
Methodology for a balancing common capacity calculation in accordance with Article 37 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing within Italy North CCR

DD MONTH YEAR

Table of Contents

| | | |
|------------|---|----|
| Article 1 | Subject matter and scope | 6 |
| Article 2 | Definitions and interpretation | 6 |
| Article 3 | Application of this methodology | 7 |
| Article 4 | Cross-zonal capacities for the balancing timeframe | 8 |
| Article 5 | Reliability margin methodology | 8 |
| Article 6 | Operational security limits, contingencies and allocation constraints | 8 |
| Article 7 | Generation shift keys | 9 |
| Article 8 | Remedial actions in capacity calculation..... | 9 |
| Article 9 | Balancing capacity calculation | 10 |
| Article 10 | Cross-zonal capacity validation methodology | 11 |
| Article 11 | Fallback procedures | 12 |
| Article 12 | Publication of data | 12 |
| Article 13 | Reporting | 13 |
| Article 14 | Publication and Implementation of the BT CCM Proposal | 13 |
| Article 15 | Language | 13 |

Whereas

- (1) This document is the methodology for the common capacity calculation performed for the capacity allocation within the balancing timeframe for Italy North Capacity Calculation Region (hereafter referred to as “Italy North CCR”) as required by Article 37 of Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline Electricity Balancing (hereafter referred to as the “EB GL Regulation”). This methodology is hereafter referred to as “BT CCM”. This BT CCM takes into account the general principles and objectives set in the EB GL Regulation, which are listed in Article 3, while also taking into account the principles set in the Regulation (EC) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (hereafter referred to as “Regulation (EC) 2019/943”). This BT CCM is also consistent with the cross-zonal capacity calculation methodology applied in the intraday timeframe established under Regulation (EU) 2015/1222 (hereafter referred to as the “CACM Regulation”) in accordance with Article 37(3) EB GL Regulation.
- (2) More specifically, contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union, which are among the objectives of electricity balancing laid down by Article 3 of EB GL Regulation, requires the inclusion of Third Countries’ grid elements in the capacity calculation process of Italy North CCR. EB GL Regulation’s objectives cannot be achieved in any other way but by including Third Countries’ grid elements. This inclusion is in line with Article 13 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereafter referred to as “SOGI Regulation”), providing that EU TSOs must establish “cooperation concerning secure system operation” with non-EU TSOs belonging to the same synchronous area via an agreement with these non-EU TSOs. In order to comply with the requirement laid down by EU Regulation, this methodology includes Third Countries’ TSOs as Technical Counterparties. Moreover, the inclusion is also recognized by the additional guidance of the European Commission dated 16/07/2019 regarding the consideration of third countries in capacity calculation.
- (3) The inclusion of Third Countries’ grid elements is also the most effective way to take into account the effective structure of the network in Italy North CCR. In order to comply with the requirement established by the EU regulation and to adhere to the effective structure of the grid, this methodology includes Third Countries as Technical Counterparties. The already existing TSO-TSO-based contractual framework between the relevant Technical Counterparties and the Italy North CCR TSOs will be adapted accordingly, in the sense that the agreement between Italy North CCR TSOs and the Technical Counterparty will include BT CCM’s provisions and ensure that the Technical Counterparty is contractually bound by equivalent obligations as the ones binding upon TSOs of the Italy North CCR by virtue of EU Regulations. Such agreement will govern mutual obligations and responsibilities of the Technical Counterparty with TSOs of Italy North CCR in relation to the capacity calculation process.
- (4) Part of the main objectives of EB GL Regulation that are relevant to this BT CCM are the integration of balancing markets, the promotion of the possibilities for exchanges of balancing services while contributing to operational security and the facilitation of the efficient coordination and functioning of day-ahead, intraday and balancing markets. The objectives are listed in Article 3(1) of the EB GL Regulation.
- (5) More precisely, Article 3(a) of the EB GL Regulation aims at fostering effective competition, non-discrimination and transparency in balancing markets. The BT CC methodology serves those objectives by defining and establishing a set of harmonised rules and a common coordinated process for capacity calculation which contributes to the effectiveness of the balancing market.
- (6) Article 3(b) of the EB GL Regulation aims at enhancing efficiency of balancing as well as efficiency of European and national balancing markets. The BT CC methodology contributes to

