

Explanatory document to the Core CCR TSOs' methodology for splitting long-term cross-zonal capacity in accordance with article 16 of the Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation

For public consultation



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## 1. INTRODUCTION

In accordance with article 16 of Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (hereinafter referred to as "FCA Regulation"), the Core TSOs developed a methodology for splitting of long-term cross-zonal capacity. This methodology is hereinafter referred to as "Core TSOs' Long-Term Splitting Methodology".

Objective of the Core TSOs' Long-Term Splitting Methodology is to comply with the provisions set in the FCA Regulation.

The aim of this explanatory note is to provide additional information on the Core TSOs' Long-Term Splitting Methodology where Core TSOs deemed as necessary.

### 2. COORDINATED CAPACITY CALCULATION AS INPUT

Based on Core TSOs' decision in accordance with article 10(2) of the FCA Regulation, the approach used in the Core TSOs' Long-Term Capacity Calculation (LT CC) Methodology shall be a coordinated net transmission capacity approach.

Core TSOs have decided to apply a security analysis based on multiple scenarios and using the capacity calculation inputs, the capacity calculation approach referred to in article 21(1)(b) and the validation of cross-zonal capacity referred to in article 21(1)(c) of Regulation (EU) 2015/1222.

In accordance with article 19 of the FCA Regulation, where a security analysis based on multiple scenarios is applied, the Core TSOs shall jointly develop a common set of scenarios to be used in the common grid model for each long-term capacity calculation time frame. For the long-term capacity calculation for both time frames as defined in article 6 of the Core TSOs' regional design of long-term transmission rights in accordance with article 31 of the FCA Regulation, the Core TSOs shall use the annually created ENTSO-E year-ahead reference scenarios (i.e. default scenarios) defined in article 3(1) of the CGM methodology for long-term time frames which was developed in accordance with article 18 of the FCA Regulation. In accordance with CGM methodology these scenarios contain: forecast situation(s) comprising grid topology, operational limits, forecasted situation for generation, and forecasted situation for load.

For each scenario, the individual grid model shall be established by each TSO in accordance with article 20 of the FCA Regulation, in order to merge individual grid models into a common grid model. Each TSO shall deliver to the RSCs responsible for merging the individual grid models into a common grid model the most reliable set of estimations practicable for each individual grid. Then the Individual grid models shall be merged into a common grid model in process pursuant to article 22 of the CGM methodology for long-term time frames.

Coordinated capacity calculation process utilizes database of planned outages. All TSOs' (Continental Europe Synchronous Area) planned outages are stored and regularly updated in Outage Planning Coordination (OPC) database. The year-ahead and month-ahead capacity calculation shall be performed using these outage data amended in OPC database.

The Core TSOs select the two timestamps each month with the largest amount of simultaneously planned outages in the Core CCR, one for peak hours and one for off-peak hours. For each timestamp, the CGM is updated according to outages selection. Capacity calculation is executed by Coordinated Capacity Calculators (CCCs) for each timestamp.

After capacity calculation, minimum cNTC (one value) will be the final constant cNTC value for the respective predefined sub period (e.g. month) within the year. This means that the yearly cNTC have twelve sub periods with one constant value per e.g. month (in total twelve). Given these calculated values and given the finalization of the validation process, the sub periods with different NTCs can be transferred into a stable bound, called "Yearly cNTC". The Yearly cNTC is used as a starting point for the Core TSOs' Long-Term Splitting Methodology.

In accordance with article 30 of the harmonised allocation rules (HAR), the single allocation platform may announce one or more Reduction Periods in the Auction Specification. Therefore, the Yearly cNTC may contain reduction periods.

Article 10(4) of the FCA Regulation states that uncertainty associated with long-term capacity calculation time frames shall be taken into account. Therefore, the long-term capacity calculation methodology includes an approach to determine the reliability margin in accordance with article 11 of the FCA Regulation. Reliability margin means the reduction of cross-zonal capacity to cover the uncertainties within capacity calculation.

Calculated monthly capacity can differ in both directions (i.e. higher or lower) from calculated yearly capacity due to better information for the monthly time frame calculation.

