Subject: Reaction to ACER’s preliminary position on methodologies, common rules and terms of operation for cross-border participation in capacity mechanisms


(i) a methodology for calculating the maximum entry capacity for cross-border participation as referred to in paragraph 7 of Article 26 of the Regulation (EU) 2019/943;
(ii) a methodology for sharing the revenues referred to in paragraph 9 of Article 26 of the Regulation (EU) 2019/943;
(iii) common rules for the carrying out of availability checks referred to in point (b) of paragraph 10 of Article 26 of the Regulation (EU) 2019/943;
(iv) common rules for determining when a non-availability payment is due;
(v) terms of the operation of the registry as referred to in point (a) of paragraph 10 of Article 26 of the Regulation (EU) 2019/943;
(vi) common rules for identifying capacity eligible to participate in the capacity mechanism as referred to in point (a) of paragraph 10 of Article 26 of the Regulation (EU) 2019/943.

As per Article 15(2) of the ACER Rules of Procedure, and following ENTSO-E’s request for an oral hearing, we enclose hereby our detailed comments and alternative wording and suggestions for ACER’s proposals. They reflect our belief that some of the proposed amendments could lead to some major implementation constrains and legal issues, especially:

- for calculating the maximum entry capacity, where the ACER’s proposed approach to consider the contribution from non-neighbouring countries may conflict with a Member State’s choice to limit cross-border participation to electrical neighbours;
- for availability check and eligibility, where the ACER’s proposal to introduce binding provisions could limit a Member State’s ability to design the most suitable capacity mechanism to solve its respective identified adequacy issue(s) and
- for revenue sharing, where the ACER proposed approach does not reflect the actual scarcity of the interconnection as a limiting factor for adequacy.

Regarding the hearing process in general, ENTSO-E appreciates the opportunity ACER offers to comment on the envisaged amendments. However, we would like to stress that such a short period of time has been remarkably challenging for ENTSO-E in terms of providing meaningful and complete feedback, especially considering the extensive proposed amendments and the working conditions during the current COVID-19 pandemic. Thus, we would like to urge ACER to consider an extended hearing period for future hearings.
Technical specifications for cross-border participation in capacity mechanisms


6 November 2020, ENTSO-E’s comments and proposed changes based on ACER’s 23 October preliminary position
Annex I – Technical specifications for cross-border participation in capacity mechanisms

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Annex I – Technical specifications for cross-border participation in capacity mechanisms

Whereas

(1) This Annex sets out technical specifications for cross-border participation in capacity mechanisms (CMs) developed and amended by ACER following by the European Network of Transmission System Operators for Electricity (ENTSO-E)’s proposal in accordance with Article 26(11) of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity1 (Electricity Regulation).

(2) Article 26 of the Electricity Regulation provides a legal framework for enabling capacity providers located in one EU Member State to participate in CMs of other Member States, and mandates ENTSO-E to propose further development for certain elements of this framework. These elements are listed in Article 12 and consist of methodologies, common rules and terms of operation, hereinafter collectively referred to as ‘technical specifications’.

(3) These technical specifications take into account the provisions of the Electricity Regulation and the relevant EU legislation, in particular:


c. Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (CACM Regulation);

d. Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration (ER Regulation);


(4) These technical specifications provide the first step towards a harmonised, pan-European framework for cross-border participation in CMs. This does not mean full harmonisation of CM rules across the Member States, but rather setting up a level playing field between all capacity providers intending to participate in a given CM, regardless of their location. This requires non-discriminatory treatment of foreign and domestic capacity providers. In particular, this means applying equivalent criteria where this is possible and appropriate. Any difference in treatment between foreign and domestic capacity providers in that respect should be properly justified.

(5) Achieving this objective relies on progressive adaptation of CM designs and effective cooperation between the relevant actors in implementing these technical specifications, in particular ENTSO-E, transmission system operators (TSOs), capacity mechanisms operators (CM operators) and the regional coordination centres (RCCs).

(6) To this aim, these technical specifications require further detailed arrangements by way of bilateral agreements between the relevant TSOs and/or CM operators, taking national particularities into account. Such arrangements also include coordination between the RCCs, for calculating the

2 References to Articles are to be read as references to Articles of this Annex, unless explicitly stated otherwise.
maximum entry capacity and issuing recommendations in that respect. In order to comply with the technical specifications, TSOs may engage in a collaboration with DSOs to ensure the good execution of this Proposal. A transition period can be foreseen during which only TSOs address the tasks mentioned in this Proposal. This transition period shall end when the cooperation framework needed to involve all relevant DSOs is achieved. The TSOs may also collaborate with the distribution system operators (DSOs), as long as such collaboration is foreseen under applicable law.

(7) Regulatory authorities play a key role in supporting the implementation of these technical specifications in their respective Member States. In particular, they should foster cross-border cooperation between their respective TSOs and/or CM operators and oversee the conclusion of bilateral agreements in that matter. Where required, they should also support the Member States in a timely adaptation of the existing CM frameworks to enable effective and non-discriminatory cross-border participation. This includes providing adequate administrative arrangements for the enforcement of non-availability payments as well as verifying that the maximum entry capacities are calculated in line with Title 2 of these technical specifications, as stated in Article 26(12) and Article 26(13) of the Electricity Regulation. Where considered appropriate by the regulatory authorities or the Member States, this may also include other aspects of the implementation, such as overseeing data compliance in relation to the registry or ensuring appropriate handling of any disputes which may arise from cross-border participation in CMs.

(8) Resource adequacy studies, in particular the European resource adequacy assessment (ERAA), provide relevant information about the contribution of bidding zones to security of supply in other bidding zones. In particular, by estimating the expected availability of interconnection and the likely concurrence of system stress between bidding zones, the ERAA enables an accurate calculation of the maximum entry capacity for cross-border participation in CMs.

(9) Transparency and monitoring are essential for ensuring accountability of ENTSO-E, the TSOs, the CM operators and the regional coordination centres (RCCs), as well as increasing stakeholders’ understanding of their respective mandates and deliverables. To this aim, the technical specifications impose transparency requirements related to cross-border participation in CMs. This not only aims to ensure a transparent implementation of cross-border participation in CMs but also promotes fully transparent operation of ENTSO-E and the RCCs, as mandated by Article 41(2) of the Electricity Regulation.
TITLE 1 General provisions

Article 1. Structure

1. These technical specifications consist of the following titles corresponding to the deliverables listed in Article 26(11), paragraphs (a) to (f), of the Electricity Regulation:

Title 2 sets out the methodology for calculating the maximum entry capacity for cross-border participation, in accordance with paragraph (a).

Title 3 sets out the methodology for sharing the revenues arising through the allocation of entry capacity, in accordance with paragraph (b).

Title 4 sets out the common rules for carrying out availability checks, in accordance with paragraph (c).

Title 5 sets out the common rules for determining when a non-availability payment is due, in accordance with paragraph (d).

Title 6 sets out the terms of the operation of the registry of eligible capacity providers, in accordance with paragraph (e).

Title 7 sets out the common rules for identifying foreign capacity eligible to participate in a given CM, in accordance with paragraph (f).

Article 2. Definitions

1. For the purpose of the technical specifications, the definitions in Article 2 of the Electricity Regulation, Article 2 of the CACM Regulation, Article 2 of the Transparency Regulation and Article 2 of the Electricity Directive shall apply.

2. In addition, the following definitions and acronyms shall apply. In the event of any inconsistency between the following definitions and the definitions pursuant to paragraph (1)\(^3\), the latter shall prevail.

(a) ‘activation’ means the process in which the CMU contracted in a CM delivers energy or reduces energy consumption upon request by the TSO and/or CM operator and/or in particular system conditions during the delivery period.

(b) ‘availability’ means the readiness of the CMU contracted in the CM.

(c) ‘availability checks’ means actions taken by the TSO in order to establish the availability of a contracted CMU for a given CM.

(d) ‘availability commitment’ means the commitment for availability undertaken in a given CM for a given MTU

\(^3\) References to paragraphs are to be read as references to paragraphs within a given Article of Annex I, unless explicitly stated otherwise.
Annex I – Technical specifications for cross-border participation in capacity mechanisms

(e) ‘CCR’ means capacity calculation region pursuant to the Electricity Regulation.

(f) ‘CM’ means capacity mechanism pursuant to the Electricity Regulation.

