regulation and the regional system adequacy forecasts in accordance with Article 37(1)(e) of the Electricity Regulation."

Article 8
Definition of the time period considered for the historical records

"Appendix 1: Definition of the time period considered for the historical records" shall be included and be read accordingly:

1. "The time period considered per SOR for the historical records referred to in Article 4(5)(a) shall be as follows:

Baltic SOR	1 year
Nordic SOR	1 year
CE SOR	1 year
SEE SOR	1 year
SWE SOR	1 year

2. If the relevant TSOs deem it necessary to apply different time periods per SOR, they shall determine the new time periods in a coordinated manner, supported by the relevant RCC(s). Following this coordination, ENTSO-E shall develop and submit an amendment to this methodology in accordance with Article 27 of the Electricity Regulation."

Article 9
Definition of the levels X and Y

"Appendix 2: Definition of the levels X and Y" shall be included and be read accordingly:

1. "The levels X and Y included in Article 4(5)(c) and (d) shall be as follows:

   a. Baltic SOR:
      i. X shall be 99.90%.
      ii. Y shall be 99.90%.

   b. Nordic SOR:
      i. X shall be 99.5%.
      ii. Y shall be 99.5%.

   c. CE SOR:
      i. X shall be 100%.
      ii. Y shall be 100%.

   d. SEE SOR:
      i. X shall be 99.99%.
      ii. Y shall be 99.99%.

   e. SWE SOR:
      i. X shall be 99.99%.
      ii. Y shall be 99.99%.

2. If the relevant TSOs deem it necessary to apply different values of X, Y per SOR, they shall determine the new values in a coordinated manner, supported by the relevant RCC(s). Following this coordination, ENTSO-E shall develop and submit an amendment to this methodology in accordance with Article 27 of the Electricity Regulation."