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The Danish TSO, Energinet's, proposal for the Nordic Capacity Calculation Region methodology for splitting long-term cross-zonal capacity in accordance with Article 16 of Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation

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Energinet of the Nordic Capacity Calculation Region, taking into account the following:

### **Whereas**

- (1) This document describes a methodology developed by the Transmission System Operator of Denmark, Energinet, of the Nordic Capacity Calculation Region (hereafter referred to as “CCR Nordic”) as defined in accordance with Article 15 of Commission Regulation (EU) 2015/1222 establishing a guideline on Capacity Allocation and Congestion Management (hereafter referred to as the “CACM Regulation”) regarding a methodology for splitting long-term cross-zonal capacity (hereafter referred to as the “MSR”) in accordance with Article 16 of the Commission Regulation 2016/1719 (hereafter referred to as the “FCA Regulation”).
- (2) This MSR takes into account the general principles, goals and other methodologies set in the FCA Regulation, CACM Regulation, Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as "SO Regulation"), and Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity (hereafter referred to as “Regulation (EC) No 714/2009”).
- (3) The goal of the FCA Regulation is the coordination and harmonisation of cross-zonal capacity calculation and capacity allocation in the forward markets, and it sets requirements for the TSOs to cooperate on the level of capacity calculation regions (hereinafter referred to as “CCRs”), on a pan-European level and across bidding zone borders. The FCA Regulation also sets rules for establishing capacity calculation methodologies based either on the coordinated net transmission capacity approach (hereafter referred to as “CNTC approach”) or on the flow-based approach (hereafter referred to as “FB approach”). In case of the TSO(s) allocating long term transmissions rights, the FCA Regulation also sets rules for establishing a methodology for the splitting of long term capacity on different time frames, e.g. month, quarters and year.
- (4) This MSR takes into account the FCA CCM and assumes that the FCA CCM is developed accordingly, is available in order to execute allocation of transmission rights for the long-term time frame. Thus, the frequency of the allocation of long-term transmissions rights depends on the availability of capacity calculations for the long-term timeframe.
- (5) The legal status of the MSR shall be distinguished from the legal status of FCA CCM. The methodology for splitting of long-term cross zonal capacity only applies to Danish bidding zones borders where long term transmissions rights has been introduced.
- (6) Article 4(8) of the FCA Regulation requires that the expected impact of the MSR on the objectives of the FCA Regulation is described. The impact is presented below (points (8) to (13) of this Whereas Section).
- (7) The MSR contributes to and does not in any way hamper the achievement of the objectives of Article 3 of the FCA Regulation. In particular, the MSR serves the objectives of optimising the calculation and allocation of long-term transmission rights (Article 3(b) of the FCA Regulation), providing non-discriminatory access to long-term transmission rights (Article 3(c) of the FCA Regulation), respecting the need for a fair and orderly forward capacity allocation and orderly price formation (Article 3(e) of the FCA Regulation), ensuring and enhancing the transparency and reliability of information on forward capacity allocation (Article 3(f) of the FCA Regulation) and contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union (Article 3(g) of the FCA Regulation).

- (8) The MSR serves the objective of optimising the calculation and allocation of long-term transmission rights in accordance with Article 3(b) of the FCA Regulation since the MSR is using an efficient an approach balancing the risk of underselling with the need for heeding of the market.
- (9) The MSR provides non-discriminatory access to long-term transmission rights (Article 3(c) of the FCA Regulation) as there are no barriers for access to the auction of LTTRs if the conditions, cf. the Harmonised Allocations Rules, are fulfilled. Moreover it ensures fair and non-discriminatory treatment of TSOs, the Agency, regulatory authorities and market participants (Article 3(d) of the FCA Regulation) as the rules provide no undue discrimination for market participants and allows for access to data by the Agency regulatory authorities and market participants.
- (10) The MSR contributes to the objective of respecting the need for a fair and orderly forward capacity allocation and price formation (Article 3(e) of the FCA Regulation) by making available in due time the cross-zonal capacity to be released in the long-term time frame and forward markets, where appropriate.
- (11) The MSR serves the objective of transparency and reliability of information (Article 3(f) of the FCA Regulation) as the MSR determines the main principles and main processes for allocating LTTRs. The MSR enables Energinet to provide market participants with the same reliable information on cross-zonal capacities and allocation constraints for long-term allocation and forecasting purposes in a transparent way. To facilitate transparency, Energinet will publish data to the market on a regular basis to help market participants to evaluate the LTTR process and long-term capacity forecasts. Energinet will engage stakeholders in dialogue to specify necessary hedging needs to this effect.
- (12) The MSR does not hinder an efficient long-term operation in CCR Nordic and adjacent CCRs, and the development of the transmission system in the European Union (Article 3(g) of the FCA Regulation). The MSR will support efficient pricing in the forward markets, providing the right signals from a long-term perspective.
- (13) In conclusion, the methodology for splitting rules contributes to the general objectives of the FCA Regulation to the benefit of market participants and electricity end consumers.

