

-ENTSO-E Proposal ACER Decision on the methodology for the Regional Coordination Centres' -- task 'regional sizing of reserve capacity: Annex

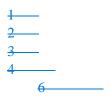
Methodology capacity'

for the regional sizing of reserve capacity

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

internal market for electricity

ENTSO-E Proposal for the Regional Coordination Centres' task 'regional sizing of reserve capacity' in accordance with Article 37(1)(j) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity



19XX July 2023

ENTSO E Proposal for the Regional Coordination Centres' task 'regional sizing of reserve capacity' in accordance with Article 37(1)(j) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity

- ACER Decision on the methodology for the regional sizing of reserve: Annex I

Contents

Whereas		<u>4</u> 3
Article 1	Subject matter and scope	_ <u>7</u> 5
Article 2	Definitions and interpretation	<u>7</u> 6
Article 3	General principles	<u>8</u> 6
Article 4	Determination of minimum reserve capacity at SOR level	<u>9</u> 7
Article 5	Short-term assessment of availability of sharing amounts	<u>11</u> 9
Article 6	Monitoring and reporting	<u>1411</u>
Article 7	Implementation of this Proposal	<u>1411</u>
Article 8	Language	15 12

ENTSO-E, taking into account the following:

Whereas

- (1) Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (hereafter referred to as "Electricity Regulation (EU) 2019/943"), sets the basis for an efficient achievement of the objectives of the Energy Union and in particular the climate and energy framework for 2030 through establishing a modern design for the European Union's electricity market, adapted to the new realities of the market. The Electricity Regulation (EU) 2019/943 was developed and adopted as part of the EU Clean Energy Package for All Europeans.
- (2) Article 35 of the Electricity Regulation (EU) 2019/943 provides for the establishment of Regional Coordination Centres (hereafter referred to as "RCCs") while Article 37(1) lists the RCCs' tasks. According to Article 37(1)(j) RCCs shall carry out the task 'regional sizing of reserve capacity', while point 7 of Annex I of the Electricity Regulation (EU) 2019/943 provides further details.
- (3) This document sets out the proposal-methodology for the regional sizing of reserve capacity (hereafter referred to as the "proposal-methodology"), developed by the European Network of Transmission System Operators for Electricity ("ENTSO-E") in accordance with the Electricity Regulation (EU) 2019/943 and in particular Article 37(1)(j) and Article 37(5) on the obligation of the RCCs to carry out the regional sizing of reserve capacity. This proposal-methodology provides definitions and sets out the RCC process of regional sizing of reserve capacity.
- (4) This proposalmethodology acknowledges the provisions of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation on the dimensioning of reserve capacity and sharing of reserves. (hereafter referred to as "SO Regulation"). The obligations, roles, responsibilities and governance related to the process of dimensioning of reserve capacity as well as the framework for sharing of reserves are ruled by requirements of Commissionthe SO Regulation (EU) 2017/1485. This Commission. The SO Regulation clarifies the TSOs responsibilities and the requirements that they should apply in case TSOs decide to enter a voluntary cooperation in sharing of reserves or exchange of balancing capacity, which is also guaranteed by the freedom to contract between cooperating TSOs. The RCCs' facilitationtask as defined in this proposalmethodology supports regional TSOs' cooperation and supports TSOs in undertaking their operational security responsibilities.
- (5) Synchronous areas do not stop at the Union's borders and can include the territory of third countries. The Union, Member States and TSOs should aim for secure system operation inside all synchronous areas across the Union. They should support third countries in applying similar rules to those contained in Regulation (EU) 2019/943. ENTSO-E should facilitate cooperation between Union TSOs and third country TSOs and their RCCs concerning secure system operation.
- (6) In this respect, recital 70 of Regulation (EU) 2019/943 further stresses the need for close cooperation with Member States, the Energy Community Contracting Parties and other third countries which apply Regulation (EU) 2019/943 or are part of the synchronous area of Continental Europe. This cooperation should cover all matters concerning the development of an integrated electricity trading region and ensure that no measures are taken that endanger the further integration of electricity markets or security of supply of Member States and Contracting Parties.

