Request for Amendment by the Core NRAs agreed at the Core Energy Regulators' Regional Forum

of

the "Core CCR TSOs' proposal for the regional design of the intraday common capacity calculation methodology in accordance with Article 20ff. of Commission Regulation (EU) 2015/1222 of 24 July 2015"

9 March 2018

1 INTRODUCTION AND LEGAL CONTEXT

Article 20 of the CACM Regulation[1] requires that no later than 10 months after the approval of the proposal for a capacity calculation region (hereafter "CCR") in accordance with Article 15(1) of the CACM Regulation, all TSOs in each CCR shall submit a proposal for a common capacity calculation methodology.

The Core TSOs' proposal for the intraday capacity calculation methodology was received by the last Core NRA on 20 September 2017.

This agreement of the Core NRAs shall provide evidence that a decision on the proposal for the intraday capacity calculation methodology does not, at this stage, need to be adopted by ACER pursuant to Article 9(11) of the CACM Regulation. It is intended to constitute the basis on which the **Core NRAs will each subsequently request an amendment** to the proposal for the intraday capacity calculation methodology pursuant to Article 9(12) of the CACM Regulation.

The legal provisions that lie at the basis of the proposal for the intraday capacity calculation methodology, and this Core NRAs agreement on the proposal for the intraday capacity calculation methodology, can be found in Articles 3, 8, 9, and 20ff. of the CACM Regulation:

Article 3 Objectives of capacity allocation and congestion management cooperation

This Regulation aims at:

(a) Promoting effective competition in the generation, trading and supply of electricity;

(b) Ensuring optimal use of the transmission infrastructure;

(c) Ensuring operational security;

(d) Optimising the calculation and allocation of cross-zonal capacity;

(e) Ensuring fair and non-discriminatory treatment of TSOs, NEMOs, the Agency, regulatory

authorities and market participants;

(f) Ensuring and enhancing the transparency and reliability of information;

(g) Contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union;

[1] Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management

(h) Respecting the need for a fair and orderly market and fair and orderly price formation;

(i) Creating a level playing field for NEMOs;

(j) Providing non-discriminatory access to cross-zonal capacity

Article 8 TSOs' tasks related to single day-ahead and intraday coupling

1. In Member States electrically connected to another Member State all TSOs shall participate in

the single day-ahead and intraday coupling.

2. TSOs shall:

(…)

(c) establish and perform capacity calculation in accordance with Articles 14 to 30;

(…)

Article 9 Adoption of terms and conditions or methodologies

1. *TSOs and NEMOs shall develop the terms and conditions or methodologies required by this Regulation and submit them for approval to the competent regulatory authorities within the respective deadlines set out in this Regulation. Where a proposal for terms and conditions or methodologies pursuant to this Regulation needs to be developed and agreed by more than one TSO or NEMO, the participating TSOs and NEMOs shall closely cooperate. TSOs, with the assistance of ENTSO for Electricity, and all NEMOs shall regularly inform the competent regulatory authorities and the Agency about the progress of developing these terms and conditions or methodologies.*

(…)

5. Each regulatory authority shall approve the terms and conditions or methodologies used to calculate or set out the single day-ahead and intraday coupling developed by TSOs and NEMOs. They shall be responsible for approving the terms and conditions or methodologies referred to in paragraphs 6, 7 and 8.

(…)

7. The proposals for the following terms and conditions or methodologies shall be subject to approval by all regulatory authorities of the concerned region:

(a) the common capacity calculation methodology in accordance with Article 20(2);

(b) (…)

(…)

9. The proposal for terms and conditions or methodologies shall include a proposed timescale for their implementation and a description of their expected impact on the objectives of this Regulation. Proposals on terms and conditions or methodologies subject to the approval by several or all regulatory authorities shall be submitted to the Agency at the same time that they are submitted to regulatory authorities. Upon request by the competent regulatory authorities, the Agency shall issue an opinion within three months on the proposals for terms and conditions or methodologies.

10. Where the approval of the terms and conditions or methodologies requires a decision by more than one regulatory authority, the competent regulatory authorities shall consult and closely cooperate and coordinate with each other in order reach an agreement. Where applicable, the competent regulatory authorities shall take into account the opinion of the Agency. Regulatory authorities shall take decisions concerning the submitted terms and conditions or methodologies in accordance with paragraphs 6, 7 and 8, within six months following the receipt of the terms and conditions or methodologies by the regulatory authority or, where applicable, by the last regulatory authority concerned.

