REQUEST FOR AMENDMENT BY THE SEE CCR REGULATORY AUTHORITIES AGREED AT THE SEE CCR ENERGY REGULATORS’ REGIONAL FORUM OF

THE SOUTH EAST EUROPE TSOs PROPOSAL OF COMMON CAPACITY CALCULATION METHODOLOGY FOR LONG TERM TIMEFRAME IN ACCORDANCE WITH ARTICLE 10 OF COMMISSION REGULATION (EU) 2016/1719 OF 26 SEPTEMBER 2016 ESTABLISHING A GUIDELINE ON FORWARD CAPACITY ALLOCATION

15 April 2020
I. Introduction and legal context

This document elaborates an agreement of the SEE CCR Regulatory Authorities (in the following: SEE NRAs), agreed on 15 April 2020 at the SEE CCR Energy Regulators' Regional forum, on the SEE CCR TSOs (in the following: SEE TSOs) proposal of common capacity calculation methodology for long term timeframe (in the following: SEE FCA CCM), submitted as required by Article 10(1) of Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (in the following: FCA).

This agreement of the SEE NRAs (ANRE, EWRC and RAE) shall provide evidence that a decision on the SEE FCA CCM does not, at this stage, need to be adopted by ACER pursuant to Article 4(10) of FCA. It is intended to constitute the basis on which the SEE NRAs will each subsequently request an amendment to the SEE FCA CCM pursuant to Article 4(11) of FCA.

The legal provisions that lie at the basis of the SEE FCA CCM, and this SEE NRAs agreement on the request for amendment to the above mentioned methodology, can be found in Articles 3, 4, 9, 10, 11, 12, 13, 14, 15, 23 and 24 of FCA and in Article 5 of Commission Regulation (EU) 2019/942 of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators (recast) (in the following: ACER Regulation (recast)). They are set out here for reference.

Article 3 of FCA
Objectives of forward capacity allocation

This Regulation aims at:

(a) promoting effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants;
(b) optimising the calculation and allocation of long-term cross-zonal capacity;
(c) providing non-discriminatory access to long-term cross-zonal capacity;
(d) ensuring fair and non-discriminatory treatment of TSOs, the Agency, regulatory authorities and market participants;
(e) respecting the need for a fair and orderly forward capacity allocation and orderly price formation;
(f) ensuring and enhancing the transparency and reliability of information on forward capacity allocation;
(g) contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union.

Article 4 of FCA
Adoption of terms and conditions or methodologies

1. TSOs 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, the participating TSOs shall closely cooperate. TSOs, with the assistance of ENTSO for Electricity, shall regularly inform the competent regulatory authorities and the Agency about the progress of the development of these terms and conditions or methodologies.

[...]

5. Each regulatory authority shall be responsible for approving the terms and conditions or methodologies referred to in paragraphs 6 and 7.

6. (…) 

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 capacity calculation methodology pursuant to Article 10;
   […]
8. 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.

9. 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 and 7, 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.

10. Where the regulatory authorities have not been able to reach an agreement within the period referred to in paragraph 9, or upon their joint request, the Agency shall adopt a decision concerning the submitted proposals for terms and conditions or methodologies within six months, in accordance with Article 8(1) of Regulation (EC) No 713/2009.

11. 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 and 7, the relevant TSOs 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. (…)

12. (…)

13. TSOs 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 7.

Article 9 of FCA  
Capacity calculation time frames  
All TSOs in each capacity calculation region shall ensure that long-term cross-zonal capacity is calculated for each forward capacity allocation and at least on annual and monthly time frames.

Article 10 of FCA  
Capacity calculation methodology  
1. No later than six months after the approval of the common coordinated capacity calculation methodology referred to in Article 9(7) of Regulation (EU) 2015/1222, all TSOs in each capacity calculation region shall submit a proposal for a common capacity calculation methodology for long-term time frames within the respective region. The proposal shall be subject to consultation in accordance with Article 6.

2. The approach used in the common capacity calculation methodology shall be either a coordinated net transmission capacity approach or a flow-based approach.

