Process description to the Hansa 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 (FCA)

22 April 2020

1. Introduction

On the 16th of April 2020, the Hansa NRAs jointly requested a detailed description of the application of the capacity ratio split, on the following aspects:

- The proportions of the calculated long-term capacity made available on the yearly and monthly timeframe,
- the change in capacities allocated during the year (on the monthly time frame) by recalculation and re-distribution of returned / non-allocated capacities,
- providing a flow chart to illustrate the capacity ratio split, and
- presenting a numerical example.

Also it is requested to give clarity on the question whether the capacity split ratio is only applied to the calculated long-term capacity or also on the already determined proportions.

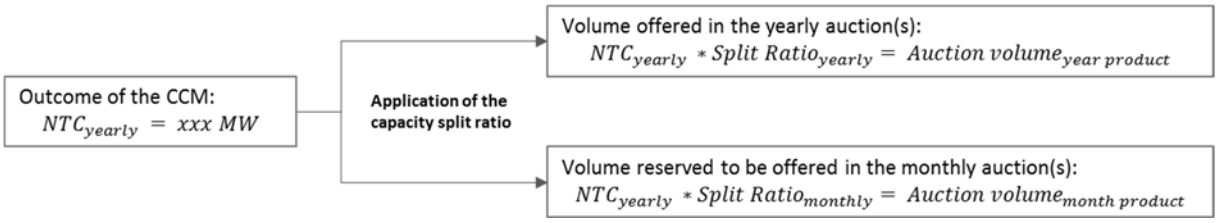
To provide clarity on the above topics, this document provides a description of the foreseen capacity split sequence and provides a numerical example of said process.

2. Capacity splitting process

Yearly capacity split

The starting point for the determination of the volume of the yearly product is the cross-border capacity available on a full-year basis. This capacity could either be the outcome of the CCR Hansa long-term capacity calculation methodology in line with FCA Article 10 or the bi-lateral determination of cross-border capacity on the individual borders. The latter will be used in the intermediate period between the entry into force of the splitting rules methodology (foreseen for the products sold for 2021) and the go-live date of the long term capacity calculation methodology (go-live date not yet determined).

The Capacity Split Ratio will be applied on the net cross-border capacity (NTC):



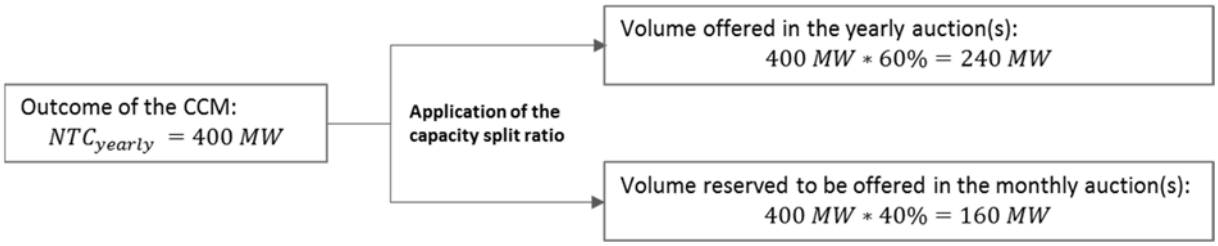
The resulting volume for the yearly auction(s) will be auctioned before the start of the calendar year. As such, all capacity, except for potentially returned or non-allocated capacity, can be considered allocated in the proceeding process.

The monthly auction(s) volume is 'reserved' to be sold in the auction(s) of the monthly products. Only the monthly products of January, and possibly February, are foreseen to be auctioned before the start of the calendar year. Therefore, most of the monthly capacity will not be allocated before the start of the calendar year and hence can be considered 'reserved'.