(g) ‘CM border’ means an oriented border from an origin bidding zone to a destination bidding zone, whereby:
   i. the two bidding zones may or may not have direct network connection;
   ii. the CM applies in the destination bidding zone; and
   iii. the following formalism applies: the CM border is between a foreign bidding zone $BZ_i$ and a bidding zone $BZ_{CM}$ for the CM of $BZ_{CM}$.

(h) ‘CM contract’ means a contract based on which a capacity provider receives remuneration for its availability.

(i) ‘CM operator’ is the entity operating the CM (in the Member State applying the CM).

(j) ‘CMU’ means a capacity market unit which is a single unit or a group of aggregated units used by a capacity provider to fulfil its capacity commitment.

(k) ‘delivery period’ means the period during which the availability commitment applies.

(l) ‘domestic’ relates to a Member State, bidding zone or control area applying the CM.

(m) ‘EIC’ means ‘energy identification code’ of the coding scheme developed and managed by ENTSO-E.

(n) ‘eligibility’ means compliance with full technical performance as required by the CM in which the capacity provider intends to participate.

(o) ‘eligible capacity provider’ means a capacity provider which fulfils the eligibility criteria for cross-border participation in a given CM pursuant to Title 7 and national market rules.

(p) ‘ENS’ means ‘energy not served’ pursuant to the ERAA methodology.

(q) ‘entry capacity’ means any kind of cross-zonal access rights, which can be allocated to enable eligible foreign capacity providers to participate in a CM for a given delivery period.

(r) ‘ERAA’ means European resource adequacy assessment pursuant to Article 23 of the Electricity Regulation.

(s) ‘ERAA methodology’ means methodology for the European resource adequacy assessment related to Article 23(3) of Regulation 943/2019 and approved by ACER under article 27 of this Regulation, Annex I to ACER Decision no 24/2020 of 2 October 2020.

(t) ‘foreign’ relates to a Member State, bidding zone or control area where a capacity provider (or a CMU) is located. This Member State, bidding zone or control area is outside the Member State applying the CM, in which the capacity provider intends to participate.

(u) ‘foreign TSO’ is the TSO of a Member State, bidding zone or control area outside the Member State applying the CM, where a capacity provider (or a CMU) is located.

Commented [A7]: Type 1

Commented [A8]: Type 2

Commented [A9]: Type 2

Commented [A10]: Type 1

ENTSO-E agrees that these methodologies aim at creating an EU framework for cross-border participation in CMs. However, these should not become the reference to which existing or future CMs must comply with by default. This would endanger the principle of subsidiarity: MSs must be allowed to decide on the best suited design to solve their identified adequacy issue(s).

In addition, implemented CMs have different designs as they aim at different targets.

Therefore, the mentioned compliance with full technical performance would mean that this methodology defines those requirements for all CMs that differ in the designs and it is sufficient to participate.

Eligibility is defined at CMU level as the unit (generator or DSR) should fulfil eligibility criteria, especially technical one. The capacity provider is the stakeholder, which can hold eligible and non-eligible CMUs.

The ERAA methodology is defined in the Regulation 943/2019 and its technical requirements are defined in the ENTSO-E proposal accepted by the ACER.
Annex I – Technical specifications for cross-border participation in capacity mechanisms

In these technical specifications, unless the context requires otherwise:

(a) the singular indicates the plural and vice versa;

(b) the table of contents and headings are inserted for convenience only and do not affect the interpretation of the technical specifications; and

(c) any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.
Article 3. Implementation period

1. These technical specifications shall be implemented once direct cross-border participation of physical assets able to provide equivalent technical performance is enabled by the regulatory frameworks of the relevant Member States, subject to paragraphs (2) and (3).

2. Title 2 shall be implemented once the RCCs are established and the ERAA results are available.

3. The registry shall be in operation by 5 July 2021 in line with Article 26(15) of the Electricity Regulation.

4. ENTSO-E shall review the relevant Titles of these technical specifications two years after their first application and shall report to ACER any possible amendments. This review is without prejudice to Article 27(4) of the Electricity Regulation.

5. ENTSO-E shall assess whether the implementation of these technical specifications may lead to cybersecurity risks. If it is the case, ENTSO-E shall report on any such risks and the proposed mitigation measures to ACER in a timely manner.

6. ENTSO-E and RCCs shall provide ACER with data enabling ACER’s monitoring tasks.

Commented [A12]:

These rules have been drafted to apply on direct cross-border participation of physical assets able to provide equivalent technical performance, in line with the Regulation on the internal market for electricity. In some MS, cross-border participation is currently taken into account otherwise (implicitly through direct participation of I/C, through approaches that are still being allowed by the Regulation and/or DG COMP decisions. One should therefore be more precise on the scope of application of these methodologies, which is the “target model” stated in the aforementioned Regulation: “direct cross-border participation of physical assets able to provide equivalent technical performance.”)
TITLE 2 Methodology for calculating the maximum entry capacity

Article 4. General rules

1. Pursuant to Article 26(7) of the Electricity Regulation, RCCs shall calculate the maximum entry capacity available for the participation of foreign capacity providers in a given CM and issue a recommendation to the TSOs. The calculation shall be done annually for each CM border, taking into account the expected availability of interconnection and the likely concurrence of system stress in the system where the CM is applied and the system in which the foreign capacity providers are located.

2. The calculation of the maximum entry capacity shall be consistent with the ERAA methodology. Pursuant to the ERAA methodology, ENTSO-E shall provide the relevant RCCs with all the ERAA data required for the calculation of the maximum entry capacity in a timely manner.

Article 5. Calculation of the maximum entry capacity

1. For a given CM and target year, the RCC shall calculate the maximum entry capacity for each considered CM border as follows.

2. The TSO(s) of the Member State applying the CM shall provide the RCC with a list of all foreign bidding zone(s), or parts thereof, located in those Member States which are allowed to participate in its CM in a given target year, in line with the CM rules and, where applicable, subject to Member State’s decision pursuant to Article 26(2) of the Electricity Regulation. This list should at least include all bidding zone(s) of a MS, which has a direct connection with the MS applying the CM.

3. The RCC shall define considered CM borders as all the pairs of

   (a) bidding zone(s) from the list pursuant to paragraph (2); and
   (b) bidding zone(s), or parts thereof, located in the Member State applying the CM (i.e. BZ_CM).

4. For the purpose of calculating maximum entry capacity, the RCC shall use:

   (a) the latest available ERAA study based on the central reference scenario with CMs, if it fulfils the reliability standard of BZ_CM; or
   (b) another recent study relying on similar methodology and assumptions (e.g. the latest available NRAAs), for which the reliability standard is fulfilled for BZ_CM and the considered target year. This other study may be calibrated to ensure that the reliability standard is fulfilled, by adding or removing fully available generation capacity for the given target year.

The RCC shall rely on a single study to calculate maximum entry capacities over all considered CM borders.

5. The RCC shall define system stress MTUs for the bidding zone in which the CM applies (BZ_CM), based on all the Monte Carlo sample years (describing the given target year) from the study pursuant to paragraph (4). System stress MTUs shall at least include the MTUs of the CM delivery period

Commented [A13]:
ENTSO-E suggests adding the following text to make it clear that all BZB in an MS with several BZs are included.

Commented [A14]:
ENTSO-E believes that “or removing” should be added here Cf explanatory doc of ENTSO-E. Not removing capacity would underestimate MEC.

4 With 100% availability (i.e. no outage).
Annex I – Technical specifications for cross-border participation in capacity mechanisms

for which ENS is positive in \( BZ_{CM} \). System stress MTUs may include additional MTUs, if properly justified by the RCC. The system stress MTUs shall be the same for all considered CM borders which have the same destination bidding zone.

6. For each considered CM border, the RCC shall calculate the maximum entry capacity as follows:

(a) Define a harmonised approach to calculate contributions to maximum entry capacity.

i. The contributions to maximum entry capacity shall be calculated pursuant to Article 6 (net positions); or

ii. if the calculation of maximum entry capacity only considers bidding zones with direct connection with \( BZ_{CM} \), the contribution to maximum entry capacity may be calculated pursuant to Article 7 (cross-zonal exchanges).

(b) For each system stress MTU defined pursuant to paragraph (5), compute the contribution to maximum entry capacity using the harmonised approach referred to in paragraph (a).

(c) Calculate the maximum entry capacity as the average of the contributions to maximum entry capacity over all system stress MTUs. If the maximum entry capacity is negative, set it to zero.