3. The capacity calculation methodology shall be compatible with the capacity calculation methodology established for the day-ahead and intraday time frames pursuant to Article 21(1) of Regulation (EU) 2015/1222.
4. The uncertainty associated with long-term capacity calculation time frames shall be taken into account when applying:
   a. a security analysis based on multiple scenarios and using the capacity calculation inputs, the capacity calculation approach referred to in Article 21(1)(b) and the validation of cross-zonal capacity referred to in Article 21(1)(c) of Regulation (EU) 2015/1222; or
   b. a statistical approach based on historical cross-zonal capacity for day-ahead or intraday time frames if it can be demonstrated that this approach may:
      (i) increase the efficiency of the capacity calculation methodology;
      (ii) better take into account the uncertainties in long-term cross-zonal capacity calculation than the security analysis in accordance with paragraph 4(a);
      (iii) increase economic efficiency with the same level of system security.
5. All TSOs in each capacity calculation region may jointly apply the flow-based approach for long-term capacity calculation time frames on the following conditions:
   a. the flow-based approach leads to an increase of economic efficiency in the capacity calculation region with the same level of system security;
   b. the transparency and accuracy of the flow-based results have been confirmed in the capacity calculation region;
   c. the TSOs provide market participants with six months to adapt their processes.
6. Where a security analysis based on multiple scenarios is applied for developing the capacity calculation methodology in a capacity calculation region, the requirements for the capacity calculation inputs, the capacity calculation approach and the validation of cross-zonal capacity as provided for in Article 21(1) of Regulation (EU) 2015/1222, except Article 21(1)(a)(iv) where relevant, shall apply.
7. When developing the capacity calculation methodology, the requirements for the fallback procedures and the requirement provided for in Article 21(3) of Regulation (EU) 2015/1222 shall be taken into account.

Article 11 of FCA
Reliability margin methodology
The proposal for a common capacity calculation methodology shall include a reliability margin methodology which shall meet the requirements set out in Article 22 of Regulation (EU) 2015/1222.

Article 12 of FCA
Methodologies for operational security limits and contingencies
The proposal for a common capacity calculation methodology shall include methodologies for operational security limits and contingencies which shall meet the requirements set out in Article 23(1) and (2) of Regulation (EU) 2015/1222.

Article 13 of FCA
Generation shift keys methodology
The proposal for a common capacity calculation methodology shall include a methodology to determine generation shift keys which shall meet the requirements set out in Article 24 of Regulation (EU) 2015/1222.

Article 14 of FCA
Methodology for remedial actions
If remedial actions are taken into account in the long-term capacity calculation, each TSO shall ensure that those remedial actions are technically available in real time operation and meet the requirements set out in Article 25 of Regulation (EU) 2015/1222.

Article 15 of FCA
Cross-zonal capacity validation methodology
The proposal for a common capacity calculation methodology shall include a cross-zonal validation methodology which shall meet the requirements set out in Article 26 of Regulation (EU) 2015/1222.
Article 23 of FCA
Regional calculations of long-term cross-zonal capacity
1. Where TSOs apply the statistical approach pursuant to Article 10, the process for the calculation of long-term cross-zonal capacity shall include at least:
   a. a selection of historical day-ahead or intraday cross-zonal capacity data sets from a single period or a set of periods and order the data into a duration curve;
   b. a calculation of capacity corresponding to the risk level for the selected data set;
   c. a calculation of long-term cross-zonal capacity to be offered to forward capacity allocation taking into account a margin to reflect the difference between historical cross-zonal capacity values and forecasted long-term cross-zonal capacity values;
   d. common rules to take into account available information about planned outages, new infrastructure and generation and load pattern for the long-term capacity calculation time frames.
2. Where TSOs apply the security analysis based on multiple scenarios pursuant to Article 10, the requirements set in Article 29 of Regulation (EU) 2015/1222, except Article 29(4) where relevant, shall apply to long-term capacity calculation time frames in capacity calculation regions.
3. (…)
4. Each coordinated capacity calculator shall submit the calculated long-term cross-zonal capacity (…) for validation to each TSO within the relevant capacity calculation region pursuant to Article 24.

Article 24 of FCA
Validation and delivery of cross-zonal capacity and split cross-zonal capacity
1. Each TSO shall validate the results of the calculation for long-term cross-zonal capacity on its bidding zone borders or critical network elements for each long-term capacity calculation time frame pursuant to Article 15.
2. (…)
3. Each TSO shall send its capacity validation (…) for each forward capacity allocation to the relevant coordinated capacity calculators and to the other TSOs of the relevant capacity calculation regions.
[…]

Article 5 of ACER Regulation (recast)
Tasks of ACER as regards the development and implementation of network codes and guidelines
[…]
1. Where one of the following legal acts provides for the development of proposals for terms and conditions or methodologies for the implementation of network codes and guidelines which require the approval of all the regulatory authorities of the region concerned, those regulatory authorities shall agree unanimously on the common terms and conditions or methodologies to be approved by each of those regulatory authorities:
   (a) a legislative act of the Union adopted under the ordinary legislative procedure;
   (b) network codes and guidelines that were adopted before 4 July 2019 and subsequent revisions of those network codes and guidelines; or
   (c) network codes and guidelines adopted as implementing acts pursuant to Article 5 of Regulation (EU) No 182/2011.

