Structure for the Allocation of Capacity among different Timeframes for Portuguese – Spanish Interconnection

Version 1.0

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1. Introduction and context

This document presents the general common criteria for the definition of the cross-border capacity products to be offered at each timeframe (annual, quarter and month) for Portugal-Spain Interconnection (IPE), as a function of the Net Transfer Capacity (NTC).

2. General criteria for distribution of capacity in the different timeframes

REN and REE calculate and agree on the Net Transfer Capacity forecast at different horizons which have impact in the capacity that is auctioned:

- Yearly forecast in late November of the preceding year;
- Quarterly forecast around the 5th of the last month of the preceding quarter;
- Monthly forecast around the 20th of the preceding month.

Each forecast of the Net Transfer Capacity can be revised at the initiative of one TSO, in case of an unpredicted event or under a significant deviation in some of the parameters with influence in the NTC calculation, with regard to their previous forecast.

In order to offer to market players standard and tradable products, TSOs divide the Net Transfer Capacity value into different products to be offered to market players by the means of auctions. For the Portugal – Spain interconnection, REN and REE will offer FTR products corresponding to long term horizon (annual, quarter and month). For the daily horizon, ATC is offered by market coupling mechanism.

No specific transfer capacity is reserved for intraday timeframe. Only non-used capacity is offered in intraday horizon.

Thus, Net Transfer Capacity shall be shared among four time horizons: annual, quarter, month and day. Long term timeframes shall cover 45% of Net Transfer Capacity and REN and REE will divide that long term capacity almost equally between the three timeframes: 15% for annual, 15% for quarter and 15% for month.

3. Annual timeframe

Due to the low values of total transfer capacity forecasts during planned outages of interconnection lines or of certain internal network elements affecting the transfer capacity between both electric systems, the annual product to be offered in an annual auction could not be 15% of the annual average Net Transfer Capacity foreseen value, since has to be fixed by taking into account the reduced transfer capacity forecast corresponding to the worst scenario during planned outages.

As a general rule, a constant base-load product will be auctioned for each day of the following year. However, in case of low Net Transfer Capacity during planned outages, REN and REE would not be able to offer a continuous annual product and may offer a discontinuous one, excluding planned outages periods. In this case, REN and REE clearly establish the availability periods, by indicating the first and the last dates of each one of these periods with availability of the annual product in the annual auction specifications.

4. Quarterly timeframe

Following the sharing rule mentioned above, summing up the annual and quarterly products, a 30% of Net Transfer Capacity should had been offered at annual and quarterly auctions. Therefore, the general calculation of quarterly product is the result of taking 30% of the quarterly NTC forecast minus the allocated annual capacity.

Since the forecasted Net Transfer Capacity calculated for the following quarter could not be a continuous value, the following objective method is used to calculate quarterly product.

TSOs calculate an average Net Transfer Capacity of forecasted values ($NTC_{average}(A)$) for the whole quarter, by averaging the minimum daily values for each day of the quarter, and consider 30% of this average value (0,30 x $NTC_{average}(A)$).

Case 1: If the minimum forecasted Net Transfer Capacity value in any day of the quarter is higher or equal to 0,30 x $NTC_{average}(A)$, a continuous product can be offered.

This quarterly product is calculated as the difference between 0,30 x $NTC_{average}(A)$ and the annual capacity already allocated. The resultant value is rounded up to the closest multiple of 10 MW.

Only in case of returns of annual FTR in the quarterly auction and if the annual already allocated product is continuous too, the amount of annual products returned is added by the SAP to this latter value in order to obtain the final value of the quarterly product.

$$NTC_{average}(A) = \frac{\sum NTC_{minimum\ of\ each\ day}}{Number\ of\ days\ of\ quarter\ Q + 1}$$

$$\boldsymbol{Product_{quarter\ Q+1}} = \left(\boldsymbol{NTC_{average}(A) \times 0,30}\right) - \boldsymbol{Allocated\ Capacity\ in\ the\ yearly\ auction + Return}$$

Case 2: If the minimum forecasted Net Transfer Capacity value in one or more days of the quarter is lower than 0,30 x $NTC_{average}(A)$, a continuous product cannot be offered. Then, REN and REE offer a discontinuous product, set to zero where the aforementioned condition is not met and with the dates of availability published in the quarterly auction specifications.

In this case, REN and REE calculate a new quarterly average Net Transfer Capacity (B) ($NTC_{average}(B)$) for the discontinuous product, without taking into account the specific dates which are not included in the product.

Only in case of accepted returns of annual FTR in the quarterly auction, the amount of annual products returned is added by the SAP to this latter value in order to obtain the final value of the quarterly product.

5. Monthly timeframe

Following the sharing rule mentioned above, the capacity to be offered in the long-term horizons (annual, quarterly and monthly auctions) should be 45% of the best updated forecast of Net Transfer Capacity commonly calculated for the following month, that represents in a realistic way the most probable situation of both electric systems.

Since the forecasted Net Transfer Capacity calculated for the following month could not be a continuous value, the following objective method is used to calculate monthly product.

TSOs calculate an average Net Transfer Capacity of forecasted values ($NTC_{average}(A)$) for the whole month, by averaging the minimum daily values for each day of the month, and consider 45% of this average value (0,45 x $NTC_{average}(A)$).

Case 1: If the minimum forecasted Net Transfer Capacity value in any day of the month is higher or equal to 0,45 x $NTC_{average}(A)$, a continuous product can be offered.

This monthly product is calculated as the difference between 0,45 x $NTC_{average}(A)$ and the annual plus quarterly capacity already allocated. The resultant value is rounded up to the closest multiple of 10 MW.

Only in case of returns of annual and/or quarterly FTR in the monthly auction and if the annual and/or quarterly already allocated products are continuous too, the amount of annual and/or quarterly products returned is added by the SAP to this latter value in order to obtain the final value of the monthly product.

$$NTC_{average}(A) = \frac{\sum NTC_{minimum\ of\ each\ day}}{Number\ of\ days\ of\ month\ M+1}$$

$$\begin{aligned} \boldsymbol{Product_{month\ M+1}} &= \left(\boldsymbol{NTC_{average}(A) \times 0,45}\right) \\ &- \boldsymbol{Allocated\ Capacity\ in\ the\ yearly\ and\ quartely\ auction} \\ &+ \boldsymbol{Return} \end{aligned}$$

Case 2: If the minimum forecasted Net Transfer Capacity value in one or more days of the month is lower than 0,45 x $NTC_{average}(A)$, a continuous product cannot be offered. Then, REN and REE offer a discontinuous product, set to zero where the aforementioned condition is not met and with the dates of availability published in the monthly auction specifications.

In this case, REN and REE calculate a new monthly average Net Transfer Capacity (B) ($NTC_{average}(B)$) for the discontinuous product, without taking into account the specific dates which are not included in the product.

Only in case of accepted returns of annual and/or quarterly FTR in the monthly auction, the amount of annual and/or quarterly products returned is added by the SAP to this latter value in order to obtain the final value of the monthly product.