

DECISION No 11/2024 OF THE EUROPEAN UNION AGENCY FOR THE COOPERATION OF ENERGY REGULATORS

of 23 September 2024

on amendments to the price coupling algorithm and the continuous trading matching algorithm, including the common sets of requirements

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 Regulators¹, and, in particular, Article 5(2)(b) thereof,

Having regard to Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management² and, in particular, Articles 9(6)(g), 9(13), 37(1) and 37(5) thereof,

Having regard to the outcome of the consultation with regulatory authorities, nominated electricity market operators, transmission system operators and market participants,

Having regard to the favourable opinion of the Board of Regulators of 18 September 2024, delivered pursuant to Article 22(5)(a) of Regulation (EU) 2019/942,

Whereas:

1. INTRODUCTION

(1) Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (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. These requirements also include specific provisions for the development and maintenance of a price coupling algorithm

¹ OJ L158, 14.6.2019, p. 22.

² OJ L 197, 25.7.2015, p. 24.



and of a continuous trading matching algorithm for the single day-ahead coupling (SDAC) and for the single intraday coupling (SIDC), in accordance with Chapters 4 to 6 of the CACM Regulation.

- (2) The proposal for the price coupling algorithm and for the continuous trading matching algorithm was developed by all nominated electricity market operators (NEMOs) in cooperation with the transmission system operators (TSOs) pursuant to Article 37(5) of the CACM Regulation and approved by ACER Decision No 08/2018 (Algorithm methodology)³. The Algorithm methodology includes the TSOs' and NEMOs' common sets of requirements for the development of the algorithm pursuant to Article 37(1) of the CACM Regulation. The Algorithm methodology was amended in 2020 by ACER Decision No 04/2020⁴.
- (3) The Algorithm methodology must be amended so that the SDAC algorithm can, in the future, support 'co-optimisation'. Co-optimisation is one of the three methods to obtain estimates for the optimal cross-zonal capacity for the purpose of the exchange of balancing capacity or sharing of reserves, which are envisaged by Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (EB Regulation⁵)⁶. Co-optimisation is based on a comparison of the actual market value of cross-zonal capacity for the exchange of balancing of reserves and the actual market value of cross-zonal capacity for the exchange of energy based on day-ahead bids. This implies that the allocation of cross-zonal capacity for the exchange of balancing capacity with the capacity allocation for the exchange of energy in the day-ahead timeframe, and therefore requires that co-optimisation is integrated directly in the SDAC algorithm.
- (4) To this aim, the co-optimisation methodology⁷, developed by all TSOs pursuant to Article 40(1) of the EB Regulation and approved by ACER Decision No 12/2020, explicitly requires that co-optimisation is integrated in the SDAC algorithm. According to Article 13 of the co-optimisation methodology, all TSOs had to carry out an implementation impact assessment (IIA) and propose an updated set of requirements for the SDAC algorithm to all NEMOs.
- (5) On 17 December 2021, TSOs issued an IIA Report⁸, in which they recommended to complement the IIA with a roadmap study based on an algorithm prototype to support their work on the updated set of SDAC algorithm requirements. The roadmap study,

³ <u>Annex I</u> to <u>ACER Decision No 08/2018</u>.

⁴ <u>Annex I</u> to <u>ACER Decision No 04/2020</u>.

⁵ OJ L 312, 28.11.2017, p. 6.

⁶ Article 38(1) of the EB Regulation. The other methods are market-based allocation and allocation based on an economic efficiency analysis.

⁷ <u>Annex I</u> to <u>ACER Decision No 12/2020</u>.

⁸ All TSOs, <u>Implementation Impact Assessment</u> for the Methodology for a Co-Optimised Allocation Process of Cross-Zonal Capacity for the Exchange of Balancing Capacity or Sharing of Reserves, 17 December 2021.





performed by the day-ahead algorithm service provider with inputs from NEMOs and TSOs, was completed in May 2022⁹.

