

Methods and projects to reduce the “*foreseeable grounds impacting operational security*”, listed in Article 3 of the derogation request for Core CCR of APG regarding the implementation of Article 16(8) (EU) 2019/943

1. Introduction

Pursuant to Article 16 (9) of the Regulation (EU) 2019/943, APG filed a request for the grant of a derogation from the obligations laid down under Article 16 (8) of the Regulation (EU) 2019/943 in relation to the bidding zone borders within the Core CCR (AT/DE, AT/CZ, AT/HU, AT/SI)¹.

The request for derogation was submitted to the National Regulator E-Control on 22 November 2019 and has been granted by Austrian Regulatory Authority E-Control on 17.12.2019². The derogation applies from 01 January 2020 to 31 December 2020, unless the methods and projects published by APG in this document (in accordance with obligation 1.3 of the E-Control decision) enable an earlier achievement of the requirements of Article 16 (8) of the Regulation (EU) 2019/943.

¹ <https://www.apg.at/api/sitecore/projectmedia/download?id=0d61f4dd-932d-4e45-a14f-cbeb96410659>

² https://www.e-control.at/documents/1785851/0/V+EIBM+02_19+-+Bescheid+Freistellung+APG+Core+Final+0v4+20191213.pdf/c858a5f1-573a-1cbb-66cd-02edba7de625?t=1579504494676

2. Overview on Work Packages

On the basis of Article 3 and Article 4 of APG's derogation, four (4) Work Packages have been defined to tackle the foreseeable grounds endangering operational security related to the 70% CEP target.

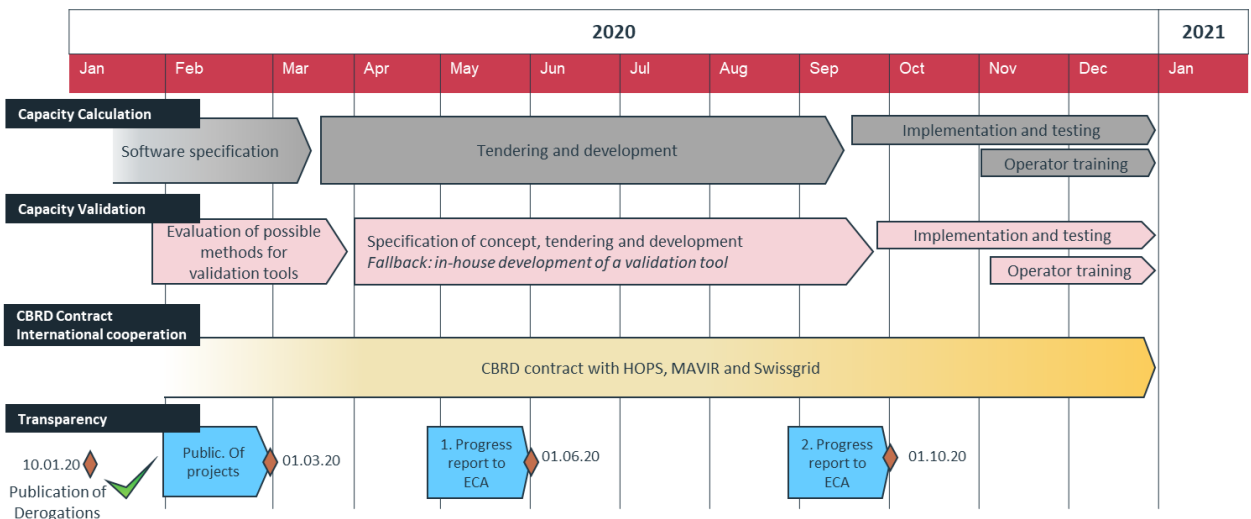
The following figure gives an overview of these working packages and their main contents. More information to the working packages can be found in Article 4 of this document.