the objective of enhancing efficiency of balancing and both European and national balancing market by calculating capacity for the exchange of balancing energy or for operating the imbalance netting process as close as possible to real-time with the latest available inputs, in accordance with Article 24(2) of the EB GL.

- (7) Article 3(c) of the EB GL Regulations aims at integrating balancing markets and promoting the possibilities for exchanges of balancing services while contributing to operational security. The BT CC methodology promotes the integration of balancing markets and the possibilities for the exchanges of balancing energy by offering capacity to the Capacity Management Module (CMM). The CMM project aims to develop a centralized solution for management of cross-zonal capacity (CZC) among all European balancing platforms (TERRE, MARI, PICASSO and IGCC) for the exchange of balancing energy in context of EB GL Regulation and requirements of the European balancing platforms (respecting relevant implementation frameworks and their legal deadline), in accordance with the processes described in Articles 19, 20, 21 and 22 of the EB GL Regulation.
- (8) Article 3(d) of the EB GL Regulations aims at contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union while facilitating the efficient and consistent functioning of day-ahead, intraday and balancing markets. By ensuring consistency between day-ahead, intraday and balancing markets, BT CCM contributes to the long-term operation and development of the electricity transmission system and electricity sector.
- (9) For these reasons, to facilitate the achievement of these aims and to offer capacity to the market in the balancing timeframe, it is necessary for TSOs to calculate in a coordinated manner the available cross-border capacity in a way which is consistent with capacity calculation applied in the intraday timeframe (see Article 37 EB GL Regulation). In line with the requirements of the EB GL Regulation, the TSOs of Italy North CCR will strive to cooperate with Capacity Calculation Regions (hereafter referred to as “CCR”) connected to Italy North CCR order to ensure that capacity calculation takes place in the most efficient and thorough way.
- (10) Article 37 of the EB GL Regulation constitutes the legal basis for this methodology and defines several specific requirements that the BT CCM should take into account:
 - “1. After the intraday-cross-zonal gate closure time, TSOs shall continuously update the availability of cross-zonal capacity for the exchange of balancing energy or for operating the imbalance netting process. Cross-zonal capacity shall be updated every time a portion of cross-zonal capacity has been used or when cross-zonal capacity has been recalculated*
 - 2. Before the implementation of the capacity calculation methodology pursuant to paragraph 3, TSOs shall use the cross-zonal capacity remaining after the intraday cross-zonal gate closure time.*
 - 3. By five years after entry into force of this Regulation, all TSOs of a capacity calculation region shall develop a methodology for cross-zonal capacity calculation within the balancing timeframe for the exchange of balancing energy or for operating the imbalance netting process. Such methodology shall avoid market distortions and shall be consistent with the cross-zonal capacity calculation methodology applied in the intraday timeframe established under regulation (EU) 2015/1222”.*
- (11) Until the entry into force of this BT CCM, the TSOs of the Italy North CCR shall use the cross-zonal capacity remaining after the intraday cross-zonal gate closure time, in line with Article 37(2) EB GL Regulation.
- (12) Article 2 of the EB GL regulation defines ‘balancing’ as “*all actions and processes, on all*

timelines, through which TSOs ensure, in a continuous way, the maintenance of system frequency within a predefined stability range as set out in Article 127 of Regulation (EU) 2017/1485, and compliance with the amount of reserves needed with respect to the required quality, as set out in Part IV Title V, Title VI and Title VII of Regulation (EU) 2017/1485”.