The proposals referred to in the first subparagraph shall be notified to ACER within one week of their submission to those regulatory authorities. The regulatory authorities may refer the proposals to ACER for approval pursuant to point (b) of the second subparagraph of Article 6(10) and shall do so pursuant to point (a) of the second subparagraph of Article 6(10) where there is no unanimous agreement as referred to in the first subparagraph.

The Director or the Board of Regulators, acting on its own initiative or on a proposal from one or more of its members, may require the regulatory authorities of the region concerned to refer the proposal to ACER for approval. Such a request shall be limited to cases in which the
regionally agreed proposal would have a tangible impact on the internal energy market or on security of supply beyond the region.

[...]

II. The SEE TSOs proposal

The SEE FCA CCM was consulted by the SEE TSOs through ENTSO-E for one month from 29 July 2019 to 2 September 2019, in line with Article 10 and Article 6 of FCA\(^1\). The final SEE FCA CCM proposal was received by the last Regulatory Authority of the SEE Capacity Calculation Region on 17 October 2019. The proposal includes proposed timescales for its implementation (just after the implementation of the SEE TSOs’ proposal for the common capacity calculation methodology for the DA and ID market time frame (in the following: SEE CACM CCM) according to Articles 20 and 21 of Regulation (EU) 2015/1222 (in the following: CACM)) and a description of its expected impact on the objectives of FCA, in line with Article 4(8) of FCA.

Article 4(9) of FCA requires SEE 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 Regulatory Authority concerned. A decision is therefore required by 17 April 2020.

The SEE FCA CCM is based on a Coordinated Net Transmission Capacity (in the following: CNTC) approach and applies a security analysis based on multiple scenarios and using the capacity calculation inputs, the capacity calculation approach referred to in Article 21(1)(b) and the validation of cross-zonal capacity referred to in Article 21(1)(c) of CACM in order to properly take into account all sources of uncertainty related to the long-term capacity calculation time frames:

a) during the year-ahead and month-ahead capacity calculation (CC) processes, the Total Transfer Capacity (TTC) for the south RO borders, the BG-RO border, the north Greek borders and the BG-GR border shall be assessed in both directions: by using Alternative Current (AC) load flow algorithm in order to assess network security of the relevant Critical Network Elements and Contingencies; is based on merged year-ahead CGMs for year-ahead CC process and updated year-ahead CGMs for month-ahead CC process; by applying modification of cross border-zonal exchanges according to Generation Shift Keys (GSK) files;

b) the reliability margin used will be the same as the one for the DA time frame as described in the SEE CACM CCM;

c) for the long-term capacity calculation, the same methodologies for operational security limits and contingencies that are described in SEE CACM CCM shall be used; only network elements significantly influenced by cross-zonal power exchanges are included in the contingency and network constraints list; SEE CCR cross-zonal network elements are by definition considered to be significantly impacted while the other CNECs (from the initial TSO list) that have a sensitivity factor equal or higher than 5% shall be taken into account in all of the steps of the common capacity calculation to determine the long-term cross-zonal capacity;

d) allocation constraints will not be applied;

e) general principles on the definition of GSKs are provided; in its GSK, each TSO shall use flexible and controllable productions units which are available inside the TSO grid while units unavailable due to outage or maintenance are not included;

f) for yearly and monthly capacity calculation time frames, the SEE TSOs shall use annually created ENTSO-E year-ahead reference scenarios, in accordance with Article 3.1 of CGMM for FCA in conjunction with Article 65 of the Regulation (EU) 2017/1485 (in the following: SO Regulation); the year-ahead seasonal scenarios used for yearly cNTC calculation will be updated for monthly cNTC calculation; after the updated CGM it is obtained, SEE CCC will apply in the monthly updated CGM the selected planned outage intervals;

\(^1\) The public consultation is available on the ENTSO-e website: https://consultations.entsoe.eu/markets/see_ccr_lt_ccm_art10_fca_1st-submission/
g) cross-zonal capacity computed by the CCC is validated by each TSO: in particular a reduction may be asked; the final cross-zonal capacity value is the minimum value sent by the SEE TSOs of the border considered during the validation process;

h) in case the long-term capacity calculation process is not able to produce a result, a fallback procedure shall be applied: the SEE TSOs shall bilaterally agree on NTC values for the relevant time frame(s); after they commonly coordinate and validate these NTC values, the SEE TSOs provide inputs to CCC;

i) the year-ahead and month-ahead capacity calculation methodology will be implemented just after the implementation of SEE CACM CCM, including an internal parallel run (6 months period) and an external parallel run (6 months period).

