

**DECISION No 16/2023  
OF THE EUROPEAN UNION AGENCY  
FOR THE COOPERATION OF ENERGY REGULATORS**

**of 21 December 2023**

**on the TSOs' proposal for amendment of the congestion income  
distribution methodology**

THE EUROPEAN UNION AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators ('ACER')<sup>1</sup>, and, in particular, Article 5(2)(b) and Article 5(6) thereof,

Having regard to Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management<sup>2</sup>, and, in particular, Article 9(5), Article 9(6)(m), Article 9(13) and Article 73(1) thereof,

Having regard to the outcome of the consultation with the concerned regulatory authorities and transmission system operators ('TSOs') and the European Network of Transmission System Operators for Electricity ('ENTSO-E'),

Having regard to the outcome of the consultation with ACER's Electricity Working Group ('AEWG'),

Having regard to the favourable opinion of the Board of Regulators of 13 December 2023, delivered pursuant to Article 22(5)(a) of Regulation (EU) 2019/942,

Whereas:

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<sup>1</sup> OJ L158, 14.6.2019, p. 22.

<sup>2</sup> [OJ L 197, 25.7.2015, p. 24](#), as amended by Commission Implementing Regulation (EU) 2021/280 of 22 February 2021, [OJ L 62, 23.2.2021, p. 24](#).

## 1. INTRODUCTION

- (1) Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (the ‘CACM Regulation’) laid down a range of requirements for cross-zonal capacity allocation and congestion management in the day-ahead and intraday markets in electricity. In particular, pursuant to Article 73(1) of the CACM Regulation, all transmission system operators (‘all TSOs’) must jointly develop a methodology for distributing among them the congestion income, i.e. revenues received from the capacity allocation within the single day-ahead and intraday coupling. The congestion income distribution methodology (the CID methodology) has been developed in 2017, and submitted to all the regulatory authorities, who, due to a lack of agreement between them, ultimately referred it to ACER for decision. On 14 December 2017, ACER approved the CID methodology.<sup>3</sup>
- (2) In 2021, all TSOs developed a proposal for the CID methodology (the 2021 Proposal), and submitted it to ACER for decision. On 17 December 2021, ACER approved the CID methodology in ACER Decision No 16/2021 of 17 December 2021 (the 2021 Decision).
- (3) Pursuant to the methodology for a co-optimised allocation process in accordance with Article 40(1) of Commission Regulation (EU) 2017/2195 (‘EB Regulation’) (i.e. ACER Decision 12/2020), several regional methodologies for a market-based allocation process in accordance with Article 41(1) of the EB Regulation (e.g. ACER Decision 22/2020; ACER Decision 11/2021; ACER Decision 10/2021) and the methodology for harmonising processes for the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves in accordance with Article 38(3) of the EB Regulation (HCZCAM) (i.e. ACER Decision 11/2023), congestion income from the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves will be considered as day-ahead congestion income and as such shall be shared in accordance with the CID methodology. Therefore, it was necessary to amend the CID methodology to consider the way to distribute congestion income generated by these balancing capacity exchanges or sharing of reserves. Furthermore, pursuant to Article 8(3) of Annex 1 of the 2021 Decision, all TSOs are required to submit an amendment to the CID methodology by 18 months after the 2021 Decision to address the treatment of unintuitive flows in accordance with the objective of fair and non-discriminatory treatment pursuant to Article 3(e) of the CACM Regulation.
- (4) Accordingly, on 5 July 2023, all TSOs submitted to ACER a proposal for amendment of the CID methodology, which incorporates all the necessary changes given the developments described in Recital **Error! Reference source not found.** (‘the Proposal’), seeking approval by ACER.

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<sup>3</sup> Decision No 07/2017 of 14 December 2017:  
[https://documents.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Individual%20decisions/ACER%20Decision%2007-2017%20on%20CIDM.pdf](https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2007-2017%20on%20CIDM.pdf)

- (5) This Decision concerns this Proposal of 5 July 2023. Annex I to this Decision sets out the methodology for the distribution of congestion income, as amended and approved by ACER.

## **2. PROCEDURE**

- (6) On 5 July 2023, ENTSO-E submitted to ACER an ‘All TSOs’ proposal for amendment of Congestion Income Distribution methodology in accordance with Article 73 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on Capacity Allocation and Congestion Management (the ‘Proposal’).
- (7) Between 5 July 2023 and 12 October 2023, ACER held regular discussions with the TSOs, the regulatory authorities and ENTSO-E. In particular, the following procedural steps were taken:
- 11 September 2023: discussion with all TSOs, all regulatory authorities, ENTSO-E
  - 18 September 2023: discussion with all TSOs, all regulatory authorities, ENTSO-E
  - 20 September 2023: discussion with the regulatory authorities at the capacity calculation and congestion management task force (‘CACM TF’) meeting;
  - 25 September 2023: discussion with all TSOs, all regulatory authorities, ENTSO-E
  - 28 September 2023: discussion with TSOs and regulatory authorities at the capacity calculation and congestion management coordination group meeting;
  - 2 October 2023: discussion with all TSOs, all regulatory authorities, ENTSO-E
  - 5 October 2023: discussion with the regulatory authorities at the AEWG meeting;
  - 30 October 2023: oral hearing with Baltic Cable;
  - 7 November 2023: discussion with the regulatory authorities at the CACM TF meeting;
  - 20 November 2023: discussion with the regulatory authorities at the AEWG meeting.
- (8) Between 13 October and 16 November 2023, ACER consulted all TSOs, ENTSO-E and all regulatory authorities on its preliminary position, by sharing an updated version of the Proposal setting out its suggested amendments and the reasoning for these amendments. The consulted parties provided their views by 16 November 2023. These views are summarised in section 5.1.
- (9) ACER received written observations of all TSOs from ENTSO-E, Baltic Cable, PSE and the regulatory authority of Finland (EV), as well as a request for an oral hearing by Baltic Cable. The oral hearing with Baltic Cable was held on 30 October 2023.

- (10) The AEWG was consulted between 17 November 2023 and 22 November 2023, and provided its advice on 23 November 2023 (see section 5.2).
- (11) On 13 December 2023, ACER's Board of Regulators issued a favourable opinion pursuant to Article 22(5)(a) of Regulation (EU) 2019/942.

