
Explanatory note on the Italy North TSOs amendment of
the long-term cross-zonal capacity calculation
Methodology

June 2025



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1. INTRODUCTION

The current long-term capacity calculation methodology (LT CCM) implies a statistical approach, based on historical cross-zonal capacity for day-ahead or intraday timeframes calculated in a coordinated manner in the Italy North Region, in order to properly take into account all sources of uncertainty related to the long-term capacity calculation timeframes (in line with Art. 4 of the LT CCM).

The historical series of NTC values is appropriately filtered to ensure that the analyzed statistical dataset is truly representative in order to determine the capacity in the long-term timeframe (in line with Art. 5 of the LT CCM).

The purpose of this amendment is to allow the possibility of considering, in the statistical calculation, the NTC samples calculated following the go-live of the Export Corner project in the Day Ahead Capacity Calculation (DACC) and the Intraday Capacity Calculation (IDCC) processes.

2. EXPORT CORNER INCLUSION ON THE LONG-TERM CAPACITY CALCULATION

Starting from the business date (BD) 29th of November 2023 for the IDCC process, and from the 19th of June 2024 for the DACC process, the TSOs of CCR IT-NORTH have announced the go-live of the Export Corner project. This led to a significant change in the outputs of the daily (DA) and intraday (ID) capacity calculation processes. In fact, before the go-live of the export corner, the export capacity was not recalculated in the respective timeframes of the DA and ID processes but was evaluated annually based on grid outages.

As the long-term capacity calculation is based on three years historical NTC timeseries, a statistical approach for the long-term capacity calculation in the export direction has been initiated starting from the business year (BD) 2026, in order to consider a sufficiently reliable dataset. Indeed, the long-term capacity calculation for the BD 2026 takes into account a dataset of NTC samples for the three years: 2023, 2024 2025.

3. EXPORT CORNER IMPACT: SIMULATIONS AND RESULTS

To assess the impact of including the export corner within the long-term capacity calculation, the IT-NORTH TSOs in accordance with the respective RCCs decided to run a series of relative simulations overtime. Specifically, it was decided to start with an initial simulation for the BY 2026 (available dataset of NTCs until March 2025) and keep updating it with future simulations taking into account upcoming data from the DACC and IDCC processes.

Up to now, just a first initial simulation has been conducted considering the following scenarios:

- **Scenario 1:** historical NTC timeseries excludes the triggering of export corner in both directions.
- **Scenario 2:** historical NTC timeseries includes the triggering of export corner just in the export direction.
- **Scenario 3:** historical NTC timeseries includes the triggering of export corner just in both directions.



In the following tables the Reference Full Grid Seasonal (FGS) NTCs coming out the initial simulation are reported according to the different scenarios:

APG - TERNA			
Season	Scenario I	Scenario II	Scenario III
SOP	430	430	327
SP	432	432	371
WOP	494	494	453
WP	496	496	387

TERNA - APG			
Season	Scenario I	Scenario II	Scenario III
SOP	200	198	198
SP	180	175	175
WOP	245	245	245
WP	200	198	198

RTE - TERNA			
Season	Scenario I	Scenario II	Scenario III
SOP	2500	2500	2500
SP	2500	2500	2500
WOP	2877	2877	2800
WP	3165	3165	3078

TERNA - RTE			
Season	Scenario I	Scenario II	Scenario III
SOP	2055	2055	2055
SP	1870	1852	1852
WOP	1660	1660	1660
WP	1495	1495	1495

ELES - TERNA			
Season	Scenario I	Scenario II	Scenario III
SOP	361	361	214
SP	322	322	208
WOP	456	456	293
WP	435	435	285

TERNA - ELES			
Season	Scenario I	Scenario II	Scenario III
SOP	645	617	617
SP	620	543	543
WOP	680	680	680
WP	660	573	573

SWISSGRID - TERNA			
Season	Scenario I	Scenario II	Scenario III
SOP	2564	2564	2519
SP	2748	2748	2694
WOP	2709	2709	2446
WP	3030	3030	2499

TERNA - SWISSGRID			
Season	Scenario I	Scenario II	Scenario III
SOP	1660	1660	1660
SP	1440	1422	1422
WOP	1910	1868	1868
WP	1810	1728	1728

Figure 1: a risk level of 3% has been chosen to determine the Reference FGS values.

A dedicated section in the annex has been reserved to show the graphical representation of the yearly duration curve of the different scenarios.

While the annual capacity calculation based on grid outages led to less variable and accurate NTC values, the introduction of export recalculation within the statistical approach has resulted in more varied and representative values. Consequently, the value of the Reference FGS, considered at a risk level of 3%, can vary more easily, with the benefit of being more reflective of actual conditions.

4. EXPLANATION OF THE AMENDED ARTICLES

With the aim of including export corner in the long-term capacity calculation, relative amendments in the LT CCM are required.

In general, the triggering of the export corner has been introduced as an optional filtering parameter to provide greater flexibility in managing its impact on long-term capacity calculation.

Indeed, on one hand, some may choose not to include the export corner, given that the initial simulation for 2026 were based on a dataset that lacked full accuracy. On the other hand, others may prefer to include



it in order to benefit from a more refined analysis starting as early as Business Year 2026. By making the export corner an optional parameter, both approaches can be accommodated, ensuring adaptability to evolving data quality and analytical needs.

Specifically, the following parts of the LT CCM have been amended to reflect the above consideration:

- **Art. 5.1** where the “triggering of export corner” as filtering parameters is removed from *point f* in order to be added as optional filtering parameter in *point g*.
- **Art. 6.1.b** where it has been specified that the “triggering of export corner” is an optional filtering parameter.
- **Paragraph 2 of Annex 1** where it has been specified that the “triggering of export corner” is an optional filtering parameter.

5. ANNEX

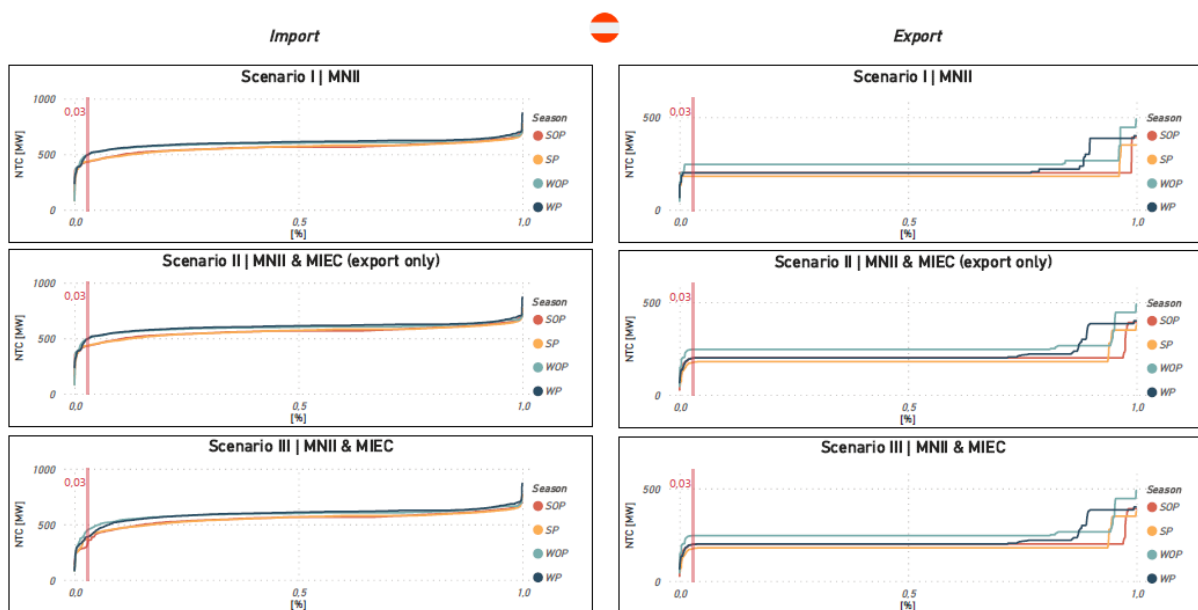


Figure 2: Yealy duration curve of the initial simulation on the IT<>AT border

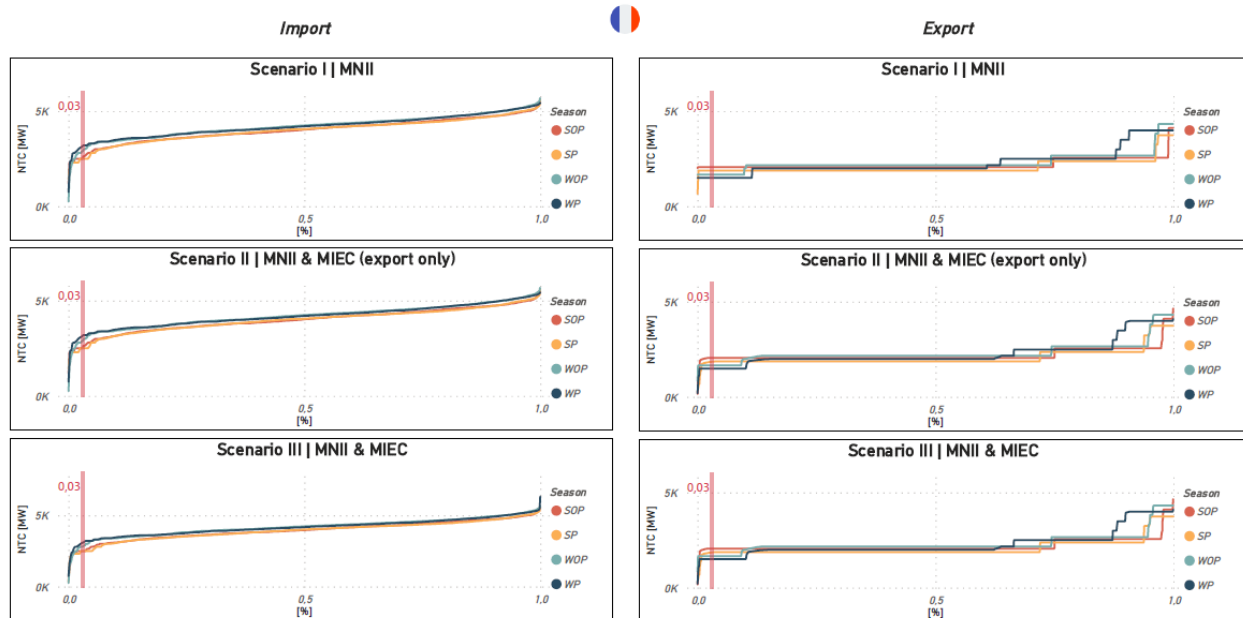


Figure 3: Yearly duration curve of the initial simulation on the IT <> FR border

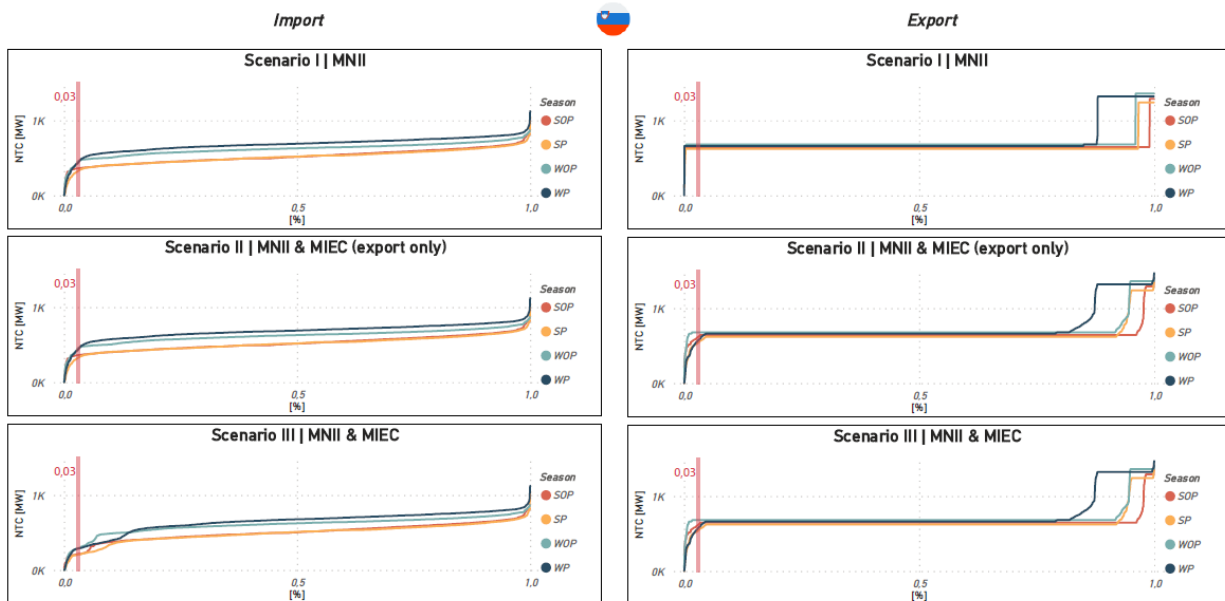


Figure 4: Yearly duration curve of the initial simulation on the IT <> SI border

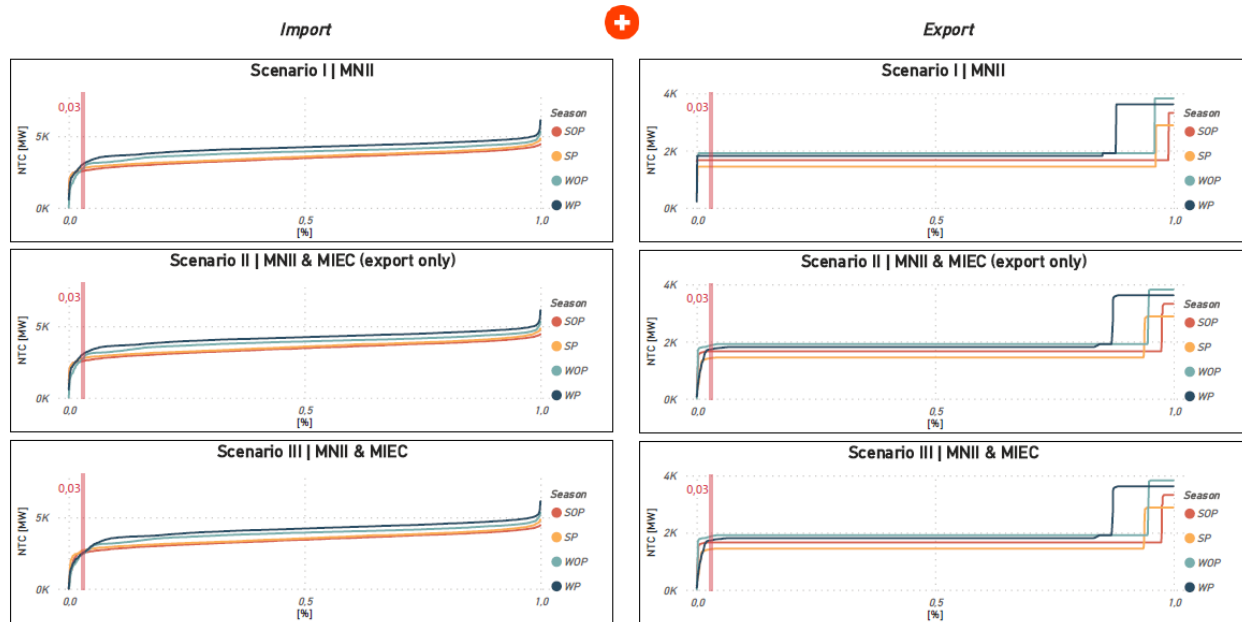


Figure 5: Yealy duration curve of the initial simulation on the IT <> CH border