Numerical example of the yearly capacity split

1. Calculation of the Yearly NTC according to the Hansa long-term capacity calculation methodology: Yearly NTC = 400 MW

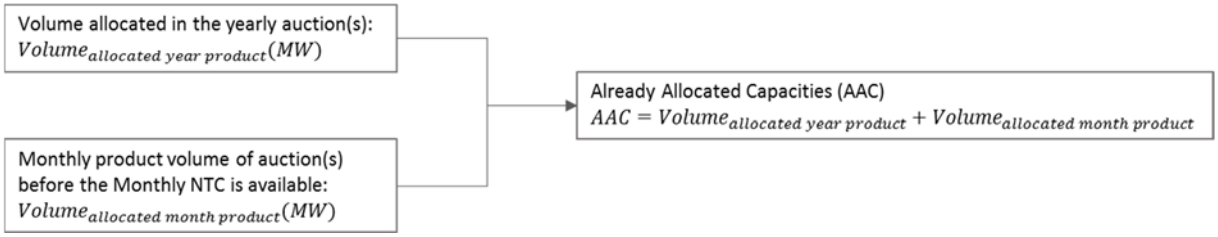
2. Application of the capacity split ratio of 60% for the yearly time frame auction(s) and 40% for the monthly time frame auction(s). The offered total volume in the yearly auction(s) of 400 MW * 60% = 240 MW



Determination of the Already Allocated Capacity

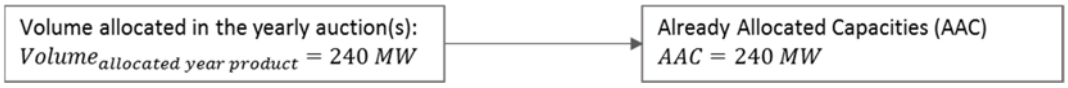
An important input to the monthly capacity split and the determination of the Monthly ATC (as shown in the next section), is the Already Allocated Capacity (AAC). It determines the part of the capacity of the Monthly NTC which is already allocated in auctions in earlier time frames, and hence limits the capacity still available for auction in the monthly (or shorter) time frame. In case only yearly products are auctioned before the availability of the Monthly NTC, the determination is straightforward.

However, it is to be expected that for some Hansa bidding-zone borders part of the available capacity for the monthly products will be sold before the Monthly NTC is available (e.g. 6/8 weeks before the start of the product period). Consequently, the already allocated capacity will consist of multiple elements. In practice, the allocated capacity from these 'early' monthly product auctions has to be considered allocated capacity together with the allocated yearly products.



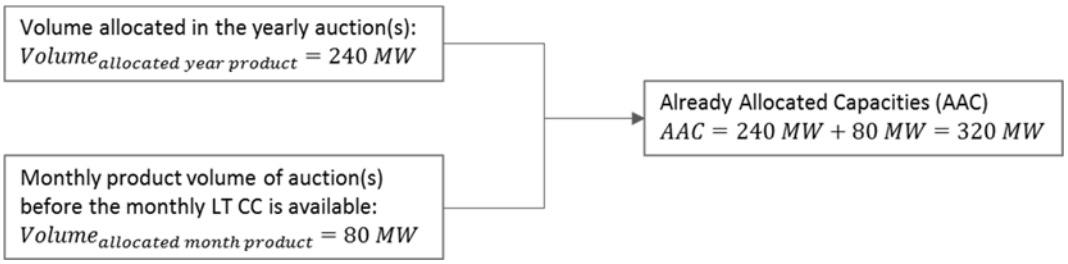
Numerical example of the already allocated capacity determination

In case only yearly products are auctioned before the Monthly NTC becomes available, the determination of the already allocated capacity is straightforward.



In case other auctions are performed before the availability of the Monthly NTC, the already allocated capacities will be composed from the allocated capacities of multiple auctions.