**SUBMIT THE FOLLOWING METHODOLOGY FOR SPLITTING RULES TO THE DANISH REGULATORY AUTHORITY:**

**TITLE I**

**General**

**Article 1**

**Subject matter and scope**

1. The MSR is the methodology of Danish TSOs in CCR Nordic in accordance with Article 16(2) of the FCA Regulation.
2. This MSR applies solely to the national Danish bidding zones borders belonging to the Danish control areas as defined in accordance with Article 15 of the CACM Regulation.
3. This MSR covers the methodology for balancing the risk of underselling against the benefit, in terms of hedging, of allocating LTTRs to the market.

4. This MSR covers the methodology for splitting long-term cross-zonal capacity for the long-term time frame between products in accordance with the methodology developed under Article 31 of the FCA Regulation, and where cross-zonal capacity shall be calculated for each forward capacity allocation and at least on annual and monthly time frames.

## **Article 2**

### **Definitions and interpretation**

1. For the purposes of the Proposal, the terms used shall have the meaning given to them in Article 2 of Regulation (EC) 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross border exchanges in electricity and repealing Regulation (EC) no 1228/2003, Article 2 of the Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline for forward capacity allocation (hereafter referred to as "FCA Regulation"), Article 2 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"), Article 2 of the Harmonised allocation rules for long-term transmission rights in accordance with Article 51 of Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a Guideline on Forward Capacity Allocation and Article 2 of Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council (hereafter referred to as "Transparency Regulation") and Article 2 of capacity calculation methodology developed in CCR Nordic in accordance with Article 20(2) of the CACM Regulation.
2. In addition, in this MSR, the following terms shall have the meaning below:
  - a) "LTTR" means Physical or a Financial Long Term Transmission Rights;
  - b) "HAR" means Harmonised Allocation Rules;
  - c) "SAP" means Single Allocation Platform
3. In this MSR, unless the context requires otherwise:
  - a) the singular indicates the plural and vice versa;
  - b) headings are inserted for convenience only and do not affect the interpretation of this CCM; and
  - c) any reference to legislation, regulations, directives, orders, instruments, codes or any other enactment shall include any modification, extension or re-enactment of it when in force.
4. For the sake of clarity this MSR does not affect TSOs' right to delegate their task in accordance with the Article 62 of the FCA Regulation. In this MSR "TSO" shall refer to Transmission System Operator or to a third party whom the TSO has delegated task(s) to in accordance with the FCA Regulation, where applicable. However, the delegating TSO shall remain responsible for ensuring compliance with the obligations under the FCA Regulation and under the HAR.

**TITLE 2**  
**Applying of capacity calculated for long-term time frame**

**Article 3**  
**Applying of capacity calculated for long-term time frame**

1. The Danish TSO shall apply the long term capacity calculated by the methodology set out by the CCM for each long term time frame as a point of departure for calculating the amount of LTTRs for the different time frames.

The capacity calculation provides several scenario based results for each timeframe. The minimum capacity calculated in the different scenarios shall be the long term capacity to be used input into the calculation of amounts of LTTRs for each relevant timeframe.

This methodology applies to all time frames in accordance with article 31(2) of the FCA Regulation

2. The Danish TSO shall apply the following procedure when calculating and issuing the amount of LTTRs for each different time frames:
  - a. Once a year and no later than December 15<sup>th</sup> of the previous year, the amount of LTTRs with a yearly time frame shall be calculated and issued to the market.
  - b. Once a month and no later than two working days prior to the monthly allocation, the amount of LTTRs with a monthly time frame shall be calculated and issued to the market.
  - c. In case other time frames than year and month are introduced, the amount of LTTRs within that time frame shall be calculated and issued to the market no later than two working days prior to the allocation in the month before the time frame of where the LTTRs apply.

**Article 4**  
**Methodology for taking underselling into account**

1. Underselling is defined as a situation where the marginal price of LTTR determined in the public auction of LTTRs, for a given time frame is lower than the average day ahead price spread used as the reference price for settlement of the LTTRs. Marginal price and price spread are directional.
2. The total amount of LTTRs (MW) to be allocated to the market shall be set in order to balance the efficiency of allocating LTTRs and the in-efficiency of underselling, by managing the risk of underselling, hence the amount of LTTRs will be equal to or lower than the capacity calculation for the long time frame.
3. The general methodology for taking underselling into account shall be done by setting the amount of LTTRs (MW) where the historical average day ahead price spread is equal to the historical marginal auction price. This shall be done by using historical data cf. article 5(3).