- (13) Article 2 of the EB GL Regulation defines ‘balancing market’ as *“the entirety of institutional, commercial and operational arrangements that establish market-based management of balancing”*.
- (14) Article 36 of the EB GL Regulation identifies the use of cross-zonal capacity, such that “all TSOs shall use the available cross-zonal capacity, computed according to paragraphs 2 and 3 of Article 37, for the exchange of balancing energy or for operating the imbalance netting process.”
- (15) TSOs of Italy North CCR agreed on a first version of BT CC methodology proposing to apply a coordinated net transmission capacity methodology for capacity calculation within the Italy North CCR, without prejudice to the future implementation of a Flow Based approach as the target methodology for the Italy North CCR as foreseen in Article 20(1) of the CACM Regulation.
- (16) Article 2(8) of the CACM Regulation defines the coordinated net transmission capacity approach as *“the capacity calculation method based on the principle of assessing and defining ex ante a maximum energy exchange between adjacent bidding zones”*.
- (17) The balancing capacity calculation will be performed by the coordinated capacity calculators which are mandated to perform capacity calculation pursuant to the CACM and FCA Regulations.
- (18) Coordinated capacity calculators will take into account the Participating TSOs and Technical Counterparties’ remedial actions into coordinated remedial action preparation.
- (19) In conclusion, the BT CC methodology contributes to the general objectives of the EB GL Regulation while being compatible with the principles of the EU Regulations mentioned above.

Article 1 Subject matter and scope

1. The BT CCM as determined in this document is the common methodology for the capacity calculation performed for the capacity allocation within the balancing timeframe for Italy North CCR in accordance with Article 37 of the EB Regulation.
2. Considering the structure of the grid, Third Countries' borders are taken into account via a separate agreement in the capacity calculation process.

Article 2 Definitions and interpretation

1. For the purposes of the BT CC methodology, the terms used shall have the meaning given to them in Article 2 of Regulation (EC) 2013/543, Article 2 of Regulation (EC) 2015/1222 and Article 2 of Regulation (EC) 2017/2195 (EBGL Regulation).
2. In addition, the following definitions shall apply:
 - a. 'APG' means Austrian Power Grid AG, the Austrian system operator;
 - b. 'AT-IT border' means bidding zone border between Austria and Italy;
 - c. 'CH-IT border' means bidding zone border between Switzerland and Italy;
 - d. 'ELES' means ELES, d.o.o. , the Slovenian system operator;
 - e. 'FR-IT border' means bidding zone border between France and Italy;
 - f. 'RTE' means Réseau de Transport d'Electricité, the French system operator;
 - g. 'SI-IT border' means bidding zone border between Slovenia and Italy;
 - h. 'Technical Counterparty' means any non-EU TSO to be included in the procedures of this methodology through respective agreements;
 - i. 'TERNA' means TERNA S.p.A. Rete Elettrica Nazionale, the Italian system operator;
 - j. Third Country means country from jurisdiction outside the area referred to in Article 1(2) of Regulation (EC) 2015/1222.

3. Definition of Acronyms

| | |
|-------|---|
| BT | Balancing Timeframe |
| CC | Capacity Calculation |
| CCC | Common Capacity Calculation |
| CGM | Common Grid Model |
| CGMES | Common Information Model (CIM) for Grid Model Exchanges |
| CNE | Critical Network Element |
| CNEC | Critical Network Element and Contingency. For the purpose of this methodology, the term CNEC also cover the case where a CNE is used in capacity calculation without a specified contingency. |
| CRA | Curative Remedial Action |
| CROSA | Coordinated Regional Operational Security Assessment |
| D-2 | Two Days Ahead |
| DA | Day Ahead |
| DACF | Day Ahead Congestion Forecast |
| ID | Intraday |
| IGM | Individual Grid Model |

| | |
|------|---------------------------------|
| NRAs | National Regulatory Authorities |
| NTC | Net Transfer Capacity |
| PRA | Preventive Remedial Action |
| RA | Remedial Action |
| RAO | Remedial Action Optimization |
| RAM | Remaining Available Margin |
| RSC | Regional Security Coordinator |
| SO | System Operation |
| SPS | Special Protection Scheme |

4. In this BT CCM, 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 methodology; 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.