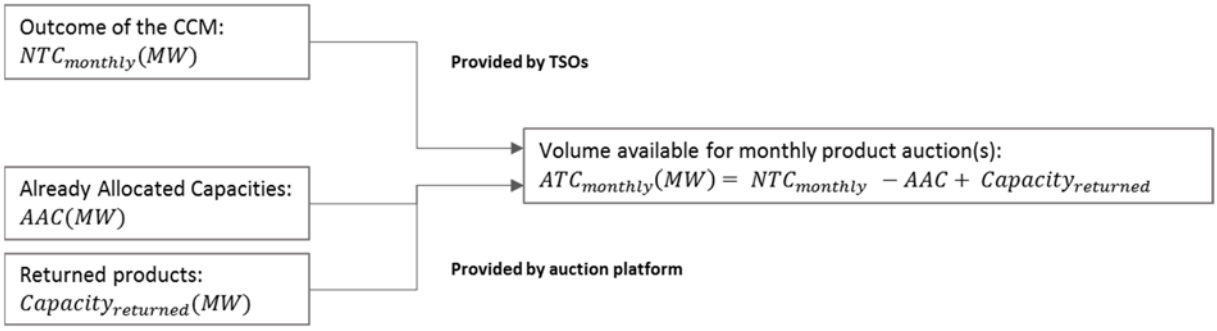
For example, the volume reserved for the monthly product will be sold in two equal volume auctions. One auction (80 MW) before the availability of the Monthly NTC and one auction afterwards. This results in a total already allocated capacity of 320 MW.



Monthly capacity split

To determine the capacity available for the monthly time frame auction(s), multiple inputs are required. Firstly, the Monthly NTC, the outcome of the long-term capacity calculation, which, in line with the Hansa long term capacity calculation methodology will be (re)performed on a monthly basis. Due to using more up-to-date information, the outcome of the monthly calculation might differ from the yearly calculation (Yearly NTC).

Secondly, the already allocated capacity (AAC) has to be taken into account. As shown in the previous section, the already allocated capacity can consist of capacity auctioned in several product periods. Lastly, market parties that hold already allocated capacity from earlier auctions have the possibility to return their acquired long term transmission rights. This 'returned capacity' will be added to the available net transfer capacity again.



Two remarks to this can be made; the first on non-allocated capacity. In the (rare) case that part of the volume in an auction is not allocated, it is implicitly taken into account in the determination of the Monthly ATC, as the AAC will be lower than the total volume offered in the corresponding auctions.

Second, the volume originally reserved for the monthly auctions after the split of the Yearly NTC, can end up in two places in the above figure. In case of auctions of monthly products before the monthly NTC is known, part of this 'reserved' capacity will end up in the already allocated capacity. The other part is still available and, also dependent on the outcome of the monthly capacity calculation, will end up as Monthly ATC.

Currently, only one product with a product period shorter than or equal to a month will be offered, the monthly product. Hence, the Monthly ATC does not need to be split and all capacity will be offered in monthly auction(s). One could say the 'monthly capacity split ratio' for the Monthly ATC is 100% to the monthly product.

Based on the Monthly NTC, the AAC's and the returned capacity, the outcome of the determination of the Monthly ATC knows several possibilities:

The Monthly NTC is larger than or equal to the Yearly NTC

In this case, the resulting Monthly ATC will be higher than zero. If the Monthly NTC is equal to the Yearly NTC, the total volume of monthly products sold will be in line with the yearly Capacity Split Ratio (except for any influence of returned capacity).

If the Monthly NTC is higher than the Yearly NTC, the additional volume between the Monthly NTC and Yearly NTC can be auctioned as monthly products as well. Hence, the total volume of monthly products sold will be higher than expected based on the yearly Capacity Split Ratio.

In both cases, any capacity from returned products will lead to a higher Monthly ATC and therefore enlarges the offered volume of monthly products.

The Monthly NTC is smaller than the Yearly NTC but larger than the already allocated capacity

In this case, the resulting Monthly ATC will be higher than zero. As such, there will be additional monthly products sold. However, the total volume of monthly products sold will be lower than based on the Yearly NTC was to be expected. Any capacity from returned products will lead to a higher Monthly ATC and therefore enlarges the offered volume of monthly products.

The Monthly NTC is smaller than the Yearly NTC and smaller than the already allocated capacity

In this case, the resulting Monthly ATC will be zero or lower than zero. Already more long term capacity is allocated than available. In accordance with Article 16(2)b of the FCA and Article 4 of the Splitting Rules Methodology, no additional capacity will be auctioned. The excess capacity (the difference between the Monthly NTC and AAC) that is already allocated is at the responsibility of the relevant TSOs.

In this case, the capacity from returned products could cause the Monthly ATC to rise above zero. In this case, the volume above zero can still be offered in an auction. In case the Monthly ATC continues to be below zero, no additional volume will be auctioned.