- ACER Decision on the methodology for the regional sizing of reserve: Annex I
- (7) In line with ACER Decision 05/2022, all TSOs of those system operation regions (SORs) defined according to the Definition of System Operation Regions in accordance with Article 36 of the Regulation (EU) 2019/943 neighbouring third country TSOs should endeavour where necessary to enter into agreements setting the basis for their technical cooperation and compliance with the relevant EU legislation.
- (8)(5) Article 6(7) of the Electricity Regulation (EU) 2019/943 provides that "[t]he dimensioning of reserve capacity shall be performed by the transmission system operators and shall be facilitated at a regional level". ENTSO E considers that this This facilitation will be carried out by the RCC to the relevant TSOs of the respective SOR. The facilitation of the TSO's TSOs' dimensioning process by the RCC in performing its task of 'regional sizing of reserve capacity' as set out in this proposal methodology fulfils the requirements on this task provided by point 7.1 of Annex I of the Electricity Regulation (EU) 2019/943 by the combination of the two subtasks (Determination of minimum reserve capacity at SOR level' [Subtask I] and 'Short-term assessment of availability of sharing amounts' [Subtask II]) included in this proposal, as agreed between ACER and ENTSO E, where the individual subtasks do not have to meet all requirements, but together they have to meet all requirements. In particular, methodology, . In particular:
 - a. This methodology fulfils the requirement of point 7.1 (a) of Annex I of the Electricity Regulation, as the general objective to maintain operational security in the most cost effective manner is pursued by:
 - Subtask I by aiming at exploiting cost reduction potentials with regard to required reserve capacity within the technical framework set by the SO Regulation, thus maintaining operational security; and
 - ii. Subtask II by aiming at avoiding high expenses for additional measures to maintain operational security in case of insufficient reserve capacity available. Thus, it allows TSOs to maintain operational security in the most cost effective manner and enhances regional cooperation.
 - b. This methodology fulfils the requirement of point 7.1 (b) of Annex I of the Electricity Regulation, as Subtask II will be performed at the day-ahead timeframe related to D-Ithe day-ahead balancing capacity procurement.
 - c. This methodology fulfils the requirement of point 7.1 (c) of Annex I of the Electricity Regulation, as the overall amount of required reserve capacity for the system operation region is calculated
 - i. implicitly through a long-term top-down assessment at SOR level, in Subtask I ensuring sufficient reserve capacity available; and
 - ii. explicitlyin the short-term, following the detailed bottom-up approach provided in this proposal methodology under Subtask II.
 - d. This methodology fulfils the requirement of point 7.1 (d) of Annex I of the Electricity Regulation, as minimum reserve capacity requirements for each type of reserve capacity are determined:
 - i. in Subtask I ensuring sufficient reserve capacity available for type of reserves subject to sharing-; and
 - ii. following the detailed approach provided in this proposal-methodology under Subtask II, which determines minimum reserve capacity requirements for each type of reserve capacity for each reserve capability receiving TSO involved in an agreement for the

sharing of reserves to comply with the frequency restoration control error (FRCE) target parameters and dimensioning rules and thus ensuring operational security.

- e. This methodology fulfils the requirement of point 7.1 (e) of Annex I of the Electricity Regulation, as possible substitutions between different types of reserve capacity with the aim to minimise the costs of procurement are taken into account implicitly by
- i.e. Subtask II allowing TSOs to minimise their costs related to the procurement of balancing capacity as. TSOs with expensive local balancing resources are able to substitute these with cheaper balancing resources available cross-border, by relying on sharing of reserves and thus ensuring system operational security and minimising their costs related to the procurement of balancing capacity.
- f.—This methodology fulfils the requirement of point 7.1 (f) of Annex I of the Electricity Regulation, as necessary requirements for the geographical distribution of required reserve capacity are set out implicitly by
- <u>i.f.</u> Subtask II <u>bythrough the</u> dedicated and focussed analysis of available shared reserves. If insufficient availability is detected by the RCC, a redistribution of required reserve capacity to the relevant LFC Blocks is performed.
- (9)(6) Articles 166, 168 and 170 of the SO Regulation define general requirements for sharing FRR and RR within a synchronous area. Following the provisions of these Articles, the parties participating in a sharing agreement are a control capability receiving TSO and a control capability providing TSO. Following this, a sharing agreement is a bilateral contract where the obligation to provide reserves is unidirectional. If two TSOs have concluded a sharing agreement on mutual sharing of reserves, at least two unidirectional obligations to provide reserves are established independent of each other. In addition, the provisions of Article 152(1) of the SO Regulation, according to which a TSO shall operate its control area with sufficient upward and downward reserves, are to be considered. Amongst others, shared reserves may be taken into account to fulfil this obligation.
- The consideration by a control capability receiving TSO of activating a sharing agreement might overestimate the sharing potential, in scenarios where correlation of variables of LFC Blocks occur. Also, reserve capability receiving TSOs may disregardsdisregard situations of simultaneous activation of reserves from control capability providing TSOs. As the sharing of reserves reduces the overall amount of reserves in the SOR, the RCC task 'regional sizing of reserve capacity' ensures operational security in a scenario where the impact of an event involving at least two LFC blocks requiring those LFC blocks to activate reserves simultaneously, needs to be assessed beyond each individual LFC block to guarantee appropriate reserve capacity and thus system operational security in the region.
- (11)(8) Articles 177 and 179 of the SO Regulation provide general requirements for sharing FRR and RR between synchronous areas. Limits have to be defined by TSOs to this sharing of reserves to ensure operational security.
- This Proposal fulfils methodology sets rules that follow the principles regarding the operation of electricity markets listed in Article 3 of the Electricity Regulation (EU) 2019/943. In particular, it:,:
 - a. <u>The methodology</u> supports removing barriers to cross-border transactions on balancing markets— <u>The proposed</u>, <u>pursuant to point (h) of Article 3 of the Electricity Regulation. The facilitation of the TSOs' dimensioning process on LFC block level under the RCC task 'regional sizing of reserve capacity', <u>as set out in this methodology</u>, provides for a regional assessment which</u>

- ensures a sufficient and secure allocation of resources minimising the risk to system operational security when concluding a sharing agreement between TSOs.
- b. The methodology provides for and fosters regional cooperation between TSOs. The proposed, pursuant to point (i) of Article 3 of the Electricity Regulation. The RCC task of 'regional sizing of reserve capacity', as set out in this methodology, ensures an effective cooperation of TSOs on regional level by assessing regional reserve capacity requirements and considering the effects of regional cooperation of TSOs (here: sharing of reserve capacity) minimising the risk to system operational security.

The other principles regarding the operation of electricity markets listed in Article 3 of the Regulation (EU) 2019/943 remain unaffected by this Proposal.

SUBMITS THE FOLLOWING PROPOSAL TO ACER:

Article 1 Subject matter and scope

- 1. This is a proposalthe methodology for the RCC task 'regional sizing of reserve capacity' according to Article 37(1)(j) of the <u>Electricity</u> Regulation (EU) 2019/943. As <u>ENTSO E considers the referred this</u> RCC task asis not already covered by the relevant network codes or guidelines, this <u>Proposal methodology</u> is developed in accordance with Articles 37(1)(j), 37(5) and point 7 of Annex I of the <u>Electricity</u> Regulation (EU) 2019/943.
- 2. The proposed RCC task 'regional' regional sizing of reserve capacity' shall be understood as the facilitation consists of dimensioning of required reserve capacity pursuant to dimensioning rules as referred in Articles 127, 157 and 160 of SO Regulation at regional level according to Article 6(7) of the Regulation (EU) 2019/943. The facilitation of dimensioning of required reserve capacity at regional level shall be understood as the role of RCCs defined by the extent of roles in Articles 4 and 5 of this Proposal which can be summarised as a two subtasks:
 - a. short-term assessment of availability of sharing amounts between reserve sharing TSOs together with a yearly; and
 - 2.b. determination of minimum reserve capacity required at SOR level.
- 3. The proposed RCC task 'regional sizing of reserve capacity' is without prejudice to the determination of required reserve capacity pursuant to dimensioning rules as referred in Articles 127, 157 and 160 of the SO Regulation performed on LFC block level by the respective TSO(s) according to Article 6(7) of the Electricity Regulation (EU) 2019/943 and the provisions of Article 152(1) of the SO Regulation.
- 4. The RCC task 'regional sizing of reserve capacity' considers only FRR (aFRR, and mFRR) and RR.

Article 2 Definitions and interpretation

1. For the purposes of this proposal:methodology, the terms used shall have the meaning given to them in Article 2 of the Electricity Regulation (EU) 2019/943, Article 2 of the EB Regulation and Article 3 of the SO Regulation.

- ACER Decision on the methodology for the regional sizing of reserve: Annex I
 - 2. The following additional definitions shall also apply:
 - a. 'Sharing Amount':

The volume amount of shared reserves between LFC blocks involved in reserve capacity subject to the sharing of FRR/RR, according to a sharing agreement following pursuant to the provisions of Article 166-(3)(a) of the SO Regulation considered by the control capability receiving TSO(s) to reduce its required reserve capacity pursuant to dimensioning rules as referred in Articles 127, 157 and 160 of SO Regulation and the provisions of Article 152(1) of SO Regulation. The sharing amount is specified for each type of reserves and per direction.

b. 'Sizing incident':

The highest expected instantaneously occurring active power imbalance within a SOR, separately per positive and negative direction.

- 3. In this methodology, values given for the negative direction are assumed to have a negative sign.
- 4. 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

- 1. The RCC task 'regional sizing of reserve capacity' according to Article 37(1)(j) TSOs of the Regulation (EU) 2019/943 is split into two subtasks which together comply with the requirements of point 7 of Annex I of the Regulation (EU) 2019/943:
 - a. short-term assessment of availability of sharing amounts
 - b. determination of minimum reserve capacity required at SOR level
- <u>2.1. The relevant TSOsSOR</u> shall provide the data necessary to perform the tasks defined within this methodology to the <u>respective RCC</u> or indicate to the <u>respective RCC</u> where the relevant data is publicly available, still being responsible for the provided data.
- 3.2. This proposal is developed by ENTSO-E to define the RCC task 'regional sizing of reserve capacity' according to Article 37(1)(j) of the Regulation (EU) 2019/943 to be implemented by all European RCCs. To cope with the different characteristics of the SORs, this proposal does not go beyond a certain level of detailing the RCC task, to allow a flexible application of the proposal to fit the SOR characteristics. To apply the proposal 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 proposal. This methodology. Following this coordination ENTSO-E shall develop and submit an amendment to this methodology in accordance with Article 27 of the Electricity Regulation, proposing the parameters' values included in an Annex. This proposal for amendment shall include:

ENTSO E Proposal for the Regional Coordination Centres' task 'regional sizing of reserve capacity' in accordance with Article 37(1)(j) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity

- ACER Decision on the methodology for the regional sizing of reserve: Annex I
 - a. the time period considered for the historical records related to in Article 4(4)(a); and
 - b. level applied to the determination of reserve capacity needed to cover the positive SOR imbalances related to in Article 4(1)(a) and to cover the negative SOR imbalances related to in Article 4(2)(b)

b. the levels X, Y included in Article 4(4).

4.3. In case a TSO is active in two SORs with two respective RCCs or in one SOR with multiple RCCs, these RCCs mayshall nominate one RCC for this TSO for coordination purposes under this proposal methodology.

Article 4 Determination of minimum reserve capacity at SOR level

- 1. The Each RCC shall determine the minimum required reserve capacity at SOR level, to facilitate TSOs of the SOR in their dimensioning of reserve capacity pursuant to dimensioning rules as referred in Articles 127, 157 and 160 of SO Regulation the relevant SOR, on a yearly basis. Therefore, the RCC shall calculate the overall amount of required reserve capacity at SOR level as described in this Article.
- 2. 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 4 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 4 of this Article.
- 3. The relevant incident ('sizing incident') for the determination of minimum reserve capacity on the level of the relevant SOR shall be determined Each RCC shall determine separately for the positive and the negative direction. The 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:
- 3. The sizing incident of a SOR containing more than two LFC blocks shall be equal to the LFC block reference incident determined by the TSO pursuant to Article 157 of SO Regulation, if the SOR includes only one LFC block.
 - a. Where the SOR includes more than one LFC block, to determine the sizing incident, the RCC shall take into account the largest 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

- ACER Decision on the methodology for the regional sizing of reserve: Annex I
 - 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.
 - iii.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.
 - b. The TSOs of the SOR shall provide the data listed required information to the relevant RCC for each LFC block 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 LFC BlockTSO(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.
- 4. 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. <u>The TSOs</u> of the relevant SOR shall provide to the <u>relevant RCC</u> the LFC block imbalance data time series. The sampling of those time series shall cover the time to restore frequency according to Annex III of SO Regulation <u>be 15 min</u>. 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 LFC block imbalance time series within the relevant SOR and agreed by all TSOs of the relevant SOR.included in this methodology, following the process described in Article 3(2).
 - b. The Each RCC shall sum up per sampling time the LFC block imbalance time series of the relevant SOR received under point (a) without separating positive and negative imbalances.
 - c. The Each RCC shall calculate the reserve capacity needed to cover the positive SOR imbalances for at least 99,99X% of the time based on the historical records summed up at SOR level referred to in point (b). The use of applying this level is to decrease system operational risks which are increased by not separating positive and negative imbalances under point (b).
 - d. The Each RCC shall calculate the reserve capacity needed to cover the negative SOR imbalances for at least 99,99Y% of the time based on the summed up historical records summed up at SOR level referred to in point (b). The use of applying this level is to decrease system operational risks which are increased by not separating positive and negative imbalances under point (b).
- 5. The Each RCC shall calculate the summed up reserve capacity requirements of the relevant SOR. Therefore, the RCC shall collect the reserve capacity requirements per LFC block of the relevant SOR resulting from the dimensioning process pursuant to dimensioning rules as referred in Articles 127, 157 and 160 of the SO Regulation after including sharing amounts per direction and sum them up per direction.
- 6. The Each RCC shall then compare the summed up reserve capacity requirements per LFC block 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 95% of 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 <u>relevant</u> 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 regional SOR level, the RCC may additionally indicaterecommend to the TSOs of the SOR to generally 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. This coordinationThe TSOs of the SOR shall aim at guaranteeing and 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 110% of the regional sized reserve capacity for one or both directions, the RCC shall recommend to the TSOs of the SOR to investigate furtherpossibilities 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 Article Articles 32(1)(b) and 60(2)(e) of the EB Regulation.
- 7. If a TSO of thean SOR does not follow anthe respective RCC's recommendation issued under Paragraph 6 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 thethis SOR without undue delay according to Article 42(3) of the Electricity Regulation-(EU) 2019/943.
- 8. The RCC shall assess the security levelyalues X and Y applied in Paragraphs (4)(d) and (4)(e)(4.c4)(e) and (4.d4)(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 (4)(d)(4.c4)(e) and (4)(e)(4.d4)(d) of this Article shall be adapted accordingly following the assessment and approval of all TSOs of the relevant SOR. For reasons of comparison, and the RCC shall also assess the level of required reserves following the probabilistic approach givenprocess described in Paragraph 4 of this Article without consideration of netted imbalances and applying a security level of 99%.3(2).

Article 5 Short-term assessment of availability of sharing amounts

1. The RCCs' short-term assessment of the availability of agreed sharing amounts shall only apply to TSO TSO interactions based on the TSO TSO model. It shall only applyapplies where TSOs share reserve capacity cross-border based on a sharing agreement between LFC blocks within a synchronous area following the provisions of Articles 166, 168 and 170 of the SO Regulation or between synchronous areas following the provisions of Articles 177 and 179 of the SO Regulation. If a sharing agreement between

LFC blocks of different SORs is in place, the relevant RCCs shall coordinate to perform the short-term assessment of availability of sharing amounts described in this Article.