Article 3 Application of this methodology

1. This methodology applies solely to the common CC for the balancing timeframe based on the coordinated net transmission capacity approach within the Italy North CCR. For the avoidance of doubt the respective or relevant provisions of this methodology apply to any relevant Technical Counterparty of the Italy North CCR, by virtue of separate contracts as mentioned above in Article 1. The BT CC methodology using the flow-based approach, the CCC methodologies within others CCRs and other timeframes are outside the scope of this methodology.

Article 4 Cross-zonal capacities for the balancing timeframe

1. For the balancing timeframe, individual values for cross-zonal capacity for each hour shall be calculated using the BT CCM.

Article 5 Reliability margin methodology

1. For the CC performed in BT, the TSOs of the Italy North CCR and Technical Counterparties shall define the reliability margin in line with, but not limited to, Article 22 of the CACM Regulation and based on the analysis of the following data:
 - a. unintended deviations of physical electricity flows within a market time unit caused by the adjustment of electricity flows within and between control areas, to maintain a constant frequency;
 - b. uncertainties which could affect CC, and which could occur between BT and real time, for the market time unit being considered.
 - c. deviation of assumptions on cross-zonal power exchanges considered in ID CROSA where the Remedial Actions are optimized and the assumption for the cross-zonal exchanges in BT CC based on which the BT NTC is calculated.
2. The reliability margin shall be defined as a fixed value initially based on experience from ID CC, to be reassessed based on experience from BT CC, when this experience is available.

Article 6 Operational security limits, contingencies and allocation constraints

1. For the CC, each TSO of the Italy North CCR and Technical Counterparties shall provide the coordinated capacity calculator with its individual list of CNECs created based on a common contingency list. The coordinated capacity calculator shall then define the merged list of CNECs to be considered during the CC, by merging the individual list of CNECs provided by all TSOs of the Italy North CCR and Technical Counterparties into a single list.
2. Subsequently, the coordinated capacity calculator shall use the merged list of CNECs pursuant to paragraph 1 to create the initial list of CNECs to be considered in the CC by selecting only network elements significantly influenced by cross-zonal power exchanges. The selection of these CNECs shall be based on a sensitivity analysis performed for each calculated timestamp in the different network states including but not limited to base case, after contingency and after remedial action.
3. Only CNECs with a sensitivity to cross-zonal power exchanges equal to or higher than a specific threshold shall constitute the initial list of CNECs.
4. Additionally, to the individual list of CNECs pursuant to paragraph 1, TSOs of the Italy North CCR and Technical Counterparties shall provide the coordinated capacity calculator with their White list and Black list. The White list shall contain CNECs which shall be considered in the CC. The application of the White list supersedes the initial list of CNECs. The Black list shall contain CNECs which shall not be considered in the CC. The application of the Black list supersedes the initial list of CNECs.
5. Subsequently, the coordinated capacity calculator shall use the initial list of CNECs pursuant to paragraph 1, the White list of CNECs pursuant to paragraph 4 and the Black list of CNECs pursuant to paragraph 4 to create the final list of CNECs to be considered in the CC in accordance with paragraphs 2, 3 and 4.

