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ESA | EFTA Surveillance Authority

Annex I

to Decision No. 065/2023/COL of 24 April 2023 on the determination of the capacity calculation regions methodology in accordance with Article 15(1) of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management

Determining the CCRs methodology for Norway, as amended and approved by the EFTA Surveillance Authority

Whereas

(1) This document sets out the determination of capacity calculation regions (hereafter referred to as 'CCRs') for Norway (hereafter referred to as the 'Determination of CCRs') in accordance with Article 15(1) of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management (hereafter referred to as 'CACM Regulation'). Reference in this document to 'Member States' includes Norway.

(2) After the CACM Regulation became part of the Agreement on the European Economic Area ('EEA'), the CACM Regulation was approved by the Norwegian Parliament in June 2021 and thus was made binding in the internal legal order in Norway with entry into force on 1 August 2021. Consequentially, this methodology allocates the Norwegian bidding zone borders to the relevant CCRs, namely CCR Nordic and CCR Hansa.

(3) This Determination of CCRs takes into account the general principles and goals set out in the CACM 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.

(4) 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.

(5) 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.

(6) 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.

(7) 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.

(8) 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 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.

(9) 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 EEA. Therefore, the Determination of CCRs contributes to the objective of Article 3(g) of the CACM Regulation.

(10) 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.

(11) 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.

(12) 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.

(13) 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.

(14) 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) 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 shall be taken into account in proposals for amendments to this document in accordance with Article 9(13) of the CACM Regulation.

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 Regulation (EC) No. 714/2009 of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No. 1228/2003.

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; and

   c) 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 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 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 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. The CCR Core shall include the bidding zone borders listed below, and shown on map 3 included in the Appendix 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 Ltd. (HOPS d.o.o.) and ELES, d.o.o.;
p) Croatia - Hungary (HR - HU), Croatian Transmission System Operator Ltd. (HOPS d.o.o.) 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.

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

Article 6
Capacity Calculation Region 4: Italy North

The CCR Italy North shall include the bidding zone borders listed below, and shown on map 4 included in the Appendix 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: Greece-Italy (GRIT)

The CCR GRIT shall include the bidding zone borders listed below, and shown on map 5 included in the Appendix 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 8
Capacity Calculation Region 6: South-west Europe (SWE)

The CCR SWE shall include the bidding zone borders listed below, and shown on map 6 included in the Appendix 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 9
Capacity Calculation Region 7: Baltic

The CCR Baltic shall include the bidding zone borders listed below, and shown on map 7 included in the Appendix 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 10
Capacity Calculation Region 8: South-east Europe (SEE)

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

a) Greece - Bulgaria (GR - BG), Independent Power Transmission Operator S.A. and Elektroenergien Sistemen Operator (ESO) EAD; and
b) Bulgaria - Romania (BG - RO), Elektroenergien Sistemen Operator (ESO) EAD and Compania Naţională de Transport al Energiei Electrice "Transelectrica" S.A..

TITLE 3
Final provisions

Article 11
Implementation date of CCRs

The Norwegian TSO shall apply the CCRs as described in Title 2 as soon as the decision has been taken by the EFTA Surveillance Authority in accordance with point 47(d) of Annex IV to the EEA Agreement and subject to and as soon as the Norwegian energy regulatory authority, NVE-RME, has taken the subsequent decision on implementation in Norwegian law.

Article 12
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.

   The Norwegian TSO shall submit the above-mentioned assessment to the relevant authority for Norway, as appropriate.

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.