### **3. ACER'S COMPETENCE TO DECIDE ON THE PROPOSAL**

- (12) Pursuant to point (b) of Article 5(2) of Regulation (EU) 2019/942, ACER shall approve proposals for common terms and conditions or methodologies for the implementation of those network codes and guidelines adopted before 4 July 2019 and which require the approval of all regulatory authorities.
- (13) According to Article 9(6)(m) of the CACM Regulation, as initially adopted, namely as a guideline before 4 July 2019, the proposal for the CID methodology pursuant to Article 73(1) of the CACM Regulation, was subject to approval by all regulatory authorities. Following the amendment of these provisions by Commission Implementing Regulation (EU) 2021/2808, the proposal for the CID methodology and any amendments thereof have been explicitly subjected to approval by ACER.
- (14) According to the second sentence of Article 9(13) in joint reading with Article 9(6)(m) and Article 73(1) of the CACM Regulation, TSOs responsible for developing the proposal for the congestion income distribution methodology (i.e. all TSOs) may propose amendments to the methodology. The proposals for amendments must be submitted to ACER for approval.
- (15) According to Article 5(6) of Regulation (EU) 2019/942 and Article 9(5) of the CACM Regulation, ACER, before approving the terms and conditions or methodologies, shall revise them where necessary, after consulting the respective TSOs and ENTSO-E, in order to ensure that they are in line with the purpose of the network code or guideline and contribute to market integration, non-discrimination, effective competition and the proper functioning of the market. ACER shall take a decision on the approval within the period specified in the relevant network codes and guidelines.
- (16) On 5 July 2023, ENTSO-E, on behalf of all TSOs, submitted the Proposal to ACER for approval. ACER is competent to decide on the Proposal based on Article 5(2)(b) of Regulation (EU) 2019/942, Article 9(6)(m) and Article 9(13) of the CACM Regulation.

### **4. SUMMARY OF THE PROPOSAL**

- (17) The Proposal includes the following elements:
- a. 'Whereas' section
  - b. 'General provisions' with Articles 1 to 2, setting out the definitions, in Title 1;
  - c. 'Calculation of congestion income and distribution to the bidding zone borders' with Articles 3 to 7, describing the calculation of congestion income per CCR, the calculation of commercial flows and balancing capacity commercial flows, the

- calculation of congestion income on bidding zone borders affected by advance hybrid coupling or allocation constraints and the distribution of congestion income to bidding zone borders, in Title 2;
- d. ‘Congestion income distribution on the bidding zone border’ with Article 8, describing the distribution of congestion income on a border between the different TSOs, in Title 3;
  - e. ‘Transparency of information’ with Article 9, describing the data that shall be published, in Title 4;
  - f. ‘Final provisions’ with Articles 10 to 11, describing the implementation timeline, in Title 5

(18) The Proposal mainly consists of the following amendments provided by TSOs:

- a. how to share congestion income generated by the exchange of balancing capacity or sharing of reserves pursuant to Article 24(1) of the HCZCAM;
- b. the solutions to address unintuitive flows irrespective of their causes and also the transfer of congestion income between CCRs as requested in the 2021 Decision.; and
- c. some changes to allow the implementation of the 15 minutes MTU.

## **5. SUMMARY OF THE OBSERVATIONS RECEIVED BY ACER**

### **5.1. Consultation on ACER’s preliminary position**

- (19) On 13 October 2023, ACER shared its preliminary position with the TSOs and regulatory authorities and invited them to provide their views on the revisions proposed by ACER. The following recitals provide a summary of the expressed views, including (i) the All TSOs written response of 26 Octobre 2023; (ii) the Baltic Cable written responses of 23 October 2023 and 29 Octobre 2023; (iii) the PSE written response of 27 Octobre 2023; (iv) the EV written response of 9 November 2023; and (v) the comments provided by Baltic Cable at the oral hearing of 30 October 2023<sup>4</sup>.
- (20) All TSOs have expressed their agreed position on the points raised by ACER in its preliminary position. All TSOs have proposed several quality improvements to the methodology. They also clarified that the 18 months deadline for the implementation is required because the amendment introduces the need for cross-CCR mechanism which was not the case until now.
- (21) Baltic Cable expressed three concerns about ACER’s preliminary position: (i) part of their congestion income could be socialized for unrelated unintuitive flows; (ii) they would be compensated for negative congestion income but not for the loss of congestion income; and (iii) they would have to bear the cost of unintuitive flows from ramping constraints which are imposed on them by the Nordic TSOs.

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<sup>4</sup> This is ACER’s summary of key concerns and not to be considered a complete representation of the comments received.

(22) PSE indicated that the day-ahead prices should be used to compute market spread in order to distribute the congestion income from the exchange of balancing capacity or sharing of reserve. They also saw the need to describe the solutions to treat the situation of insufficient congestion income in more details in Articles 24(2) and 24(3) of the HCZCAM.

(23) EV proposed several clarifications to the methodology (definitions, structure).

## **5.2. Consultation of the AEWG**

(24) The AEWG provided its advice on 23 November 2023, endorsing the draft ACER Decision on the amendments to the congestion income distribution methodology.

## **6. ASSESSMENT OF THE PROPOSAL**

### **6.1. Legal framework**

(25) According to the second sentence of Article 9(13), in joint reading with Article 9(6)(m) of the CACM Regulation, TSOs responsible for developing a proposal for the CID methodology may propose amendments to the methodology to ACER. Pursuant to Article 73(1) of the CACM Regulation, the TSOs responsible for developing the CID methodology are all TSOs.

(26) According to Article 73(2) of the CACM Regulation, the CID methodology shall:

- (i) facilitate the efficient long-term operation and development of the electricity transmission system and the efficient operation of the electricity market of the Union;
- (ii) comply with the general principles of congestion management provided for in Article 16 of Regulation (EC) 714/2009;<sup>5</sup>
- (iii) allow for reasonable financial planning;
- (iv) be compatible across timeframes; and
- (v) establish arrangements to share congestion income deriving from transmission assets owned by parties other than TSOs.

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<sup>5</sup> ACER notes that Regulation (EC) 714/2009 has been repealed by Regulation (EU) 2019/943. The general principles of congestion management are retained under Article 16 and Article 19 of Regulation (EU) 2019/943 (see correlation table in Annex III to Regulation (EU) 2019/943).