III. The SEE NRAs’ position

SEE NRAs welcome the SEE FCA CCM submitted by the SEE TSOs. However, as far the technical contents are concerned, SEE NRAs have identified a number of issues with respect to the SEE FCA CCM proposal (in some cases details are missing, while in other cases more transparency is welcomed) and thus, deem it important to propose specific amendments on the SEE TSOs proposal.

General remarks

- The level of detail in most Articles of the SEE FCA CCM is insufficient. Either because the details exist in the Explanatory Note of the SEE FCA CCM or in the SEE CACM CCM. SEE NRAs consider as important that the SEE TSOs enrich the Articles (for example Art. 4, 5, 6, 11 etc) by moving some details from the Explanatory Note to the SEE FCA CCM, since this is the legally binding document. The proposal should contain detailed, consistent and fully FCA compliant description of methodologies with clear, transparent and harmonised definitions and criteria. As an example, the description of GSK methodology on Art. 7 is considered sufficient.

- It is not clear from the SEE FCA CCM whether remedial actions are taken into account in the long-term capacity calculation, pursuant to Art. 14 of FCA. There is not an explicit Article for describing such application as in SEE CACM CCM while in several Articles of the SEE FCA CCM the RAs are mentioned. In any case the SEE TSOs should explain their motivation behind each decision (to apply or not RAs on capacity calculation).

Article 1 - Subject matter and scope

SEE NRAs propose that the paragraph in this Article is rephrased as follows:

“The common capacity calculation methodology shall be considered as a SEE TSOs methodology in accordance with Article 10 of the FCA Regulation and the capacity shall be calculated for each forward capacity allocation and at least on annual and monthly time frames for the SEE CCR bidding zone borders.”

Article 2 - Definitions and interpretation

SEE NRAs propose that the paragraph in this Article 2(1) is rephrased as follows:

developed in the SEE CCR in accordance with Article 20(2) of the CACM Regulation (hereinafter SEE DA CCM).”

**Article 4 - Cross-zonal capacities for the long-term market**

In this Article there should be a reference on the used approach (CNTC or flow-based), as it is requested by Art. 10 (2) of FCA Regulation.

Furthermore, in accordance with the content of Art. 4 and 5 of SEE CACM CCM, SEE TSOs should elaborate on this Article by providing a high-level process flow in order the whole procedure to be clearer.

**Article 5 - Reliability margin methodology**

Firstly, SEE FCA CCM should mention in this Article that each SEE TSO shall provide to the CCC the reliability margin (in the following: RM) to be used in the long-term capacity calculation.

Secondly, the SEE TSOs should make it clear which RM will be used e.g. the one for the DA or the ID CCM, as well as if, before the first operational calculation of the RM values, they are going to use RMs equal to 100MW for BG-RO and BG-GR borders for each direction, according to Art. 6(13) of SEE CACM CCM. SEE TSOs should provide further explanations on the RM values update in the Explanatory Note.

Furthermore, the Art. 5(4) is preferred to be included to Art. 6(2), since it refers to the sensitivity factor.

**Article 6 - Methodologies for operational security limits and contingencies**

Regarding the methodology for determining operational security limits, SEE TSOs are requested to mention in this Article the following:

- Each SEE TSO shall provide to the CCC for each CNEC, for each long-term capacity calculation time frame and for each scenario the operational security limits, which are needed by the CCC;
- Whether the SEE TSOs are going to apply or not the same operational security limits as in the operational security analysis (article 25 of SO Regulation). The list should be sent to the CCC;
- Aspects regarding the maximum admissible current representing thermal limit;
- Regularly review and update by the SEE TSOs.

Regarding the methodology for determining the CNEC relevant to capacity calculation, SEE TSOs are requested to mention in this Article the following:

- Each TSO shall define a list of CNE;
- Each TSO shall define a list of proposed contingencies used in operational security analysis in accordance with article 33 of the SO Regulation, limited to their relevance for the set of CNE; The list shall be updated at least on a yearly basis and in case of topology changes;
- Each TSO shall establish a list of CNE associated with a contingency (CNEC);
- Each TSO shall provide to the CCC for each long-term capacity calculation time frame and each scenario a list of CNEC;
- In case it is necessary to amend this methodology, then a deadline for amending it is necessary to be written;
- Alternative measures for managing congestions on internal network elements should be mentioned;
- The SEE TSOs shall regularly review and update the application of the methodology for determining CNEC.