As shown in the above possibilities (and accompanying numerical examples below), the resulting capacity division between products depends on several elements; the Capacity Split Ratio (yearly and if applicable, monthly), the Yearly NTC and Monthly NTC and the capacity of non-allocated or returned products. Hence, it is impossible to determine year-ahead the final capacity division between the various products, as not all information is known at that point in time.

Numerical examples of the monthly capacity split

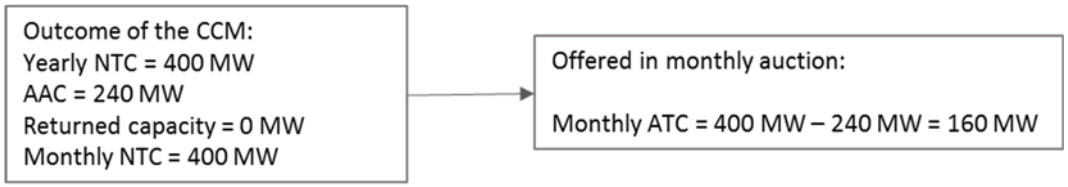
Monthly NTC is equal to the Yearly NTC:

1. Calculation of the Yearly NTC according to the Hansa long-term capacity calculation methodology: Yearly NTC = 400 MW.

2. The calculation of the Monthly NTC according to the Hansa long term capacity calculation methodology results in the same available cross-border capacity: Monthly NTC = 400 MW.

3. Assuming the yearly capacity offered as yearly products (240 MW) is fully allocated, no monthly products are auctioned before the availability of the Monthly NTC and no capacity is returned, the already allocated capacity is subtracted from the Monthly NTC. Resulting in an available remaining monthly capacity of 160MW.

4. As there are only monthly products, all capacity will be offered in the monthly auction.



5. The total volumes of long-term transmission products auctioned during the year (omitting the potential impact of non-allocated capacity or returned capacity) can be determined ex-post and resulted in:

Yearly product: 240 MW
Monthly product: 160 MW

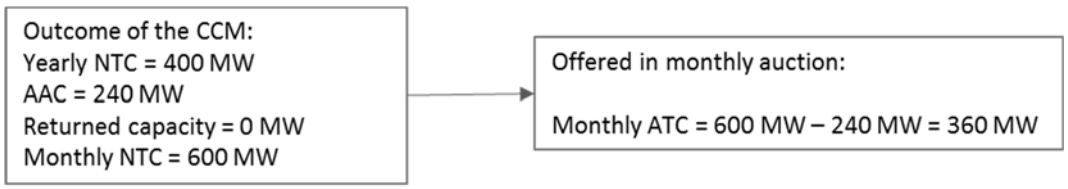
Monthly NTC is larger than the Yearly NTC:

1. Calculation of the Yearly NTC according to the Hansa long-term capacity calculation methodology: Yearly NTC = 400 MW.

2. The calculation of the Monthly NTC according to the Hansa long term capacity calculation methodology results in an increased available cross-border capacity: Monthly NTC = 600 MW.

3. Assuming the yearly capacity offered as yearly products (240 MW) is fully allocated, no monthly products are auctioned before the availability of the Monthly NTC and no capacity is returned, the already allocated capacity is subtracted from the Monthly NTC. Resulting in an available remaining monthly capacity of 360 MW.

4. As there are only monthly products, all capacity will be offered in the monthly auction.



5. The total volumes of the long-term transmission products auctioned during the year (omitting the potential impact of non-allocated or returned capacity) can be determined ex-post and resulted in:

Yearly product: 240 MW
Monthly product: 360 MW

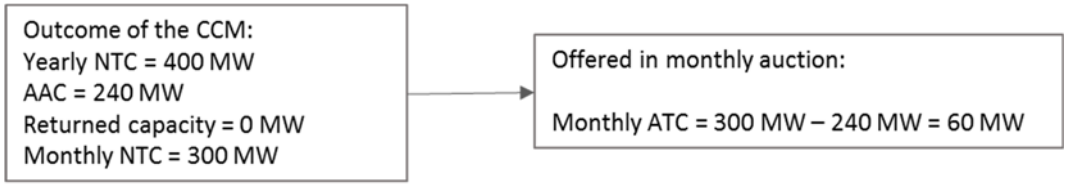
Monthly NTC is smaller than the Yearly NTC but larger than the already allocated flows:

1. Calculation of the Yearly NTC according to the Hansa long-term capacity calculation methodology: Yearly NTC = 400 MW.

2. The calculation of the Monthly NTC according to the Hansa long term capacity calculation methodology results in a decreased available cross-border capacity: Monthly NTC = 300 MW.

