

## **Derogation request of APG**

**from the obligation under Article 16(8) pursuant to  
Article 16(9) of Regulation (EU) 2019/943 of the  
European Parliament and of the Council of 5 June  
2019 on the internal market for electricity for the  
Capacity Calculation Region Italy North**

## Introduction

- (1) In accordance with Article 16(8) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (“Regulation 2019/943”) transmission system operators shall not limit the volume of interconnection capacity made available for the market participants neither by means of solving congestion inside their own bidding zone nor by managing flows resulting from transactions internal to bidding zones. The minimum levels of available capacity for cross-zonal trade for borders using a coordinated net transmission capacity approach shall therefore be 70 % of the transmission capacity respecting operational security limits after deduction of contingencies. This is determined in accordance with the capacity allocation and congestion management guideline adopted on the basis of Article 18(5) of the Regulation 2009/714 (EC) of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (“Regulation 2009/714”).
- (2) However, in case a transmission system operator cannot comply with the minimum capacity of 70 % to be made available to market participants due to operational security risks on foreseeable grounds, such transmission system operator may request from the relevant regulatory authorities a derogation from Article 16(8) of the Regulation 2019/943. The extent of such derogations shall be strictly limited to what is necessary to maintain operational security and they shall avoid discrimination between internal and cross-zonal exchanges. Before granting a derogation, the relevant regulatory authority shall consult the regulatory authorities of other Member States forming part of the affected capacity calculation regions. In absence of an unanimous decision by the regulatory authorities such decision is incumbent upon ACER.
- (3) ACER issued a Recommendation (No. 01/2019), published on 9<sup>th</sup> of August 2019, describing a unified way on how to monitor the capacities made available to the market in relation to the 70% target for all considered timeframes and all coordination areas.
- (4) In accordance with the Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on Capacity Allocation and Congestion Management (“CACM Regulation”) and the Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (“SOGL”), TSOs are required to develop and deliver the proposals on the methodologies in which the essential elements related to the coordinated capacity calculation and coordinated usage of non-costly and costly remedial actions are to be defined. The following methodologies have to be submitted by TSOs from the same Capacity Calculation Region (“CCR”):
  - a. The Capacity Calculation Methodologies for the Italy North CCR as referred to in Article 21 of the CACM Regulation (“Italy North CCM”).
  - b. The Coordinated Redispatching and Countertrading Methodology for the Italy North CCR as referred to in Article 35 of the CACM Regulation (“CACM 35”).
  - c. The Redispatching and Countertrading Cost-Sharing Methodology for the Italy North CCR as referred to in Article 74 of the CACM Regulation (“CACM 74”).
  - d. The operational security coordination methodology for the Italy North CCR as referred to in Article 76 of the SOGL Regulation (“SOGL 76”).

- (5) Austrian Power Grid (hereinafter referred to as “APG”) is operating the Austrian transmission system for electricity and therefore ensuring the trans-regional national exchange of electricity as well as the exchange with neighbouring countries between generators and consumers. APG has been certified as Independent Transmission Operator on 12 March 2012.
- Essentially, the present request refers to the obligation deriving from Article 16 (8) of the Regulation 2019/943 which applies to APG in its role as transmission system operator from 01 January 2020.
- (6) As operational security would have been endangered, pursuant to Article 16 (9) of the Regulation 2019/943, APG filed a request for the grant of a derogation from the obligations laid down under Article 16 (8) of the Regulation 2019/943 in relation to the bidding zone border between Italy and Austria for the year 2020.
- (7) This derogation request was approved by the Austrian national Regulatory Authority, E-Control, on 17 December 2019. The positive decision is linked to requirements regarding transparency and implementation and projects to be implemented to mitigate the listed foreseeable grounds of the derogation request. The derogation is valid until the end of 31 December 2020, provided that the solutions and projects do not enable the requirements of Article 16 (8) of the Regulation 2019/943 to be achieved at an earlier point in time.
- (8) With regard to the current status, APG, together with the IN TSOs, have already taken concrete measures to mitigate derogation grounds from the last year's derogation. Some processes have already been implemented and others are in the final implementation phase. In addition to the expansion of cross-border redispatch contracts, major developments are currently being made in capacity calculation and validation tools. According to current estimates, however, the planned derogation period is insufficient to ensure safe commissioning and testing of the industrialized tools. For network security reasons, it is therefore essential to make more time available for the safe commissioning of the new capacity calculation and validation tools, including their testing in a parallel run phase.
- (9) Against this background and pursuant to Article 16 (9) of the Regulation 2019/943, APG files the following request for the grant of a derogation from the obligations laid down under Article 16 (8) of the Regulation 2019/943 in relation to the bidding zone border between Italy and Austria for the first 6 months of the year 2021 (from 1<sup>st</sup> of January to the 30<sup>th</sup> of June). This derogation is applied on the basis of two foreseeable grounds justified in the Article 3.
- (10) The national regulatory authorities (hereinafter referred to as “NRAs”) adopted on 29<sup>th</sup> June 2020 a common note, which gives a guidance for the TSOs on the necessary content of derogation requests in line with Article 16(9) of the Regulation 2019/943 as well as the assessment criteria. This request for derogation prepared by APG takes into account the requirements of the common NRAs’ note.