- (6) Based on these studies, on 16 June 2022, TSOs published their proposal for updating the common set of requirements for the SDAC algorithm. TSOs later revised their proposal following the amendment of the methodology for harmonising processes for the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves (HCZCAM), approved by ACER Decision No 11/2023¹⁰. The latest version of the proposal was submitted to NEMOs on 15 September 2023.
- (7) On 25 November 2022, ACER requested NEMOs to propose amendments to the Algorithm methodology based on the TSOs' proposal for an updated common set of requirements, and to submit them to ACER by 25 November 2023.
- (8) On 24 November 2023, all NEMOs submitted to ACER their proposed amendments to the SDAC algorithm, based on the updated common set of requirements from the TSOs (Proposal).
- (9) The present Decision follows from the assessment and revision of the Proposal. Annexes I, II, III and IV to this Decision set out the amended Algorithm methodology, the amended common set of requirements for the price coupling algorithm, the amended common set of requirements for the continuous trading matching algorithm and the intraday auction algorithm, and the amended algorithm monitoring methodology for single day-ahead coupling, as respectively revised and approved by ACER.
- (10) Annexes I, II III and IV to the present Decision amend and replace Annexes I to IV to ACER Decision No 04/2020. Annex V to ACER Decision No 04/2020¹¹, which sets out the algorithm monitoring methodology for single intraday coupling, remains valid and is to be read in line with Annexes I to IV to the present Decision.
- (11) In the following, the term 'Proposal' refers to the submission made by NEMOs, whereas the term 'revised Proposal' refers to the Proposal as revised by ACER.

2. **PROCEDURE**

- (12) On 24 November 2023, the NEMO Committee, on behalf of all NEMOs, submitted the Proposal to ACER for decision.
- (13) Between 12 December 2023 and 9 July 2024, ACER engaged in discussions on the proposed amendments, through working meetings with NEMOs, TSOs, ENTSO-E

⁹ SDAC MSD, <u>Co-optimization Roadmap Study</u>, Explanatory note, 20 October 2022.

¹⁰ <u>Annex I</u> to <u>ACER Decision No 11/2023</u>.

¹¹ $\overline{\text{Annex V}}$ to <u>ACER Decision No 04/2020</u>.

and regulatory authorities, as well as exchanges of documents and regular updates provided to ACER's Electricity Working Group (AEWG) and CACM and EB Task Forces¹².

- (14) Between 18 January and 20 February 2024, ACER publicly consulted on the Proposal (see section 5.1)¹³.
- (15) On 27 March 2024, and based on the discussions at the working meetings and requests from the parties, ACER decided to extend the decision timeline by four months, until September 2024. The aim was to discuss the proposed amendments with the parties also considering the findings from ACER's study on the welfare benefits of co-optimising energy and reserves (Welfare Study), expected to be finalised in May 2024¹⁴.
- (16) Between 27 May and 19 June 2024, ACER publicly consulted on the Welfare Study (see section 5.1).
- (17) On 26 June 2024, ACER shared its preliminary position on the Proposal with all NEMOs asking for their views in writing by 31 July 2024. In parallel, ACER consulted all TSOs on the Proposal. An oral hearing was organised on 17 July 2024 on ACER's initiative. NEMOs' and TSOs' (oral and written) views are summarised in section 5.2.
- (18) The AEWG was consulted on ACER's draft Decision between 26 August and 29 August 2024 and provided its advice on 2 September 2024 (see section 5.3).
- (19) ACER's Board of Regulators issued a favourable opinion on 18 September 2024.

3. ACER'S COMPETENCE TO DECIDE ON THE PROPOSAL

- (20) Pursuant to Article 5(2)(b) of Regulation (EU) 2019/942, ACER shall approve proposals for common terms and conditions or methodologies (TCMs) which are developed for the implementation of network codes and guidelines adopted before 4 July 2019, and which require the approval of all regulatory authorities.
- (21) Pursuant to Article 9(1) and Article 9(6)(g) of the CACM Regulation, as initially adopted, namely as a guideline before 4 July 2019, the proposal for the algorithm, and any amendments thereof, were subject to the approval by all regulatory authorities. Following the amendment of these provisions by Commission Implementing

¹² ACER's platforms for discussing CACM- and EB-related aspects with the regulatory authorities.

¹³ The public consultation was extended by 5 days following a stakeholder request.

¹⁴ <u>Welfare Benefits of Co-Optimising Energy and Reserves</u>, commissioned by ACER, 2024. The study assesses the expected benefits from implementing co-optimisation in SDAC compared to the current market design and the (alternative) market-based allocation method.