6. Where the power flows on CNEs monitored in the CC are influenced by cross-zonal power exchanges in different CCRs, the TSOs of the Italy North CCR and Technical Counterparties shall define the rules for sharing the power flow capabilities of CNEs among different CCRs in order to accommodate these flows. These rules will be detailed in cooperation with the other CCRs during the implementation phase of this methodology.
7. The TSOs of the Italy North CCR and Technical Counterparties shall review the list of CNEs be monitored in the CC process at least once a year.
8. The Italian operational constraints related to the control of voltage profiles and dynamic stability of Italian system, which are needed to maintain the transmission system within operational security limits but cannot be transformed efficiently into maximum flows on CNEs, shall be expressed via allocation constraints.
9. Allocation constraints indicated in Article 6(8) will be directly applied to the results of the calculation performed by the coordinated capacity calculator, in the form of computation constraints. The unconstrained capacity will be computed in any case and made publicly accessible according to the provisions set in Article 12(3).
10. Allocation constraints will be given with a level of discretization of 50 MW.

Article 7 Generation shift keys

1. The TSOs of Italy North CCR shall define the generation shift keys in accordance with Article 24 of the CACM Regulation.
2. RTE shall define generation shift keys proportional to the base case scenarios for each market time unit with all expected generating units in the IGM, reflecting RTE's best forecast of market behaviour.
3. TERNA shall define generation shift keys proportional to the base case scenarios for each market time unit with all expected generating units in the IGM, reflecting TERNA's best forecast of market behaviour.
4. ELES shall define generation shift keys proportional to the base case scenarios for each market time unit with all expected generating units and selected loads in the IGM, reflecting ELES's best forecast of market behaviour.
5. APG shall define generation shift keys participation factors to the base case scenarios for each market time unit with all expected generating units in the IGM, reflecting APG's best forecast of market behaviour. To achieve this the shift is done in generation/load nodes (PV or PQ nodes), according to a participation factor. The chosen nodes are evaluated by APG and are nodes with generation/load units that will change along with a market change. The participation factor for each node is set by APG and reflects the best forecast of generation/load distribution in the Austrian grid.

Article 8 Remedial actions in capacity calculation

1. The TSOs of Italy North CCR shall define the remedial actions in accordance with Article 25 of the CACM Regulation.
2. Each TSO of Italy North CCR shall define individually the remedial actions of its responsibility area to be made available in the BT CCC within Italy North CCR in accordance with article 8(5).

3. The available remedial actions are those which can be activated within the BT in a coordinated way by the TSOs of Italy North CCR and Technical Counterparties to ensure the operational security.
4. Remedial actions can be used in preventive and/or curative state. SPS will act only in curative stage, after tripping of grid elements. Due to this there are three different types of remedial actions used in the Italy North CC process:
 - a. PRA: They correspond, in operation, to remedial actions to be implemented independently of the occurrence of any outage to relieve the grid. They are also implemented in the CGM.
 - b. CRA: Each CRA is associated with a given Outage and applied after the Outage happened. They are taken into account during the CC process but not implemented in the model.
 - c. SPS: This represents an automatic change in grid topology in case of predefined conditions (e.g. outage of 2 parallel lines) are met. They are taken into account during the CC process but not implemented in the model.
5. The remedial actions to be considered in the BT CC are:
 - a. all preventive remedial actions as determined and validated during day-ahead and intraday Coordinated Regional Operational Security Assessment (CROSA) process,
 - b. all triggered curative remedial actions as determined and validated during day-ahead and intraday Coordinated Regional Operational Security Assessment (CROSA) process
 - c. SPS (Special Protection Scheme).
6. The coordinated capacity calculator shall consider the remedial actions referred to in Article 8 (5) of the current methodology no later than 6 months after the implementation of the day-ahead and intraday CROSA developed in accordance with Article 76 and 77 of the SO Regulation, provided that the necessary tools are developed, and compatibility is ensured.
7. Before using the remedial actions referred to in Article 8 (5) of the current methodology, the TSOs of Italy North will evaluate the feasibility of considering alternative remedial actions from day-ahead and intraday Congestion Forecast in the BT CC.