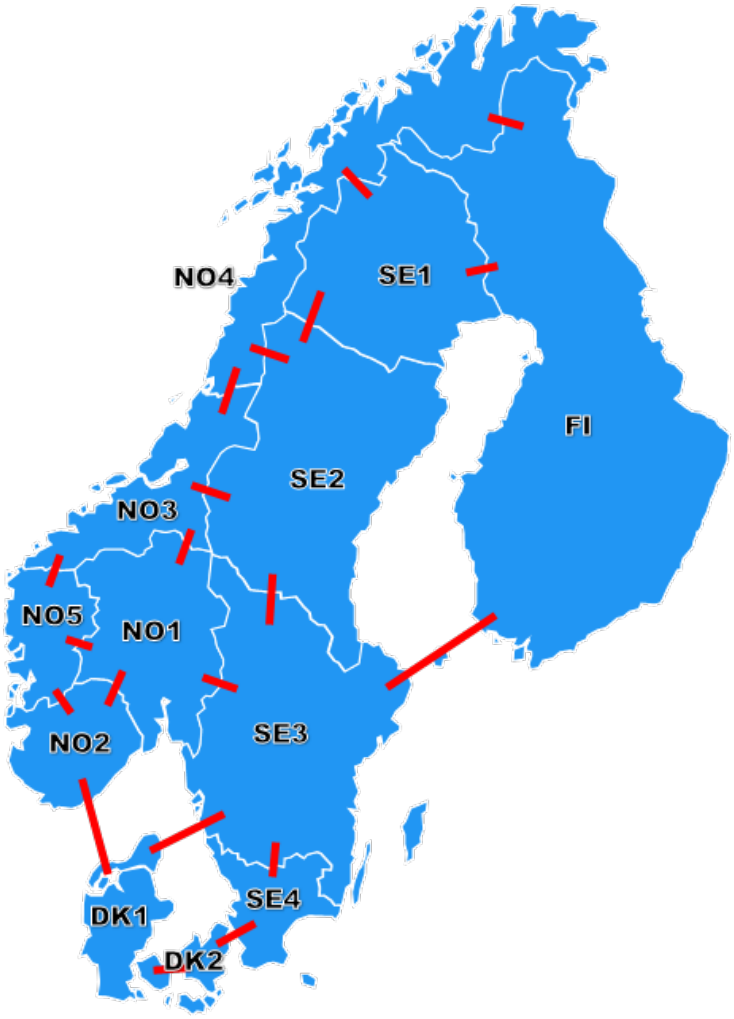
   The Norwegian TSO shall submit the above-mentioned proposal to the relevant authority for Norway, as appropriate.

Article 13
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.