(d) The RCC may adjust the maximum entry capacity in case the following cumulative conditions are met:

i. \( BZ_i \) spans multiple Member States;

ii. part(s) of \( BZ_i \) are excluded from the calculation of maximum entry capacity;\(^5\) and

iii. the excluded parts of \( BZ_i \) are expected to account for a significant share of the maximum entry capacity.

This adjustment shall endeavour to more accurately reflect the actual contribution from those part(s) of \( BZ_i \) which are considered for participation in the CM of \( BZ_{CM} \).\(^6\)

7. The RCC recommendation to TSOs pursuant to Article 26(7) of the Electricity Regulation shall be made for each considered CM border and shall at least include the following information:

(a) main assumptions underlying the calculation of the maximum entry capacity;

(b) calculated maximum entry capacity; and

(c) distribution of contributions to maximum entry capacity over all defined system stress MTUs.

8. In line with Section 15.3 of Annex I to the Electricity Regulation, the RCC shall provide a calculation for each CM border where

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\(^5\) As a result of a decision by the Member State applying the CM pursuant to Article 26(2) of the Electricity Regulation, last sentence.

\(^6\) See footnote 5.
Annex I – Technical specifications for cross-border participation in capacity mechanisms

(a) the destination bidding zone, or parts thereof, is located in the Member State applying the CM; and

(b) the origin bidding zone belongs to the same system operation region as the destination bidding zone from paragraph (a).

9. For those CM borders which do not constitute ‘considered CM borders’ pursuant to paragraph (2), the RCC may calculate the entry capacity as follows

\[ MEC_{CM\, border}(target\, year) = 0 \]

Where

- \( MEC_{CM\, border}(target\, year) \) is the maximum entry capacity of the given CM border and target year;

**Article 6. Contribution to maximum entry capacity based on net positions**

1. For each defined system stress MTU, the RCC shall calculate the contribution to maximum entry capacity from \( BZ_j \) to \( BZ_{CM} \) as follows:

\[
[NP_{BZ,global}]_{MTU} = \left[ \text{injections}_{BZ,j} \right]_{MTU} - \left[ \text{withdrawals}_{BZ,j} \right]_{MTU} - \sum_{BZ_j \, \text{excluded}} \left[ \text{Commercial\, exchange}_{BZ \rightarrow BZ_j} \right]_{MTU}
\]

Where

- \( [NP_{BZ,global}]_{MTU} \) is the global net position of \( BZ \) for the considered system stress MTU;
- \( [\text{injections}_{BZ,j}]_{MTU} \) is the sum of all injections into \( BZ \);
- \( [\text{withdrawals}_{BZ,j}]_{MTU} \) is the sum of all withdrawals from \( BZ \);
- \( [\text{Commercial\, exchange}_{BZ \rightarrow BZ_j}]_{MTU} \) is the commercial cross-zonal exchange from \( BZ \) to \( BZ_j \), which is excluded from the calculation pursuant to paragraph (2) and which has a bidding zone border with \( BZ \). A positive value means that \( BZ \) is exporting, whereas a negative value means that \( BZ \) is importing; and
- \( \sum_{BZ_j \, \text{excluded}} [\text{Commercial\, exchange}_{BZ \rightarrow BZ_j}]_{MTU} \) is the sum of commercial exchanges on all bidding zone borders between \( BZ \) and bidding zones excluded from the calculation.

\[ 7 \] Defined pursuant to Article 36 of the Electricity Regulation.

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**Commented [A17]:**

Type 2

ENTSO-E notes the term \( BZ \) is used several times with an empty/no subscript. It is unclear whether this is intentional or not. For the sake of clarity, could ACER remove all "BZ" with empty/no subscript (if possible) or define the right subscript?

**Commented [A18]:**

Type 2

ENTSO-E supports option (b), i.e. the deletion of the term commercial exchange in the formula to calculate net positions. In this way a correct estimation of the contribution of each \( BZ \) to the security of supply can be achieved without associating to a given \( BZ \) the contribution of other \( BZs \).

However, to ensure full compliance with Regulation article 26(2), it should be specified that where a neighbouring MS has more than one \( BZ \), the MEC should be calculated considering the aggregated net position of the whole MS (i.e. adding net positions of each \( BZ \) included in the MS).

**Commented [A19]:**

Type 3

ENTSO-E believes that basically the Article 6 corresponds to the ENTSO-E proposal for FB border and Article 7 corresponds to the ENTSO-E proposal for NTC borders.

ENTSO-E believes that MS' can decide to require only direct neighbours (electrically connected) as of Art 26(2) of ER.

The methodology should not depend of whether this choice is made or not. ACER is modifying the methodology for the calculation of MEC depending of the choice by MS'.

When applying the method in Art 6, the Net Positions of non-direct neighbours should not be set to zero, as this will distort MEC and inflate the MEC of direct neighbours.

Furthermore, when applying the method in Art 7, the commercial exchanges term should not be subtracted.

**Commented [A20]:**

2. **TWO OPTIONS FOR CONSIDERATION:**

(a) As set out in the current draft.

(b) Delete this part of the equation, i.e. define the net position as injections – withdrawals.
Anex I – Technical specifications for cross-border participation in capacity mechanisms

(b) In case $BZ_{CM}$ globally exports\(^8\):

i. If $BZ_i$ globally imports, the (negative) contribution shall be equal to:

$$[BZ_i \rightarrow BZ_{CM}]_{MTU} = - \left( Net\ position_{BZ_{CM}} \times \frac{\sum Net\ position_j}{\sum Net\ position_j} \right)_{MTU}$$

Where:

- $[BZ_i \rightarrow BZ_{CM}]_{MTU}$ is the contribution from $BZ_i$ to $BZ_{CM}$ for the considered system stress MTU;
- $Net\ position_{BZ_{CM}}$ is the (positive)\(^9\) global net position of $BZ_{CM}$ for the considered system stress MTU;
- $Net\ position_i$ is the (negative) global net position of $BZ_i$ for the considered system stress MTU;
- $\sum Net\ position_j$ is the sum of global net positions of globally importing bidding zones for the considered system stress MTU;

ii. If $BZ_i$ globally exports (or has a global net position equal to zero), the contribution shall be zero.

(c) In case $BZ_{CM}$ globally imports,

i. If $BZ_i$ globally imports (or has a global net position equal to zero), the contribution shall be zero.

ii. If $BZ_i$ globally exports, the (positive) contribution shall be equal to:

$$[BZ_i \rightarrow BZ_{CM}]_{MTU} = - \left( Net\ position_{BZ_{CM}} \times \frac{\sum Net\ position_j}{\sum Net\ position_j} \right)_{MTU}$$

Where:

- $[BZ_i \rightarrow BZ_{CM}]_{MTU}$ is the contribution from $BZ_i$ to $BZ_{CM}$ for the considered system stress MTU;
- $Net\ position_{BZ_{CM}}$ is the (negative)\(^8\) global net position of $BZ_{CM}$ for the considered system stress MTU;
- $Net\ position_i$ is the (positive) global net position of $BZ_i$ for the considered system stress MTU;

\(^8\) global import (respectively export) refers means that the global net position is \textit{positive} (respectively \textit{negative}).

\(^9\) Because $BZ_{CM}$ is exporting.

\(^8\) Because $BZ_{CM}$ is importing.
Annex I – Technical specifications for cross-border participation in capacity mechanisms

- Net position, is the (positive) global net position of any globally exporting bidding zone for the considered system stress MTU;

- \( \sum_i \text{Net position}_i \) is the sum of global net positions of globally exporting bidding zones for the considered system stress MTU.

(d) In case the global net position of \( BZ_{CM} \) is equal to zero, the contribution from \( BZ_i \) shall be zero.

2. Each foreign bidding zone, which is not part of any considered CM border, shall be excluded from the calculation of the contribution to maximum entry capacity. In this case, the global net position of the excluded bidding zone shall be set to zero in the formulas set out in paragraph (1)(b) and (c).

Article 7. Contribution to maximum entry capacity based on commercial cross-zonal exchanges

1. For each defined system stress MTU, the contribution to maximum entry capacity from \( BZ_i \) to \( BZ_{CM} \) shall be equal to

\[
[BZ_i \rightarrow BZ_{CM}]_{MTU} = \left[ \text{Commercial exchange}_{BZ_i \rightarrow BZ_{CM}} \right]_{MTU}
\]

Where

- \( [BZ_i \rightarrow BZ_{CM}]_{MTU} \) is the contribution of \( BZ_i \) to \( BZ_{CM} \) for the considered system stress MTU and CM border;

- \( \left[ \text{Commercial exchange}_{BZ_i \rightarrow BZ_{CM}} \right]_{MTU} \) is the commercial cross-zonal exchange on the bidding zone border from \( BZ_i \) to \( BZ_{CM} \). A positive value means that \( BZ_{CM} \) is importing, whereas a negative value means that \( BZ_{CM} \) is exporting.