## **Article 1 Subject Matter and Scope**

**1.1. APG requests a derogation from the implementation of the minimum margin available for cross-zonal trade as established in Article 16(8) and in accordance with Article 16(9) of the Regulation 2019/943 for the duration of 6 months (from 1<sup>st</sup> of January to the 30<sup>th</sup> of June) for its Italy North bidding zone border between Italy and Austria.**

**1.2.** This request for derogation is based on 2 different foreseeable grounds for deviating from the 70% capacity criterion as established in Article 16(8) of Regulation 2019/943 respectively from the target capacity value according to an action plan as further described in Article 3 justifying the approval of a derogation. Both foreseeable grounds would impact the operational security in case of non consideration while a minimum target capacity is to be achieved.

## **Article 2 Definitions and abbreviations**

CC	Capacity Calculation
CCR	Capacity Calculation Region
CEP	Clean Energy Package
CGM	Common Grid Model
CNE(C)	Critical Network Element (with Contingency)
IN	Italy North
D-2	Two-Days Ahead
IN	Italian North
MACZT	Margin Available for Cross-Zonal Trade
MACZTmin	Relevant target capacity
MNCC	Margin from Non-Coordinated Capacity Calculation
MCCC	Margin from Coordinated Capacity Calculation
MTU	Market Time Unit
NP	Net Position
NTC	Net Transfer Capacity
PST	Phase-Shifting Transformer
RAM	Remaining Available Margin
TRM	Transmission Reliability Margin
TTC	Total Transfer Capacity

### Article 3 Foreseeable grounds impacting operational security

Acknowledging that the development and testing of the necessary IT-Tools will not be finalized by the end of 2020, APG cannot count on them in relation to the assessment and fulfillment of the *70% capacity criterion* in accordance with Article 16(8) of the Regulation 2019/943, *respectively a lower target capacity according to an national action plan as of 1 January 2021* (hereinafter „relevant target capacity“ or “ $MACZT_{min}$ ”).

Based on this, the application of the relevant target capacity from 01 January 2021 on, is not yet feasible and may **endanger the operational security due to the 2 foreseeable grounds stated in Table 1**, which are further elaborated in this Article. These foreseeable grounds are relevant for the Austrian border of the IN CCR (AT/IT).

TABLE 1. LIST OF FORESEEABLE GROUNDS THAT ENDANGER THE OPERATIONAL SECURITY

No.	Description
3.1	Not finished development and testing of the necessary IT-Tools for the calculation of the $MACZT_{min}$ criterion (in line with the Regulation 2019/943) in the capacity calculation area
3.2	Not finished development and testing of the necessary IT-Tools for the validation of the calculated capacities under consideration of the $MACZT_{min}$ criterion (in line with the Regulation 2019/943)

As further elaborated in this Article all these arguments related to the request for derogation pursuant to Art 16(9) of the Regulation 2019/943 are foreseeable, they directly impact APG’s operational processes and are of major importance for maintaining the operational security.

#### 3.1. Not finished development and testing of the necessary IT-Tools for the calculation of the $MACZT_{min}$ criterion (in line with the Regulation 2019/943) in the capacity calculation area

The time period left for TSOs was insufficient to finish the development of the tool for calculation the minimum cross-zonal capacity (evaluation, development, specification, implementation, testing, training) and be ready to fulfil requirements stemming from Article 16(8), from the 1<sup>st</sup> of January 2020 onwards. This also applies for the 1<sup>st</sup> of January 2021, as development for a tool capable of this calculations is still ongoing and will not be finished by the beginning of next year, but rather end of Q2/2021. The currently applied CNTC methods (at AT/IT, FR/IT, CH/IT, SI/IT) have been designed in such a way that they follow the ENTSO-E methodology which is based on the calculation of TTC (Total Transfer Capacity) and TRM (Transmission Reliability Margin). The CNTC methodology assumes pentalateral stepwise increase/decrease of power generation in all countries and monitoring of the n-1 security criteria relevant for the CCR only in import direction. By that process the total values of cross-zonal capacity are calculated for the whole Italian North border (and not per CNEC). That currently applied method, which is not fully compliant with the coordinated NTC approach according to the CACM Regulation, has neither been designed to calculate the margins available for cross-zonal trade per CNEC nor to evaluate the influence of commercial trades from the other non-coordinated areas on the elements of the coordinated area or to distinguish between different flow types.