Regulation (EU) 2021/2808¹⁵, the proposal for the algorithm and any amendments thereof have been explicitly subjected to approval by ACER.

- (22) Pursuant to the first sentence of Article 9(13) in joint reading with Articles 9(6)(g) and 37(5), ACER may request NEMOs to propose amendments to the algorithm and determine a deadline for the submission for those amendments.
- (23) Pursuant to Article 9(5) in joint reading with Article 9(6)(g) of the CACM Regulation, ACER, before approving the proposal for amendments to the algorithm, shall revise it where necessary, after consulting NEMOs, in order to ensure that it is in line with the purpose of the CACM Regulation and contribute to market integration, nondiscrimination, effective competition and the proper functioning of the market.
- (24) On 25 November 2022, ACER requested all NEMOs to propose amendments to the algorithm and to submit them to ACER by 25 November 2023.
- (25) Since, following ACER's request, on 24 November 2023, all NEMOs, through the NEMO Committee, submitted their Proposal to ACER for approval, ACER is competent to decide on the Proposal based on Article 5(2)(b) of Regulation (EU) 2019/942 as well as Article 9(6)(g) in joint reading with Article 9(13) of the CACM Regulation.

4. SUMMARY OF THE PROPOSAL

- (26) The Proposal consists of five documents which integrate the proposed amendments in the text of the existing Algorithm methodology approved by ACER Decision No 04/2020 and is accompanied by an explanatory note and a list of submitting NEMOs:
 - (a) the main document, setting out the main provisions of the methodology¹⁶;
 - (b) Annex 1: Common set of requirements for the price coupling algorithm¹⁷;
 - (c) Annex 2: Common set of requirements for the continuous trading matching algorithm and the intraday auction algorithm;
 - (d) Annex 3: Algorithm monitoring methodology for single day-ahead coupling; and
 - (e) Appendix 1, listing the entities to which the Algorithm methodology applies.

¹⁵ OJ L 62, 23.2.2021, p. 24.

¹⁶ Unless stated otherwise, referces to the articles or recitals of the Proposal or revised Proposal denote the provisions of the main document.

¹⁷ The submission of 24 November 2023 did not include Annex 1. Upon ACER's request, NEMOs submitted Annex 1 on 16 January 2024, completing their Proposal.



(27) As such, the Proposal includes amendments to the existing Algorithm methodology which only concern Annexes I to IV to ACER Decision No 04/2020, but not to Annex V to ACER Decision No 04/2020, i.e. the algorithm monitoring methodology for single intraday coupling. Therefore, and since ACER did not identify a need to change Annex V to ACER Decision No 04/2020, Annex V to ACER Decision No 04/2020 remains valid and is to be read together with Annexes I to IV to the present Decision.

Provisions of the Proposal	Proposed amendments ¹⁸
Recital (41)	Clarification that any reference to the SDAC algorithm directs to the same algorithm solution used for co-optimisation, and vice-versa.
Recitals (42)-(44)	Legal context for co-optimisation and its inclusion in the SDAC algorithm, including references to the EB Regulation and ACER decisions.
Recital (45)	Clarification that further amendments to the Algorithm methodology to implement co-optimisation require research and development (R&D) work.
Article 1(4) Appendix 1	Specification regarding which entities the Algorithm methodology applies to.
Articles 1-4, 12	References to Articles 40 and 25(2) of the EB Regulation regarding co-optimisation and standard balancing capacity products (SBCPs).
Article 2	New definitions: 'bidding guide', 'bidding structure', 'linking' and 'SBCPs'.
Article 4(2)	A list of SDAC algorithm's outputs for the bidding zones and borders where the algorithm would be required to co- optimise the allocation of cross-zonal capacities for the exchange of balancing capacity or sharing of reserves.
Article 4(16)	R&D process to investigate the co-optimisation-related requirements to be added to the algorithm.
Article 6(2)	Amendments related to the expected go-live of intraday auctions (IDAs).
Annex 1: Section 7	Updated common set of requirements for the price coupling algorithm, as proposed by TSOs.
Annex 2 Point 6.2.c	Amendments related to the expected go-live of IDAs.