(…)

12. In the event that one or several regulatory authorities request an amendment to approve the terms and conditions or methodologies submitted in accordance with paragraphs 6, 7 and 8, the relevant TSOs or NEMOs shall submit a proposal for amended terms and conditions or methodologies for approval within two months following the requirement from the regulatory authorities. The competent regulatory authorities shall decide on the amended terms and conditions or methodologies within two months following their submission. Where the competent regulatory authorities have not been able to reach an agreement on terms and conditions or methodologies pursuant to paragraphs (6) and (7) within the two-month deadline, or upon their joint request, the Agency shall adopt a decision concerning the amended terms and conditions or methodologies within six months, in accordance with Article 8(1) of Regulation (EC) No 713/2009. If the relevant TSOs or NEMOs fail to submit a proposal for amended terms and conditions or methodologies, the procedure provided for in paragraph 4 of this Article shall apply.

14. TSOs and NEMOs responsible for establishing the terms and conditions or methodologies in accordance with this Regulation shall publish them on the internet after approval by the competent regulatory authorities or, if no such approval is required, after their establishment, except where such information is considered as confidential in accordance with Article 13.

Article 20 Introduction of flow-based capacity calculation methodology

1. For the day-ahead market time-frame and intraday market time-frame the approach used in the common capacity calculation methodologies shall be a flow-based approach, except where the requirement under paragraph 7 is met.

2. No later than 10 months after the approval of the proposal for a capacity calculation region in accordance with Article 15(1), all TSOs in each capacity calculation region shall submit a proposal for a common coordinated capacity calculation methodology within the respective region. The proposal shall be subject to consultation in accordance with Article 12. The proposal for the capacity calculation methodology within regions pursuant to this paragraph in capacity calculation regions based on the 'North-West Europe' ('NWE') and 'Central Eastern Europe' ('CEE') as defined in points (b), and (d) of point 3.2 of Annex I to Regulation (EC) No 714/2009 as well as in regions referred to in paragraph 3 and 4, shall be complemented with a common framework for coordination and compatibility of flow-based methodologies across regions to be developed in accordance with paragraph 5.

(…)

8. To enable market participants to adapt to any change in the capacity calculation approach, the TSOs concerned shall test the new approach alongside the existing approach and involve market participants for at least six months before implementing a proposal for changing their capacity calculation approach.

9. The TSOs of each capacity calculation region applying the flow-based approach shall establish and make available a tool which enables market participants to evaluate the interaction between cross-zonal capacities and cross-zonal exchanges between bidding zones.

Article 21 Capacity calculation methodology

1. The proposal for a common capacity calculation methodology for a capacity calculation region determined in accordance with Article 20(2) shall include at least the following items for each capacity calculation time-frame:

(a)methodologies for the calculation of the inputs to capacity calculation, which shall include the following parameters:

(i) a methodology for determining the reliability margin in accordance with Article 22;
(ii)the methodologies for determining operational security limits, contingencies relevant to capacity calculation and allocation constraints that may be applied in accordance with Article 23;
(iii) the methodology for determining the generation shift keys in accordance with Article 24;
(iv) the methodology for determining remedial actions to be considered in capacity calculation in accordance with Article 25.

(b) a detailed description of the capacity calculation approach which shall include the following:

(i) a mathematical description of the applied capacity calculation approach with different capacity calculation inputs;
(ii) rules for avoiding undue discrimination between internal and cross-zonal exchanges to ensure compliance with point 1.7 of Annex I to Regulation (EC) No 714/2009;
(iii) rules for taking into account, where appropriate, previously allocated cross-zonal capacity;

(iv)rules on the adjustment of power flows on critical network elements or of cross-zonal capacity due to remedial actions in accordance with Article 25;

(v) for the flow-based approach, a mathematical description of the calculation of power transfer distribution factors and of the calculation of available margins on critical network elements;

(vi) for the coordinated net transmission capacity approach, the rules for calculating cross-zonal capacity, including the rules for efficiently sharing the power flow capabilities of critical network elements among different bidding zone borders;

(vii) where the power flows on critical network elements are influenced by cross-zonal power exchanges in different capacity calculation regions, the rules for sharing the power flow capabilities of critical network elements among different capacity calculation regions in order to accommodate these flows.

(c) a methodology for the validation of cross-zonal capacity in accordance with Article 26.

2. For the intraday capacity calculation time-frame, the capacity calculation methodology shall also state the frequency at which capacity will be reassessed in accordance with Article 14(4), giving reasons for the chosen frequency.

3. The capacity calculation methodology shall include a fallback procedure for the case where the initial capacity calculation does not lead to any results.