3. Assuming the yearly capacity offered as yearly products (240 MW) is fully allocated, no monthly products are auctioned before the availability of the Monthly NTC and no capacity is returned, the already allocated capacity is subtracted from the Monthly NTC. Resulting in an available remaining monthly capacity of 60 MW.

4. As there are only monthly products, all remaining capacity will be offered in the monthly auction.



5. The total volumes of the long-term transmission products auctioned during the year (omitting the potential impact of non-allocated or returned capacity) can be determined ex-post and resulted in:

Yearly product: 240 MW
Monthly product: 60 MW

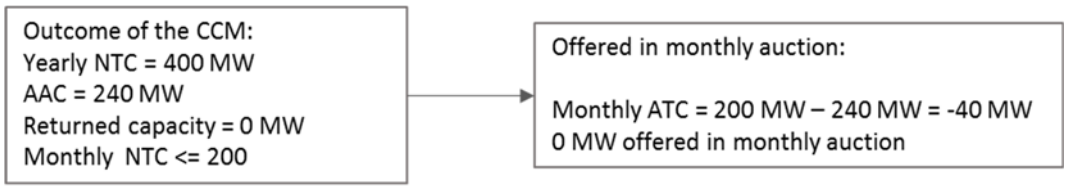
<u>Monthly NTC is smaller than the Yearly NTC and smaller than the already allocated capacity:</u>

1. Calculation of the Yearly NTC according to the Hansa long-term capacity calculation methodology: Yearly NTC = 400 MW.

2. The calculation of the Monthly NTC according to the Hansa long term capacity calculation methodology results in an decreased available cross-border capacity: Monthly NTC = 200 MW.

3. Assuming the yearly capacity offered as yearly products (240 MW) is fully allocated, no monthly products are auctioned before the availability of the Monthly NTC and no capacity is returned, it is clear that the already allocated capacity is larger than the available cross-border capacity. Hence, no additional capacity is available to be offered as long term rights.

4. As there is no monthly capacity left, no monthly products will be auctioned. The excess already allocated capacity exceeding the Monthly NTC is the responsibility of the relevant TSOs.



5. The total volumes of the long-term transmission products auctioned during the year (omitting the potential impact of non-allocated or returned capacity) can be determined ex-post and resulted in:

Yearly product: 240 MW
Monthly product: 0 MW

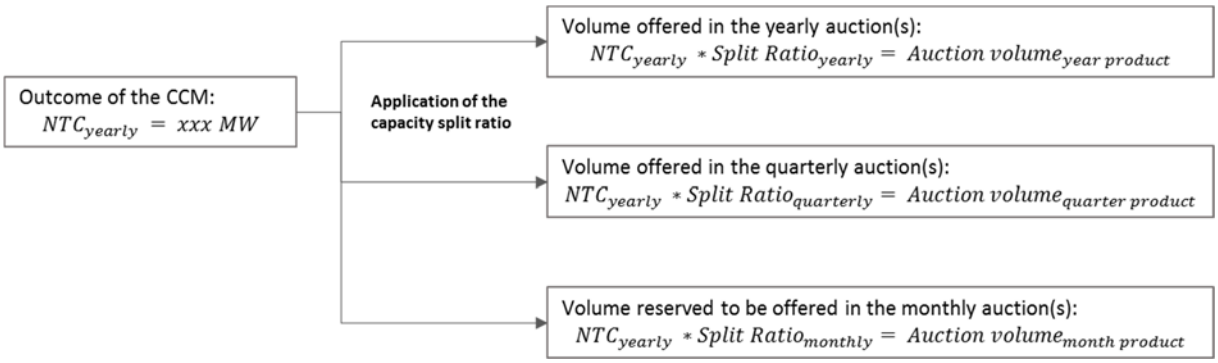
3. Adjustment of the capacity split process in case of additional products

Only yearly and monthly products are currently offered for auction on the applicable CCR Hansa borders. In case this would be extended to other products, the split process would need to be changed accordingly with a request for amendment of the Splitting Rules methodology.