- (27) Pursuant to Article 9(9) of the CACM Regulation, all proposals for terms and conditions or methodologies, i.e. including the proposal referred to in Article 73(1) of that Regulation, shall include a proposed timescale for their implementation and a description of their expected impact on the objectives of the CACM Regulation. These objectives are listed in Article 3 of the CACM Regulation.

## **6.2. Assessment of the legal requirements**

- (28) This section outlines ACER's assessment of the Proposal against the legal requirements (see section 6.1), ACER's amendments to the Proposal to ensure that the CID methodology fulfils these legal requirements and ACER's consideration of the feedback received to ACER's preliminary position (see section 5.1) and AEWG's advice (see section 5.2).

### 6.2.1. Assessment of the requirements for the development and for the general content of the Proposal

- (29) The Proposal fulfils the development and general content requirements under Article 9(13), second sentence, Article 9(6)(m) and Article 73(1) of the CACM Regulation, as all TSOs jointly developed the CID methodology proposed here and submitted it to ACER for revision and approval.

### 6.2.2. Assessment against the requirements of Article 73(2) of the CACM Regulation

- (30) The recitals of the Proposal contain a partial assessment against the requirements established in Article 73(2) of the CACM Regulation.
- (31) ACER notes that the requirement of Article 73(2)(a) of the CACM Regulation to facilitate the efficient long-term operation and development of the electricity transmission system and the efficient operation of the electricity market of the Union, is in essence very similar to the objective set out in Article 3(g) of the CACM Regulation, against which the Proposal is assessed in its Recital (11). ACER agrees with the TSOs' assessment.
- (32) The Proposal only addresses the distribution of congestion income but not its use. Therefore, in ACER's view, the Proposal alone does not have any negative impact on the general principles of congestion management provided for in Articles 16 and 19 of Regulation (EU) 2019/943.<sup>6</sup> Therefore, the Proposal complies with the requirement of Article 73(2)(b) of the CACM Regulation.

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<sup>6</sup> Former Article 16 of Regulation (EC) 714/2019 (see footnote **Error! Bookmark not defined.**).

- (33) ACER considers that the proposal provides a fully predictable framework for congestion income distribution and therefore enables a reasonable financial planning for TSOs, and national regulatory authorities as required by Article 73(2)(c) of the CACM Regulation. The reason being that the methodology clearly defines how congestion income is to be distributed. This requirement is further discussed in section 6.2.5.
- (34) The Proposal establishes the congestion income distribution methodology for the day-ahead and intraday timeframes. Its compatibility with the congestion income distribution methodology for the forward timeframe has been assessed in the supporting documents to the 2021 Proposal. The Proposal reflects the wording, principles and rules of sharing as used in the corresponding methodology in accordance with Article 57 of Regulation (EU) 2016/1719. Regarding the balancing timeframe, ACER considers the Proposal compatible with the provisions for congestion income distribution in the TSO-TSO settlement methodology in accordance with Article 50(1) of the EB Regulation, while the compatibility with the methodologies for the exchange of balancing capacity or sharing of reserves is addressed as described in section 6.2.4. Therefore, Proposal complies with the requirement of Article 73(2)(d) of the CACM Regulation.
- (35) With regard to the arrangements to share congestion income deriving from transmission assets owned by parties other than the TSOs, the Proposal clearly identifies the cases where interconnectors may be owned by other parties and establishes that, in such cases, those parties shall be entitled to receive all or part of the congestion income. The Proposal is therefore in line with the requirement set out in Article 73(2)(e) of the CACM Regulation.

#### 6.2.3. Assessment of the expected impact on the objectives of the CACM Regulation

- (36) Recitals (10) to (15) of the Proposal aim to describe the expected impact of the Proposal on the objectives listed in Article 3 of the CACM Regulation. Therefore, the Proposal complies with the requirement in Article 9(9) of the CACM Regulation.
- (37) As regards the substance of the described impact, ACER generally agrees with the assessment of the objectives listed in Article 3 of the CACM Regulation. However, with regard to the objective of fair and non-discriminatory treatment (i.e. Article 3(e) of the CACM Regulation), ACER considers that the Proposal fails to ensure non-discriminatory treatment of all TSOs for the sharing of congestion income from the balancing capacity exchange or sharing of reserves and the treatment of unintuitive flows. ACER assessment is further described in section 6.2.4 (for the exchange of balancing capacity or sharing of reserves) and 6.2.5 (for the treatment of unintuitive flows).

#### 6.2.4. Assessment of the requirements for sharing of congestion income from the exchange of balancing capacity or sharing of reserve

- (38) The application of exchange of balancing capacity or sharing of reserve will generate congestion income. Article 24(1) of the HCZCAM provides that these congestion incomes shall be shared in accordance with the CID methodology.



- (39) Article 5 of the Proposal describes how the balancing capacity commercial flows should be calculated in a flow-based CCR. Specifically, TSOs compute, for each bidding zone, a net position for each balancing capacity product. Afterwards, based on these net positions, they compute the commercial flows using a similar approach as the one for the computation of the commercial flows for energy (mapping the net position to flows on borders based on the PTDFs).
- (40) Article 7(4) of the Proposal presents how to distribute congestion income, generated by the exchange of balancing capacity or sharing of reserve, to bidding zone borders. For CCRs applying a flow-based approach, using the absolute value and scaling rule. This rule distributes, for each border, the absolute value of the product of commercial flows and market spread. Afterwards, the congestion incomes, for each border, are rescaled to match the total amount of congestion income to distribute. For computing the market spread, TSOs use day-ahead prices instead of balancing capacity prices. The reason being that, for a certain period, not all TSOs would be part of a balancing capacity exchange or reserve sharing application and would therefore not have any balancing capacity price in these applications.
- (41) ACER considers that the choice, made in the Proposal, of using day-ahead prices for computing the market spread for the sharing of congestion income generated by the exchange of balancing capacity or sharing of reserve is not in line with Article 3(e) of the CACM Regulation because it does not ensure a non-discriminatory treatment of all TSOs. The reason being that, with such approach, TSOs part of a balancing capacity exchange or sharing of reserve application, which generates much more congestion income than if the cross-zonal capacity had been offered to day-ahead market, may not receive any of these congestion incomes (even if a significant amount of congestion income would be generated on their bidding zone border from an exchange of balancing capacity). This is illustrated in the example of Figure 1.