The new developments for the capacity calculation software were specified by the IN TSOs in the first half of 2020 and the general concept was tested using an internal prototype. The new concept will be able to calculate feasible border capacities for the IN CCR, constrained by at least one CNEC, called limiting CNEC. Since the tool must have a very high level of reliability and availability for the operational process, as well as a proper maintenance service, the development requires substantial efforts from the RSCs. The development phase was initiated right after the approval of the final specifications. The implementation of the new calculation software will be completed in Q2 2021. This will be followed by an internal parallel run, respectively by testing and calibration of the tool and training of the operators. The tool is expected to be ready for the operational use end of Q2 2021.

### **3.2. Not finished development and testing of the necessary IT-Tools for the validation of the calculated capacities under consideration of the 70MACZTmin% criterion (in line with the Regulation 2019/943)**

The new methods and processes of capacity calculation in line with the requirements of the Regulation 2019/943 (see Capacity Calculation paragraph above and Article 4) and according to ACER's Recommendation (No. 01/2019) are expected to lead to significantly more volatile MCCC values, which due to the basic principles of the methodology according to the Recommendation can go way beyond the security limits, as first evaluations show. Therefore an additional process step for operational security validation of the calculated capacities is of paramount importance to ensure secure operational conditions. The necessary IT-Tools for this process step are currently in the final phase of development.

Due to the location in the center of the continent, APG is highly exposed to the effects of diverse developments on the electricity sector in many European countries. In this context for APG it is even more critical that the capacity calculation and forecast methods are not yet harmonized and properly coordinated (see Introduction (4)). Hence, such a validation process is of high complexity and has to consider all relevant uncertainties that come along with the current status. It needs to be newly developed and tested thoroughly, to ensure that the capacities calculated under consideration of minimum targets according to the Regulation 2019/943 can be secured in each and every MTU with the remedial actions available.

Without a reliable validation process, along with the new respectively enhanced capacity calculation concepts considering the cross-zonal capacity minimum target, there is no possibility to evaluate if the available remedial actions and especially the redispatch potential after the closure of day-ahead energy market are sufficient to solve potential overloads and to ensure physical firmness of the transmission capacities offered on D-2 level. **This could lead to situations, where higher capacities are given to the market with the goal to fulfil the MACZTmin criterion, but the redispatch potential to ensure these capacities is not available though. This would impose an unbearable risk for operational security and endanger security of supply.** At the moment such a process is not in place yet. A reliable validation process including the relevant IT tools is currently developed and implemented according to the steps provided in Article 4 of this derogation request. As this is the most critical aspect of the future capacity calculation, a lot of emphasis on a safe concept and implementation was needed to secure grid operation. Due to the short time to specify, develop, implement and test the tool, with very high requirements at the same time, safe commissioning as of January 1, 2021 cannot take place without security risks. According to the current plan, the go-live is foreseen end of Q2/2021.

Due to the aforementioned reasons APG is not able to calculate from 1<sup>st</sup> of January 2021 the volume of NTC on its southern border (AT/IT) or the TTC in the IN CCR that would comply with the newly designed MACZTmin criteria, on at least one limiting CNEC. Even if the capacity calculation in line with CEP MACZTmin requirement would be possible starting from 1<sup>st</sup> January 2021, without reliable validation processes, it wouldn't be feasible to evaluate if the available remedial actions are sufficient to solve potential overloads and to ensure physical firmness of the transmission capacities offered on D-2 level.

Due to those reasons, APG is not able to determine the MACZTmin cross-zonal capacities, with any appropriate accuracy, to be offered to the market, and in the consecutive step, cannot validate their feasibility by ensuring the network security.

A raise of cross border capacities currently cannot be assessed by APG at operational capacity calculation stage neither regarding the effect on the specific minimum capacity targets nor on the impact related to operational conditions. This will only be possible after the implementation of both, the capacity calculation and the capacity validation tool. Offering the capacities to the market before the operational go-live of these tools would impose an unbearable risk for operational security and seriously endanger security of supply.