(28) The main amendments proposed by NEMOs are summarised below:

 $^{^{18}}$ Amendments in Article 1(4), Appendix 1, Article 6(2) and Article 6(2)(c) of Annex 2 are not related to cooptimisation.



Annex 3	Co-optimisation-related references and indicators to
Articles 1(4), 10, 11, 13, 14	monitor SDAC products usage and status of orders.

(29) To avoid duplication and because ACER does not see the need to reassess the existing Algorithm methodology in its entirety, ACER will focus on the amendments proposed by NEMOs and on the additional amendments proposed by ACER.

5. SUMMARY OF THE OBSERVATIONS RECEIVED BY ACER

5.1. Public consultation

- (30) In the first public consultation, launched on 18 January 2024, ACER asked for stakeholder input specifically regarding:
 - (a) R&D activities to be performed by NEMOs and TSOs to enable the implementation of co-optimisation.
 - (b) An appropriate bid design to allow market participants to bid in both dayahead and balancing capacity markets.
 - (c) The information required from market participants to define the bid design, the most suitable process for market participants to provide such information to NEMOs and TSOs and the required timeline.
 - (d) Benefits of co-optimisation from market participants' perspective.
- (31) In the second public consultation, launched on 27 May 2024, ACER sought stakeholder feedback on the future direction of the R&D activities for a design where market participants are not required to forecast the day-ahead energy market outcome when bidding for balancing capacity.
- (32) ACER received 18 responses to the first public consultation and 24 responses to the second one. Annex V to this Decision provides ACER's summary and evaluation of these responses.

5.2. Consultation on ACER's preliminary position

- (33) NEMOs' and TSOs' feedback on ACER's preliminary position is summarised below and discussed in detail in section 6.2¹⁹.
- (34) The following views were provided by both NEMOs and TSOs:

¹⁹ NEMOs' and TSOs' comments on the Welfare Study are not directly relevant to ACER's preliminary position and therefore are evaluated in Annex V, together with other responses to ACER's public consultation on the Welfare Study.



- (a) It is important to involve all relevant stakeholders in an open-minded and indepth R&D process. The introduction of co-optimisation implies a critical EU market design change that goes far beyond a technical update of the Algorithm methodology.
- (b) Product design, bid design and pricing are the most important R&D items, fundamental for the whole R&D process and time plan.
- (c) The scope of R&D work should be extended by including bid information exchange and bid management activities between NEMOs and TSOs.
- (d) The timeline of R&D work should be extended to March 2027 and split into four milestones. The relevant methodologies (Algorithm methodology, terms and conditions for SDAC products and for Standard Products for Balancing Capacity (SPBC)) should be revised only once the R&D work is completed.
- (e) A prototype tested for performance would be available by the implementation deadline (the latter to be specified in the next amendment proposal). This prototype would be then subject to further industrialisation only upon TSOs' request or at a request of regulatory authorities.
- (f) 'MTU' (Market Time Unit) should be replaced with 'period' (this comment concerns some provisions of the Algorithm methodology).
- (35) The following comments were provided by TSOs only:
 - (a) All requirements related to balancing capacity should be removed from the main document of the Algorithm methodology.
 - (b) Minor clarification requests regarding ACER's proposed changes to Annex 1 (Common set of requirements for the price coupling algorithm).

5.3. Consultation of the AEWG

- (36) The German regulatory authority (BNetzA) provided comments during the AEWG consultation period. It was not clear to BNetzA why ACER has deleted the requirement for the identification the locational source of the procured SPBC from the set of the SDAC common requirements (point 5.2.1 of Annex 1 to the revised Proposal).
- (37) On 2 September 2024, the AEWG endorsed the draft Decision and invited ACER to consider BNetzA's comments. These comments are addressed in section 6.2.6.

