

Request for amendment on the all TSOs' of the Nordic Capacity Calculation Region Capacity Calculation Methodology in accordance with Article 20 of the Commission Regulation (EU) 2015/1222

12 December 2018

- 1) The TSOs delivered an amended capacity calculation methodology ("methodology") to the NRAs on 16th May 2018. Having assessed the amended methodology in a coordinated manner, the CCR Nordic NRAs concluded that the methodology had improved significantly, and that it could be approved. The CCR Nordic NRAs approved the amended methodology in July 2018. While approving, the CCR Nordic NRAs however recognized a need to further clarify individual sections of the methodology. Because of this, the CCR Nordic NRAs agreed to make a further request for amendment to the methodology by the end of the year 2018. The specifics regarding the deficiencies and unclarities of the approved methodology were agreed in a common document¹ (CCM Annex 1), which acts as the basis for the changes required in this Request for Amendment ("RfA").
- 2) CACM GL Article 9 (13) constitutes the legal basis for the NRAs to request an amendment to the methodology after the approval.
- 3) The CCR Nordic TSOs shall deliver an amended methodology within 6 months following the reception of this RfA. The TSOs' proposals for amendment to the terms and conditions of the methodology shall also be submitted to consultation in accordance with the procedure set out in CACM Article 12.
- 4) Regulation (EC) No. 714/2009 with its Annex 1 on the [Guidelines on the Management and Allocation of Available Transfer Capacity of interconnections between national systems] and CACM GL constitute the main legal basis for the development and implementation of a common CCM. In particular, the CCM with its various components is subject to requirements set in CACM GL Section 3 and should after an overall assessment fulfil the objectives laid down in CACM GL Article 3.

List of requested changes to the Capacity Calculation Methodology

- 5) Any request in the RfA referring to a specific article, shall be interpreted to apply for the whole methodology:
- 6) The Whereas -section lays out details concerning the Common Grid Model ("CGM") and its role in the Capacity Calculation Methodology. The NRAs request the TSOs to start developing an appropriate grid model in coordination with each other, in order for the CCC to handle dynamic stability in capacity calculation. CCR Nordic NRAs expect the requirements concerning the calculation of dynamic stability limits could be fulfilled by creating the necessary processes and elements that would function alongside the current approved all-European CGM, without the need to amend the CGM methodology itself. The TSOs shall thus revise the methodology by correcting the descriptions on the role and relevance of CGM to match the requirements set in this RfA on the development of Capacity Calculation Methodology if required. This can be interpreted as a requirement to create an add-on, which would be connected to the approved CCM, but it can as well be interpreted to refer to any other kind of operation or tool, which will enable dynamic capacity calculation in the Nordic CCR in a manner that would be compatible with the CGM.

¹ Agreement by all Regulatory Authorities of CCR Nordic on the next step after the approval of TSOs' Proposal for a Capacity Calculation Methodology in accordance with Article 20.2 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management on the Determination of Capacity Calculation Regions, 10.7.2018

- 7) The TSOs shall clarify the methodology by clearly defining and describing the roles and rules, according to which the CCC will handle dynamic stability in capacity calculation in CCR Nordic, after the methodology has been implemented in accordance with the milestones and criteria.
- 8) The details concerning capacity calculation performed by the CCC shall be in line with the following CACM -principles: The CCC shall calculate the capacities using the technical limitations of the system needed to ensure secure system operation i.e. operational security limits, defined in CACM as the *acceptable operating boundaries for secure grid operation such as thermal limits, voltage limits, short-circuit current limits, frequency and dynamic stability limits*.
- 9) The TSOs shall expand the sentence in Article 4(1) in the methodology to state that each Nordic TSO is required to provide the operational security limits to the CCC in an appropriate format as well as all the relevant data needed to use the security limits in the regionally coordinated capacity calculation process.
- 10) The TSOs shall include a detailed description in the CCM of the appropriate format used for the provision of operational security limits, according to the following principles:

The methodology shall be amended to state that operational security limits shall be presented in appropriate units describing a specific power system physical property. For example, thermal limits shall be presented in MVA, voltage limits per unit, frequency relative to nominal and dynamic stability limits per unit for voltages and damping for electromechanical oscillations. As the end target, the appropriate format for the operational security limits shall not include any pre-calculation by the individual TSO where the operational security limits are transposed to flow limits presented with MW values.

- 11) Article 31 on capacity calculation process shall be amended to also include the process presented in Figure 2 in a written format clarifying the roles and responsibilities of TSOs and the CCC in legally robust manner. The TSOs shall go through each entity, task, role, input and output of data through the process, explaining the respective details, while also referring to the relevant articles of the methodology.
- 12) As the changes required in this RfA will require big alterations in the current operations such as development of new IT tools and processes, the methodology should be expanded to define the temporary capacity calculation method used until the methodology fulfilling the requirements in this RfA can be implemented in line with milestones and criteria set in Article 32.
- 13) Article 32 includes tables on milestones and criteria. As the NRAs are requesting the TSOs to develop an appropriate CGM or the necessary processes and elements to function alongside the current CGM, there should be additions in the implementation and milestones. The TSOs should update the plans and timelines in accordance with the upcoming work and to match the requirements set in this RfA. The CCR Nordic NRAs expect the TSOs to amend the methodology by presenting a plan with milestones that define the step-wise implementation of the fully coordinated methodology as described in this RfA. The Nordic CCR NRAs consider the work to be done in order to fulfil the requirements of this RfA to be interlinked with the milestones described in Article 32 on implementation of the FB approach. The Nordic CCR NRAs also expect that the implementation plan for having the CCC calculate the dynamic stability limits will progress simultaneously with the implementation of the FB -approach and thus expect the work to start without delay. The target model for calculating capacities, as described in point 6-11 of this RfA, should be considered throughout the continued implementation of the CCM.