# 3. TREATMENT OF CAPACITY RESERVATION FOR THE DAY-AHEAD TIME-FRAME

According to article 2.6 of Annex 1 to Regulation (EC) 714/2009, TSOs shall define an appropriate structure for the allocation of capacity between different time frames. This may include an option for reserving a minimum percentage of interconnection capacity for daily or intra-daily allocation. Such an allocation structure shall be subject to review by the respective regulatory authorities.

TSOs may want to reserve a minimum percentage of interconnection capacity for daily or intra-daily allocation in case Physical Transmission Rights are implemented as long-term products. In this case, if capacity is nominated, it will not be available for daily or intra-daily allocation. Nevertheless, with the introduction of FTRs on a bidding zone border this issue disappears.

Another reason to reserve a minimum percentage of interconnection capacity for daily or intra-daily allocation can be the occurrence of underselling. Underselling is defined as a situation where the marginal price of Long-Term Transmission Rights (LTTRs) 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. The total amount of LTTRs (in megawatts) to be allocated to the market could be set in order to balance the efficiency of allocating LTTRs and the in-efficiency of underselling by setting the amount of LTTRs (in megawatts) where the historical average day-ahead price spread is equal to the historical marginal auction price.

Even though Core TSOs do not assess the reservation of a minimum percentage of interconnection capacity for daily or intra-daily allocation to be within the scope of the Core TSOs' Long-Term Splitting Methodology, but rather as an individual TSOs' task to be coordinated with the respective neighbouring TSOs and to be reviewed by the respective relevant regulatory authorities, before the Core TSOs' Long-Term Splitting Methodology is applied, Core TSOs decided to indicate this day-ahead reservation possibility in the definition of Initial Long-Term Capacity in article 2(2a) of the Core TSOs' Long-Term Splitting Methodology.

## 4. SPLIT APPROACH

### 4.1. Example for the splitting approach

According to the proposed splitting rules by Core TSOs, the offered yearly cross-zonal capacity volume shall be derived directly from the LTCC output (as determined in the Core TSO's Long-Term Capacity Calculation Methodology). As it is depicted below, the stable baseload product shall be defined including some reduction periods, if they are justified on technical bases. After the yearly cross-border baseload capacity is defined by LTCC the splitting methodology shall be applied throughout the whole year. It means that 50% of the yearly baseload cross-zonal capacity product shall be allocated via the yearly allocation time frame. Then monthly capacity calculations will be performed and the full amount of the calculated monthly cross-zonal capacity, reduced by those capacities already allocated to the yearly timeframe and increased by returned capacity from the yearly time-frame, shall be allocated at the subsequent monthly allocation.



Figure 1: Example picture for the offered capacities in the yearly auction (green bars).

### 4.2. Long-term splitting processes

A detailed description of the overall long-term capacity calculation and splitting processes can be found in the picture below. In the Core CCR, the long-term time frames are the annual and the monthly time frames. Therefore, the splitting process is performed only after the calculation of the annual cross-zonal capacity.



Figure 2: Process chart for LT Splitting (note: shaded out process steps are process steps of the LT CC).

Three inputs are necessary for the computation of the split:

- 1. the split ratio, i.e. 50 %,
- 2. the yearly stable band for the annual time frame, issued from the capacity calculation;
- 3. the amount of capacity reserved for the day-ahead time frame, if provided.

The output of the split computation is the cross-zonal capacity to be offered to the annual capacity allocation. This annual capacity shall be validated by Core TSOs in accordance with article 24 of the FCA Regulation before being provided to the Single Allocation Platform.

# 5. MEETING OF LEGAL REQUIREMENTS

With the chosen splitting approach, Core TSOs believe to have met legal requirements. Central requirements for the Core TSOs' Long-Term Splitting Methodology are set in article 16(2) of the FCA Regulation:

"The methodology for splitting long-term cross-zonal capacity shall comply with the following conditions:

- (a) it shall meet the hedging needs of market participants;
- (b) it shall be coherent with the capacity calculation methodology;
- (c) it shall not lead to restrictions in competition, in particular for access to longterm transmission rights."

In the following it is explained how Core TSOs see these requirements met.