6. ASSESSMENT OF THE PROPOSAL

6.1. Legal framework

6.1.1. CACM Regulation



- (38) According to Article 7(1)(b) of the CACM Regulation, NEMOs are responsible for establishing collectively the requirements for the single day-ahead and intraday coupling, the requirements for the market coupling operator (MCO) functions and the price coupling algorithm with respect to all matters related to electricity market functioning in accordance with Article 7(2) and Articles 36 and 37 of the CACM Regulation.
- (39) According to Articles 8(1), 8(2)(a) and 8(2)(b) of the CACM Regulation, all TSOs in Member States electrically connected to another Member State must participate in the single day-ahead and intraday coupling and jointly establish TSOs' requirements for the price coupling and continuous trading matching algorithms for all aspects related to capacity allocation in accordance with Article 37(1)(a) of the CACM Regulation, and jointly validate the matching algorithms against the above mentioned requirements in accordance with Article 37(4) of the CACM Regulation.
- (40) According to Article 36(1) and (2) of the CACM Regulation, all NEMOs must develop, maintain and operate a price coupling algorithm and a continuous trading matching algorithm. They must ensure that the price coupling algorithm and the continuous trading matching algorithm meet the requirements provided for, respectively, in Articles 39 and 52 of the CACM Regulation.
- (41) According to Article 37(1) of the CACM Regulation, all TSOs need jointly to provide all NEMOs with a proposal for a common set of requirements for efficient capacity allocation to enable the development of the price coupling algorithm and of the continuous trading matching algorithm. These requirements shall specify the functionalities and the performance, including the deadlines for the delivery of single day-ahead and intraday coupling results and the details of the cross-zonal capacity and allocation constraints to be respected. Article 37(1) further specifies that all NEMOs need jointly to propose a common set of requirements for efficient matching to enable the development of the price coupling algorithm and of the continuous trading matching algorithm.
- (42) According to Article 37(2) of the CACM Regulation, all NEMOs must develop a proposal for the algorithms based on these sets of requirements.
- (43) More generally, in terms of content of any proposal for TCMs, Article 9(9) of the CACM Regulation states that it must include a proposed timescale for their implementation and a description of their expected impact on the objectives set out in Article 3 of the CACM Regulation.
- (44) As stated in the second subparagraph of Article 9(13), all proposals for amendment to the TCMs are subject to a consultation under Article 12. In case of EU-wide TCMs, Article 12 requires a stakeholder consultation at Union level lasting not less than one month.
 - 6.1.2. <u>EB Regulation</u>



- (45) Article 33 of the EB Regulation defines the requirements for developing a proposal for the establishment of common and harmonised rules and processes for the exchange and procurement of balancing capacity. This proposal is to be developed by two or more TSOs exchanging or mutually willing to exchange balancing capacity and must respect the requirements of Article 32 of the EB Regulation.
- (46) According to Article 38(1) of the EB Regulation, two or more TSOs may at their initiative or at the request of their relevant regulatory authorities set up a proposal for the application of one of the three processes for the allocation of cross-zonal capacities: co-optimised process (i.e. co-optimisation), market-based allocation process and allocation process based on an economic efficiency analysis.
- (47) Article 40 of the EB Regulation requires TSOs to develop a proposal for the methodology for co-optimisation, in line with requirements specified therein²⁰.
- (48) Article 40(2) of the EB Regulation states that the co-optimisation methodology shall be based on a comparison of the actual market value of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves and the actual market value of cross-zonal capacity for the exchange of energy.
- (49) Article 39 of the EB Regulation sets out the requirements for the calculation of the market value of cross-zonal capacity and provides that the actual market value of cross-zonal capacity in a co-optimised allocation process shall be calculated based on bids in the day-ahead market and based on balancing capacity bids submitted to the capacity procurement optimisation function pursuant to Article 33(3) of the EB Regulation.

6.2. ACER's assessment and revisions

- 6.2.1. <u>Assessment of the requirements for the development and for the content of the</u> <u>Proposal</u>
- (50) The Proposal was submitted by the NEMO Committee, on behalf of all NEMOs, which are the entities responsible for developing the Algorithm methodology. The submission was made on 24 November 2023, respecting the deadline specified in ACER's request for amendment.
- (51) Prior to its submission to ACER, the Proposal was subject to a public consultation held by NEMOs between 31 July and 25 September 2023.
- (52) The Proposal provides a time plan related to the amendments, which is further explained in the explanatory note. Regarding the impacts on the objectives of the CACM Regulation, ACER considers that the proposed amendments do not affect the

²⁰ The co-optimisation methodology was approved by ACER Decision No 12/2020.

initial assessment of impacts that the entire Algorithm methodology has on the CACM objectives, as set out in the recitals of the Algorithm methodology.