Article 8. Transparency requirements

1. The calculation of the maximum entry capacity shall be fully transparent in order to facilitate stakeholders’ understanding regarding the inputs, data, assumptions and the results.

2. To this aim, for each calculation of maximum entry capacity, the RCC shall publish on its website at least the following:

   (a) input data:

   i. an overview of the study pursuant to Article 5(4), including at least the underlying high-level assumptions;

   ii. if applicable, calibration conducted in line with Article 5.4(b) and its underlying assumptions; and

   iii. approach used to estimate the contributions to maximum entry capacity;

(b) output data:

i. Member State of the CM;

ii. EICs of \( BZ_{CM} \) and \( BZ_i \);

Commented [A23]: 3. TWO OPTIONS FOR CONSIDERATION:

(a) paragraph as it is (b) Do not set the global net position of excluded bidding zones to zero in paragraph (2), so reflect these global net positions in the equations in paragraphs 1(b)-(c), as follows:

1) The contribution of each foreign bidding zone (even excluded one) shall be included in the \( \sum_i \) Net position, in order to isolate the contribution of each \( BZ_i \), at step 1.b.i and 1.c.ii (possibly leading to lower contribution on considered CM borders)

2) The foreign bidding zones contribution which is not part of any considered CM border shall then be set to zero to reflect that it is not allowed to participate.

Commented [A24]:

Type 3

ENTSO-E believes that basically the Article 6 corresponds to the ENTSO-E proposal for FB border and Article 7 corresponds to the ENTSO-E proposal for NTC borders.

ENTSO-E believes that MS’ can decide to require only direct neighbours (electrically connected) as of Art 26(2) of ER.

The methodology should not depend of whether this choice is made or not. ACER is modifying the methodology for the calculation of MEC depending of the choice by MS’.

When applying the method in Art 6, the Net Positions of non-direct neighbours should not be set to zero, as this will distort MEC and inflate the MEC of direct neighbours.

Furthermore, when applying the method in Art 7, the ‘commercial exchanges’ term should not be subtracted.

Commented [A25]:

Type 2

ENTSO-E believes that a paragraph should be added to precisely that the MEC from a MS with several \( BZ \rightarrow BZ_{CM} \) should consider the total margin available by capacity providers in the whole MS’.

ENTSO-E believes that a paragraph should be added to precisely that the MEC for a CM MS with several \( BZ \) should consider the contribution from \( BZ_j \) to all its \( BZ_{CM} \), should there be a direct connection between \( BZ_j \) and all MS CM BZs, and this calculation should be done in any case per CCR.
Annex I – Technical specifications for cross-border participation in capacity mechanisms

iii. target year;

iv. calculated maximum entry capacity; and

v. distribution of contributions to maximum entry capacity over all system stress MTUs (only for considered CM borders in line with Article 5(2)).
TITLE 3 - Methodology for sharing the revenues arising from the allocation of entry capacity

Article 9. Revenue-sharing

1. Pursuant to Article 26(9) of the Electricity Regulation, any revenues arising through the allocation of entry capacity shall accrue to the TSOs concerned. Where CMs reciprocally allow for direct cross-border participation of physical assets capable of providing equivalent technical performance in two neighbouring Member States, these revenues shall be shared between them in accordance with either

   (a) this Title 3; or

   (b) a common methodology approved by both relevant regulatory authorities.

2. For a given CM border, the total revenue considered for sharing shall be equal to the sum of all revenues collected through the allocation of entry capacity to foreign capacity providers.

3. The total revenue shall be shared in accordance with the sharing key for congestion income developed in accordance with the congestion income distribution methodologies pursuant to Article 73(1) of the CACM Regulation and Article 57 of the FCA Regulation.

Commented [A26]:

   4. TWO OPTIONS FOR CONSIDERATION

   (a) As provided in the current draft

   (b) Amend the sharing key in order to reflect “technical equivalence” of foreign resources (in line with Art. 26(2) of the Electricity Regulation) and/or simultaneity of scarcity between the considered bidding zones or Member States.

Commented [A27]:

Type 2

Whatever the approved approach, ENTSO-E considers of utmost importance to clearly state about which revenues this methodology relates to. Therefore, ENTSO-E proposes to reintroduce the deleted Article about the determination of the revenues considered for sharing:

Determination of the total revenue considered for sharing

1. The total revenue considered for sharing are the revenues collected by the Capacity Mechanism Operator arising through the allocation of the Entry Capacity to foreign capacity:

   a. In case of an implicit allocation of the Entry Capacity to eligible Foreign Capacity, the total revenue considered for sharing results from the positive price difference between the price offered in the capacity mechanism by last contracted (based on the offered price) capacity and the last contracted (based on the offered price) foreign capacity multiplied by Maximum Entry Capacity, if it has been fully allocated. This includes implicit allocation mechanisms where the Entry Capacity is allocated in a two-step manner by first preliminarily allocating the Entry Capacity to eligible foreign capacity through a pre-auction and then transferring the successful pre-auction bids to the capacity mechanisms’ main auction.

   b. In case of an explicit allocation of the Entry Capacity to eligible capacity the total revenue considered for sharing are the revenues directly from the auctioning of the Entry Capacity.

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ENTSO-E supports option (b). Both elements should be properly considered.

Technical equivalence:

The revenue sharing methodology, as all methodologies, should apply only in case of direct cross-border participation of physical assets capable of providing equivalent technical performance. Only in this case, the revenues arising through the allocation of entry capacity could represent a potential scarcity of transmission capacity.

Scarcity of the interconnection:

Even in case of direct cross-border participation of physical assets capable of providing equivalent technical performance, the revenue arising from allocation of cross-border capacity cannot be directly compared to the congestion rent in the energy market, being more a hybrid representing both i) the value due to the I/C...
TITLE 4 - Common rules for carrying out availability checks

Article 10. General rules

1. Pursuant to Article 26(10)(b) of the Electricity Regulation, the foreign TSO shall carry out availability checks of the foreign CMUs participating in a given CM and located within its control area.

2. The foreign TSO shall, as much as possible, conduct the availability checks for a given CM based on the availability check rules of this CM.

3. For a given CM, the rules on availability checks of foreign CMUs shall be transparent and shall ensure non-discriminatory treatment of foreign and domestic capacity providers. The foreign TSOs shall carry out availability checks of the foreign CMUs as equivalently as possible to the domestic CMUs participating in a given CM, in particular applying the same:

   (a) reference period;
   (b) (minimum) frequency of availability checks; and
   (c) availability check rules specific to the CM, referred to in paragraph (2). If not directly applicable, the methodology foreseen by the national CM rules should be applied as equivalently as possible, considering the features of the wholesale and balancing market where Foreign capacity is participating, without prejudice to equivalent technical performance.

4. Availability checks shall ensure non-discrimination as much as possible among all foreign CMUs.

5. The foreign TSO shall ensure that availability checks do not negatively affect system security. The foreign TSO should also endeavour

   (a) to ensure that availability checks do not increase the costs for maintaining the same level of system security; and
   (b) to minimise the impact of availability checks on the markets considered for availability checks (defined in Article 12(1)).

Article 11. Cooperation between the foreign TSOs and CM operators

1. In order to enable effective cross-border participation, the CM operator shall facilitate availability checks carried out by the foreign TSO. In particular, the CM operator shall provide the foreign TSO with sufficient information pertaining to its CM, including at least:

   (a) delivery period;
   (b) availability check rules, referred to in Article 10(2);
   (c) availability commitment per CMU and per MTU; and
   (d) data exchange process (including data format);

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Type 3
The scope of the methodologies is about availability checks of cross-border capacities. By proposing binding provisions for XB capacities and stating that availability checks should be carried out the same way for domestic and cross-border capacities, ACER’s proposal goes beyond the scope of the methodologies as it is binding national market design without any legal basis. In this regard, ENTSO-E believes that the principle of subsidiarity is at stake.

Commented [A30]:
Type 2
Clarification to the whole article that it is about the cooperation of the Foreign TSOs and CM operators.