**Article 7 - Generation shift keys methodology**
SEE TSOs shall mention whether they intend to review and update the application of the GSK methodology and the review period in accordance with Art. 8 of SEE CACM CCM.

**Article 9 - Cross-zonal capacity validation methodology**

Regarding Art. 9(1), SEE NRAs consider that in case RA are not taken into account, the situation that is provided at b) should not be included. Furthermore, the situation provided at c) should not be included, also, since the extremely low demand is difficult to be forecasted for the LT calculation.

SEE NRAs propose that the paragraph in this Article 9(2) is rephrased as follows:

“...when performing the validation, the TSOs shall consider operational security, taking into account new and relevant information obtained during or after the most recent capacity calculation. Therefore, …”

In Art. 9(3), SEE NRAs consider as important the disclosure of the reasons for not validating the calculated cross-zonal capacity and they propose an addition to be considered by the SEE TSOs.

“If TSOs find errors in cross-zonal capacity provided for validation, the relevant TSOs shall provide updated CC inputs to the CCC for recalculations of cross-zonal capacities. The CCC shall repeat calculation with updated CC inputs and send the recalculated cross-zonal capacities for another validation. Recalculations shall be executed until no errors are found”.

SEE NRAs understand the recalculations cannot be repeated for a long time, so they propose the SEE TSOs to assess these provisions and provide with a thorough analysis.

**Article 10 - Mathematical description of the long-term capacity calculation approach**

Regarding the provisions of Art. 10(15), SEE TSOs shall assess whether the reference to Art. 21 of CACM should be eliminated as well as they shall explain whether the monthly capacity calculation process takes into account the yearly allocated capacity. Furthermore, SEE NRAs propose SEE TSOs to include a dedicated Article on the previously allocated cross-zonal capacities. This new Article should refer to the fact that each SEE TSO shall provide to the CCC for each SEE bidding zone border and for each long-term capacity calculation time frame the previously allocated cross-zonal capacities.

As for the reference in negative or zero calculated ATC values and the subsequent fact of no capacity to be made available for the next market time frame in Art. 10(18), SEE NRAs request SEE TSOs to elaborate on this issue and clarify whether this is the situation in the present and assess the impact of this fact to the market participants. In the Explanatory Note, there has to be a reference on this issue, especially describing the current situation, providing some examples etc.

**Article 11 - Fallback procedures**

SEE NRAs suggest that SEE TSOs include the details of Art. 2.2.2 of the Explanatory Note in this Article.

**Article 13 - Publication and Timescale for Implementation of the capacity calculation methodology**

SEE TSOs shall provide SEE NRAs with the status of the implementation of the DA and ID common capacity calculation methodology, since they correlate the implementation of SEE CACM CCM with the start of implementation process of SEE FCA CCM.

If there have been certain delays and the approved implementation timeline is not going to be respected (for example if the DA common capacity calculation methodology is not going to be implemented the latest by 1st of July 2020), SEE TSOs have to propose an amendment to the SEE CACM CCM proposal and submit it to SEE NRAs for approval, following the provisions of Article 9(13) of the CACM, providing sufficient reasoning.
Regarding the implementation of SEE FCA CCM, SEE NRAs request SEE TSOs to include a more specific provision including a certain period such as “no later than xx months after DA CCM has been implemented…”.

**Specific proposals for improvement**

SEE NRAs would like to propose some additional amendments and typos correction to the SEE FCA CCM for clarification and harmonization reasons as incorporated in the, attached to this agreement, SEE FCA CCM.

**IV. Conclusions**

SEE NRAs have assessed, consulted and closely cooperated and coordinated to reach agreement that they request an amendment to the SEE FCA CCM submitted by SEE TSOs, pursuant to Article 4(11) of FCA.

The amended proposal shall take into account the SEE NRAs’ position stated above and it shall be submitted by all SEE TSOs no later than 2 months after the last national decision of SEE NRAs to request an amendment has been made, in accordance with Article 4(11) of FCA.

SEE NRAs should issue their national decisions to request an amendment to this long-term capacity calculation methodology, on the basis of this agreement, within 6 months after the receipt of the proposal by the last NRA, according to Article 4(9) of FCA.

Annex I to this SEE NRAs agreement sets out the proposed amendments to the SEE FCA CCM, pursuant to Article 10 of FCA, as requested by SEE NRAs.

Annexes:

Annex I- SEE CCR TSOs’ proposal for the common capacity calculation methodology for the long term market time-frame in accordance with Article 10 of the Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation