European Network of
Transmission System Operators
for Electricity

entsoe

Determination of capacity calculation regions

All TSOs' proposal for amendment of the Determination of capacity ~~calculation regions methodology in accordance with Article 15(1) of the~~ Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management

[For submission to ACER]

2 July 2025

Contents

Whereas

(1) This document is a common proposal for the amendment (hereafter referred to as the "Proposal for Amendment") developed by all Transmission System Operators (hereafter referred to as "TSOs") to the Determination of Capacity Calculation Regions (hereafter referred to as "CCRs") methodology as defined in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter referred to as "CACM Regulation").

(2)This Proposal for Amendment of the Determination of CCRs takes into account Annex I of the Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management, as incorporated into the Energy Community legal framework by the Energy Community Ministerial Council Decision 2022/03/MC-EnC of 15 December 2022 (hereafter referred to as "amended EnC CACM Regulation") which defines three CCRs of the Energy Community: Capacity Calculation Region Shadow South-East Europe (Shadow SEE CCR), Capacity Calculation Region Italy-Montenegro (ITME CCR) and Capacity Calculation Region Eastern Europe (EE CCR). In addition, all TSOs propose to modify the CCR definition of the Energy Community in accordance with Annex 1, Article 1(2) of the EnC CACM Regulation and propose splitting of Shadow SEE CCR by attributing certain bidding zone borders of EMS, CGES and NOSBiH to the CCR Core/Central Europe (CE CCR) and certain bidding zone borders of MEPSO, OST and KOSTT to the CCR South-East Europe. However, accession of EMS, CGES and NOSBiH to the CE CCR at this point would have negative impacts on ongoing projects in the CE CCR. Therefore, a temporary capacity calculation region, limited in scope and time – East-Central Europe CCR (ECE CCR) – is established, consisting of a subset of the bidding zone borders of EnC TSOs: EMS, CGES, NOSBiH and a subset of the bidding zone borders of CE TSOs: HOPS, MAVIR and Transelectrica. The temporary ECE CCR will become operational upon the full transposition of the Electricity Integration Package, consisting of the EU Clean Energy Package and five Network codes and Guidelines as incorporated and adapted by the EnC Ministerial Council Decision 2022/03/MC-EnC of 15 December 2022, by the relevant EnC Contracting Parties.

Upon full implementation of the day-ahead capacity calculation processes according to Article 20(1) of the CACM Regulation and Article 20(2) of the amended EnC CACM Regulation by CE CCR and ECE CCR respectively and the participation of all ECE CCR bidding zone borders in the single day-ahead coupling as set out in Article 8(1) of the CACM Regulation as well as the amended EnC CACM Regulation, an amendment of the Determination of CCR Methodology will be triggered to enable ECE CCR accession to CE CCR for capacity calculation in day ahead timeframe. All other obligations related to the ECE CCR accession to CE CCR and according to the Electricity Integration Package shall apply using a stepwise approach.

Full transposition of the Electricity Integration Package into national law by all relevant Energy Community Contracting Parties is a precondition for the amended SEE CCR to become operational.

(3) Following the approval of the previous amendment of the Determination of CCRs by means of ACER Decision No. 4/2024 of 19 March 2024, which merged the Core and Italy North CCRs into the Central Europe CCR for day ahead capacity calculation in conjunction with the obligations deriving from Article 13(3) of the Determination of CCR methodology, CE TSOs drafted the roadmap for the full merger of the CCRs Core and Italy North into the Central Europe CCR for all CCR-related methodologies, using a stepwise approach and taking into account potential interdependencies with existing regional implementation projects under the applicable European Union law. The roadmap was developed with the aim to achieve a full merger of both Core and Italy North CCRs as expeditiously as possible by merging projects based on their maturity level while at the same time reducing overall efforts and not delaying already clear go-live dates from Core/Italy North.

As a result of the roadmap, and as the next step in the merger, all TSOs are submitting an amendment to the determination of CCRs in accordance with Article 9(13) of the CACM Regulation.

(4) This Proposal for Amendment of the Determination of CCRs further merges the Core and Italy North CCRs into the CE CCR for intraday capacity calculation as well as for regional operational security coordination (ROSC) in accordance with Article 76 of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (SO Regulation), coordinated redispatching and countertrading (RDCT) in accordance with Article 35 of the CACM Regulation and redispatching and countertrading cost sharing methodology (RDCT CS) in accordance with Article 74 of the CACM Regulation. It aligns with the objectives of the CACM Regulation that CCR Core and CCR Italy North are merged and apply a common capacity calculation using the flow-based approach. However, full merger would be premature considering the ongoing development in Core LTCC and expected amendments of Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (the FCA Regulation) and the fact that CE balancing timeframe capacity calculation (BTCC) would come at the end of implementation chain. Therefore, a further stepwise merger for the purpose of implementing the common intraday capacity calculation methodology and ROSC, RDCT, and CS methodologies is currently preferable, along with the already approved merger of capacity calculation in the day-ahead timeframe. All other obligations related to the CCRs according to the CACM Regulation, FCA Regulation, Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (the EB Regulation) and the SO Regulation, as well as any other applicable European legislation shall apply to the CCR Central Europe using a stepwise approach, by transferring these obligations from the CCRs Core and Italy North, which will cease to exist at the end of this process. The involved TSOs and NRAs shall agree on the respective steps and timeline based on the progress of the existing regional implementation projects and further work on a concept for the merger of all remaining CCR-related obligations. Afterwards, CCR determination methodology will be amended correspondingly to future merging steps of the CCRs Core and Italy North.

(5) This Proposal for Amendment takes into account the general principles and goals set in the CACM Regulation as well as Regulation (EU) 2019/943 of 5 June 2019 on internal market for electricity (Electricity Regulation). The goal of the CACM Regulation is the coordination and harmonisation of capacity calculation and allocation in the day-ahead and intraday cross-border markets, and it sets requirements for the TSOs to co-operate on the level of CCRs, on a pan-European level and across bidding zone borders.

(6) According to Article 9(9) of the CACM Regulation, the expected impact of the proposal on the objectives of the CACM Regulation has to be described. This Proposal for Amendment contributes to, and does not hamper in any way, the achievement of the objectives of the CACM Regulation.

(7) In particular, this Proposal for Amendment contributes to ensuring optimal use of the transmission infrastructure (objective of Article 3(b) of the CACM Regulation), ensuring operational security (objective of Article 3(c) of the CACM Regulation) and optimising the calculation of cross-zonal capacity (objective of Article 3(d) of the CACM Regulation), as follows:

a. The determination of new ECE, EE and ITME CCRs, as well as the assignment of certain BZ border of MEPSO, OST and KOSTT to the SEE CCR enables the coordinated cross-zonal capacity calculation on respective BZ borders.

b. The merger of Core and Italy North CCRs into the Central Europe CCR for intraday capacity calculation~~,~~ enables the coordinated flow-based capacity calculation on respective BZ borders,

enlarging the geographical scope of coordination in the intraday timeframe in comparison with Core.

c. The merger of ROSC, RDCT and CS would allow larger geographical scope for security coordination which would result in least cost and optimal application of remedial actions without a need for implementation of additional cross-regional coordination between Core and IN.

(8) The coordinated capacity calculation within a CCR could reveal constraining elements in the transmission network, which contributes to the long-term operation and development of the electricity transmission system and electricity sector in the Union. This Proposal for Amendment of the Determination of CCRs contributes to this objective of Article 3(g) of the CACM Regulation as it expands with the merger of Core and Italy North CCRs into CE CCR to intraday timeframe, as well as encompassing 3 new CCRs and expanding the geographical scope of SEE CCR.

(9) An immediate accession of the newly created ECE CCR at the time of this Proposal for Amendment of the Determination of CCRs might have negative impacts on existing implementation projects and the fulfilment of legal obligations in the current Core and CE CCRs, and therefore might hamper the objective of efficient long-term operation and development of the electricity transmission system (Article 3(g) of the CACM Regulation).