#### 5.1. Meeting Market Participants Hedging Needs:

In general it is difficult to evaluate the effective hedging needs of market participants (MPs) because the strategy of hedging for each company strongly depends on several facts and assumptions like the individual need of energy (physical need or pure trading) by a company, their own portfolio planning over time intervals (long-term and short-term), average traded volume, expected production and consumption of energy which is especially relevant for renewables, the expected grid situation and therefore available capacities and many others. Furthermore, for each trading company this is one of the key-assets to generate income and therefore providing too many details on their real hedging needs respectively bidding strategy for different time frames might risk their income.

Assuming an effective liquid market and no exceptional incidents, it could be postulated that on average the prices at day-ahead markets shall be quite similar to the prices for LT-hedging products, because market expectations were fulfilled on day-ahead without the need of risk contingency. However, if day-ahead market is predominant more expensive than a LT-product (overselling), this is probably an indicator that too much capacity of such LT-product was allocated which results for the traders in a structural profit (remuneration cost by Market Spread is typically higher than the price of a LT-product). On the other hand if the LT-price is higher than average price in day-ahead market, fluctuations and risks of day-ahead market seems not to be sufficiently considered by allocated LT hedging opportunities. This finally results in the fact, that from market aspect it is not per se the optimum of hedging, if all available LT-capacity is allocated as soon as possible, as it was requested by majority of traders. Moreover, a split of available LT capacity could be more effective to consider the hedging needs of all MPs with their very different needs (e.g. for long term portfolio trading as well as for the need to hedge against price risks e.g. for contractual short term physical delivery of energy). Other arguments to have sufficient capacity also for monthly products are, that with monthly product the market has more flexibility to react on structural changes of prices than by yearly products and last but not least also MPs which were not successful in the yearly auction (or start their trading activities during a year) also need and should have the possibility for hedging against their risks. Therefore, the provision of sufficient LT-capacity by monthly products has to be assured by any proposed splitting methodology.

### 5.2. Coherence with Capacity Calculation

Core TSOs use the result of the long-term capacity calculation in accordance to article 10 of the FCA Regulation, subject to potential day-ahead reservation, as starting point for the splitting between subsequent allocation time frames. By this it is ensured that not more capacity is allocated to the markets by the split approach than what is considered as secure capacity based on the long-term capacity calculation outcomes. Further, in case it turns out that capacity that was split to subsequent time frames is no longer available based on results of subsequent long-term capacity calculation processes, this capacity is no longer offered to the allocation processes. In other words, this means that TSOs only offer e.g. split to monthly auctions capacity, if the monthly long-term capacity calculation proves that this capacity is still available. By this approach, Core TSOs see this requirement met.

#### 5.3. Ensuring Non-Discrimination

Core TSOs see this requirement in principle met sufficiently by the fact that the allocation of long-term transmission rights is run in a harmonised matter based on the harmonised allocation rules according to article 51 of the FCA Regulation via the Single Allocation Platform according to article 48 of the FCA Regulation. Nevertheless, Core TSOs took care that the splitting rules do not constitute asymmetric discrimination potentials due to the interaction of the Core TSOs' Long-Term Splitting Methodology and the harmonised allocation rules and all related procedures connected to them.

### 6. IMPLEMENTATION

The implementation of the Core TSOs' Long-Term Splitting Methodology will follow the implementation of the Core TSOs' Long-Term Capacity Calculation Methodology, elaborated in accordance with article 10 of the FCA Regulation. As Core TSOs, at the moment of the implementation of the Core TSOs' Long-Term Splitting Methodology, will only issue yearly and monthly LTTRs on their bidding zone borders, the splitting can only apply between the yearly and the monthly time frames. This means that the earliest point in time when the Core TSOs' Long-Term Splitting Methodology can be applied is once the results of the first capacity calculation for the yearly time frame following the date of approval by relevant NRAs are available. At the moment Core TSOs expect the first application of the Core TSOs' Long-Term Splitting Methodology for the allocation time frame 2021. The proposed implementation plan of the Core TSOs' Long-Term Splitting Methodology, the available long-term capacity being the starting point for the Long-Term Splitting Methodology.

# 7. PUBLIC CONSULTATION REPORT

<to be added after Public Consultation>