**Article 5**  
**Methodology for splitting long-term cross-zonal capacity**

1. The total amount of LTTR's for all time frames to be allocated, cf. article 4(2) shall be split between the different time frames in accordance to hedging needs of market participants and in accordance with article 16 of Regulation (EU) 2016/1719 establishing a guideline on forward capacity allocation.
2. Energinet shall assess the needs of the market every 3<sup>rd</sup> year, based on input from market players, where the first assessment shall be done no later than three years after this regulation is into force.
3. For the first three years of allocating LTTRs, based on this regulation, the calculation of amount of LTTRs for each time frame shall be done in the following way:
  - a. The sum of LTTRs for all time frames for each year,  $t = 1, 2$  and  $3$  shall be set where the historical average monthly marginal prices of LTTRs for the previous 12 months is equal to the historical monthly average day ahead price spread for the previous 12 months.
  - b. A split of equal shares of the total amount of LTTRs will be applied for the different time frames in accordance with article 31(2) of the FCA Regulation, e.g. a 50/50 if the number of time frames are two.
4. For the fourth and subsequent years of allocating LTTRs, based on this regulation, the calculation of amount of LTTRs for each time frame shall be done in the following way:
  - a. For the yearly time frame,  $t_y$ , the amount of LTTRs ( $MW_{t_y}$ ) that secures that the historical average day ahead price spread is equal to the historical marginal auction price for the last 3 years before the deadline for issuing LTTRs, cf. article 3(2), shall be identified.
  - b. The amount of LTTRs to be allocated, shall be calculated as  $MW_{t_y} \times 1/\text{number of time frames in total}$  in accordance with article 31(2) of the FCA Regulation, where e.g.  $1/\text{number of time frames}$  is equal to 50% if the number of time frames are two.
  - c. For the monthly time frame,  $t_m$ , the amount of LTTRs ( $MW_{t_m}$ ) that secures that the historical average day ahead price spread is equal to the historical average marginal auction price for the last 12 month before the deadline for issuing LTTRs, cf. article 3(2), shall be identified.
  - d. The amount of LTTRs to be allocated, shall be calculated as  $MW_{t_m} \times 1/\text{number of time frames in total}$  in accordance with article 31(2) of the FCA Regulation, where e.g.  $1/\text{number of time frames}$  is equal to 50% if the number of time frames are two.
  - e. In case other time frame(s),  $t_o$ , than the yearly and the monthly time frames, is introduced, the amount of LTTRs to be allocated for this time frame, shall:
    - i. Be calculated with their respective historical auction results relevant for the time frame using 12 historical time frames as soon as there are enough historical auctions available. The amount of LTTRs to be allocated, shall be calculated as  $MW_{t_o} \times 1/\text{number of time frames in total}$  in accordance with article 31(2) of the FCA Regulation, where e.g.  $1/\text{number of time frames}$  is equal to 33% if the number of time frames are three.
    - ii. Until 12 historical auctions are available for the time frame in question the volume shall be calculated as  $(MW_{t_y} + MW_{t_m}) \times 1/\text{number of time frames in total}$ , where  $MW_{t_y} + MW_{t_m}$  is the sum of LTTRs in case only monthly and yearly time frames was continued to be the only time frames.
5. In case new bidding zones border(s) with LTTRs are introduced in Denmark, the total amount of LTTRs for the first year of allocation shall be set to 50% of the capacity calculated according to the methodology for long term capacity calculation and splitting of LTTRs between the timeframes shall be done as equal shares, where the share for each of the time frames shall be  $1/\text{number of time frames}$ .

In subsequent years the amount of LTTRs for each time frame shall be calculated according to article 4(e)(ii)

**Article 6**  
**Rules for avoiding undue discrimination of access to purchase of long term transmissions right**

1. In accordance with article 16(2c) of Regulation (EU) 2016/1719 establishing a guideline on forward capacity allocation there shall be no restrictions on the access to purchase LTTRs that lead to undue discrimination of access to purchase LTTRs or undue restrictions in competition between purchasers of LTTRs in the auctions of LTTRs.
2. All market players shall be given access to purchase LTTRs if they fulfil the general condition set out in Chapter 2 and 3 of the Harmonised Allocation Rules.

**TITLE 3**  
**Methodology for the validation of cross-zonal capacity allocated as LTTR's for long-term time frame**

**Article 7**  
**Methodology for the validation of cross-zonal capacity allocated as transmissions rights**

1. Energinet shall perform the validation of amount of LTTRs on its bidding zone border(s) to ensure that the results of regional calculation of LTTRs and splitting between time frames will ensure operational security. When performing the validation, the TSO shall consider operational security, taking into account new and relevant information obtained during or after the most recent capacity calculation.