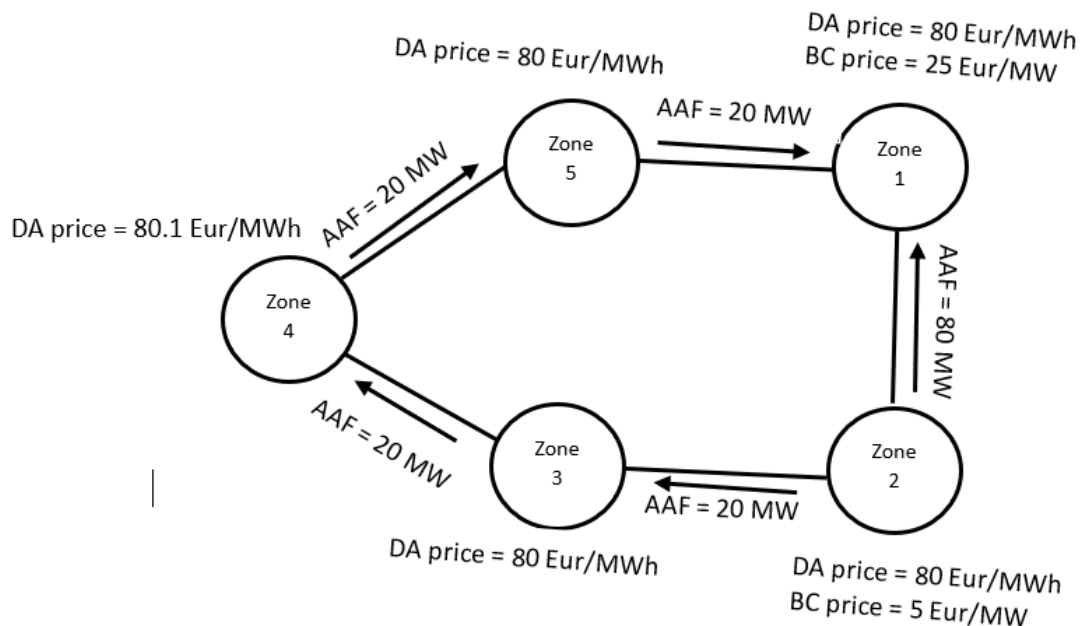


Figure 1: Example of the distribution of congestion income from the exchange of balancing capacity

- (42) In this example, the TSO of zone 2 exports 100 MW of balancing capacity to the TSO of zone 1. This leads to an additional aggregated flow of 80 MW on their common border and an additional aggregated flow of 20 MW passing through the other TSOs. The underlying assumptions are that the price of all zones in day-ahead is equal to 80 Eur/MWh except for TSO 4 which has a price of 80.1 Eur/MWh, and that the balancing capacity price in zone 1 is equal to 25 Eur/MW and the balancing capacity price in zone 2 is equal to 5 Eur/MW. With the proposal of TSOs, all the congestions would be distributed on border 3-4 and border 4-5, as they are the only borders with a day-ahead price difference. This result is not fair because (i) the congestion income is created due to the balancing capacity exchange of TSOs 1 and 2; and (ii) the exchange of balancing capacity is mainly burdening the border zone 1 and zone 2. Not distributing congestion income to the bidding zone borders where the congestion income was generated from the exchange of balancing capacity would dis-incentivise the integration of balancing capacity market in accordance with Article 3(1)(c) of the EB Regulation and is therefore not acceptable.
- (43) As a solution, in its preliminary position, ACER has amended Articles 7(4) and 7(5) of the methodology in order to use balancing capacity prices for the distribution of congestion income on the borders of which both TSOs are part of the balancing capacity exchange or sharing of reserve application. This will better reflect the congestion income generated on their borders. This correct reflection is key because congestion incomes are reflecting a benefit for TSOs of a balancing capacity or sharing of reserve application. If

this benefit is completely allocated to other TSOs, it may suppress the interest of TSOs to engage in these cooperations.

- (44) In its answer to ACER's preliminary position, PSE raised concerns about the choice of using balancing capacity prices for the distribution of congestion income on borders where both TSOs are part of the balancing capacity exchange or sharing of reserve application, and the use of day-ahead energy prices for the distribution of congestion income on borders that are not part of these mechanisms. In PSE's view, this choice is not a fair solution because borders that are not part of these mechanisms would be treated unfairly and would not receive sufficient congestion income.
- (45) However, the compensation mechanism under Article 24(2) of the HCZCAM will compensate any reduced congestion income on bidding zone borders which are not part of a cooperation for the exchange of balancing capacity or sharing of reserves. Since this mechanism prevents a distribution of congestion income below the congestion income which would have been generated with the full amount of cross-zonal capacity for day-ahead energy, ACER considers PSE's concerns about a non-fair solution unfounded.
- (46) Article 7(5) of the Proposal describes how to treat the situation in which insufficient income is generated by the balancing capacity exchange or sharing of reserves application compared to the congestion income that would have been generated if the cross-zonal capacity had been allocated to the day-ahead market coupling instead.
- (47) ACER considers that it is not appropriate to treat this situation in the CIDM. The reason being that this situation is already treated in Articles 24(2) and 24(3) of the HCZCAM. In its preliminary position, ACER has replaced the Article 7(5) of the Proposal by Article 7(7) of Annex I, which refers to the HCZCAM. ACER has also added Recital (9) in the whereas of Annex I to describe its reasoning as well as describing the current arrangement in Articles 24(2) and 24(3) of the HCZCAM.
- (48) In its answer to ACER's preliminary position, PSE raises concerns that if the case of insufficient congestion income is only treated in Articles 24(2) and 24(3) of the HCZCAM (with no reference to CACM CID methodology), there is a need to describe solutions regulated within Articles 24(2) and 24(3) of the HCZCAM in more details.
- (49) ACER considers the level of detail provided under Articles 24(2) and 24(3) of the HCZCAM as sufficient for TSOs to implement the relevant solution with the implementation of the HCZCAM. ACER is of the opinion that the distribution of the cost for these possible remuneration in accordance with Article 24(3) of the HCZCAM can be further specified within a balancing capacity platform among the relevant TSOs of this platform. For the calculation of a possible remuneration according to Article 24(2) of the HCZCAM, TSOs may use similar methods as used for the calculation of data in accordance with Article 26(4)(a), (7)(b) or (12)(a) of the HCZCAM, where further details were also not considered necessary to be defined in the HCZCAM. Anyhow, if TSOs consider it insufficient to agree on any eventual further details regarding these provisions

as provided by Article 27(1)(c) of the HCZCAM, ACER invites TSOs to propose the relevant details in their submission in accordance with Article 27(1)(a) of the HCZCAM.