4. All TSOs in each capacity calculation region shall, as far as possible, use harmonised capacity calculation inputs. By 31 December 2020, all regions shall use a harmonised capacity calculation methodology which shall in particular provide for a harmonised capacity calculation methodology for the flow-based and for the coordinated net transmission capacity approach. The harmonisation of capacity calculation methodology shall be subject to an efficiency assessment concerning the harmonisation of the flow-based methodologies and the coordinated net transmission capacity methodologies that provide for the same level of operational security. All TSOs shall submit the assessment with a proposal for the transition towards a harmonised capacity calculation methodology to all regulatory authorities within 12 months after at least two capacity calculation regions have implemented common capacity calculation methodology in accordance with Article 20(5).

Article 22 Reliability margin methodology

1. The proposal for a common capacity calculation methodology shall include a methodology to determine the reliability margin. The methodology to determine the reliability margin shall consist of two steps. First, the relevant TSOs shall estimate the probability distribution of deviations between the expected power flows at the time of the capacity calculation and realised power flows in real time. Second, the reliability margin shall be calculated by deriving a value from the probability distribution.

2. The methodology to determine the reliability margin shall set out the principles for calculating the probability distribution of the deviations between the expected power flows at the time of the capacity

calculation and realised power flows in real time, and specify the uncertainties to be taken into account in the calculation. To determine those uncertainties, the methodology shall in particular take into account:

(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 capacity calculation and which could occur between the capacity calculation time-frame and real time, for the market time unit being considered.

3. In the methodology to determine the reliability margin, TSOs shall also set out common harmonised principles for deriving the reliability margin from the probability distribution.

4. On the basis of the methodology adopted in accordance with paragraph 1, TSOs shall determine the reliability margin respecting the operational security limits and taking into account uncertainties between the capacity calculation time-frame and real time, and the remedial actions available after capacity calculation.

5. For each capacity calculation time-frame, the TSOs concerned shall determine the reliability margin for critical network elements, where the flow-based approach is applied, and for cross-zonal capacity, where the coordinated net transmission capacity approach is applied.

Article 23 Methodologies for operational security limits, contingencies and allocation constraints

1. Each TSO shall respect the operational security limits and contingencies used in operational security analysis.

2. If the operational security limits and contingencies used in capacity calculation are not the same as those used in operational security analysis, TSOs shall describe in the proposal for the common capacity calculation methodology the particular method and criteria they have used to determine the operational security limits and contingencies used for capacity calculation.

3. If TSOs apply allocation constraints, they can only be determined using:

(a) constraints that are needed to maintain the transmission system within operational security limits and that cannot be transformed efficiently into maximum flows on critical network elements; or
(b) constraints intended to increase the economic surplus for single day-ahead or intraday coupling.

Article 24 Generation shift keys methodology

1. The proposal for a common capacity calculation methodology shall include a proposal for a methodology to determine a common generation shift key for each bidding zone and scenario developed in accordance with Article 18.

2. The generation shift keys shall represent the best forecast of the relation of a change in the net position of a bidding zone to a specific change of generation or load in the common grid model. That forecast shall notably take into account the information from the generation and load data provision methodology.

Article 25 Methodology for remedial actions in capacity calculation

1. Each TSO within each capacity calculation region shall individually define the available remedial actions to be taken into account in capacity calculation to meet the objectives of this Regulation.

2. Each TSO within each capacity calculation region shall coordinate with the other TSOs in that region the use of remedial actions to be taken into account in capacity calculation and their actual application in real time operation.

3. To enable remedial actions to be taken into account in capacity calculation, all TSOs in each capacity calculation region shall agree on the use of remedial actions that require the action of more than one TSO.

4. Each TSO shall ensure that remedial actions are taken into account in capacity calculation under the condition that the available remedial actions remaining after calculation, taken together with the reliability margin referred to in Article 22, are sufficient to ensure operational security.

5. Each TSO shall take into account remedial actions without costs in capacity calculation.

6. Each TSO shall ensure that the remedial actions to be taken into account in capacity calculation are the same for all capacity calculation time-frames, taking into account their technical availabilities for each capacity calculation time-frame.

Article 26 Cross-zonal capacity validation methodology

1. Each TSO shall validate and have the right to correct cross-zonal capacity relevant to the TSO's bidding zone borders or critical network elements provided by the coordinated capacity calculators in accordance with Articles 27 to 31.

2. Where a coordinated net transmission capacity approach is applied, all TSOs in the capacity calculation region shall include in the capacity calculation methodology referred to in Article 21 a rule for splitting the correction of cross-zonal capacity between the different bidding zone borders.

3. Each TSO may reduce cross-zonal capacity during the validation of cross-zonal capacity referred to in paragraph 1 for reasons of operational security.

4. Each coordinated capacity calculator shall coordinate with the neighbouring coordinated capacity calculators during capacity calculation and validation.