- 2. The RCC's facilitation shall apply to each Each control capability receiving TSO(s), according to Article 166(6) of the SO Regulation, of the relevantan SOR. These TSOs shall inform the respective RCC about the established Sharing of Reserves. The aim-sharing of the facilitation by the RCC is to identify where and when the risk of simultaneous (correlated) activation of shared reserves exists and, if a risk was identified, to recommend actions as detailed in the following paragraphs.
- 2. To facilitate control capability receiving TSOs involved in a sharing and the respective agreement in their determination of the required reserve capacity on LFC block level by a short term assessment of availability of agreed sharing amounts, the RCC shall verify,
- 3. <u>Each RCC</u>, in <u>order to verify</u> if the agreed sharing amount can be expected to be available between the relevant LFC blocks in the relevant period. <u>Therefore</u>, the RCC, shall, at least on a day-ahead basis, assess the availability of:
 - a. <u>Sufficientsufficient</u> reserve capacity by analysing the simultaneity of phenomena impacting generation and load per concerned LFC block.
 - b. Sufficient cross-zonal capacity for the concluded sharing of reserves.
- 4. For the assessment of the availability of sufficient reserve capacity following Paragraph 3(a) the relevant TSOs of each SOR involved in a sharing agreement shall provide to the respective RCC the agreed sharing amount per type of reserves and direction, their locally dimensioned reserve capacity for each type of reserves pursuant to dimensioning rules as referred in Articles 127, 152(1), 157 and 160 of the SO Regulation as soon the information becomes available. The RCC shall then assess the simultaneously expected demands for reserve capacity in the relevant LFC blocksSOR derived from the uncertainties of the day-ahead generation and load forecasts of the TSOs having concluded a sharing agreementSOR TSOs. If a partial or full usage of the respective reserve capacity by the control capability providing TSO is likely, there is insufficient reserve capacity available for the sharing of reserves.
- 5. For the assessment of the availability of sufficient cross-zonal capacity following Paragraph 3(b) the RCC shall take into account the relevant available cross-zonal capacity resulting from the day-ahead capacity calculation process in accordance with Section 4 of the Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management ¹ (hereinafter "CACM GLRegulation"). If the resulting available cross-zonal capacity on the relevant border is less than the agreed sharing amount, there is insufficient cross-zonal capacity available for the sharing of reserves.
- 6. The assessment of the availability of sufficient cross zonal capacity shall only apply to those control capability receiving TSOs which are involved in less than three (3) sharing agreements on different borders where the other sharing agreements compensate for the non availability of cross zonal capacity. As a condition, the reserve capability receiving TSO can only take into account the minimum sharing amount from all relevant sharing agreements. The assessment of the availability of sufficient reserve capacity shall apply to all TSOs involved in a sharing agreement without any exemption through the conclusion of multiple sharing agreements.

¹ Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereinafter "CACM GL"), available at: https://eur-lex.eu/legalcontent/EN/TXT/?uri=CELEX:02015R1222-20210315.

- ACER Decision on the methodology for the regional sizing of reserve: Annex I
- 6. In case of control capability receiving TSOs which are involved in multiple sharing agreements on different borders, the respective RCC shall take into account also the interdependencies in the availability of cross-zonal capacity on these borders, when assessing the availability of sufficient cross-zonal capacity.
- 7. To determine the minimum amount for each type of reserve capacity for control capability receiving TSO(s) involved in a sharing agreement, the RCC shall, per each type of reserve capacity and direction, take the locally dimensioned reserve capacity pursuant to dimensioning rules as referred in Articles 127, 157 and 160 of the SO Regulation and subtract the sharing amount.
- 8. If the RCC taking into account the specificities of TSOs with multiple sharing agreements, detects that the agreed sharing amount may not or may only partially be provided to the control capability receiving TSO in the relevant period, the RCC shall issue an awareness notification to these TSOs. The control capability providing TSO and relevant affected TSO(s) according to the sharing agreement shall be informed about the issued awareness notification—, which will also be sent for information to all TSOs of the SOR. Within this awareness notification, the RCC shall recommend to the relevant control capability receiving TSO(s) to increase its required reserve capacity on LFC block level (by the difference of initial sharing amount and determined available sharing amount) up to a maximum of the locally required reserve capacity determined pursuant to dimensioning rules as referred in Articles 127, 157 and 160 of the SO Regulation with an equivalent decrease of the sharing amount between the relevant LFC blocks. The available sharing amount shall be reduced accordingly to the determined available sharing amount at maximum to zero.
- 9. 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 SOGL and the maximum sharing amount agreed between reserve capability receiving and reserve capability providing TSO shall be ensured.
- 10. The RCC shall make athe recommendation available to the relevant TSO(s) at latest at half an hour before the BSP TSO gate closure timedeadline for the submission of the balancing capacity bids by the balancing service providers of each harmonised allocation process determined in the methodology in accordance with Article 38(3) of the EB Regulation to the relevant TSO(s), taking into account the latest CZCcrosszonal capacity available per direction from the day-ahead capacity calculation process in accordance with Section 4 of the CommissionCACM Regulation (EU) 2015/1222. The recommendation by the RCC may be taken into account by the relevant TSO(s) to
 - a. adapt the control capability receiving TSOs' reserve capacity required pursuant to the dimensioning rules as referred in Articles 127, 157 and 160 of the SO Regulation and/or
 - b. adapt the request of allocating cross zonal capacity for the sharing of reserves.
- 11. If a control capability receiving TSO <u>decidedecides</u> to deviate from a recommendation issued by the RCC, it shall submit a justification for its decision to the RCC(s) having issued the recommendation and to the other TSOs of the SOR without undue delay according to Article 42(3) of the <u>Electricity</u> Regulation—(EU)

2019/943. If the recommendation includes an adjustment of sharing of reserves, the concerns of affected TSOs shall be taken into account accordingly.according to the process established pursuant to Article 150 of the SO Regulation.