#### 6.2.5. Assessment of the requirements for the treatment of unintuitive flows

(50) In Decision 16/2021<sup>7</sup> of 17 December 2021, ACER has requested TSOs to develop a proposal that should provide solutions addressing unintuitive flows irrespective of their causes and also including the transfer of congestion income between CCRs.

(51) There are five situations of unintuitive flows that needed to be addressed. Three of these have an impact inside a CCR, namely unintuitive flows due to flow-based allocation, unintuitive flows due to internal allocation constraints<sup>7</sup>, and unintuitive flows due to ramping constraints. These situations are addressed in section (51). The two other cases have a cross-CCR impact, namely unintuitive flows due to cross-CCR allocation constraints, and unintuitive flows due to advanced hybrid coupling. These are addressed in section 6.2.5.2

##### 6.2.5.1. *Unintuitive flows with impact inside a CCR*

(52) For unintuitive flows with an impact inside a CCR, TSOs have proposed to keep using the absolute value and scaling rule. This rule distributes, to each border, the absolute value of the product of commercial flows and market spread. Afterwards, for each border, the congestion income is rescaled to match the total amount of congestion income to distribute.

(53) During working level meetings TSOs have presented an analysis to support the use of the absolute value and scaling rule for the unintuitive flows internal to a CCR. They highlighted three main points.

- First, as unintuitive flows contribute to the maximization of the economic welfare within the entire CCR, the current implementation of the absolute value and scaling rule for all borders inside a CCR and rescaling of the total CCR congestion income is deemed as the most fair and transparent solution. This solution is accurate enough and was therefore proposed by all TSOs.
- Second, they perform a numerical calculation, based on a dataset of the CORE region, to compare the impact of different methods to treat unintuitive flows on the total congestion income received by bidding zone borders. Their numerical calculation shows that the change in the total amount of congestion income received by a border is low with respect to the specific method used to treat unintuitive flows except for

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[https://www.acer.europa.eu/Individual%20Decisions/ACER%20Decision%2016-2021%20on%20the%20Congestion%20Income%20Distribution%20Methodology\\_0.pdf](https://www.acer.europa.eu/Individual%20Decisions/ACER%20Decision%2016-2021%20on%20the%20Congestion%20Income%20Distribution%20Methodology_0.pdf)

Polish borders which are impacted by the cross-CCR allocation constraint. The situation of cross-CCR allocation constraint is specifically treated in the amendment (see Recital (60)).

- Third, there is no approach currently available to unambiguously define the beneficiaries of unintuitive flows.

#### *6.2.5.1.1 Unintuitive flows due to flow-based allocation*

- (54) For the case of unintuitive flows due to flow-based allocation, ACER agrees with the reasoning of TSOs. ACER is therefore of the opinion that the use of the absolute value and scaling rule for unintuitive flows due to flow-based allocation ensures a fair and non-discriminatory treatments of TSOs as required by Article 3(e) of the CACM Regulation.

#### *6.2.5.1.2 Unintuitive flows due to internal allocation constraint*

For the unintuitive flows due to internal allocation constraints, ACER disagrees with the use of the absolute value and scaling rule and the reasoning provided by TSOs as specified in Recital (53). The Proposal already contains the virtual hub approach for cross-CCR allocation constraints (as described in Recital (60)) and therefore this method could also be used to address allocation constraints internal to CCRs. Indeed, in ACER's view, it would not ensure a fair treatment of TSOs if internal CCR allocation constraints and cross-CCR allocation constraints were treated differently because they are modelled in the same way in the price coupling algorithm. Accordingly, the same approach should be applied to internal CCR allocation constraints and to cross-CCR allocation constraints. To that effect, ACER considers the virtual hub approach as more appropriate than the absolute value and scaling rule for the reasons explained in Recital (60). Therefore, Article 6 of the Proposal has been updated in order for the virtual hub approach to also be applied to internal allocation constraints.

#### *6.2.5.1.3 Unintuitive flows due to ramping constraint*

- (55) For the unintuitive flows due to ramping constraints, TSOs have proposed during working level meetings, to exclude these borders from the absolute value and scaling rule. The reasoning is that there is no need to socialize the negative congestion income from ramping constraints because unintuitive flows from ramping constraints do not bring additional congestion income on other borders. ACER agrees with the TSO reasoning that there is no need to socialize the negative congestion income from ramping constraints because unintuitive flows from ramping constraints do not bring additional congestion income on other borders. Consequently, ACER has updated Articles 7(1) and

7(2) of the Proposal to exclude borders with ramping constraint from the absolute value and scaling rule.

- (56) In its answer to ACER's preliminary position, Baltic Cable agreed with the approach not to apply the absolute value and scaling rule to borders with ramping constraints. Nevertheless, they see the need to have a compensation mechanism in which TSOs requesting the ramping limitations of the HVDC interconnectors would compensate the operators of the interconnectors for their loss of congestion income due to these ramping limitations.
- (57) ACER observes that Article 137 of Commission Regulation (EU) 2017/1485 (SOGL) allows TSOs of the Nordic synchronous area to put these ramping restrictions on interconnectors. Moreover, these ramping restrictions are already part of the environment in which the HVDC interconnectors operate. Additionally, ACER is of the opinion that if a compensation mechanism were envisaged, this mechanism should not be part of the congestion income distribution methodology. Indeed, Article 73(1) of the CACM Regulation states that the congestion income distribution methodology is a methodology for sharing congestion income, which Article 2(1) defines as the revenues received as a result of capacity allocation. Accordingly, in ACER's view, the congestion income distribution methodology can define compensation mechanisms to redistribute congestion income between bidding zone borders, but it cannot compensate for congestion income that have not been generated. For instance, the absolute value and scaling rule can be introduced in the congestion income distribution methodology because it compensates negative congestion income using extra congestion income generated on other borders (the congestion incomes have been generated but on other borders). On the other side, the congestion income distribution methodology cannot define a compensation mechanism for lost congestion income due to ramping constraints because these congestion incomes have not been generated. In the same vein, the CID methodology does also not introduce a compensation mechanism for the cases in which insufficient congestion income is generated by a balancing capacity exchange or sharing of reserves application compared to the congestion income that would have been generated if the cross-zonal capacity had been allocated to the day-ahead market coupling instead. Alternatively, the respective compensation mechanism is introduced in the HCZCAM.