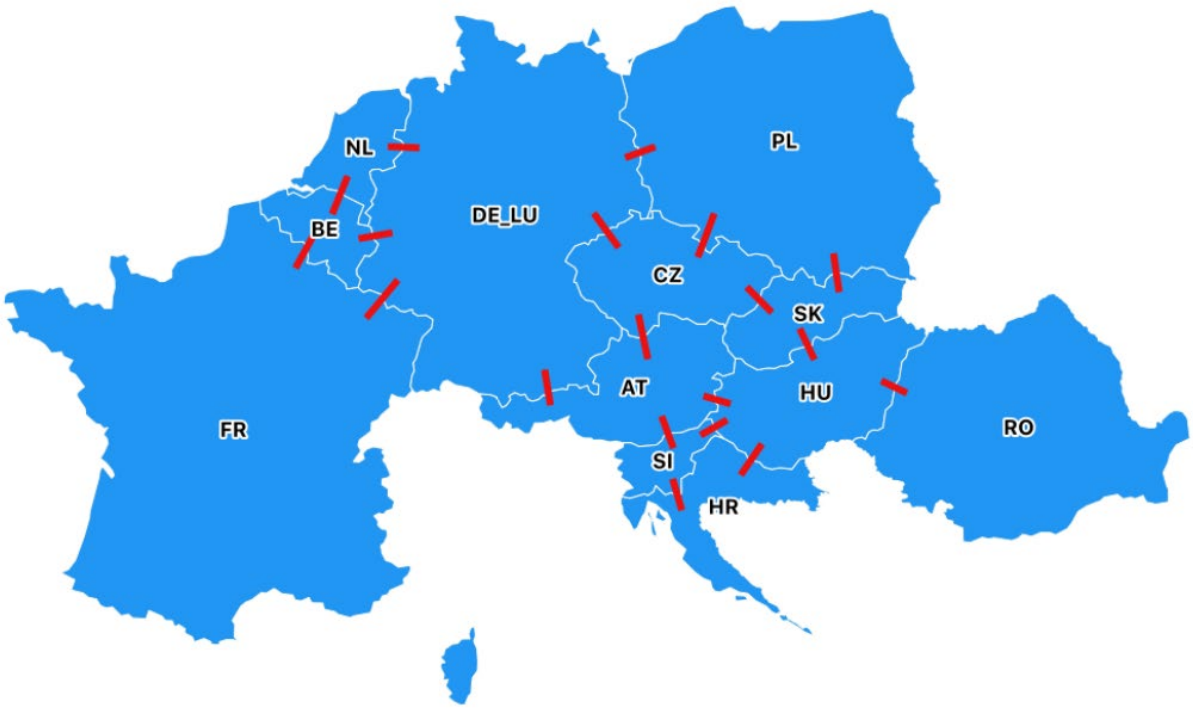
Appendix: Maps of the CCRs

1. Capacity Calculation Region 1: Nordic

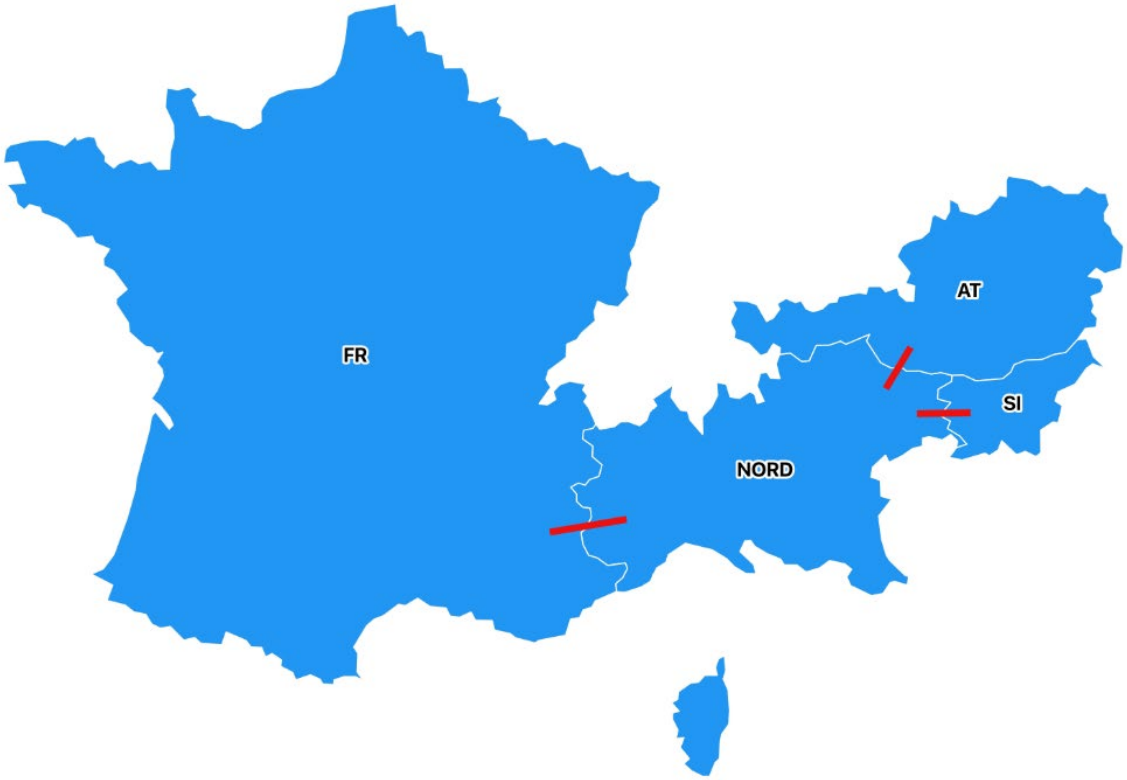


2. Capacity Calculation Region 2: Hansa
Note: The DE/LU - PL, NL - DE/LU, NO2 - DK1, DK2 - SE4 and DK1 - DK2 bidding zone borders are not part of this CCR.