5. Each coordinated capacity calculator shall, every three months, report all reductions made during the validation of cross-zonal capacity in accordance with paragraph 3 to all regulatory authorities of the capacity calculation region. This report shall include the location and amount of any reduction in cross-zonal capacity and shall give reasons for the reductions.

6. All the regulatory authorities of the capacity calculation region shall decide whether to publish all or part of the report referred to in paragraph 5.

2 CORE TSOs' PROPOSAL

The Core TSOs' proposal for the intraday capacity calculation methodology was consulted on by Core TSOs through ENTSO-E from 30 June 2017 to 31 July 2017 in line with Article 20(2) and Article 12 of the CACM Regulation.

In the public consultation, Core TSOs were seeking input from stakeholders and market participants on the draft proposal. Markets participants were asked to provide Core TSOs with their feedback via the online survey platform.

Core NRAs closely observed, analysed and continuously provided feedback and guidance to Core TSOs during various meetings in 2016, 2017 and 2018 and through a shadow opinion of all Core NRAs in August 2017.

The final proposal for the intraday capacity calculation methodology, dated 15 September 2017, was received by the last Core NRA on 20 September 2017. The proposal includes proposed timescales for its implementation and a description of its expected impact on the objectives of CACM Regulation, in line with Article 9(9) of CACM Regulation.

Article 9(10) of the CACM Regulation requires Core NRAs to consult and closely cooperate and coordinate with each other in order to reach an agreement, and make decisions within six months following receipt

of submissions of the last Core NRA concerned. A decision is therefore required by each Core NRA by 20 March 2018.

The proposal for the intraday capacity calculation methodology, as understood by the Core NRAs, foresees the introduction of a **flow-based capacity calculation methodology** in the Core CCR at the intraday timeframe.

3 CORE NRAs' ASSESSMENT

Core NRAs request Core TSOs to amend the proposal pursuant Article 9(12) of the CACM Regulation and **to take into account all comments made in the request for amendment on the proposal for the day-ahead capacity calculation methodology that also applies to the proposal for the intraday capacity calculation methodology.**

In addition, the proposal delivered by Core TSOs does not contain a detailed, consistent and fully CACM Regulation-compliant description of the intraday capacity calculation. It does not contain an adequate number, frequency and description of recalculations in the intraday timeframe in Article 15 (Intraday capacity calculation) of the proposal but a reference to a so called deliverable report which shall be provided to Core NRAs in Q1 2018, describing the approach to finalize the open issues on sub-methodologies. This report would display a timeline until the frequency of recalculation will be finalized by Core TSOs on a date to be precised in this report.

As Core NRAs cannot approve sub-methodologies or methodologies that imply subsequent approvals or refer to additional deliveries, they do not consider the approach proposed by Core TSOs as feasible. Core NRAs then urge Core TSOs to add sufficient descriptions of the whole methodology in the amended proposal.

Besides the missing sub-methodology, the proposal for the intraday capacity calculation methodology lacks the level of details needed to approve the intraday capacity calculation. Core NRAs expect to receive one single document containing a detailed, consistent and fully CACM Regulation-compliant description of the intraday capacity calculation methodology, containing an adequate number, frequency and description of recalculations, including the length of the calculation process so that it is know when the calculated capacity will be released to the market.

Further on, consistency between the intraday and day-ahead capacity calculation methodology shall be assured. Further on, the alignment with preceding processes (e.g. day-ahead coupling and post coupling processes and coordinated operational security assessment and the frequency of the coordinated re-calculation of cross-zonal capacity) shall be described.

Moreover, Core TSOs should justify why the implementation of the intraday capacity calculation methodology is beyond the deadline provided in the CACM Regulation, i.e. 31 December 2020.

Not all requirements of the CACM Regulation are covered in the proposal. Core TSOs failed to fulfil their obligation and Core NRAs are not in a position to approve a proposal which is incomplete, leaves wide room for interpretations and is far from being enforceable.

4 Conclusion

All Core NRAs have assessed, consulted and closely cooperated and coordinated to reach the agreement that the proposal for the intraday capacity calculation methodology does not meet all requirements of the CACM Regulation, is far from being enforceable and as such cannot be approved by all Core NRAs.

According to Article 9(12) of the CACM Regulation, Core NRAs request an amendment to the proposal for the intraday capacity calculation methodology submitted by the Core TSOs pursuant to Article 20ff. of the CACM Regulation.

The amended proposal shall take into account the Core NRAs position stated above, and shall be submitted by all Core TSOs no later than two months following the requirement from the regulatory authorities, in accordance with Article 9(12) of the CACM Regulation.

All Core NRAs must make their decisions to request an amendment to the proposal for the intraday capacity calculation methodology, on the basis of this agreement, by 20 March 2018.