(10) To ensure that the objectives of Article 3(b), (d) and (g) of the CACM Regulation are respected, this Proposal for Amendment foresees the accession of ECE CCR to the CE CCR when certain conditions are met in both regions, as prescribed in Article 13(4) of this Proposal for Amendment. Clear conditions for future ECE CCR accession to CE are setting the path for even larger geographical scope of flow-based capacity calculation, first in the day ahead time frame, followed by other time frames and all other CCR related obligations, which would further contribute to all of the above mentioned CACM objectives.

(11) This Proposal for Amendment encompasses three new CCRs – ECE, EE and ITME, expansion of SEE CCR, and a merger of CE CCR. It also sets a condition for future ECE CCR accession to CE CCR and the effectiveness of the extended SEE CCR. The aim of this holistic approach is to streamline the process outlined in Article 9(13) of the CACM Regulation by combining all foreseeable amendments in one proposal and thus reducing the number of proposals to the minimum needed.

~~(1) This document sets out the determination of capacity calculation regions (hereafter referred to as "CCRs") in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management (hereafter referred to as the "Determination of CCRs").~~

~~(2) On 17 November 2015, all Transmission System Operators (hereafter referred to as "all TSOs") submitted the "All TSOs' proposal for Capacity Calculation Regions in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management" (hereafter referred to as the "CACM Regulation"), together with an explanatory note to all regulatory authorities.~~

~~(3) On 17 November 2016 the Agency for the Cooperation of Energy Regulators (hereafter referred to as "ACER") issued its Decision 06/2016 on the "Electricity Transmission System Operators' Proposal for the Determination of Capacity Calculation Regions" which adopted the Determination of CCRs.~~

(4) On 30 June 2017, in accordance with Article 9(13) of the CACM Regulation, all TSOs submitted to all regulatory authorities the first proposal for amendment of the Determination of CCRs. On 18 September 2017, all regulatory authorities approved the first proposal for amendment of the Determination of CCRs.

(5) On 23 May 2018, all TSOs submitted to all regulatory authorities the second proposal for amendment of the Determination of CCRs. All regulatory authorities did not reach an agreement to approve the proposal and requested ACER to adopt a decision on the proposal, pursuant to Article 9(11) of the CACM Regulation. On 1 April 2019 ACER issued its Decision 04/2019 on the "Electricity Transmission System Operators' Proposal for the Determination of Capacity Calculation".

(6) By its judgments of 24 October 2019 in the cases T-332/17 and T-333/17, the General Court annulled ACER Board of Appeal's (hereafter referred to as "ACER BoA") Decision A-001-2017 (consolidated) of 17 March 2017 dismissing the appeal against ACER Decision 06/2016. The ACER BoA has relaunched the procedure to review ACER Decision 06/2016 and issued a new decision on 22 May 2020. With the latter, ACER BoA remitted the case to the Director of ACER and specified that *"the competent party or parties – based on the rules of competence provided for by regulations currently in force – should review the Contested Decision, i.e. ACER Decision 06/2016, and amend it, replace it or confirm it, as they see relevant, and based on current circumstances. Hence the Agency should refer the decision to such party or parties. The Contested Decision will remain in force until such amendment, replacement or confirmation, if any"*.

(7) On 5 June 2020, ACER's Director sent a letter to all TSOs inviting them to prepare an updated proposal for the Determination of CCRs and submit it to ACER for approval in the shortest time possible; drawing TSOs' attention on:

(i) The changes since the initial all TSOs' proposal for the Determination of CCRs of 29 October 2015. In particular, there have been two amendments to the Determination of CCRs adopted since then, and,

(ii) Article 5(2) of 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 (hereafter referred to as the "Regulation (EU) 2019/942") introduced a new procedure for the approval of proposals for common terms and conditions or methodologies where an all TSOs' proposal is now to be submitted directly to ACER.

(8) On 5 June 2020, ACER's Board of Regulators sent a letter to the TSOs expressing full support and endorsement on the views and process set out by the ACER Director in his letter of 5 June.

(9) On 9 November 2020 all TSOs submitted to ACER the third proposal for amendment of the Determination of CCRs. On 7 May 2021 ACER issued its Decision 04/2021 on the "Electricity Transmission System Operators' Proposal for the Determination of Capacity Calculation".

(10) After the CACM Regulation became part of the Agreement on the European Economic Area (EEA) and then entered into force in Norway on 1 August 2021, ACER issued on 31 March 2023 its Decision 08/2023, assigning, for the EU, the Norwegian bidding zone borders to the relevant CCRs, namely CCR

Nordic and CCR Hansa. By the decision of the EFTA Surveillance Authority of 24 April 2023 and the subsequent decision of NVE-RME of 18 August 2023, the Norwegian bidding zone borders were assigned for Norway to CCRs Nordic and Hansa.

(11)(1) While there is currently no operational interconnector between the Single Electricity Market (SEM) of Ireland and Northern Ireland, and a European Union bidding zone, the proposed Celtic interconnector between Ireland and France is due to be completed in 2026. The Celtic interconnector will create a new bidding zone border between the bidding zones of SEM and France. This determination of CCRs assigns the SEM-FR bidding zone border to the Core and Central Europe CCRs.

(12)(2) This Determination of CCRs merges the Core and Italy North capacity calculation regions into the Central Europe CCR for day-ahead capacity calculation. It is in line with the objectives of the CACM Regulation that the CCR Core and CCR Italy North are merged and apply a common capacity calculation, using the flow-based approach. However, a full merger of Core and Italy North (for all timeframes and all CCR-related methodologies) at this point would have negative impacts on ongoing projects within the existing CCRs, which are not yet implemented, such as the long-term capacity calculation and the ROSC. To this end, a partial merger for the purpose of the implementation of a common day-ahead capacity calculation methodology is currently preferable. All other obligations related to the CCRs according to the CACM Regulation, Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (the FCA Regulation), Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (the EB Regulation) and Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (the SO Regulation), as well as any other applicable European legislation shall apply to the CCR Central Europe using a stepwise approach, by transferring these obligations from the CCRs Core and Italy North, which will cease to exist at the end of this process. The involved TSOs and NRAs shall agree on the respective steps and timeline based on the progress of the existing regional implementation projects and develop a concept for the merger of all other CCR-related obligations. This methodology shall be amended correspondingly to future merging steps of the CCR Core and Italy North.

(13)(3) This determination of CCRs considers the high interdependency of the capacity calculation with Switzerland with the regions Italy North and Core. TSOs of both regions have developed or plan to develop solutions for coordination with Switzerland before and after the Core – Italy North merger, based on a contractual framework. The merger of Core and Italy North would enable to maximally include and coordinate Swiss borders in the capacity calculation process, thus providing the most efficient capacity calculation for the whole Central Europe among all viable alternatives and hence contributing to the objectives of the CACM and the Electricity Regulation.

(14) This Determination of CCRs takes into account the general principles and goals set out in the CACM Regulation as well as in Regulation (EU) 2019/943 of the European Parliament and of the Council on the internal market for electricity (hereafter referred to as the "Electricity Regulation"). The goal of the CACM Regulation is the coordination and harmonisation of capacity calculation and allocation in the

day-ahead and intraday cross-border markets, and it sets requirements for the TSOs to cooperate on the level of CCRs, on a pan-European level and across bidding zone borders.

(15) According to Article 9 (9) of the CACM Regulation, the expected impact of the Determination of CCRs on the objectives of the CACM Regulation has to be described. The impact is presented below taking into account that the CACM Regulation places the definition of these CCRs as well as the methodologies to be applied in these regions within a framework of continuous harmonisation, applying the most efficient capacity calculation methodology within each CCR.