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Type 2
Here ENTSO-E is wondering why the previously proposed article “The Foreign TSO and the CM Operator shall closely cooperate to ensure that availability checks for foreign CMUs are as equivalent as possible to the corresponding availability checks of the domestic CMUs participating in the same CM” has been deleted from ACER’s latest version of these CM Methodologies.
Annex I – Technical specifications for cross-border participation in capacity mechanisms

2. The foreign TSO shall communicate the results of the availability checks to the CM operator in a timely manner. In particular, the foreign TSO shall provide, for each MTU and each CMU, the information on the total available capacity resulting from availability checks.

**Article 12. Scope of availability checks**

1. The markets considered for availability checks shall can at least include the wholesale (day-ahead and intraday), and balancing markets.

2. Availability checks shall not apply during the suspension of market activities according to Article 35(1) of the ER Regulation, to the extent that the suspension of market activities affects the calculation of availability.

3. The foreign TSO should endeavour to conduct availability checks during the delivery period. The foreign TSOs may however conduct availability checks outside of the delivery period if this also applies to domestic CMUs participating in a given CM.

**Article 13. Application of availability checks**

1. For any CMU contracted in a CM, the probability of being subject to availability checks shall be non-zero during the reference period.

2. The availability of a foreign CMU shall be checked according to one or a combination of the following subparagraphs:

   (a) for CMUs participating in the markets considered for availability checks referred to in Article 12(1), the availability in any of these markets. In particular, a CMU shall be deemed available if, it is technically available and, due to system operation requirements (including at least congestion management):

      i. it has commitments in any of these markets, but is unable to deliver energy; or

      ii. it is temporarily unable to participate in any of these markets;

   (b) for some all dispatchable CMUs, the availability to deliver energy upon activation;

   (c) specific availability check rules, for CMUs for which it is not appropriate to check availability in line with paragraphs (a) and (b).

3. Where possible, monitoring of CMUs’ availability in the market (e.g. energy delivered, bids submitted to any market considered for availability checks, and outage information) should be the preferred approach.

**Article 14. Transparency requirements**

After every delivery period, or at least once per year, the foreign TSO and the CM operator shall provide their respective regulatory authorities with aggregated data on the total available capacity resulting from availability checks of contracted foreign CMUs during the delivery period. This data shall also be made available to the regulatory authorities upon request.
TITLE 5 - Common rules for determining when a non-availability payment is due

Article 15. General rules

1. Pursuant to Article 26(6) of the Electricity Regulation, capacity providers shall be required to make non-availability payments where their capacity is not available.

2. For a given CM, the rules on non-availability payments applicable to foreign capacity providers shall be transparent and shall ensure non-discriminatory treatment of foreign and domestic capacity providers. In particular, foreign and domestic capacity providers shall be subject to equivalent rules regarding:
   (a) alternative penalties, exemptions or force majeure clauses;
   (b) stop loss limits;
   (c) escalation of penalties; and
   (d) CM contract termination fees.

Article 16. Application of non-availability payments

1. Pursuant to Article 22(1)(i) of the Electricity Regulation, appropriate penalties shall apply to capacity providers that are not available in times of system stress. The non-availability payment rules shall aim at incentivising capacity providers to be available during the delivery period.

2. Foreign capacity providers shall not be subject to non-availability payments for non-availability volumes outside the delivery period.

3. Pursuant to Article 26(5) of the Electricity Regulation, capacity providers shall be able to participate in more than one CM. Pursuant to Article 26(6) of the Electricity Regulation, where capacity providers participate in more than one CM for the same delivery period, they shall make multiple non-availability payments where they are unable to fulfil multiple commitments.

Article 17. Definition of non-availability volume in case of multiple commitments

1. Due to difference in CM rules, availability checks carried out upon the same CMU may differ and may result in a different total available capacity for each CM in which the CMU is contracted.

2. For a given CM and MTU, the availability volume attributed to each CMU shall be defined as

\[
\text{avail. volume}_{CM}(\text{MTU}) = \frac{\text{total avail. capacity}_{CM}(\text{MTU}) \times \text{avail. commitment}_{CM}(\text{MTU})}{\sum_{i \in CM} \text{avail. commitment}_{i}(\text{MTU})}
\]

Where
- \(\text{avail. volume}_{CM}(\text{MTU})\) is the availability volume of the CMU in a given CM;
- \(\text{total avail. capacity}_{CM}(\text{MTU})\) is the total available capacity of the CMU as a result of availability checks in the given CM;
Annex I – Technical specifications for cross-border participation in capacity mechanisms

- \( \text{avail.commitment}_{CM}(MTU) \) is the availability commitment of the CMU in the given CM;
- \( \sum_{CM} \text{avail.commitment}_{CM}(MTU) \) is the total availability commitment of the CMU in all CMs which the CMU is contracted in.

3. For a given CM and for each MTU, the non-availability volume attributed to each CMU shall constitute the difference between the availability commitment and the availability volume for that CM, i.e.:

\[
\text{non} - \text{avail.volume}_{CM}(MTU) = \text{avail.commitment}_{CM}(MTU) - \text{avail.volume}_{CM}(MTU)
\]

Where

- \( \text{non} - \text{avail.volume}_{CM}(MTU) \) is the non-availability volume of the CMU in the given CM for each MTU
- \( \text{avail.commitment}_{CM}(MTU) \) is the availability commitment of the CMU in the given CM for each MTU
- \( \text{avail.volume}_{CM}(MTU) \) is the availability volume in the given CM for each MTU, in line with paragraph (2);

4. For the purpose of definition and computation of non-availability volumes in line with paragraphs (2) and (3), the availability commitment for each considered CM shall be zero outside the delivery period of the considered CM.

5. For each CM, the way non-availability volumes are taken into account or aggregated (including time period) shall be equivalent for domestic and foreign CMUs.

**Article 18. Transparency requirements**

After every delivery period or at least once a year, the foreign TSO and the CM operator shall provide their respective regulatory authorities with aggregated data on non-availability volumes and non-availability payments of foreign capacity providers during the delivery period. This data shall also be made available to the regulatory authorities upon request.
TITLE 6 - Terms of the operation of the registry

Article 19. General terms of operation

1. Pursuant to Article 26(15) of the Electricity Regulation, ENTSO-E shall set up and operate the registry of capacity providers eligible for cross-border participation in CMs. In particular, ENTSO-E shall provide a single point of contact for registry users for matters related to the registry.

2. The registry users shall at least include eligible capacity providers, CM operators and their TSOs. The relevant regulatory authorities may designate other registry users to ensure effective and non-discriminatory cross-border participation to CMs, in line with Article 26(13) of the Electricity Regulation.

3. The TSOs may submit data and edit the data they submitted. The CM operators may submit data and edit the data they submitted. All registry users may view the information in the registry, subject to confidentiality requirements while ensuring effective cross-border participation in CMs.

4. All registry users shall have free and continuous access to the registry.

5. The registry shall at least be accessible in English language.

6. ENTSO-E shall ensure state-of-the-art operating and personal data security. ENTSO-E shall endeavour to ensure user-friendly data access and data submission to the registry.

Article 20. Scope of data

1. The registry shall at least include the following data related to each eligible registered capacity provider:

   (a) corporate credentials;
   (b) allocation of entry capacity per CM border;
   (c) result from secondary trading of entry capacity per CM border11 pursuant to Article 26(14) of the Electricity Regulation; and
   (d) result from secondary trading of availability commitments per CM12.

2. The registry shall at least include the following data related to each CMU of an eligible capacity provider:

   (a) data submitted to the foreign TSO pursuant to Article 26(1) and;
   (b) eligibility per CM(s) in which the capacity provider intends to participate;

   (c) availability commitment per CM and MTU of the delivery period; and

   (d) total available capacity per CM and MTU of the delivery period.

Commented [A36]:
Type 2

Please clearly indicate whether ‘their TSOs’ relates to the TSOs of the capacity provider or TSOs of the CM operators.

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Type 2

The eligibility shall be used only to CMUs. ENTSO-E recommends using registered capacity providers as the Registry might store the data of capacity provider that does not longer have eligible CMUs (e.g. due to loss of eligibility).

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Type 3

Based on the Art.26(10)(a) Electricity Regulation: purpose of the registry is to register eligible capacity providers. The Registry is not designed to handle the operational data. Adding such requirements introduce feasibility issues and it is against principle of proportionality (art.5 TFEU), EU action must be limited to what is necessary to achieve the objective of the Regulation.