Capacity Calculation	Capacity Validation	CB Redispatch Contracts & International Cooperation	Transparency and Monitoring
Specification, tendering and development of new IT tools for the calculation of the "70% criterion" - compliant capacities for NTC and FB borders	Specification, tendering and development of a validation tool to verify the calculated capacities with regard to network security and to correct the capacities if necessary	Development of new cross-border redispatch contracts to increase the available redispatch potential. Development of a CT&RD methodology in the Core working groups.	Compliance with ECA requirements (publications and information) and preparation of requested data deliveries for monitoring by NRAs / ACER

It should be noted that APG cannot mitigate all the foreseeable grounds endangering operational security related to the 70% CEP target on it's own, as some of these are depending on coordinated processes and concepts that need to be developed within the CCR (Capacity Calculation Region). For example, the currently ongoing development of a coordinated CT&RD (Countertrading & Redispatching) method as well as the the development of a coordinated capacity calculation method for the CCR Core are heavily dependent on external factors . Also, the still open points regarding the consideration of (market) flows from third countries or the expansion of multinational coordination with regard to net position forecasts and the use of PSTs, have to be resolved jointly by all relevant parties.

3. Implementation Plan

The figure below shows the implementation plan for each working package. In Addition, the relevant milestones regarding the foreseen monitoring are as well included.



4. Description of Work Packages

WORK PACKAGE	CAPACITY CALCULATION	PLANNED COMPLETION	31.12.2020
Description			
<p>The work package “Capacity Calculation” contains concrete steps, methods and tools to partially mitigate insufficient concepts and IT-tools for capacity calculation and validation as well as uncertainties in the capacity calculation process related to non-existence of a common coordinated forecast process in Europe (foreseeable grounds stated in the Article 3.1 and Article 3.5 of derogation granted by E-Control on 17.12.2019).</p> <p>For the determination of the Net Transfer Capacities (NTCs) at the AT/CZ, AT/HU and AT/SI borders, a capacity calculation methodology has to be developed that considers the requirements of Article 16 (8) (EU) 2019/943. The methodology will as well consider the ACER Recommendation on minimum margin available for cross-zonal trade (No. 01/2019), and also general concepts described in the APG derogation approved by E-Control. The goal of methodology is the calculation of simultaneously feasible NTCs based on the forecasted network situation. The consideration of coordinated (MCCC) and non-coordinated capacities (MNCC) given in the ACER Recommendation 01/2019 will be taken into account within the calculation methodology.</p> <p>In a first step, detailed concepts for the new calculation methodology (incl. determination of data requirements and process timings) will be developed.</p> <p>Based on these concepts, a software specification (technical requirement document) is to be developed and the tendering process is to be initiated. After completing the (external) software development, as well as the necessary tests such as factory acceptance test (FAT) and site acceptance test (SAT), the new software will be examined in a detailed functionality evaluation including the necessary adjustments. Finally, operator training will take place.</p> <p>For the DE/AT border, which is currently operated in the Flow Based Market Coupling environment of CWE, a prototype of a local tool was developed, to calculate MNCCs for all relevant CWE CNECs. Out of that, it is possible to calculate the AMR needed to be compliant with a certain minRAM target. This prototype tool is currently in use in the parallel run in CWE, which started with January 2020.</p> <p>With the end of the year, the new software for the NTC calculation at the borders AT/CZ, AT/HU and AT/SI will as well calculate the MNCCs for CWE CNECs and replace the prototype currently in use for the internal parallel run purpose.</p>			

The milestones listed below are best estimates, which are based on current knowledge and are also dependent on external parties (e.g. IT-vendors). Any changes to the milestones will be made available in the progress reports to E-Control.

Milestones	Planned Completion
Software specification	March 2020
Tendering and IT-development	September 2020
IT-implementation, testing and parametrisation	December 2020
Operator training	December 2020

WORK PACKAGE	CAPACITY VALIDATION	PLANNED COMPLETION	31.12.2020
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Description

The work package “Capacity Validation” contains concrete steps, methods and tools to partially mitigate insufficient concepts and IT-tools for capacity calculation and validation as well as uncertainties in the capacity calculation process related to non-existence of a common coordinated forecast process in Europe (foreseeable grounds stated in the Article 3.1 and Article 3.5 of derogation granted by E-Control on 17.12.2019).