**TITLE 5**  
**Miscellaneous**

**Article 8**  
**Monitoring data to the national regulatory authorities**

1. All technical and statistical information related to this CCM shall be made available upon request to the NRAs in the CCR Nordic.
2. Any data requirements should be managed in line with confidentiality requirements pursuant to national legislation.

## Article 9 Publication of data

1. The TSOs shall, in compliance with national legislation and in accordance with Article 3(f) of the FCA Regulation, and in addition to the data items and definitions of Transparency Regulation, publish the following on a regular basis and as soon as possible:
  - a) The marginal auction price for each time frame
  - b) The demand curve for LTTRs for each time frame

## Article 10 Capacity calculation process

1. Within the capacity calculation process, reduction periods may be defined in accordance with HAR article 30. The reduction periods will not be taken into account when using the MSR cf. Article 4 and 5.
2. When the amount of LTTRs are provided to the SAP for the auction the reduction periods will be included in the final product. This ensures that the final product allocated to the market via the SAP includes reduction periods as given by the capacity calculation process.
3. The capacity calculation process for the long-term time frame is shown in Figure 1. The figure identifies the roles of the entities involved, and the input and output data in the capacity calculation process.

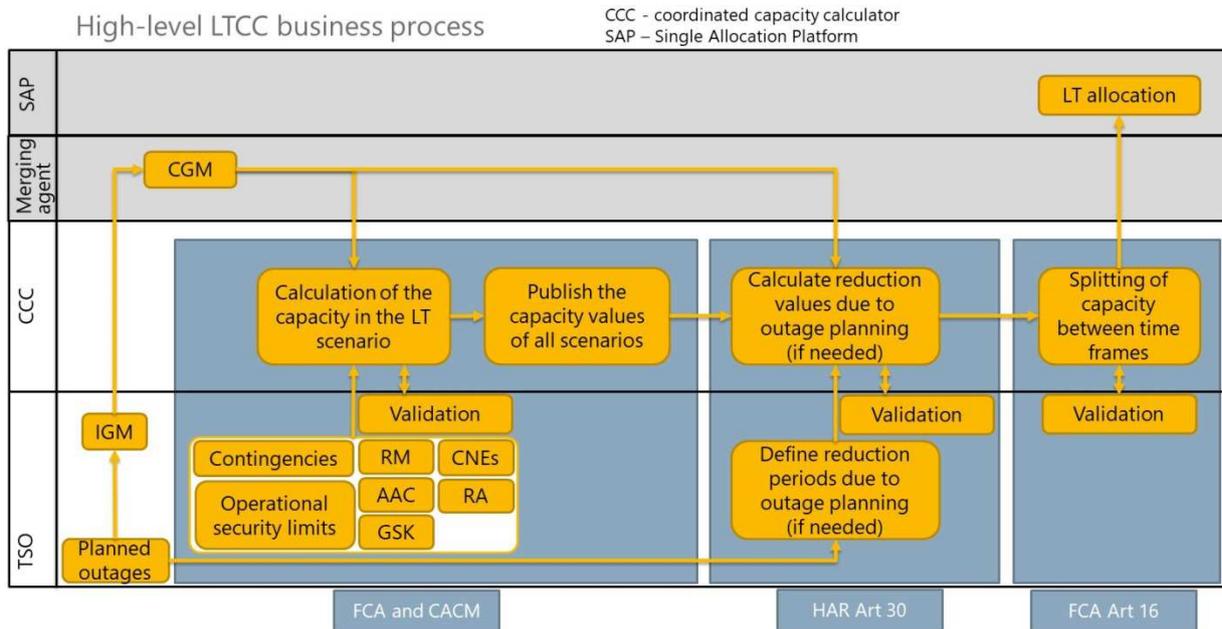


Figure 1. Roles of the entities involved, and input and output data, in the capacity calculation process for the long-term time frame. SAP means Single Allocation Platform, and the Merging agent delivers the CGM. LT means long-term and HAR means Harmonised Allocation Rules in accordance with Article 51 of the FCA Regulation.

**TITLE 6**  
**Final provisions**

**Article 11**  
**Publication and Implementation**

1. Energinet shall publish the MSR without undue delay after the Danish NRA has approved the MSR or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 4(9), Article 4(10) and Article (11) of the FCA Regulation regarding the methodology.
2. The methodology will be implemented at the same time of the implementation of methodology for long term capacity calculation or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 4(9), Article 4(10) and Article (11) of the FCA Regulation regarding the methodology

**Article 12**  
**Language**

The reference language for this CCM shall be English. For the avoidance of doubt, where TSOs need to translate this CCM into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 4(13) of the FCA Regulation and any version in another language, the relevant TSOs shall be obliged to dispel any inconsistencies by providing a revised translation of this CCM to their relevant national regulatory authorities.