11 Set to zero in the absence of secondary trading.
12 See footnote 11.
The registry shall at least include the following information per CM:

(a) delivery period;
(b) all technical requirements for cross-border participation; and
(c) where applicable, announcements related to the occurrence of system stress events.

Article 21. Data provision

1. The foreign capacity providers shall provide the foreign TSO with the data related to its CMU(s) for the eligibility check pursuant to Article 26(1);
2. Once its CMU(s) are registered, the eligible capacity providers shall provide the CM operator with the related data listed in Article 20(1);
3. Where applicable, the eligible capacity providers contracted in a given CM shall provide the CM operator with:
   (a) result from secondary trading of entry capacity per CM border pursuant to Article 26(14) of the Electricity Regulation; and
   (b) result from secondary trading of availability commitments per CM pursuant to Article 22(3)(c) of the Electricity Regulation.

Article 22. Data submission to the registry

1. The relevant entities shall submit data to the registry as follows:
   (a) The CM operator shall submit at least the following data related to the participation in its CM, including:
      i. a list of all technical requirements for cross-border participation defined in line with Article 24(1);
      ii. delivery period and availability commitment valid for its CM for each target year;
   (b) The foreign TSO shall submit:
      i. the data obtained from the foreign capacity provider pursuant to Article 26(1) together with the results of the performed eligibility check pursuant to Article 25;
      ii. once available, the total available capacity pursuant to Article 20.2(d);
   (c) The CM operator shall submit at least the following data related to the participation of a given eligible capacity provider in its CM, including:
      i. data listed in Article 20(1);
      ii. availability commitments per CMU, taking the results from secondary trading provided by the capacity provider into account.
4. Capacity providers shall inform the foreign TSO and/or the CM operator accordingly to their responsibilities, about any updates to the provided data. The foreign TSO and/or the domestic CM...
Annex I – Technical specifications for cross-border participation in capacity mechanisms

operator, accordingly to their responsibilities, shall submit the updated data to the registry in a timely manner. Paragraphs (1) and (2) apply mutatis mutandis to data updates.

**Article 23, Transparency requirements**

1. Every year, based on the registry data, ENTSO-E shall prepare and publish a report containing aggregated and, where required, anonymised data including at least
   a. availability commitments per CM, Member State(s) of capacity provider and delivery period; and
   b. an overview of the relevant CM rules referred to in Article 20(3).

2. Every year, based on the registry data, each TSO shall prepare a report containing detailed data on the registered capacity providers located within its control area containing availability commitments, Member State(s) of CM and delivery periods. The individual TSO report shall provide this report to the regulatory authority of that TSO. ENTSO-E shall coordinate the data preparation to ensure consistent data format and data definition, and shall provide a joint report to ACER.

3. In addition, ENTSO-E shall provide the regulatory authority of the Member State applying the CM with access, upon request, to data on foreign capacity providers participating in that CM.
TITLE 7 - Common rules for identifying foreign capacity eligible to participate in a capacity mechanism

Article 24. General rules

1. Foreign capacity providers shall have their eligible CMU(s) registered for a given CM in the registry. Eligibility of a CMU for a given CM means that it meets all technical requirements for participating in that CM. These technical requirements shall be equivalent, as far as possible, for all domestic and foreign capacity providers participating in a given CM.

2. In addition to eligibility in the registry, each CM operator may request additional requirements from foreign capacity providers. These additional requirements shall not refer to technical performance, shall be non-discriminatory and proportionate, and shall be equivalent, as far as possible, for domestic and foreign CMUs.

3. If the foreign TSO is unable to assess the eligibility and/or availability of a given individual CMU unit within an aggregated CMU, the following restrictions to simultaneous participation in CMs shall apply:

   (a) if a given individual unit CMU is part of an aggregated CMU assigned with an availability commitment for a given delivery period, that individual unit CMU shall not form part of a different (individual or aggregated) CMU for the same overlapping delivery period (for any CM), and shall not take additional availability commitments individually for the same delivery period (for any CM);

   (b) if a given individual unit CMU has an availability commitment for a given delivery period, this CMU shall not form part of any aggregated CMU which has availability commitments for the same overlapping delivery period (in any CM).

Article 25. Eligibility check

1. In order to establish whether a foreign CMU is eligible to participate in a given CM, the foreign TSO shall carry out an eligibility check. This eligibility check shall be carried out as follows.

2. The foreign capacity provider shall submit to the foreign TSO a request for an eligibility check of its CMU(s). The foreign TSO shall define the scope and format of the request, along with the timeline of the eligibility check, in close collaboration with the CM operator. The request shall include at least the whole data for the eligibility check pursuant to Article 26.

3. The foreign TSO shall verify the data submitted by the foreign capacity provider and establish the eligibility of its CMU(s) for a given CM.

4. Following a positive eligibility check, the foreign TSO shall register eligible CMUs in the registry, and inform the foreign capacity provider and the relevant CM operator accordingly, in a timely manner. The foreign TSO may send these notifications via the registry.

5. Following a negative eligibility check, the foreign TSO shall inform the foreign capacity provider about it in a timely manner, providing reasons for the negative result.
6. The data of the eligible foreign CMUs shall be subject to regular verification by the foreign TSO, according to applicable CM rules. The verification frequency shall be equivalent for foreign and domestic capacity providers. The verification may lead to updating the verified technical parameters in the registry and affecting the eligibility in the registry. In this case, the foreign TSO shall then update the eligibility of the CMU in line with each CM rules in a timely manner.

7. The foreign TSO shall notify the foreign capacity provider in a timely manner about any updates in the eligibility of its CMU(s). The relevant CM operator(s) shall be notified accordingly. The foreign TSO may send these notifications via the registry.

**Article 26. Data for the eligibility check**

1. In its request for eligibility check, the foreign capacity provider shall submit up-to-date data of its CMU in accordance with the list of all technical requirements for participation in a given CM, referred to in Article 22.1(a), and including at least:
   (a) geographic location;
   (b) generation, DSR and/or storage capacity;
   (c) technology and fuel type;
   (d) metering points;
   (e) network operator;
   (f) emission factors of CO₂ per amount of electricity generated, pursuant to Article 22(4) of the Electricity Regulation; and
   (g) EIC, where applicable.

2. For a given aggregated CMU, the data referred to in paragraph (1) may be submitted for each individual CMU forming part of the aggregated CMU.

3. For CMUs which are not yet operational, the capacity provider shall endeavour to provide its best forecast on data pursuant to paragraph (1), where such data items are uncertain.
Cross-border participation in capacity mechanisms methodologies - Oral hearing with ACER

10 November 2020, web conference
1. Introduction

2. ENTSO-E’s concerns
   a. Key Concerns
      • Maximum entry capacity,
      • Availability checks & eligibility rules
      • Revenues sharing
   b. Other important issues

3. Conclusions
1. Introduction
CEP’s impact on implementing CM/SR: only a last-resort option

Above all, in any case improve the functioning of the energy market (Art. 18)

1. Monitoring adequacy to identify a need
   - EU and national resource adequacy assessments may be used, with a slight preference for the EU assessment

2. Identify energy market failures & distortions

3. Implementation plan to improve the energy market
   - Part of State Aid process & review by EC
   - Includes timeline
   - Consider several ‘solutions’ such as removing price caps, shortage/scarcity pricing, increase ICs, enable storage & DSR & self-generation & energy efficiency, cost-efficient/market-based bal & AS
   - Yearly reporting to the EC with yearly opinion of the EC on progress and remaining adequacy concern

4. Annual Monitoring of the Implementation plan

To eliminate residual adequacy concerns, as last resort and while improving the energy market, capacity mechanisms can be introduced (Art. 18a)

5. Comprehensive study on effect of neighbouring MS
   - Including public consultation of MSs and their stakeholders
   - No direct consequences of this study

6. Are strategic reserves a solution?
   - No

7a. Implement SR

7b. Implement CRM
   - Opinion of EC on implementation plan to fix energy market is a prerequisite
   - CRM/SR can only be approved by the EC for max 10 years
   - Phase-out & decrease of contracted capacities to be foreseen in implementation plan
   - Administrative phase-out when “during 3 consecutive years no new contracts are concluded”

Without prejudice to State Aid Rules
Capacity mechanisms in Europe

Several CMs already exist or are being implemented/considered

Diversity of capacity mechanisms representative of market designs aiming at addressing differentiated security of supply issues

Map of Capacity Mechanisms in the EU (Source: ENTSO-E elaboration based on ACER market monitoring report)
Cross-border participation in CM: Scope of the methodologies

- **Applies to ‘direct’ cross-border participation by foreign capacity providers** able to provide technical equivalence, as ‘implicit’ participation not allowed for electric borders with MS and explicit participation from Interconnectors should be progressively phased out.