#### *6.2.5.2. Unintuitive flows with cross-CCR impact*

- (58) In Article 6 of the Proposal, TSOs have developed new specific solutions for unintuitive flows due to cross-CCR allocation constraints and unintuitive flows due to advanced hybrid coupling. These solutions rely on the virtual hub approach.

#### *6.2.5.2.1 Unintuitive flows due to cross-CCR allocation constraints*

- (59) For cross-CCR allocation constraints, the solution proposed by TSOs is to replace the price of the zone applying the allocation constraint by the price obtained if the allocation constraint effect is filtered out. Consequently, an additional pot of congestion income is gathered. The additional pot is distributed to borders of the zone that applies the allocation constraint which would have gained congestion income if there were no allocation constraints.
- (60) It is ACER understanding that if the absolute value and scaling rule would be applied to treat unintuitive flows from allocation constraints, it would unfairly increase the congestion income from the TSO applying the allocation constraint. The reason being that the allocation constraint separates the price of the bidding zone applying it from the price of the other bidding zones. Therefore, with the absolute value and scaling rule, flows passing through the bidding zone applying the allocation constraint could generate higher congestion income on some borders and unintuitive flows on other borders that would be compensated by other TSOs. This is illustrated in the example of Figure 2, where we assume that bidding zone B applies an allocation constraint which prevents it from exporting and therefore leads to a lower price than the other bidding zones. In this example, with the absolute value and scaling rule, bidding zone B would, at the same time, receive a higher congestion income on its border with zone C and get a compensation from other TSOs for the unintuitive flow on border with zone A. This leads to a discriminatory treatment of other TSOs of the CCR, who would have to cover the unintuitive flow from zone A to zone B, which is only created due to the allocation constraint applied in Zone B, while the TSO of zone B would keep the higher congestion income on the border with zone C. It is ACER's view that the virtual hub approach properly addresses this issue because it filters out the effect of the allocation constraint on the price of the bidding zone applying it and therefore suppresses the artificial separation between the price of the zone applying the allocation constraint and the price of the other bidding zones. ACER therefore considers that the use of the virtual hub approach for treating cross-CCR allocation constraints ensures a fair and non-discriminatory treatment of TSOs.

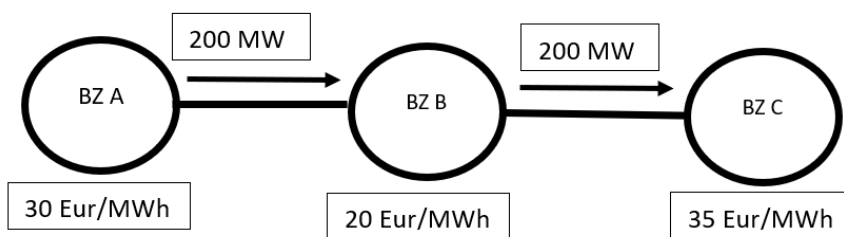


Figure 2: Example allocation constraint

6.2.5.2.2. *Unintuitive flows due to advanced hybrid coupling*

(61) For one-sided advanced hybrid coupling borders, the Proposal suggests to split the congestion income generated on these borders in 2 different parts, as described in Figure 3.

- First, the cNTC part, which is the part between the virtual hub and the CCR not implementing advanced hybrid (right part of Figure 3). This cNTC part of the congestion income relates to the cNTC CCR. The congestion income on the cNTC part is never negative due to advanced hybrid coupling but it could be negative due to ramping constraints or allocation constraints.
- Second, the flow-based part, which is the part between a virtual hub and a CCR implementing advanced hybrid coupling (left part of Figure 3). This flow-based part of the congestion income reflects congestions within the respective flow-based CCR. Hence, the congestion income of this part relates to the respective flow-based CCR. If a negative congestion income arises on this part, it will be covered by the respective flow-based CCR, because there is a social welfare gain in this flow-based CCR due to this unintuitive flow. Symmetrically, if there is a positive congestion income on a flow-based part, it will contribute to cover negative congestion incomes from the respective flow-based CCR.

For two-sided advanced hybrid coupling borders, the Proposal suggests to split the congestion income generated on these borders in one cNTC part and 2 flow-based parts as described in Figure 4.

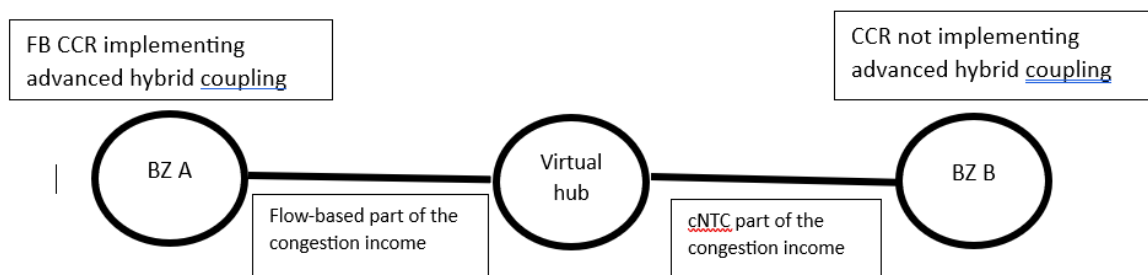


Figure 3: Illustration of one-sided advanced hybrid coupling for congestion income distribution

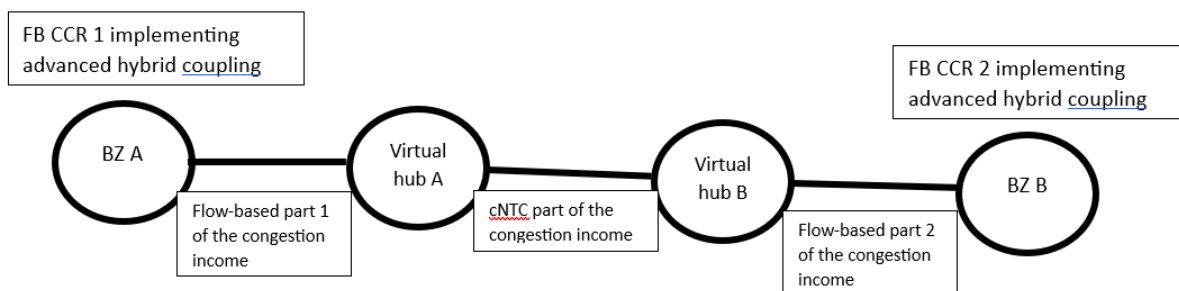


Figure 4: Illustration of two-sided advanced hybrid coupling for congestion income distribution