## **Article 4 Mitigation measures for the fulfillment of the MACZTmin Criterion**

In order to be able to fulfil the capacity requirements of Art 16(8) of the Regulation 2019/943 and to conclude with a reasonable certainty whether the cross-zonal capacities could meet those requirements, APG and the TSOs of the IN CCR are developing the necessary IT tools in line with the relevant key methodologies according to the CACM Regulation and the SOGL (see Introduction (4)).

This article lists concrete steps and projects to mitigate the foreseeable grounds for derogation as presented in Article 3.

### **4.1 Mitigation of insufficient IT-Tools for capacity calculation (in line with Regulation 2019/943)**

According to the current planning the implementation and the development/testing of the respective IT-tools to respect the MACZTmin requirements, will be finished by 30<sup>th</sup> of June 2021. The new calculation tools should enable IN TSOs to calculate the highest possible NTCs in a more coordinated and accurate manner across the CCR under consideration of the MACZTmin criteria. Before the start of operation, operators training will also take place.

### **4.2 Mitigation of insufficient IT-Tools for capacity validation (in line with Regulation 2019/943)**

The tool to apply a capacity validation in line with IN CCM and in line with the Regulation 2019/943 is currently being developed. It is designed to ensure that sufficient countertrading capacity is available in case of an increase of the NTC due to the MACZTmin criterion to ensure secure operational conditions. According to the current planning the implementation and the testing of

the respective IT-tool will be finished by 30<sup>th</sup> of June 2021. Proper operators training will as well be foreseen.

## **Article 5      Extent and duration of the Derogation**

- (1) APG requests the derogation regarding the not finished IT tools for capacity calculation and validation (in accordance with article 4.1 and 4.2), as well as parallel internal run, for six months starting from 1<sup>st</sup> of January 2021.
- (2) This request is applicable for all the APG CNECs used in day ahead calculation within the IN CCR.
- (3) In case that the technical grounds described in Article 3 of this derogation request cannot be fully tackled (either by APG or jointly within the IN CCR) before the expiry of the derogation period, APG might have to request a renewal of the derogation. If such a case should occur, APG will provide a detailed justification for a renewal of the derogation.

## **Article 6      Proportionality regarding maintaining the operational security**

In light of the foreseeable grounds outlined in Article 3, such as not finally implemented and tested capacity calculation and validation tools by January 2021, it is not possible for APG to fulfill the MACZTmin criterion from 1 January 2021 without endangering operational security.

Until the go-live of the respective tools mentioned above (see Article 4), APG has to continue to apply the current methodologies and practices for capacity calculation, in order to maintain operational security, while APG shall make its best efforts to offer on the AT/IT border NTC values that are at least on the same level (on average per direction) as in the last three years.

With the go-live of the new capacity calculation methodologies (including enhancement for the Regulation 2019/943) and respective IT tools, IN TSOs will report the achieved MACZT to IN NRAs. With the go-live of the validation tools APG will assess together with the IN TSOs, in coordination with E-Control, the possibilities to increase cross-zonal capacities considering the MACZTmin criterion, while ensuring operational security.

The scope of the derogation therefore does not go beyond what is necessary to maintain operational security, as set out in Article 3 and does not relate to curtailment of capacities already allocated (Article 8).

## **Article 7      Non-Discrimination**

The proposed derogation aims at the transition from the status quo to the MACZTmin criterion in a non-discriminatory manner. Any currently applicable methodologies with respect to calculating the NTC values or any future methodologies which still need to be developed do and will not contain any measures resulting in a discrimination between internal and cross-zonal exchanges.

The methodological approaches currently in development and related IT tools, as described in Article 6, will aim at an increased transparency that undue discrimination between internal and cross-zonal exchanges is avoided and the relevant target capacity for cross-zonal trade is made available to the market as long as operational security can be guaranteed.

## **Article 8 No curtailment procedures of capacities already allocated pursuant to Art 16 Abs 2**

The proposed derogation shall apply solely to the determination of capacities on the IN CCR border of APG, which will be made available for cross-zonal exchanges. The derogation does not provide any grounds for the curtailment of any already allocated capacities. Curtailments of already allocated capacities remain subject to respective Network Codes/Guidelines.

## **Article 9 Request**

For all the above mentioned reasons, and as previously mentioned in Article 1, APG, in accordance with Article 16 (9) of Regulation 2019/943, seeks to be granted a request for derogation from the obligations under Article 16 (8) of Regulation (EC) No 2019/943 with regard to the bidding zone border AT/IT for the a period of six months (from 1<sup>st</sup> of January 2021 till 30<sup>th</sup> of June 2021).