- Direct cross-border participation must be implemented for neighbouring MS, and the **public authorities where the CM applies can decide whether to allow direct participation from non-MS and/or from non-neighbouring MS**.

- **Participation in more than one mechanism possible but**
  - Simultaneous scarcity and IC availability at system stress to be taken into consideration; and
  - Penalties of each CM apply.

- TSOs to decide on the annual CM entry capacity on this basis based on a RCC recommendation.

- TSO where the capacity is located involved in carrying out tasks for the foreign CM operator.

- ENTSO-E to define several methodologies and setup European registry of capacity providers.
2. ENTSO-E’s key Concerns – Max entry capacity
ENTSO-E’s initial proposal: Use the European Resource Adequacy modelling to calculate the Maximum Entry Capacities

Article 26(7) 2019/943

“...regional coordination centres established pursuant to Article 35 shall calculate on an annual basis the maximum entry capacity available for the participation of foreign capacity. That calculation shall take into account the expected availability of interconnection and the likely concurrence of system stress in the system where the mechanism is applied and the system in which the foreign capacity is located.”

Principles for calculating Maximum Entry Capacity

**Maximum Entry Capacity** for foreign participation in CM calculation **shall take into account:**

- The expected availability of interconnection
- Available resource (foreign capacity)
- The likely concurrence of system stress in the system where the CM is applied and the system in which the foreign capacity is located

The European Resource Adequacy Assessment (ERAA) provides a **robust framework for estimating the extent to which interconnection can be relied upon to provide resource adequacy**
Methodology is applicable for both NTC and Flow Based borders

<table>
<thead>
<tr>
<th>NTC based approach</th>
<th>Flow based approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Transmission capacity is “independent” of the import/export position of the markets</td>
<td>- Transmission capacity is linked to import/export position of the markets</td>
</tr>
<tr>
<td>- Each border is “independent” from each other (from the market perspective)</td>
<td>- (Commercial) Flows per border are not “independent” from each other</td>
</tr>
</tbody>
</table>

Max entry capacity is determined per border based on the flow per NTC border from ERANET adequacy assessment for all relevant scarcity situations

Max entry capacity is determined based on the total import of the market with CM and split per border, based on the ratio of exports per border over the total export within the flow based area, for all relevant scarcity situations

In both cases, **ENTSO-E’s approach aimed at excluding from the computation the contributions from capacities which are not located in the MS considered.**
**ENTSO-E’s Key Concerns - Max entry capacity**

**Article 5.6**
For each considered CM border, the RCC shall calculate the maximum entry capacity as follows:

a) Define a harmonised approach to calculate contributions to maximum entry capacity.
   i. The contributions to maximum entry capacity shall be calculated pursuant to Article 6 (net positions); or
   ii. if the calculation of maximum entry capacity only considers bidding zones with direct connection with $BZ_{CM}$, the contribution to maximum entry capacity may be calculated pursuant to Article 7 (cross-zonal exchanges).

**Article 6.1**
For each defined system stress MTU, the RCC shall calculate the contribution to maximum entry capacity from $BZ_i$ to $BZ_{CM}$ as follows:

(a) Calculate the global net position of each bidding zone $BZ_i$, which is origin or destination of any considered CM border, as

$$[NP_{BZ,global}]_{MTU} = [injections_{BZ}]_{MTU} - [withdrawals_{BZ}]_{MTU} = \sum_{BZ_j \text{ excluded}} [Commercial \text{ exchange}_{BZ_i \rightarrow BZ_j}]_{MTU}$$

**ACER proposes two options for consideration:**

1) **As set out in the current draft.**

2) **Delete Article 7.** Contributions to maximum entry capacity shall be calculated pursuant to Article 6 (net positions) in all cases (i.e. also if the maximum entry capacity only considers bidding zones with direct connection with $BZ_{CM}$)

**ACER proposes two options for consideration:**

1) **As set out in the current draft.**

2) **Delete the yellow part of the equation, i.e. define the net position = injections - withdrawals.**
**ENTSO-E’s Key Concerns - Max entry capacity**

**According to ENTSO-E:**

- Article 6 basically corresponds to the ENTSO-E’s proposal for FB borders; and
- Article 7 basically corresponds to the ENTSO-E’s proposal for NTC borders.

(although some methodological options are introduced by ACER amended methodology, depending on whether the calculation refers or not to direct neighbours only).

- Electricity Regulation Art 26(2) stipulates that MSs can indeed decide to allow XB participation only from direct neighbouring countries. **Still the MEC methodology calculation cannot/should not depend on MSs’ decision as such a functioning would endanger the principle of subsidiarity.**

  • In Art 6, if the Net Positions of non-direct neighbours are set to 0
    - Distortion of the MEC and inflation the MEC of direct neighbours. Direct neighbours are incentivized in a non-correct way if ACER proposal is followed. No Net Position should be set to 0 arbitrarily in Art 6 calculation.

  • In Art 6.1, the 'commercial exchanges' term should not be subtracted. All Net Position should be calculated following the ‘definition’ : injections – withdrawals

ENTSO-E asks ACER to keep the original ENTSO-E methodology which properly addresses all these points. ENTSO-E proposal also properly captures the intrinsic differences between NTC and FB CCMs and borders. **As a compromise the net position approach (article 6) is acceptable under the conditions detailed above.**
2. ENTSO-E’s Key Concerns – Availability checks & eligibility rules
ENTSO-E developed principles to facilitate the checks on XB participation

Eligibility and availability checks are needed in capacity mechanisms to identify CMUs and to establish if contracted capacity is made available during the delivery period at the amount of availability obligation entailed by the capacity contract.

**Article 26(2) 2019/943**

“Member States shall ensure that foreign capacity capable of providing equivalent technical performance to domestic capacities has the opportunity to participate in the same competitive process as domestic capacity…”

**Article 26(3) 2019/943**

“Member States shall not prevent capacity which is located in their territory from participating in capacity mechanisms of other Member States”

ENTSO-E clarifies the processes while proposing guidelines by which CMs should abide following design principles laid out in Article 22(1).

In particular, availability checks processes for Domestic and Foreign capacity should follow principles of transparency and non-discrimination.
Overview of the availability calculations

Availability checks are calculated during the reference period which can coincide or be a subset of the delivery period.

Registration
  - Technical eligibility

CM auction
  - Contracted capacity

Delivery period
  - Availability obligation

Reference period
  - Availability check
    - Available volume
    - Non-available volume

Settlement period
  - Non-availability payment
ENTSO-E believes that common should aim at being as-equivalent-as-possible ... while allowing MS to develop tailored-made market design, in respect of the Regulation

- For domestic capacities, **eligibility and availability rules are defined in national CM regulations, in respect of the principle of susidiarity.**

- To create a level playing field between domestic and cross-border capacities, ENTSO-E proposed **to carry out eligibility and availability as equivalently as possible as for domestic capacities, based on the CM market rules (article 10.2).** → This approach was supported by a majority of stakeholders during the public consultation.

- Besides, following ACER’s informal demand for developing the content on how these checks could be carried out, ENTSO-E developed some best practices, which aimed to providing guidelines for these processes.

  → These guidelines were turned into binding provisions through ACER’s amendment. ENTSO-E believe **that these now mandatory provisions are incompatible with the principle of non-discrimination between domestic and foreign capacities, as it indirectly introduce new constraints for existing and future national market designs** (which is out of the scope of the methodology). According to ENTSO-E, **the principle of subsidiarity is at stake on these issues.**

  → In addition, given the specific purpose of each CM, any harmonisation seems counter-productive
Specific articles at stake (1/3)

Art 10.2: “The foreign TSO shall, as much as possible, conduct the availability checks for a given CM based on the availability check rules of this CM.”

→ ENTSO-E supports this approach but believe it is incompatible with binding provisions on how to carry out these checks. If some binding provisions remain on “how” to carry these checks, this provision will not apply, as defining national market designs falls under national competence.

Art 12: Scope of availability checks

“1. The markets considered for availability checks shall at least include the wholesale (day ahead and intraday) and balancing markets.”

→ ENTSO-E: This provision is not compatible with all MS approaches (all approved by the DG COMP). Moreover, not all CM operator have access to the wholesale market data necessary to implement this approach. As a general principle, MS are competent to propose the availability check methodology that best addresses the SoS issue, in the framework of art. 22 of the Regulation and under state aid approval.