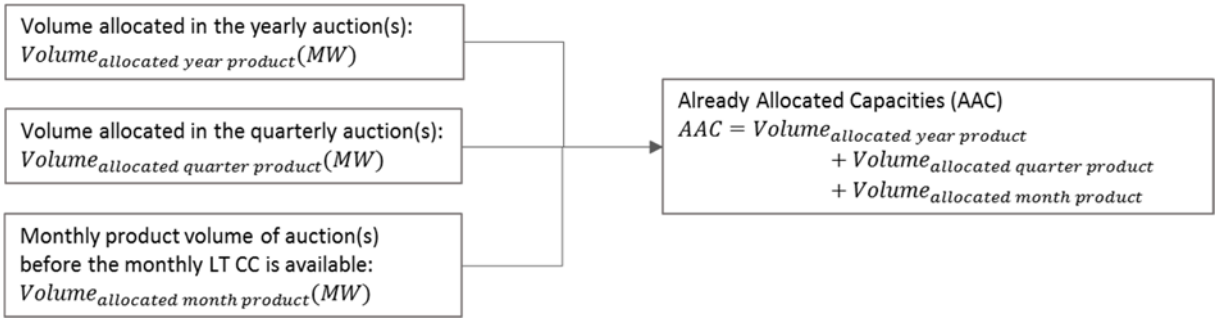
Currently, there are no plans to introduce additional products on the Hansa bidding zone borders offering long-term transmission rights. However, to show the current methodology does foresee in the possibility of this, a potential implementation of additional products is shown in this section.

For example, in case of a quarterly product, this product can only be sold on the basis of the available yearly capacity, as its timespan is longer than a month. It is likely that the capacity split ratio of the yearly capacity will consist of three elements:

$$Split\ Ratio_{yearly}(\%) : Split\ Ratio_{quarterly}(\%) : Split\ Ratio_{monthly}(\%)$$



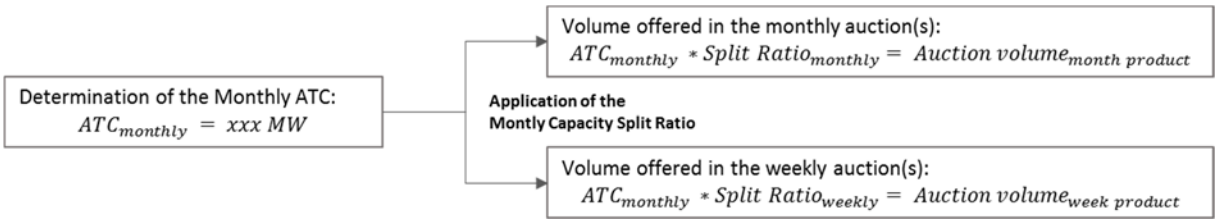
This would also impact the determination of the already allocated capacity:



Additionally, also products with a product period shorter than one month can be introduced, for example a weekly product. For such a product, the determination of the Monthly ATC can stay similar to the way described above.

However, since the Monthly ATC now would have to be split into multiple products, a 'Monthly Capacity Split Ratio' would need to be introduced, with which the Monthly ATC can be split. In this case, the total final volume of monthly products would be the volume determined below together with the already allocated monthly products.

$$Split\ Ratio_{monthly}(\%) : Split\ Ratio_{weekly}(\%)$$


Determination of the Monthly ATC:
$ATC_{monthly} = xxx\ MW$
Application of the
Montly Capacity Split Ratio
Volume offered in the monthly auction(s):
$ATC_{monthly} * Split\ Ratio_{monthly} = Auction\ volume_{month\ product}$
Volume offered in the weekly auction(s):
$ATC_{monthly} * Split\ Ratio_{weekly} = Auction\ volume_{week\ product}$