In order to ensure grid security in every point in time, suitable and reliable methods, including the respective software tools to validate the calculated capacities are of utmost importance. In case the grid security is endangered, NTCs or minRAM values have to be reduced accordingly.

In the first step, a general assessment of tools currently available within TSO community will be done. In case that none of the tools can be used to meet the requirements, an alternative solution, such as an upgrade of currently available tools or development of a new tool is necessary.

The validation tool needs to be integrated, properly tested and parameterized to ensure reliable function. Training of operators staff within APG will take place before the operational go-live of the capacity validation process.

The milestones listed below are best estimates, which are based on current knowledge and are also dependent on external parties (e.g. software vendors). Any changes to the milestones will be made available in the progress reports to E-Control.

Milestones	Planned Completion
Evaluation of different validation tools	March 2020
Specification, tendering and IT-development (extern or intern)	September 2020
IT-Implementation (in-house), testing and parametrisation	December 2020
Operator training	December 2020

WORK PACKAGE	CBRD CONTRACTS, INTERNATIONAL COOPERATION	PLANNED COMPLETION	31.12.2020
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Description

The work package “CBRD contracts and international cooperation” contains concrete steps, methods and tools to:

- mitigate insufficient concepts and IT-tools for capacity calculation and validation (foreseeable ground stated in the Article 3.1 of derogation)
- mitigate insufficient redispatch potential to guarantee the 70% capacity criterion (foreseeable ground stated in the Article 3.2 of derogation)
- to mitigation reasons for absence of consideration of flows from 3rd countries in the capacity calculation (foreseeable ground stated in the Article 3.3 of derogation).
- to mitigate the CNEC capacity usage > 30% by loop flows and PST flows as well as the lack of cross-CCR coordination (foreseeable ground stated in the Article 3.4 of derogation).

CBRD contracts

Aims at partially mitigating foreseeable ground stated in Article 3.2 of derogation.

An increase of cross-zonal capacities could lead to situations, where the current redispatch potential is not sufficient to ensure a safe grid operation. On top of that, significant uncertainties related to the forecasts of cross-zonal exchanges outside of the respective coordination area will increase the demand for redispatching capacities even much further.

Key methodologies according to the CACM Regulation and SOGL addressing that issue, especially regarding operational security coordination as well as coordinated redispatching and countertrading have not been implemented by 1 January 2020 and therefore couldn't alleviate that situation. Due to this, APG is currently actively working to gain access to additional redispatch potentials available in the areas of both, neighbouring and non-neighbouring TSOs.

Cross-border redispatch (CBRD) cooperations with HOPS, MAVIR and Swissgrid are foreseen to be negotiated and concluded in respective contracts during the year 2020.

International Cooperation

(to mitigate foreseeable grounds stated in Articles 3.1, 3.2, 3.3 and 3.4 of derogation).

The following further important developments are depending on multinationally processes which are ongoing in the different CCRs. The implementation of these developments are coordinated at regional level and cannot be resolved solely by APG:

- Capacity calculation and validation requirements in line with CACM Regulation (to mitigate the foreseeable ground stated in the Article 3.1 of derogation).
- Key methodologies regarding operation security coordination as well as coordinated redispatching and countertrading (to mitigate the foreseeable grounds stated in the Article 3.2 and Article 3.4 of derogation).
- Contractual framework to consider flows of 3rd countries in the capacity calculation (to mitigate the foreseeable ground stated in the Article 3.3 of derogation).

The milestones listed below are best estimates, which are based on current knowledge and are also dependent on external parties. Any changes to the milestones will be made available in the progress reports to E-Control.

Milestones	Planned Completion
CBRD Contract with HOPS	December 2020
CBRD Contract with MAVIR	December 2020
CBRD Contract with Swissgrid	December 2020

WORK PACKAGE	TRANSPARENCY	PLANNED COMPLETION	31.12.2020
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Description

In accordance with the positive decision of E-Control on the derogation request of APG, the following steps will be taken to ensure transparency:

Milestones	Planned Completion
Publication of derogations	10.01.2020
Publication of projects and methods	01.03.2020
First progress report to E-Control	01.06.2020
Second progress report to E-Control	01.10.2020