(16) This Determination of CCRs contributes to the achievement of the objectives of Article 3 of CACM Regulation. In particular, this Determination of CCRs contributes to ensuring optimal use of transmission infrastructure by linking bidding zone borders, where coordination needs in capacity calculation are high. Within the CCR, the interdependencies between the cross-zonal capacities can be modelled most accurately and efficiently, and the optimal level of cross-zonal capacity can be given to the market, at the cost of increasing complexity in capacity calculation for larger CCRs. This Determination of CCRs aims to strike a balance between both aspects ('larger where currently possible, smaller where currently necessary') and consequently contributes to the optimal use of transmission infrastructure in accordance with Article 3(b) of the CACM Regulation.

(17) This Determination of CCRs also contributes to operational security in accordance with Article 3(c) of the CACM Regulation. If interdependency between bidding zone borders is not correctly taken into account in capacity calculation, cross-zonal capacity given to the market might be too high, potentially causing overloads on transmission lines and thus, endangering the operational security of the transmission system. Usually in these cases, less cross-zonal capacity would be given to the market to ensure operational security at the expense of optimal use of transmission infrastructure. To the extent currently possible, this Determination of CCRs allows for a proper coordination between bidding zone borders and for modelling of regional features based on a common grid model, which give a high level of cross-zonal capacity to the market without endangering operational security.

(18) The Determination of CCRs lays the ground for the development and implementation of regional common capacity calculation methodologies, which ensures coordination within the CCRs and thereby contributes to the objective of optimising the calculation and allocation of cross-zonal capacity in accordance with Article 3(d) of the CACM Regulation. The number and size of CCRs as defined in this Determination of CCRs constitutes the most feasible approach for optimising capacity calculation. While for interdependent bidding zone borders capacity calculation and allocation is generally most efficiently performed within one CCR, coordination and compatibility across the regions is also explicitly required by Article 21(1)(b)(vii) and Article 29(9) of the CACM Regulation. By appropriate standardisation and coordination, TSOs should ensure both compatible capacity calculation methodologies across CCRs and a coordinated application of the methodologies across the CCRs.

(19) The current assignment of the bidding zone border DK1-NL and DK1-DE/LU to the Hansa CCR might be debatable in the light of the objectives to ensure the optimal use of the transmission infrastructure (Article 3(b) of the CACM Regulation) and to optimise the calculation and allocation of cross-zonal

capacity (Article 6 3(d) of the CACM Regulation). However, any alternative CCR configuration at the time of this Determination of CCRs might have negative impacts on important existing implementation projects and initiatives in the current CCRs, and therefore might hamper the objective of efficient long-term operation and development of the electricity transmission system (Article 3(g) of the CACM Regulation). To ensure that the objectives of Article 3(b), (d) and (g) of the CACM Regulation are respected, this Determination of CCRs foresees a reassessment of the CCR Determination in the future, as prescribed in Article 12, once the objectives of efficiency and optimal use of cross-zonal capacity can be better assessed.

(20) The coordinated capacity calculation within a CCR could reveal constraining elements in the transmission network, which contributes to the long-term operation and development of the electricity transmission system and electricity sector in the Union. Therefore, the Determination of CCRs contributes to the objective of Article 3(g) of the CACM Regulation.

(21) As a long-term target, the CACM Regulation aims to harmonise the regional capacity calculation methodologies of CCRs and merge CCRs when efficiency reasons justify doing so. This Determination of CCRs is an important step on the roadmap towards this long-term target. It is crucial that this roadmap is efficient and does not jeopardise progress towards the long-term target. The Determination of CCRs builds, thus, on current practice and existing projects, and represents a progressive and pragmatic harmonisation of capacity calculation.

(22) The Determination of CCRs contributes to the objective of promoting effective competition in generation, trading and supply of electricity (Article 3(a) of the CACM Regulation), because it takes into account market specificities on bidding zone borders by allowing optimally configured CCRs to be established.

(23) Regarding the objective of transparency and reliability of information (Article 3(f) of the CACM Regulation), this Determination of CCRs will be the basis for further work towards market integration in a transparent way. It shows where bidding zone borders are fully coordinated in capacity calculation and where all TSOs of each CCR will develop common methodologies as defined in CACM Regulation. These methodologies will be consulted upon, approved by regulatory authorities when applicable and published by TSOs, thus, increasing transparency and reliability of information.

(24) This Determination of CCRs does not have any material impacts on the other objectives referred to in Article 3 (e), (h), (i) and (j) of the CACM Regulation.

(25) In conclusion, this Determination of CCRs contributes to the objectives of the CACM Regulation to the benefit of all market participants and electricity end consumers.

TITLE 1
General Provisions

Article 1
Subject matter and scope

1. The CCRs cover the following:

   a) all existing bidding zone borders within and between Member States, to which the CACM Regulation applies;

   b) all existing bidding zone borders between Member States and Energy Community Contracting Parties, to which the amended EnC CACM Regulation applies as transposed by the Energy Community Contracting Parties;

   ~~b)~~c) all existing bidding zone borders between Energy Community Contracting Parties, to which the amended EnC CACM Regulation applies as transposed by the Energy Community Contracting Parties;

   ~~c)~~d) future bidding zone borders established as a result of interconnections operated by legal entities certified as TSOs which are under construction at the time of the approval of this Determination of CCRs and planned to be commissioned.

2. Any changes in the bidding zone border configuration of Member States or Energy Community Contracting Parties shall be taken into account in proposals for amendments to this document in accordance with Article 9(13) of the CACM Regulation as well as Article 9(13) of the amended EnC CACM Regulation.

3. This determination of CCRs shall apply to the TSOs listed in Appendix 2.

Article 2
Definitions and interpretation

1. Terms used in this document shall have the meaning of the definitions included in Article 2 of the CACM Regulation and Article 2 of the Electricity Regulation and, where bidding zones and bidding zone borders of the Energy Community are mentioned, their equivalent provisions in the EnC CACM Regulation and Regulation (EU) 2019/943 of 5 June 2019 on the internal market for electricity, as incorporated into the Energy Community legal framework by the Energy Community Ministerial Council Decision 2022/03/MC-EnC of 15 December 2022.

2. In this document, unless the context clearly indicates otherwise:

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

   b) headings are inserted for convenience only and do not affect the interpretation of this document;

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

   d) in case of inconsistency between any of the provisions in Title 2 and the maps included in the Appendix to this document the provisions in Title 2 shall prevail.

3. This document shall be binding upon and shall ensure to the benefit of the TSOs as referred to herein and their permitted successors and assigns and irrespective of any change in the TSOs' names.

TITLE 2
Capacity Calculation Regions

Article 3
Capacity Calculation Region 1: Nordic

1. The CCR Nordic shall include the bidding zone borders listed below, and shown on map 1 included in the Appendix 1 to this document, as attributed to the referred TSOs:

   a) Denmark 1 - Sweden 3 (DK1 - SE3), Energinet and Svenska kraftnät;
   b) Denmark 2 - Sweden 4 (DK2 - SE4), Energinet and Svenska kraftnät;
   c) Denmark 1 - Denmark 2 (DK1 - DK2), Energinet;
   d) Sweden 4 - Sweden 3 (SE4 - SE3), Svenska kraftnät;
   e) Sweden 3 - Sweden 2 (SE3 - SE2), Svenska kraftnät;
   f) Sweden 2 - Sweden 1 (SE2 - SE1), Svenska kraftnät;
   g) Sweden 3 - Finland (SE3 - FI), Svenska kraftnät, Kraftnät Åland AB and Fingrid Oyj;
   h) Sweden 1 - Finland (SE1 - FI), Svenska kraftnät and Fingrid Oyj;
   i) Norway 1 - Norway 2 (NO1 - NO2), Statnett SF;
   j) Norway 1 - Norway 3 (NO1 - NO3), Statnett SF;
   k) Norway 1 - Norway 5 (NO1 - NO5), Statnett SF;
   l) Norway 2 - Norway 5 (NO2 - NO5), Statnett SF;
   m) Norway 3 - Norway 5 (NO3 - NO5), Statnett SF;
   n) Norway 3 - Norway 4 (NO3 - NO4), Statnett SF;
   o) Norway 1 - Sweden 3 (NO1 - SE3), Statnett SF and Svenska kraftnät;
   p) Norway 3 - Sweden 2 (NO3 - SE2), Statnett SF and Svenska kraftnät;
   q) Norway 4 - Sweden 2 (NO4 - SE2), Statnett SF and Svenska kraftnät;
   r) Norway 4 - Sweden 1 (NO4 - SE1), Statnett SF and Svenska kraftnät;
   s) Norway 4 - Finland (NO4 - FI), Statnett SF and Fingrid Oyj; and
   t) Norway 2 - Denmark 1 (NO2 - DK1), Statnett SF and Energinet.