- 12. A control capability providing TSO, a control capability receiving TSO or an affected TSO involved in a sharing agreement may request a review of the recommendation issued by the RCC according to Article 42(4) of the Electricity Regulation—(EU) 2019/943, in case new input data is available. Following the review of the recommendation, the RCC shall confirm or modify its initial recommendation.
- 13. Each control capability receiving TSO of the relevant SOR shall submit the final required reserve capacity (including shared reserves if relevant) for each type of reserves of its LFC block to the <u>respective_RCC</u>. If more than one TSOs perform a common FRR or RR dimensioning within a LFC block, only one TSO shall submit the relevant values on behalf of all involved TSOs, following Article 166–(7) of <u>the SO Regulation</u>.

Article 6 Monitoring and reporting

- 1. The 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-of this. ENTSO-E shall include these reports as annexes to its Wethodology. This report shall be annexed to the ENTSO-E report following pursuant to Article 59 of the EB Regulation. The RCCs shall therefore respect the timeline specified by ENTSO-E.
- 2. The RCCs shall include the tasks following this proposal under their monitoring and reporting activities following Article 46 of the Regulation (EU) 2019/943.
- 2. Each RCC shall include the tasks following this methodology under its monitoring and reporting activities pursuant to Article 46 of the Electricity Regulation. For the recommendations issued by the RCC related to the cases of insufficient reserve capacity (available for the sharing of reserves) due to the simultaneously expected demands for reserve capacity in the SOR, derived from the uncertainties of the day-ahead generation and load forecasts of the SOR TSOs, the monitoring process pursuant to Article 46(1) of the Electricity Regulation shall include the affected date and time, the involved TSO(s), the amount of the reserve capacity that was unavailable, the reason for the assessed unavailability, and whether the assessment was accurate. These cases and the elements mentioned in the previous sentence shall be included in the report submitted to ACER pursuant to Article 46(3) of the Electricity Regulation.

Article 7 Implementation of this Proposal timeline

- By 36 months after the approval of this Proposal in accordance with the procedure set out in Article 27 of the Regulation (EU) 2019/9431 July 2026, each RCCs shall implement and make operational the process to facilitate TSOs in determining their required reserve capacity on LFC block level by performing the task 'regional sizing of reserve capacity' as defined in Article 4 of this Proposal. Accordingly, TSOsby the same deadline, all TSOs of each SOR shall set up the necessary procedures for data provision to the process and for processing the respective RCC's recommendation recommendations.
- 2. The TSOs, in cooperation with the RCCs, shall each 24 months after the implementation deadline of this proposal evaluate the results and of the calculation performed in accordance with this methodology

ENTSO E Proposal for the Regional Coordination Centres' task 'regional sizing of reserve capacity' in accordance with Article 37(1)(j) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity

- ACER Decision on the methodology for the regional sizing of reserve: Annex I

and the issued recommendations with regard to their adequacy. As a result, the, 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 proposal methodology. If options for improvement were are identified, TSOsENTSO-E shall develop and submit for approval a proposal for amending this proposal methodology in accordance with the procedure set out in Article 27 of Electricity Regulation (EU) 2019/943.

- 3. If sharing is applied with third country TSOs and no later than 18 months after the approval by ACER of this document, all TSOs of the relevant SOR neighbouring the third country TSO(s) not bound by Regulation (EU) 2019/943 shall endeavour to conclude with these third country TSOs agreements aiming at third country TSOs' cooperation and implementation of this methodology as appropriate.
- 4.3. When implementing the proposal, 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 (EU) 2019/943 and the regional system adequacy forecasts in accordance with Article 37(1)(e) of the Electricity Regulation (EU) 2019/943.

Article 8 Language

- 1. The reference language for this Proposal methodology shall be English.
- 2. For the avoidance of doubt, where TSOs or RCCs need to translate this proposal_methodology into their national language(s), in the event of inconsistencies between the English version published by ACER and any version in another language, the relevant TSOs or RCCs shall, in accordance with national legislation, provide the relevant national regulatory authorities with an updated translation of this Proposal_methodology.