3. Capacity Calculation Region 3: Core

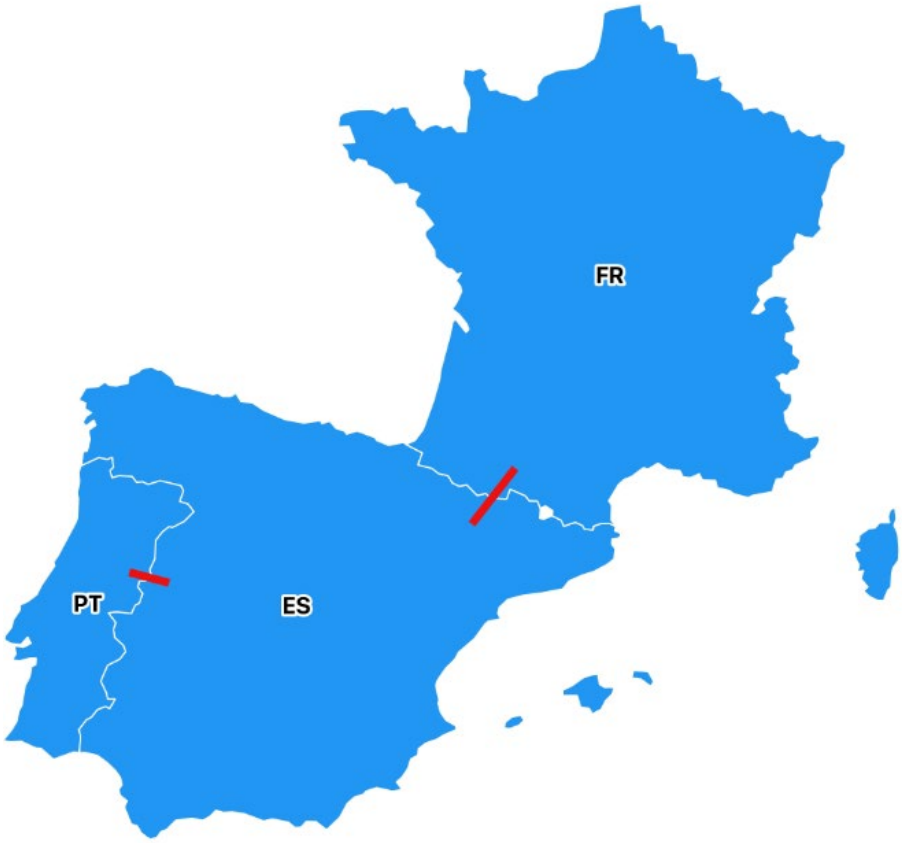


4. Capacity Calculation Region 4: Italy North
   Note: The AT-SI bidding zone border is not part of this CCR.

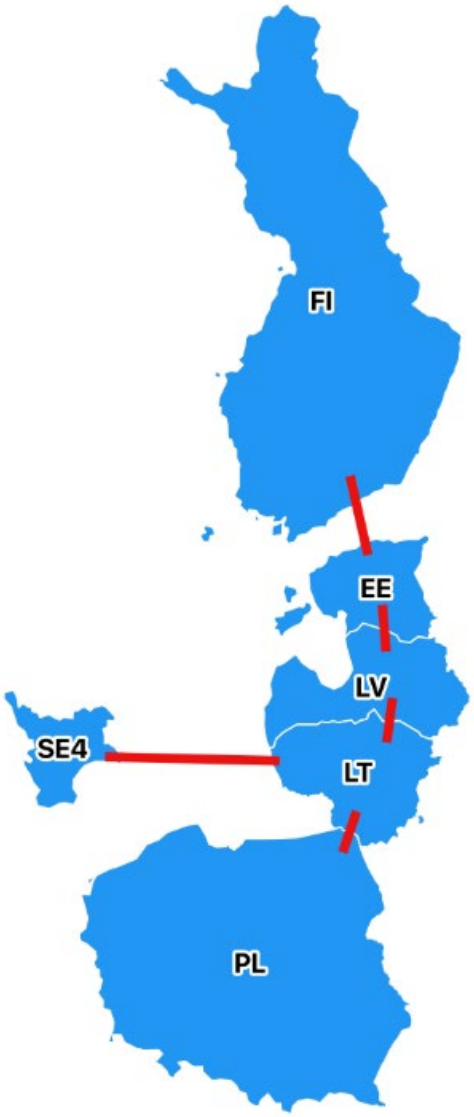


5. Capacity Calculation Region 5: Greece-Italy (GRIT)

6. Capacity Calculation Region 6: South-west Europe (SWE)



7. Capacity Calculation Region 7: Baltic
   Note: The SE4-PL bidding zone border is not part of this CCR.



8. Capacity Calculation Region 8: South-east Europe (SEE)