2. The NO4-FI bidding zone border shall be included in the market coupling and capacity calculation process from the go-live of flow-based capacity calculation in CCR Nordic onwards.

Article 4
Capacity Calculation Region 2: Hansa

The CCR Hansa shall include the bidding zone borders listed below, and shown on map 2 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) Denmark 1 - Germany/Luxembourg (DK1 - DE/LU), Energinet and TenneT TSO GmbH;
b) Denmark 2 - Germany/Luxembourg (DK2 - DE/LU), Energinet and 50Hertz Transmission GmbH;
c) Sweden 4 - Poland (SE4 - PL), Svenska Kraftnät and Polskie Sieci Elektroenergetyczne S.A.;
d) Denmark 1 - Netherlands (DK1 - NL), Energinet and TenneT TSO B.V.;
e) Sweden 4 - Germany/Luxembourg (SE4 - DE/LU), Svenska Kraftnät, TenneT TSO GmbH and Baltic Cable AB;
f) Norway 2 - Netherlands (NO2 - NL), Statnett SF and TenneT TSO B.V.; and
g) Norway 2 - Germany/Luxembourg (NO2 - DE/LU), Statnett SF and TenneT TSO GmbH.

Article 5
Capacity Calculation Region 3: Core

1. Without prejudice to Article 7, the CCR Core shall include the bidding zone borders listed below, and shown on map 3 included in the Appendix 1 to this document, as attributed to the referred TSOs:
   a) France – Belgium (FR – BE), RTE – Réseau de transport d'électricité and Elia Transmission Belgium NV/SA ;
   b) Belgium – Netherlands (BE – NL), Elia Transmission Belgium NV/SA and TenneT TSO B.V.;
   c) France – Germany/Luxembourg (FR – DE/LU), RTE – Réseau de transport d'électricité ; Amprion GmbH and TransnetBW GmbH ;
   d) Netherlands – Germany/Luxembourg (NL – DE/LU), TenneT TSO B.V., TenneT TSO GmbH and Amprion GmbH ;
   e) Belgium – Germany/Luxembourg (BE – DE/LU), Elia Transmission Belgium NV/SA, Creos Luxembourg S.A. and Amprion GmbH ;
   f) Germany/Luxembourg – Poland (DE/LU – PL), 50Hertz Transmission GmbH and Polskie Sieci Elektroenergetyczne S.A. ;
   g) Germany/Luxembourg – Czech Republic (DE/LU – CZ), TenneT TSO GmbH, 50Hertz Transmission GmbH and ČEPS, a.s. ;
   h) Austria – Czech Republic (AT – CZ), Austrian Power Grid AG and ČEPS, a.s.;
   i) Austria – Hungary (AT – HU), Austrian Power Grid AG and MAVIR Hungarian Independent Transmission Operator Company Ltd.;
   j) Austria – Slovenia (AT – SI), Austrian Power Grid AG and ELES, d.o.o.;
   k) Czech Republic – Slovakia (CZ – SK), ČEPS, a.s. and Slovenská elektrizačná prenosová sústava, a.s.;
   l) Czech Republic – Poland (CZ – PL), ČEPS, a.s. and Polskie Sieci Elektroenergetyczne S.A.;

m) Hungary – Slovakia (HU – SK), MAVIR Hungarian Independent Transmission Operator Company Ltd. And Slovenská elektrizačná prenosová sústava, a.s.;
n) Poland – Slovakia (PL – SK), Polskie Sieci Elektroenergetyczne S.A. and Slovenská elektrizačná prenosová sústava, a.s.;
o) Croatia – Slovenia (HR – SI), Croatian Transmission System Operator Plc. (HOPS d.d.) and ELES, d.o.o.;
p) Croatia – Hungary (HR – HU), Croatian Transmission System Operator Plc. (HOPS d.d.) and MAVIR Hungarian Independent Transmission Operator Company Ltd.;
q) Romania – Hungary (RO – HU), Compania Naţională de Transport al Energiei Electrice "Transelectrica" S.A. and MAVIR Hungarian Independent Transmission Operator Company Ltd.;
r) Hungary – Slovenia (HU – SI), MAVIR Hungarian Independent Transmission Operator Company Ltd. And ELES, d.o.o.; and
s) Germany/Luxembourg – Austria (DE/LU – AT), Austrian Power Grid AG, TransnetBW GmbH, TenneT TSO GmbH and Amprion GmbH;
t) Single Electricity Market in Ireland and Northern Ireland – France (SEM-FR), EirGrid – EirGrid plc and RTE – Réseau de transport d'électricité.

2. The assignment of the bidding zone border SEM-FR to the CCR Core shall be effective from the date of operation of the interconnector on the respective bidding zone border.

3. In order to accommodate the specific case of the Single Electricity Market in Ireland and Northern Ireland, SONI is assigned to the CCR Core.

Article 6
Capacity Calculation Region 4: Italy North

Without prejudice to Article 7, the CCR Italy North shall include the bidding zone borders listed below, and shown on map 4 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) Italy NORD - France (NORD - FR), TERNA Rete Elettrica Nazionale S.p.A. and RTE - Réseau de transport d'électricité;
b) Italy NORD - Austria (NORD - AT), TERNA Rete Elettrica Nazionale S.p.A. and Austrian Power Grid AG; and
c) Italy NORD - Slovenia (NORD - SI), TERNA Rete Elettrica Nazionale S.p.A. and ELES d.o.o..

Article 7
Capacity Calculation Region 5: Central Europe

The CCR Central Europe shall be established for capacity calculation in the day-ahead timeframe and intraday timeframe as well as for the methodologies for Regional operational security coordination in accordance with Article 76 of the SOGL Regulation, coordinated redispatching and countertrading in accordance with Article 35 of the CACM Regulation and redispatching and countertrading cost sharing methodology in accordance with Article 74 of the CACM Regulation and shall include all bidding zone borders and attributed TSOs listed in Articles 5 and 6 and shown on map 5 included in the Appendix 1 to this document.

Article 8
Capacity Calculation Region 6: Greece-Italy (GRIT)

The CCR GRIT shall include the bidding zone borders listed below, and shown on map 6 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) Italy SUD - Greece (SUD - GR), TERNA Rete Elettrica Nazionale S.p.A. and Independent Power Transmission Operator S.A.;
b) Italy NORD - Italy CNOR (NORD - CNOR), TERNA Rete Elettrica Nazionale S.p.A.;
c) Italy CNOR - Italy CSUD (CNOR - CSUD), TERNA Rete Elettrica Nazionale S.p.A.;
d) Italy CNOR - Italy SARD (CNOR - SARD), TERNA Rete Elettrica Nazionale S.p.A.;
e) Italy SARD - Italy CSUD (SARD - CSUD), TERNA Rete Elettrica Nazionale S.p.A.;
f) Italy CSUD - Italy SUD (CSUD - SUD), TERNA Rete Elettrica Nazionale S.p.A.;
g) Italy SUD - Italy CALA (SUD - CALA), TERNA Rete Elettrica Nazionale S.p.A.; and
h) Italy CALA - Italy SICI (CALA - SICI), TERNA Rete Elettrica Nazionale S.p.A..

Article 9
Capacity Calculation Region 7: South-west Europe (SWE)

The CCR SWE shall include the bidding zone borders listed below, and shown on map 7 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) France - Spain (FR - ES), RTE - Réseau de transport d'électricité and REE - Red Eléctrica de España, S.A.U.; and
b) Spain - Portugal (ES - PT), REE - Red Eléctrica de España, S.A.U. and REN - Rede Eléctrica Nacional, S.A..

Article 10
Capacity Calculation Region 8: Baltic

The CCR Baltic shall include the bidding zone borders listed below, and shown on map 8 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) Estonia - Latvia (EE - LV), Elering AS and Augstsprieguma tīkls;

b) Latvia - Lithuania (LV - LT), Augstsprieguma tīkls and Litgrid AB;
c) Estonia - Finland (EE - FI), Elering AS and Fingrid Oyj;
d) Lithuania – Sweden 4 (LT - SE4), Litgrid AB and Svenska kraftnät; and
e) Lithuania - Poland (LT - PL), Litgrid AB and Polskie Sieci Elektroenergetyczne S.A..

Article 11
Capacity Calculation Region 9: South-Eeast Europe (SEE)

The CCR SEE shall include the bidding zone borders listed below, and shown on map 9 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) ~~Greece - Bulgaria (GR - BG),~~ Independent Power Transmission Operator S.A. (IPTO) and Elektroenergien Sistemen Operator (ESO) EAD;
b) ~~Bulgaria - Romania (BG - RO),~~ Elektroenergien Sistemen Operator (ESO) EAD and Compania Naţională de Transport al Energiei Electrice "Transelectrica" S.A.;
c) Crnogorski elektroprenosni sistem AD (CGES) and Operatori i Sistemit Te Transmetimit – OST sh.a.;
d) Operatori i Sistemit te Transmetimit – OST sh.a. and Operator sistemi, transmisioni dhe tregu Sh.A. (KOSTT)
e) Operatori i Sistemit te Transmetimit – OST sh.a and Makedonski elektroprenosen sistem operator a.d. (MEPSO)
f) Makedonski elektroprenosen sistem operator a.d. (MEPSO) and Elektromreža Srbije AD (EMS);
g) Crnogorski elektroprenosni sistem AD (CGES) and Operator sistemi, transmisioni dhe tregu Sh.A. (KOSTT);
h) Makedonski elektroprenosen sistem operator a.d. (MEPSO) and Operator sistemi, transmisioni dhe tregu Sh.A. (KOSTT);
i) Elektromreža Srbije AD (EMS) and Operator sistemi, transmisioni dhe tregu Sh.A. (KOSTT);
j) Elektroenergien Sistemen Operator (ESO) EAD and Elektromreža Srbije AD (EMS);
k) Elektroenergien Sistemen Operator (ESO) EAD and Makedonski elektroprenosen sistem operator a.d. (MEPSO)
l) Independent Power Transmission Operator S.A. (IPTO) and Makedonski elektroprenosen sistem operator a.d.(MEPSO);
m) Independent Power Transmission Operator S.A. (IPTO) and Operatori i Sistemit Te Transmetimit – OST sh.a.;

Article 11a
Temporary Capacity Calculation Region 10: East-Central Europe (ECE)

1. Without prejudice to Article 7, the temporary CCR East-Central Europe shall include the bidding zone borders listed below, and shown on map 12 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) Croatian Transmission System Operator Plc. (HOPS d.d.) and Nezavisni operator sistema u Bosni i Hercegovini (NOS BiH);
b) Croatian Transmission System Operator Plc. (HOPS d.d.) and Elektromreža Srbije AD (EMS);
c) Elektromreža Srbije AD (EMS) and MAVIR Hungarian Independent Transmission Operator Company Ltd.;
d) Compania Naţională de Transport al Energiei Electrice "Transelectrica" S.A. and Elektromreža Srbije AD (EMS);
e) Elektromreža Srbije AD (EMS) and Nezavisni operator sistema u Bosni i Hercegovini (NOS BiH);
f) Crnogorski elektroprenosni sistem AD (CGES) and Nezavisni operator sistema u Bosni i Hercegovini (NOS BiH);
g) Crnogorski elektroprenosni sistem AD (CGES) and Elektromreža Srbije AD (EMS).

(2) The CCR ECE shall be established for capacity calculation in the day-ahead timeframe. Following the go-live of the day-ahead capacity calculation in CE CCR, all TSOs shall assess the status of fulfillment of the conditions as described in Article 13(4) for the ECE CCR. Based on that assessment, all TSOs may decide to extend the scope of the interim ECE CCR to further timeframes, in case undue delay is expected regarding the accession of ECE CCR to CE CCR.

Article 11b
Capacity Calculation Region 11: Italy-Montenegro (ITME)

The CCR ITME shall include the bidding zone border listed below, and shown on map 10 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) Italy CSUD and Montenegro (CSUD-ME), TERNA Rete Elettrica Nazionale S.p.A (TERNA) and Crnogorski elektroprenosni sistem AD (CGES),

Article 11c
Capacity Calculation Region 12: Eastern Europe (EE)

The CCR EE shall include the bidding zone borders listed below, and shown on map 11 included in the Appendix 1 to this document, as attributed to the referred TSOs:

a) Ukraine and Moldova (UA - MD), concerning PJSC "National Power Company" "Ukrenergo" and S.E. "Moldelectrica".

b) Ukraine - Poland (UA - PL), concerning PJSC "National Power Company" "Ukrenergo" and Polskie Sieci Elektroenergetyczne S.A

c) Ukraine - Slovakia (UA - SK), concerning PJSC "National Power Company" "Ukrenergo" and Slovenská elektrizačná prenosová sústava, a.s.

d) Ukraine - Hungary (UA - HU), concerning PJSC "National Power Company" "Ukrenergo" and MAVIR Hungarian Independent Transmission Operator Company Ltd

e) Ukraine - Romania (UA - RO), concerning PJSC "National Power Company" "Ukrenergo" and Compania Nationalã de Transport al Energiei Electrice "Transelectrica" S.A

f) Moldova -- Romania (MD - RO), concerning S.E. "Moldelectrica" and Compania Nationalã de Transport al Energiei Electrice "Transelectrica" S.A .

TITLE 3
Final provisions

Article 12
Implementation date of CCRs

All TSOs shall apply the CCRs as described in Title 2 as soon as the decision has been taken by ACER in accordance with Article 9(6)(b) of the CACM Regulation and Article 5(2)(b) Regulation (EU) 2019/942.

Article 13
Future assessment

1. No later than three months after the implementation of the first version of the regional operational security coordination in accordance with Article 76(1) of Commission Regulation 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as the "SO Regulation") in the Core CCR, all TSOs shall submit to ACER an assessment analysing alternative determinations of at least the CCRs Hansa, Nordic and Core in terms of:
   (a) efficiency of capacity calculation and allocation in all timeframes; and

   (b) efficiency of regional operational security coordination in accordance with Article 76(1) of the SO Regulation, coordinated redispatching and countertrading in accordance with Article 35 of the CACM Regulation and redispatching and countertrading cost sharing in accordance with Article 74

of the CACM Regulation and cross-regional operational security coordination in accordance with Article 75(1) of the SO Regulation.

2. In case this assessment pursuant to paragraph (1) identifies a more efficient alternative Determination of CCRs, all TSOs shall submit to ACER a proposal for amendment of the Determination of CCRs in accordance with Article 9(13) of the CACM Regulation by the same deadline as for the assessment.

3. The TSOs shall, in coordination with the competent regulatory authorities, work on the full merge of the CCRs Core and Italy North into the CCR Central Europe for all CCR-related methodologies, using a stepwise approach and taking into account potential interdependencies with existing regional implementation projects under the applicable Union law. To this end, the TSOs shall submit to ACER corresponding amendments of the Determination of CCRs in accordance with Article 9(13) of the CACM Regulation, for each subsequent phase of the merger.