- (62) In its answer to ACER's preliminary position, Baltic Cable mentioned that the absolute value and scaling rule applied to the bidding zone borders affected by advanced hybrid coupling would lead to their congestion income being socialized for unrelated unintuitive flows. In Baltic Cable views, a fairer approach would be to identify the TSOs benefitting from the unintuitive flows. As a methodology for treating this might be quite complex to develop, Baltic Cable recommended not applying the absolute value and scaling rule with the scaling of congestion income on the flow-based parts of the congestion income on the advanced hybrid coupling bidding zone border.
- (63) ACER agrees that it would be quite complex to develop a method identifying unambiguously the TSOs benefitting from unintuitive flows. Indeed, this has already been an open issue since the submission of the 2021 Proposal. Since then, neither TSOs, nor ACER, nor regulatory authorities were able to identify a possible method to identify TSOs benefitting from unintuitive flows.
- (64) Regarding Baltic Cable's proposal of not applying the scaling on the flow-based part of the advanced hybrid coupling border, ACER is of the opinion that this approach is not fair for two reasons. First, it is possible that intuitive flows inside a flow-based CCR increase the intuitive flows for advanced hybrid coupling borders. It is therefore logical that the advanced hybrid coupling borders contribute to cover these unintuitive flows. Second, if unintuitive flows occur on the flow-based part of the advanced hybrid coupling border, the associated negative congestion income will be covered by borders of the flow-based CCR. It is therefore fair that if unintuitive flows occur in the flow-based CCR, the flow-based part of the advanced hybrid coupling border contribute to cover these unintuitive flows.
- (65) In conclusion, ACER believes that the fairest approach currently available for the flow-based part of the advanced hybrid coupling border is (i) to be covered by the flow-based CCR in case of negative congestion income; and (ii) to contribute compensating unintuitive flows in the flow-based CCR in case of positive congestion income. The reason being that (i) these unintuitive flows (in the flow-based CCR and on the flow-based part of the advanced hybrid coupling border) contribute to the welfare maximisation of the whole CCR and advanced hybrid coupling border; and (ii) there is currently no method for identifying unambiguously the TSOs benefitting from unintuitive flows. Nevertheless, ACER invites TSOs to keep investigating if it is possible to develop a methodology to unambiguously find the TSOs benefitting from unintuitive flows. If they find such method, TSOs are invited to propose a new amendment to the CID methodology.
- (66) In its answer to ACER's preliminary position, Baltic Cable is concerned that the Proposal only puts unintuitive flows to 0. By doing so, it does not take into account the lost congestion income above 0. They suggested that the compensation mechanism also compensates the lost congestion income. During the oral hearing, Baltic Cable proposed to compute the distribution of congestion income based on a clearing algorithm in which unintuitive flows would not be allowed.

- (67) It seems very complex to define what is the lost congestion income because it requires defining a fair reference from which congestion incomes are lost. During the oral hearing, Baltic Cable proposed to take the outcome of a clearing algorithm without negative congestion income as a reference. In ACER's view, there is no reason for which it would be fairer to compute congestion income from another optimisation problem than the one that is used in the price coupling algorithm. ACER is of the opinion that it is more appropriate to consider the optimisation function based on welfare maximisation in accordance with Article 38(1)(a) of the CACM Regulation as a basis for the distribution of congestion income and then compensate for the negative congestion income. Another reason for not compensating above 0 the flow-based part of the congestion income from an advanced hybrid coupling borders is that, as explained in Recital (61), they keep the whole cNTC part of their congestion income (which reflects the congestion income generated due to a congestion on their interconnector) because the cNTC part of their congestion income does not contribute to compensate unintuitive flows for other borders. It would therefore not be fair that they would be compensated above 0 for the flow-based part of their congestion income, which is generated due to congestions in a flow-based CCR.
- (68) During the hearing phase, Baltic Cable questioned the fact that the methodology allows for reasonable financial planning. The reasons being the lack of transparency in, for example, the formation of prices in virtual hubs and the lack of impact assessment of the functioning of the methodology.
- (69) On the unclarity of virtual hubs price formation, ACER disagrees with Baltic Cable because a formula for the virtual hub price is clearly defined in Article 6(3) of the Proposal. On the lack of impact assessment, ACER observes that TSOs have provided an analysis, during working level meetings, to assess the impact of different methods to treat unintuitive flows on the TSOs of the CORE CCR. Moreover, Annex I provides that, during the development, testing and the first year of implementation of the cross-CCR mechanisms, TSOs shall assess the results of the application of the CACM CID methodology with regard to the requirement of ensuring fair and non-discriminatory treatment and share their assessment with all regulatory authorities and ACER. Moreover, if necessary to ensure fair and non-discriminatory treatment, TSOs shall propose amendments of the congestion income distribution methodology. ACER considers that this provision serves as basis for an impact assessment of the fairness of the CID methodology and therefore allows for a reasonable financial planning for TSOs and regulatory authorities as required by Article 73(2)(c) of the CACM Regulation.

#### 6.2.6. Proposed timescale for implementation

- (70) The Proposal meets the requirements of Article 9(9) of the CACM Regulation on the inclusion of a proposed timescale for implementation, as Article 10 of the Proposal specifies the timeline for its implementation.
- (71) After discussions with TSOs, ACER has included a change to the implementation timeline in its preliminary position. The change is to give 18 months to CCR already

having a capacity calculation methodology in order to implement the methodology. The reason for this change is that, according to the Proposal, CCRs already having a capacity calculation methodology would have had to implement the new methodology instantly. Nevertheless, ACER requested, in its preliminary position, TSOs to justify their proposal of 18 months for the implementation.