Article 9 Balancing capacity calculation

1. In accordance with Article 37 (3) of the EBGL Regulation, the TSOs of Italy North CCR shall calculate cross-zonal capacities for each bidding-zone border of Italy North CCR in the balancing timeframe.
2. The TSOs of Italy North CCR shall provide the coordinated capacity calculator with the last updated information on the transmission systems in a timely manner for the CC.
3. The coordinated capacity calculator shall use the CGM built in accordance with Articles 67(1) and 70(1) of Commission Regulation (EU) 2017/1485 of 02 August 2017 no later than 6 months after the implementation of the day-ahead and intraday CROSA developed in accordance with Article 76 and 77 of SO Regulation provided that the necessary tools are developed, and compatibility is ensured.
4. Before using the CGM built in accordance Articles 67(1) and 70(1) of Commission Regulation (EU) 2017/1485 of 02 August 2017, the TSOs of Italy North will evaluate the feasibility of utilizing alternative CGMs by merging the whole DACF/IDCF data set which contains the single DACF/IDCF data sets from the participating and non-participating TSOs.
5. The cross-zonal capacity shall be calculated on each Italian border in the direction indicated by

the allocation results after intraday cross-zonal gate closure time. The direction indicated by the allocation results after closure of the intraday cross-zonal energy market is expected to be the primary market direction. Therefore, a calculation in this direction is always performed. The opposite direction will be calculated as the cross-zonal capacity remaining after the intraday cross-zonal gate closure time reduced to X%.

6. In the CC Remedial Actions agreed in the DA & ID CROSA process shall be applied. Due to the proximity to Real Time it is not feasible to agree a new set of Remedial Actions and thus to perform a new RAO.
7. The CC is performed by the coordinated capacity calculator based on a Minimum Margin approach. The coordinated capacity calculator computes the RAM per CNEC for all CNECs in the final list of CNECs pursuant to Article 6 (5) of this methodology. The available increase of cross-zonal capacity is computed based on the RAM and zone-to-zone PTDFs per CNEC for all CNECs in the final list of CNECs pursuant to Article 6 (5) of this methodology. The minimum of the available increases of cross-zonal capacity is selected as the BT cross-zonal capacity.
8. The resulting capacity pursuant to paragraph 7 is checked for its feasibility against operational security constraints.
9. The resulting capacity pursuant to paragraph 7 is reduced by the Reliability Margin pursuant to Article 5 of this methodology.
10. The resulting capacity pursuant to paragraph 9 is corrected to take into account the constraints associated to voltage profiles and dynamic stability of the Italian system.
11. The coordinated capacity calculator shall provide the Cross-Zonal capacity for each Market Time Unit, bidding zone border and direction in Italy North.
12. In case several coordinated capacity calculators compute the cross-zonal capacity for each market time unit in parallel, the minimum value of the computed cross-zonal capacity is provided to TSOs of the Italy North CCR and Technical Counterparties for validation. The provided value shall respect operational security constraints.
13. The coordinated capacity calculator and the TSOs of the Italy North CCR shall ensure that the CGM are provided with the validated BT cross-zonal capacities pursuant to paragraph 10 for each bidding-zone border of Italy North CCR.

Article 10 Cross-zonal capacity validation methodology

1. The TSOs of Italy North CCR shall validate the cross-zonal capacities calculated by the coordinated capacity calculator of the Italy North CCR.
2. In case one of the following situations endangers the operational security, the TSOs of Italy North CCR shall assess and validate a secure capacity value.
 - a. Contingencies or critical network elements are missing in the list of CNECs to be monitored in the CC process;
 - b. A mistake in an IGM, GSK or a CGM was found (e.g. a wrong topology);
 - c. Unplanned outages or a trip of an element in the respective TSO grid occurred;
 - d. An issue with the tools used in the CC process occurred;
 - e. Expectation of significant changes in the flow distribution due to high discrepancies between forecast in BT CC and the expected real-time market outcome (e.g. change of net positions or market directions) which are not covered by the statistical uncertainty related to the Reliability Margin.