4. All TSOs shall make a proposal for an amendment of this methodology including all bidding zone borders and attributed TSOs listed in Article 11a and shown on map 12 included in Appendix 1 to this document into the CCR Central Europe until 12 months after 1) full transposition of the electricity integration package into national law by all Energy community Contracting Parties of the CCR ECE as required by Decision 2022/03/MC-EnC of the Ministerial Council of the Energy Community, and 2) the full implementation of the day-ahead capacity calculation processes according to Article 20 (1) CACM and amended EnC CACM Regulation by the capacity calculation regions set out in Article 7 and Article 11a and 3) the participation of the CCR ECE's TSOs in the single day-ahead coupling as set out in Article 8 (1) CACM and amended EnC CACM Regulation. The proposal shall contain a roadmap and an implementation plan that enables a gradual integration of all these bidding zone borders of CCR ECE jointly into the applicable tasks within the CCR Central Europe.

~~3.~~5. Full transposition of the Electricity Integration Package into national law by all relevant Energy Community Contracting Parties, mentioned in Article 11, is a precondition for the amended SEE CCR, as described in Article 11., to become effective. Where necessary, the application of the full Terms, Conditions, and Methodologies related to the operationalisation of the amended SEE CCR, shall be implemented in a stepwise manner that takes into consideration the readiness of the EnC TSOs and does not impact the ongoing implementation processes of the EU TSOs and does not hamper the compliance with EU law obligations.

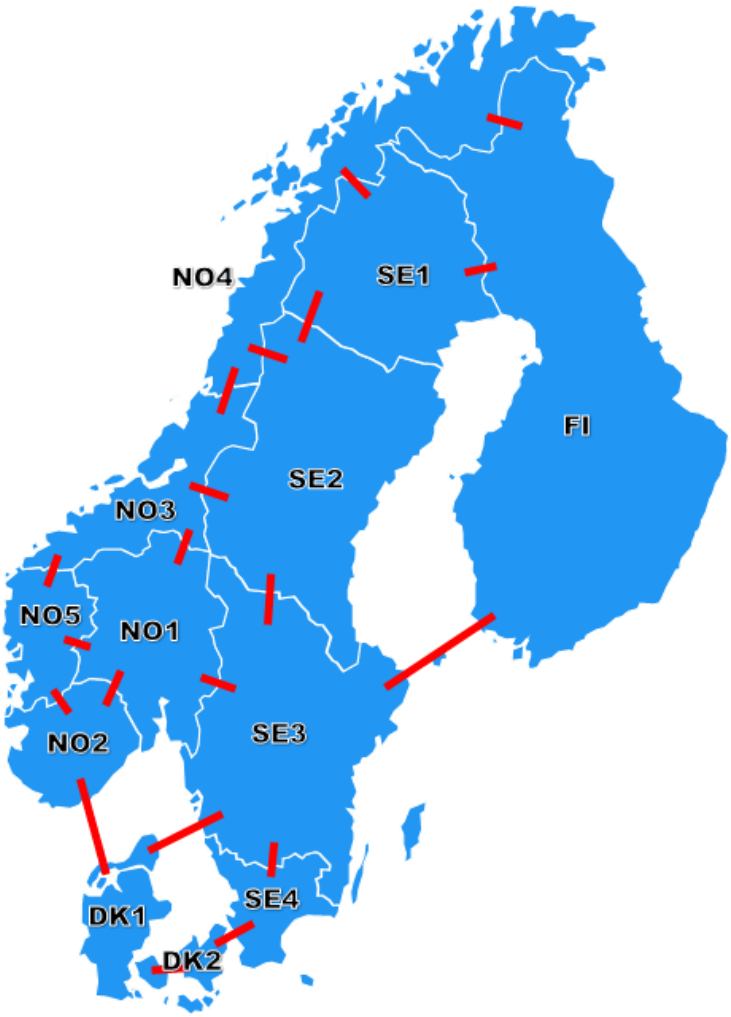
Article 14
Language

The reference language for this document shall be English. For the avoidance of doubt, where TSOs need to translate this document into their national language(s), in the event of inconsistencies between the English version published by all TSOs in accordance with Article 9(14) of the CACM Regulation and any

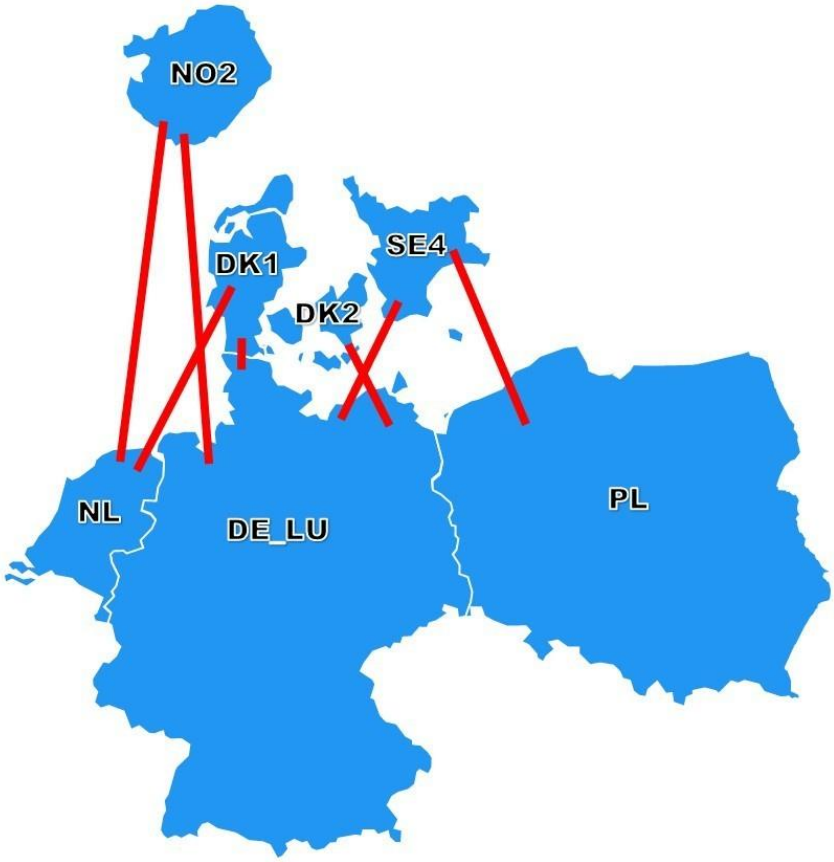
version in another language, the relevant TSOs shall, in accordance with national legislation, provide the relevant national regulatory authorities with translation of this document.

Appendix 1: Maps of the CCRs

1. Capacity Calculation Region 1: Nordic

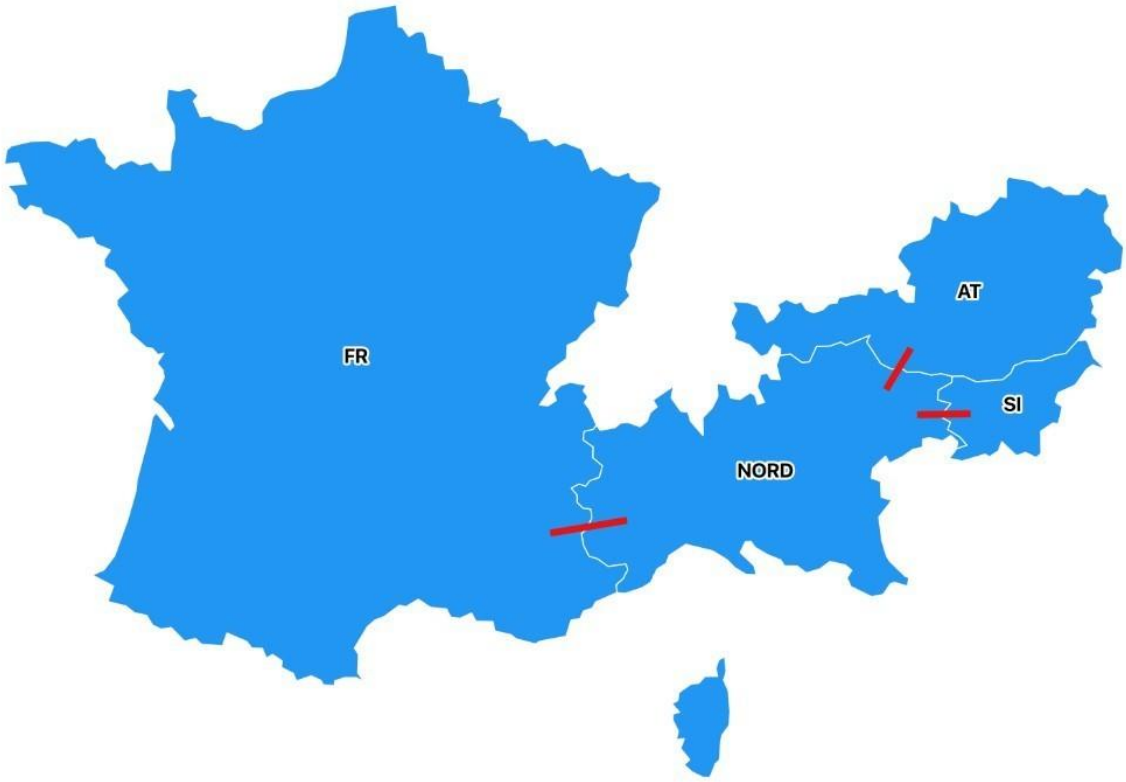


2. Capacity Calculation Region 2: Hansa
   Note: The DE/LU - PL, NL - DE/LU, NO2 - DK1, DK2 - SE4 and DK1 - DK2 bidding zone borders are not part of this CCR.



3. Capacity Calculation Region 3: Core

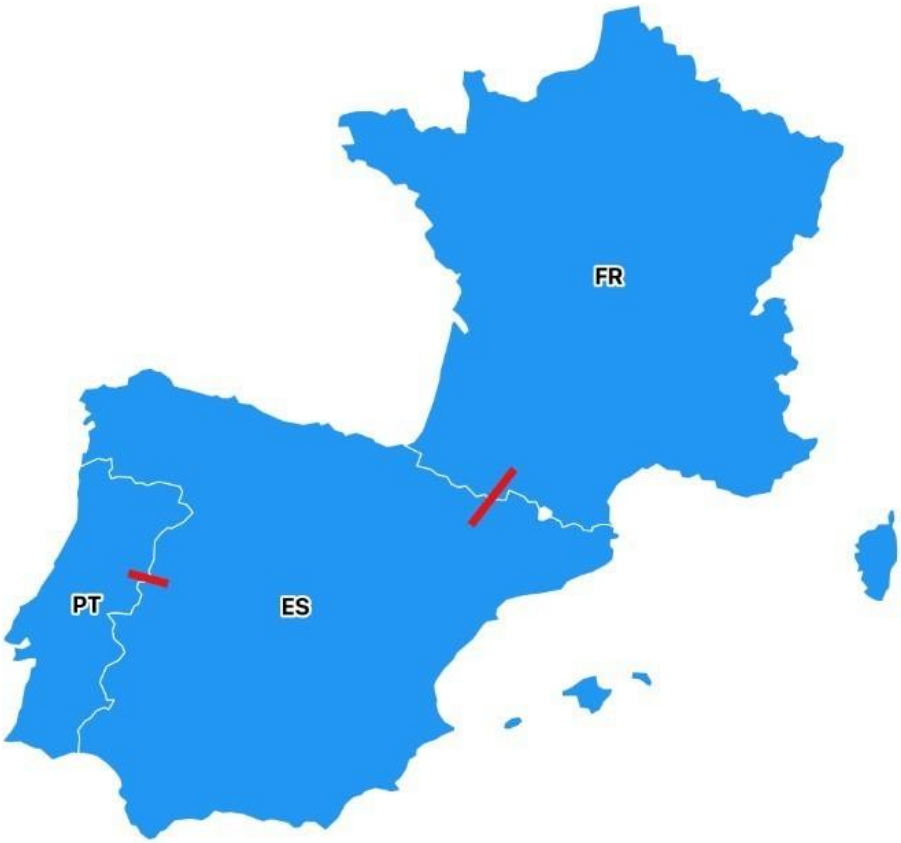
4. Capacity Calculation Region 4: Italy North
   Note: The AT-SI bidding zone border is not part of this CCR.



5. Capacity Calculation Region 5: Central Europe

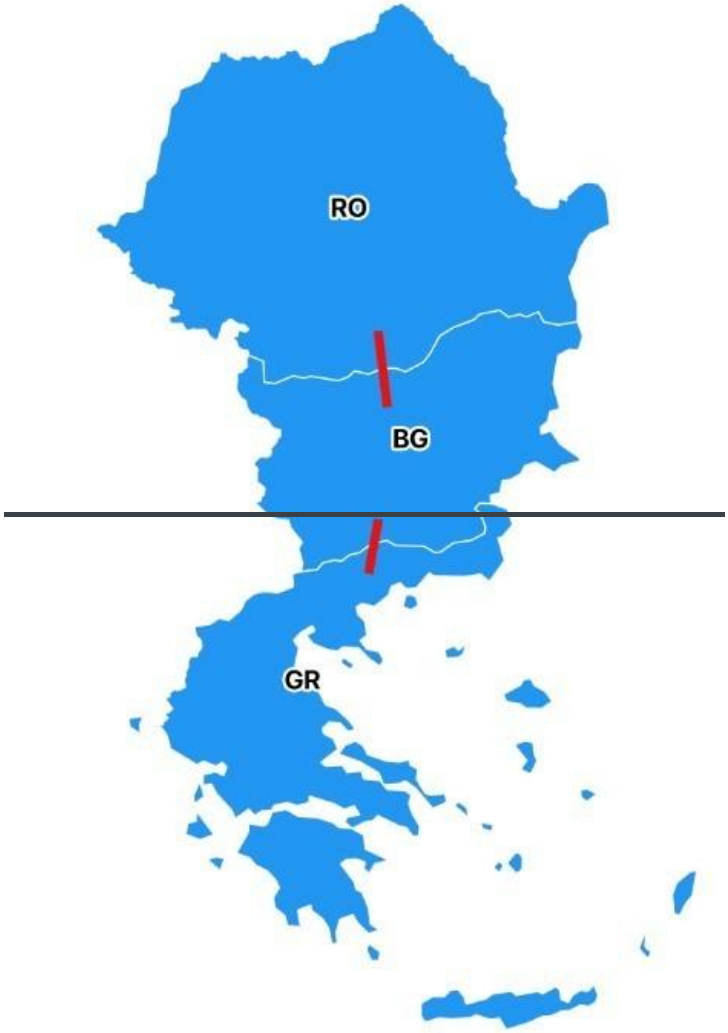
6. Capacity Calculation Region 6: Greece-Italy (GRIT)