“2. Availability checks shall not apply during the suspension of market activities according to Article 35(1) of the ER Regulation, to the extent that the suspension of market activities affects the calculation of availability.”
Specific articles at stake (2/3)

Art 13: application of availability checks:

“2. The availability of a foreign CMU shall be checked according to one or a combination of the following subparagraphs:
   a. for CMUs participating in the markets considered for availability checks referred to in Article 12(1), the availability in any of these markets. In particular, a CMU shall be deemed available if, it is technically available and, due to system operation requirements (including at least congestion management):
      i. it has commitments in any of these markets, but is unable to deliver energy; or
      ii. it is temporarily unable to participate in any of these markets;”

→ ENTSO-E agreed to acknowledge the fact that other consideration such as congestion management should not negatively impact availability checks results. However, as this paragraph became mandatory, it triggers questions on how and when it should apply so as to avoid deadweight effects. These questions cannot be addressed in these methodologies.

   b. “for dispatchable CMUs, the availability to deliver energy upon activation;”

→ ENTSO-E believes that this provision is restricting some future market designs which are currently being considered (e.g. simplified approach for small capacities).

   c. “specific availability check rules, for CMUs for which it is not appropriate to check availability in line with paragraphs (a) and (b).”

“3. Where possible, monitoring of CMUs’ availability in the market (e.g. energy delivered, bids submitted to any market considered for availability checks, and outage information) should be the preferred approach.”

→ ENTSO-E: As a general principle, MS are competent to propose the availability check methodology that best addresses the SoS issue, in the framework of art. 22 of the Regulation and under state aid approval.
Specific articles at stake (3/3)

Art. 24: General Rules

“Foreign capacity providers shall have their eligible CMU(s) registered for a given CM in the registry. Eligibility of a CMU for a given CM means that it meets all technical requirements for participating in that CM. These technical requirements shall be equivalent, as far as possible, for all domestic and foreign capacity providers participating in a given CM.”

ENTSO-E supports this approach but believe it is incompatible with binding provisions on how to determine technical eligibility. If some binding provisions remain on “how” to carry these checks, this provision will not apply, as defining national market designs falls under national competence.

“In addition to eligibility in the registry, each CM operator may request additional requirements from foreign capacity providers. These additional requirements shall not refer to technical performance, shall be non-discriminatory and proportionate, and shall be equivalent, as far as possible, for domestic and foreign CMUs.”

ENTSO-E : With this approach put forward by ACER, technical requirement will be different for domestic and cross-border capacities, as MSs are competent to decide what technical requirements should be asked to national capacities.
2. ENTSO-E’s Key Concerns – Revenues sharing
Scope of the Revenue Sharing Methodology

To the extent that the allocation of Maximum Entry Capacity to eligible foreign capacity providers results in revenue, this Revenue Sharing Methodology aims to describe how this revenue could be shared among the concerned TSOs.

Article 26(9) 2019/943
“...any revenues arising through the allocation referred to in paragraph 8 shall accrue to the transmission system operators concerned and shall be shared between them in accordance with the methodology referred in point (b) of paragraph 11 of this Article or in accordance with a common methodology approved by both relevant regulatory authorities. If the neighbouring Member State does not apply a capacity mechanism or applies a capacity mechanism which is not open to cross-border participation, the share of revenues shall be approved by the competent national authority of the Member State in which the capacity mechanism is implemented after having sought the opinion of the regulatory authorities of the neighbouring Member States.”

The use of revenues resulting from the sharing under this methodology is out of scope. Treatment of revenues referred to in Art 19(2)

1 - CM-CM situation, both open to direct cross border participation during corresponding delivery period

ENTSO-E methodology
Art. 26(11) - ENTSO-E methodology to be submitted in July 2020

Or

Alternative approach developed by relevant NRAs

2 – Alternate set-up

Alternative approach developed by the NRA where the CM applies
One border, one direction

Revenue Sharing Methodology is applied to Total Revenue from each ticket auction in isolation of the Total Revenue from neighbouring market.
Revenue sharing with neighbouring TSO should provide appropriate incentives for transmission capacity development

<table>
<thead>
<tr>
<th>Low incentive to invest</th>
<th>High incentive to invest</th>
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</thead>
<tbody>
<tr>
<td>Probability of simultaneous stress is high</td>
<td>Probability of simultaneous stress is low</td>
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</table>

During periods of system stress, additional interconnection capacity would not result in any more cross-border contribution to improving adequacy.  
*E.g.* where probability of simultaneous stress is high

During periods of system stress, additional interconnection capacity could have cost-effectively improved resource adequacy.  
*E.g.* where probability of simultaneous stress is low

<table>
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<tr>
<th>Low level of revenue shared with interconnection owners</th>
<th>Increased revenue shared with interconnection owners</th>
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Revenue shared with developing TSOs reduces with simultaneous stress

### Appropriate metric because:
- *It is output of ERAA modelling used to estimate MEC*
- *Strong governance around ERAA, including ACER approval of outputs and results*
ENTSO-E’s top concerns - Revenues sharing

ACER has replaced the ENTSO-E proposal by the symmetrical sharing (the so-called “50-50%” sharing).

However, ACER proposes two options for consideration: a) As provided in the current draft, b) Amend the sharing key in order to reflect “technical equivalence” of foreign resources (in line with Art. 26(2) of the Electricity Regulation) and/or simultaneity of scarcity between the considered bidding zones (or Member States).

ENTSO-E supports option (b) and believes that both elements were relevant. In this regard, ENTSO-E would like to remind that if not all stakeholders agreed with the proposed sharing key, most of them (at the exception of I/C owners) agreed that the revenue of XB auction did not represent the scarcity of the interconnexion.
ENTSO-E’s top concerns - Revenues sharing

Technical equivalence: The revenue sharing methodology to apply only in case of direct cross-border participation of physical assets capable of providing equivalent technical performance, in line with the Regulation.

Scarcity of the interconnection:
The revenue arising from allocation of cross-border capacity cannot be directly compared to the congestion rent in the energy market, being more a hybrid representing both
• i) the value due to the I/C scarcity and
• ii) a market access right which is independent from the I/C scarcity.
⇒ Only the revenue associated to the first component should be shared among I/C owners in order to have consistent incentives. ENTSO-E’s proposed methodology identified a robust proxy of I/C scarcity value based on ERAA simulations: the simultaneous scarcity coefficient on a given border.

ENTSO-E believes that this aspect should be reflected in the Revenue Sharing methodology. Should ACER decide to keep the current approach, ENTSO-E urges ACER to acknowledge ENTSO-E’s work on this issue. To this purpose, ACER should request NRAs or TSOs to compute the factor for simultaneous scarcity. If one of the thresholds proposed by ENTSO-E would be reached, NRAs would be invited at bilateral level to reassess the methodology as amended by ACER.
2. Other important issues
Other important issues with the ACER amended methodologies

Cost coverage: ACER has deleted the cost coverage provisions. It seems ACER/NRAs may share the rational for these provisions but they apparently consider that there is no legal basis for them.

⇒ ENTSO-E considers that **cost coverage is key to facilitate the implementation of direct cross-border participation.**

Registry: ACER has added data requests related to capacity availability.

⇒ ENTSO-E believes that the the registry is defined as a tool aiming at facilitating the eligibility process. Therefore **availability data should not be collected by the registry** as:
  • This it was not required by the Regulation;
  • The feasibility of this feature is uncertain; at best the cost and the timeline of the project would be increased significantly.


3. Conclusions
Conclusions

ENTSO-E appreciates the opportunity of discussing ACER’s envisaged amendments both formally and informally.

ENTSO-E would like to summarise its main identified concerns with the current ACER’s preliminary position:

Maximum entry capacity: the scope of the computation (i.e. considering the contribution from non-neighbouring countries or not) should not be dependent to a Member State’s choice to limit cross-border participation to electrical neighbours;

Availability check and eligibility: binding provisions could limit a Member State’s ability to design the most suitable capacity mechanism to solve its respective identified adequacy issue(s);

Revenue sharing: although there are no perfect indicators, scarcity of the interconnection must be considered when deciding which share of the revenue should be shared among I/C owners, in line with the energy market.

Other important concerns exist, such as the deletion of the cost coverage provisions or the irrelevant enlarged scope of data for the Registry.

ENTSO-E remains at ACER disposal to explain further and discuss our views and suggestions.