3. Where one or more TSOs of the Italy North CCR do not validate the cross-zonal capacity calculated, the concerned TSO(s) shall provide the updated amount of cross-zonal capacities for the border(s) considered and the reasons for the change. The final cross-zonal capacity is the minimum value sent by the TSOs of the Italy North CCR.
4. Whenever a TSO of the Italy North CCR reduces the amount of cross-zonal capacity during the validation, the location and amount of the congestion and further details about the reduction shall be stored.

Article 11 Fallback procedures

1. Prior to each CC performed in the BT, the TSOs of Italy North CCR shall ensure the coordinated capacity calculator is provided with the already allocated capacities within the day-ahead and intraday timeframes.
2. For the CC performed in the BT, where an incident occurs in the CC process and the coordinated capacity calculator is unable to produce results within the allotted time for the calculation process, the TSOs of the Italy North CCR shall validate the last coordinated cross-zonal capacities calculated within the intraday timeframe. After this validation step, the coordinated capacity calculator or TSOs of the Italy North CCR where applicable, shall use this coordinated value for the exchange of balancing energy or for operating the imbalance netting process.

Article 12 Publication of data

1. The TSOs of the Italy North CCR and Technical Counterparties publish the following CC relevant data:
 - a. For each market time unit and CNEC:
 - i. Timestamp of the associated hour;
 - ii. Clear name and EIC code of both CNE and Contingency;
 - iii. Maximum flow of a CNE (F_{MAX});
 - iv. Reference flow in base case scenario (F_{REF});
 - v. Sensitivity used for CNEC selection;
 - vi. Final flow at the end of the CC process (F_{NTC});
 - vii. Binary indicator whether the CNEC was limiting the NTC domain;
 - viii. Zone-to-zone PTDF for all the different borders (Italy – France, Italy – Switzerland, Italy – Austria, Italy - Slovenia) computed in the base case scenario ($PTDF_{REF}$);
 - b. For each market time unit and bidding zone:
 - i. Forecasted vertical load;
 - ii. Forecasted production;
 - iii. Forecasted net position;
2. All data listed in paragraph 1 shall be published on a daily basis. As indicated in Article 6(9), the unconstrained capacity will be published as well on a daily basis.
3. For voltage and stability constraints referred to in Article 6(9), TSOs of Italy North CCR publish at least the following elements for each market time unit:
 - a. the expected total load in the Italian system;
 - b. the expected total non-dispatchable production in the Italian system;
 - c. the minimum dispatchable thermal generation needed to grant voltage and system stability in the Italian system.

TSOs of Italy North CCR publish also a feature to provide an estimation of the cross-dependence between the level of the allocation constraint and the parameters listed above.

Article 13 Reporting

1. The coordinated capacity calculator shall prepare a report about all reductions called during the validation of cross-zonal capacity including the reason of the reductions according to Article 10(2). The report shall be sent to all the NRAs of Italy North CCR on a quarterly basis 10 working days after the end of each quarter.

Article 14 Publication and Implementation of the BT CCM Proposal

1. The TSOs of Italy North CCR shall publish the BT CCC methodology Proposal without undue delay after all NRAs of Italy North CCR have approved it.
2. The BT CC methodology is used immediately after the approval by the NRAs of Italy North CCR.
3. The implementation phase of EB CCM shall commence immediately after the approval by the NRAs of Italy North CCR and shall last x months.
4. TSOs of Italy North CCR cannot match any of the deadlines set in this Article, they shall inform all the NRAs of Italy North CCR at least six months before the affected deadline.

Article 15 Language

1. The reference language for this BT CCM shall be English.
2. For the avoidance of doubt, where TSOs of the Italy North CCR need to translate this BT CCC methodology into their national language(s), in the event of inconsistencies between the English version published by TSOs of the Italy North CCR in accordance with Article 9(14) of the CACM Regulation and any version in another language, the relevant TSOs of the Italy North CCR shall be obliged to dispel any inconsistencies by providing a revised translation of this BT CCC methodology to their relevant national regulatory authorities