7. Capacity Calculation Region 7: South-west Europe (SWE)



8. Capacity Calculation Region 8: Baltic
   Note: The SE4-PL bidding zone border is not part of this CCR.

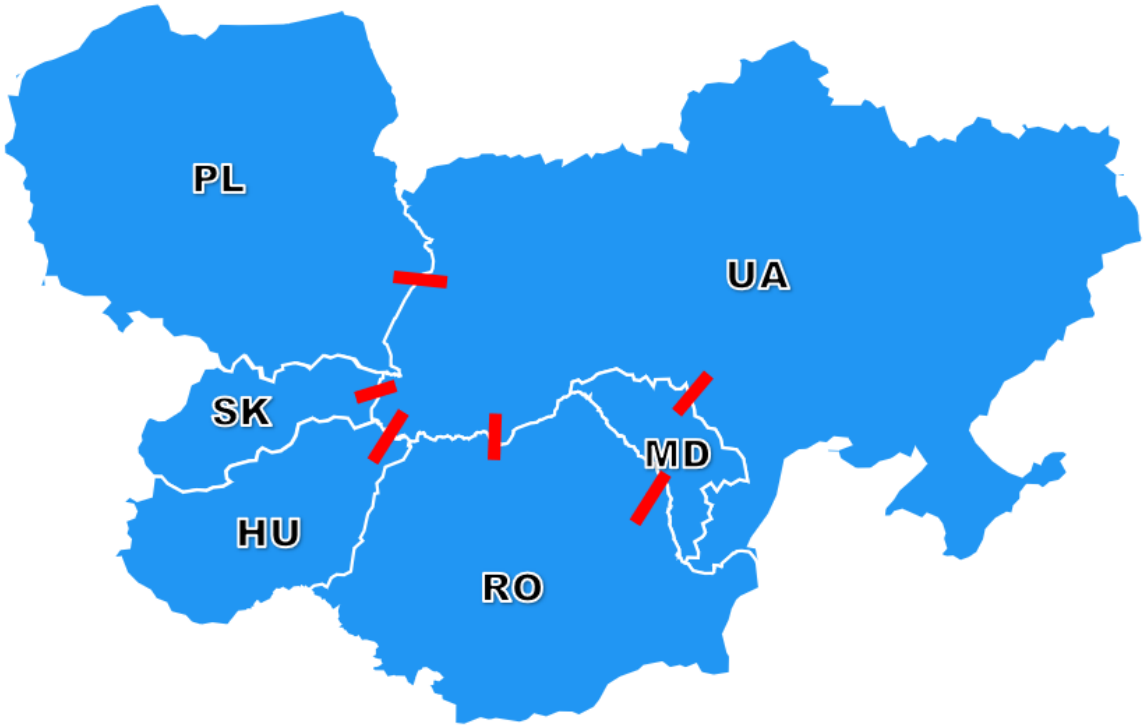
9. Capacity Calculation Region 9: South-east Europe (SEE)



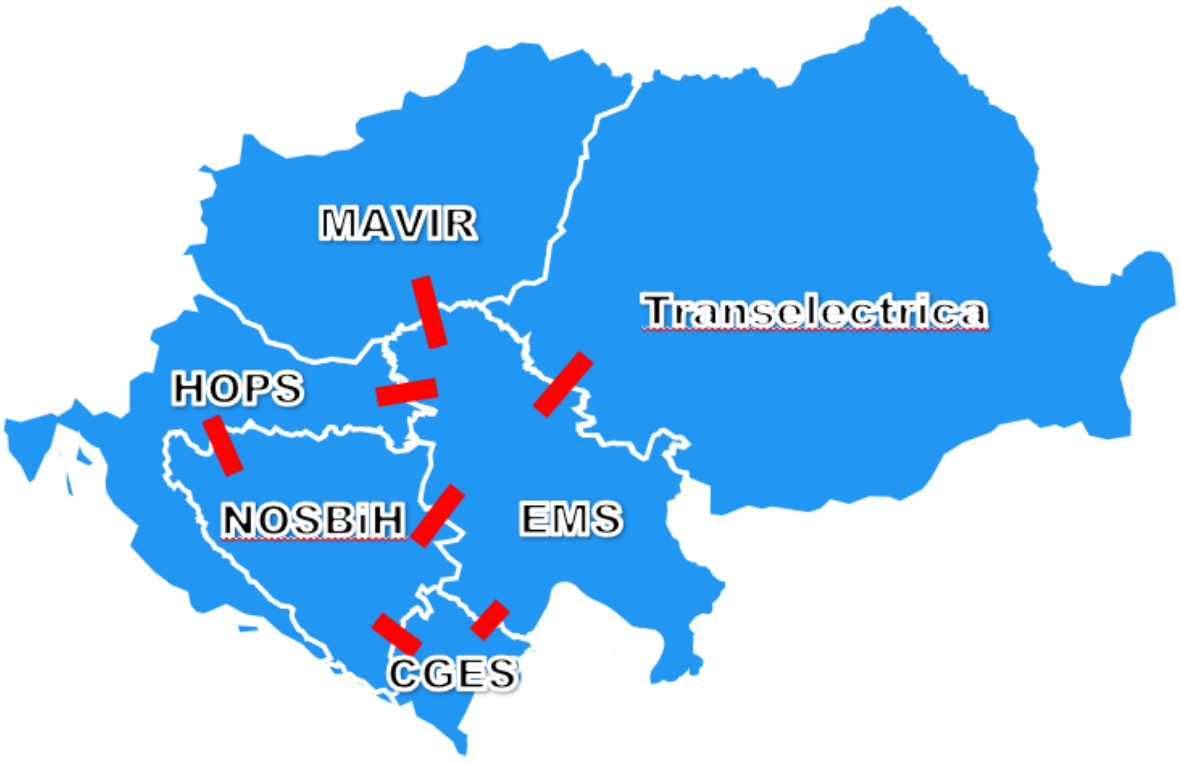

Transelectrica
EMS
ESO
CGES
KOSTT
MEPSO
OST
IPTO

10. Capacity Calculation Region 10: Italy Montenegro (ITME)

11. Capacity Calculation Region 11: Eastern Europe (EE)



12. Capacity Calculation Region 12: East-Central Europe (ECE)



Appendix 2: List of TSOs subject to the approved determination of CCRs methodology

- APG - Austrian Power Grid AG,
- VÜEN-Vorarlberger Übertragungsnetz GmbH
- Elia - Elia Transmission Belgium S.A.
- ESO – Electroenergien Sistemen Operator EAD
- HOPS d.d. - Croatian Transmission System Operator Plc.
- ČEPS - ČEPS, a.s.
- Energinet – Energinet
- Elering - Elering AS
- Fingrid - Fingrid OyJ
- Kraftnät - Kraftnät Åland Ab
- RTE - Réseau de Transport d'Electricité S.A
- Amprion - Amprion GmbH
- BCAB - Baltic Cable AB
- TransnetBW -TransnetBW GmbH
- TenneT GER - TenneT TSO GmbH
- 50Hertz - 50Hertz Transmission GmbH
- IPTO - Independent Power Transmission Operator S.A.,
- MAVIR ~~ZRt.~~ - ~~MAVIR Magyar Villamosenergia-ipari Átviteli Rendszerirányító Zártkörűen Működő Részvénytársaság ZRt.~~MAVIR Hungarian Independent Transmission Operator Company Ltd.
- EirGrid - EirGrid plc
- Terna - Terna SpA
- Augstsprieguma tïkls - AS Augstsprieguma tïkls
- LITGRID - LITGRID AB
- CREOS Luxembourg - CREOS Luxembourg S.A.
- TenneT TSO - TenneT TSO B.V.
- PSE - Polskie Sieci Elektroenergetyczne S.A.
- REN - Rede Eléctrica Nacional, S.A.
- Transelectrica - Compania Nationala de Transport al Energiei Electrice S.A.
- SEPS - Slovenská elektrizačná prenosováú sústava, a.s.
- ELES - ELES,d.o.o
- ~~REE –~~ – Red Eléctrica. Red Eléctrica de España S.A.U,
- Svenska Kraftnät - Affärsverket Svenska Kraftnät
- SONI - System Operator for Northern Ireland Ltd
- NOS BiH – Nezavisni operator sistema u Bosni i Hercegovini ~~(NOS BiH)~~
- CGES – Crnogorski elektroprenosni sistem AD ~~(CGES)~~
- EMS – Elektromreza Srbije AD ~~(EMS)~~
- OST – Operatori i Sistemit te Transmetimit sh.a. (OST)

- MEPSO – Makedonski Elektroprenosen Sistem Operator AD (MEPSO)
- Ukrenergo NPC SE (Ukrenergo) - PJSC “National Power Company” "Ukrenergo" (NPC Ukrenergo)
- ~~MED~~ MEL– ~~I.S.~~ SE Moldelectrica ~~(MED)~~
- KOSTT – Operator sistemi, transmisioni dhe tregu Sh.A. ~~(KOSTT)~~