- (72) In their answer to ACER's preliminary position, TSOs justified that such period is needed because the proposed amendment gives the basis for cross-CCR arrangements between TSOs and the relevant cross-CCR settlement. Currently, they do not have yet a central settlement entity, which performs the congestion income distribution in all CCRs which are affected by cross-CCR allocation mechanisms. Secondly, the methodology, as set out in Annex I, will require the update of the congestion income distribution tools, which will need to be coordinated between multiple CCRs. Further, advanced hybrid coupling is a new process, which will need to be developed and tested extensively with alignment between multiple CCRs. TSOs also mentioned that the implementation of the CID methodology should not impact negatively other projects (e.g. implementation of advanced hybrid coupling in CORE).
- (73) ACER is of the opinion that a central settlement entity will likely improve the efficiency of the congestion income distribution process by avoiding the need for multiple settlement arrangements among different TSOs and fully separated financial flows for such individual arrangements. To allow for the development of a tool for relevant cross-CCR settlement, ACER considers an implementation deadline of 18 months appropriate.

#### 6.2.7. Editorial amendments

- (74) ACER has introduced a number of editorial amendments to improve clarity, conciseness, consistency and readability of the Proposal, while preserving the intended meaning of the content. These editorial amendments generally relate to amendments of wording and improvements of structure.
- (75) In the definitions under Article 2 of the Proposal, ACER has added the definitions for balancing capacity flows to reflect that they are different compared to energy flows.
- (76) The treatment of allocation constraints by the virtual hub approach creates an additional pot of congestion income. In the Proposal, the part of the additional pot distributed to borders part of a flow-based CCR is allocated to the flow-based CCR. On the other hand, the part of the additional pot distributed to borders part of a cNTC CCR does not seem to be allocated to any CCR. This could lead to a situation in which part of the congestion income is not allocated to any CCRs. ACER has therefore added a provision in Article 6(2) of Annex I in order to include the additional pot on borders of a cNTC CCR to this CCR.
- (77) Under Article 6(4) of the Proposal, the total additional pot had the same notation as the part of the additional pot distributed to one border under Article 6(1) of the Proposal.

After discussion with TSOs and regulatory authorities, ACER has proposed in Article 6(4)(b) of Annex I a new notation for the total additional pot as well as a formula for the distribution of the additional pot per border in Article 6(4)(c) of Annex I.

- (78) On the structure, Article 6(3)(f) of the Proposal has been deleted because it covers the rescaling of congestion income, which is already treated in Article 7(2) of the Proposal. It is preferable to treat the rescaling in Article 7 of the Proposal rather than in Article 6 of the Proposal because the latter addresses the distribution of congestion income only on borders impacted by cross-CCR allocation mechanisms. It is therefore not appropriate to define the rescaling in Article 6 of the Proposal as it applies to all bidding zone borders.
- (79) In their answer to ACER preliminary position, all TSOs provided some proposals for clarity improvements (e.g. definitions, cases in which both bidding zones of a border apply allocation constraints, modified day-ahead prices for computing balancing capacities congestion income). EV also proposed some clarity improvements (e.g. definitions, structure), in their answer to ACER preliminary position. ACER has considered these suggestions and has implemented them when deemed appropriate.

## **7. CONCLUSION**

- (80) For the above reasons, ACER considers that the Proposal is in line with the requirements of the CACM Regulation, as long as the amendments described in this Decision are integrated in the Proposal, as presented in Annex I to this Decision. The amendments are necessary to ensure that the Proposal is in line with the purpose of the CACM Regulation and contributes to market integration, non-discrimination, effective competition and the proper functioning of the market.
- (81) Therefore, ACER approves the Proposal subject to the necessary substantive and editorial amendments. Annex I to this Decision sets out the congestion income distribution methodology, as amended and approved by ACER,

HAS ADOPTED THIS DECISION:

### *Article 1*

The congestion income distribution methodology pursuant to Article 73(1) of the CACM Regulation is amended and approved as set out in Annex I to this Decision.

### *Article 2*

This Decision is addressed to the following TSOs:

50Hertz - 50Hertz Transmission GmbH  
Amprion - Amprion GmbH

APG - Austrian Power Grid AG  
Augstsprieguma tīkls - AS Augstsprieguma tīkls  
Baltic Cable - Baltic Cable AB  
ČEPS - ČEPS a.s.  
CREOS Luxembourg - Creos Luxembourg S.A.  
EirGrid - EirGrid plc  
Elering - Elering AS  
ELES - ELES, d.o.o.  
Elia - Elia Transmission Belgium SA/NV  
Energinet - Energinet  
ESO - Electroenergien Systemen Operator EAD  
Fingrid - Fingrid Oyj  
HOPS - Croatian Transmission System Operator Ltd  
IPTO - Independent Power Transmission Operator S.A.  
Kraftnät Åland - Kraftnät Åland Ab  
LITGRID - Litgrid AB  
MAVIR ZRt. - MAVIR Magyar Villamosenergia-ipari Átviteli Rendszerirányító Zártkörűen Működő Részvénytársaság ZRt.  
PSE - Polskie Sieci Elektroenergetyczne S.A.  
REN - Rede Eléctrica Nacional, S.A.  
RTE - Réseau de Transport d'Electricité, S.A.  
SEPS - Slovenská elektrizačná prenosová sústava, a.s.  
SONI - System Operator for Northern Ireland Ltd  
Svenska Kraftnät - Affärsverket svenska kraftnät  
TenneT GER - TenneT TSO GmbH  
TenneT TSO - TenneT TSO B.V.  
Terna - Terna Rete Elettrica Nazionale S.p.A.  
Transelectrica - National Power Grid Company Transelectrica S.A.  
TransnetBW -TransnetBW GmbH

Done at Ljubljana, on 21 December 2023.

**- SIGNED -**

*For the Agency  
The Director*

C. ZINGLERSEN

Annexes:

Annex I	Congestion income distribution methodology
Annex Ia	Congestion income distribution methodology (track-change version, for information only)

*In accordance with Article 28 of Regulation (EU) 2019/942, the addressees may appeal against this Decision by filing an appeal, together with the statement of grounds, in writing at the Board of Appeal of the Agency within two months of the day of notification of this Decision.*

*In accordance with Article 29 of Regulation (EU) 2019/942, the addressees may bring an action for the annulment before the Court of Justice only after the exhaustion of the appeal procedure referred to in Article 28 of that Regulation.*