(53) The Proposal therefore complies with the requirements for the development and for the content of the Proposal specified in Articles 9(9), 9(13) and 12 of the CACM Regulation.

6.2.2. Proposed amendments related to the R&D work

- (54) Any changes to the Algorithm methodology to include co-optimisation in the SDAC algorithm must be based on a thorough examination of different approaches for such an inclusion, to fully understand their technical feasibility, impacts and implications. To this aim, ACER requested NEMOs to carry out, together with TSOs, the necessary R&D work before they submit the proposed amendments to ACER²¹.
- (55) ACER notes that limited R&D work has been carried out to date, and that one of the key amendments by NEMOs is an R&D plan in Article 4(16) of the Proposal, which consists of three milestones, names the areas to be investigated and includes minimum requirements for stakeholder engagement during the R&D phase. The proposed milestones are as follows: (i) completion of the Bidding Guide process by 1 January 2025; (ii) provision of an updated common set of requirements by 1 January 2026 and (possible) amendment of the SDAC products; and (iii) further R&D to be carried out only if the intention to apply co-optimisation is expressed by TSOs or if requested by the regulatory authorities pursuant to Article 38(1) of the EB Regulation. The proposed areas to be investigated include but are not limited to the Bidding Guide and Bidding Structure outcomes, options on unilateral and multilateral linking of SBCPs and day-ahead products and order types, MTU resolution and TSOs requirements for deterministic compatibility of flow-based approach.
- (56) Based on the discussions with NEMOs and TSOs, ACER has revised the proposed R&D plan, focusing on the following aspects: scope, timeline, stakeholder engagement and next steps.

6.2.2.1. *R&D scope*

- (57) Taking the Proposal and the Roadmap Study as a starting point, ACER has further discussed with NEMOs and TSOs and defined a non-exhaustive list of R&D areas in Article 4(15) of Annex I. Beyond those areas which were, at least partially, identified in the Roadmap Study²², the revised scope of the R&D also covers:
 - (a) Different product designs, added based on the findings of the Welfare Study, which are particularly important for this area. ACER expects that the R&D explores at least such a product design where market participants are not

²¹ ACER's request for amendment of 25 November 2022.

²² E.g. points a), c), e), f) and g) of Article 4(15) of the revised Proposal.



required to forecast the day-ahead energy market outcome when bidding for balancing capacity.

- (b) Bid design which properly reflects at least variable and fixed costs, added based on the findings of the Roadmap Study and the Welfare Study.
- (c) Compatibility of co-optimisation with Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (SO Regulation)²³, added based on the working-level discussions with NEMOs and TSOs.
- (d) Potential amendments to back-up and fallback procedures for both day-ahead energy and balancing capacity, added based on the working-level discussions with NEMOs and TSOs. R&D should identify which procedures (back-up, fallback and curtailment) need to be amended and how, whereas the actual amendment of these procedures is beyond the scope of the R&D phase.
- (e) Bid information exchanges and governance of operation activities between NEMOs and TSOs, including data governance, added based on NEMOs' and TSOs' comments on ACER's preliminary position.

6.2.2.2. *R&D timeline and stakeholder engagement*

- (58) ACER is of the view that the necessary R&D must be carried out as soon as possible, and not depend on a notification from TSOs or a request by the regulatory authorities, as proposed by NEMOs. Furthermore, as the objective of the R&D phase is to inform the amendments to the Algorithm methodology and the related TCMs, R&D must be carried out before any amendments are proposed and not run in parallel or commence after the update of the common set of SDAC requirements or (potential) amendment of the terms and conditions for SDAC products. Additionally, the R&D phase must be also appropriately structured and must ensure sufficient involvement of market participants and ACER at key stages of the process.
- (59) Considering the above, ACER has revised and detailed the R&D plan set out in Article 4(16) of the Proposal, and further adjusted it following NEMOs' and TSOs' comments and alternative proposals made during the hearing phase. The final, approved R&D plan consists of four R&D phases, each ending with a report to be submitted to ACER by a given deadline. Involvement of market participants is encouraged in all phases of the R&D, but explicitly required when investigating bidding products and bidding formats, as these two areas are particularly relevant for them.

²³ OJ L 220, 25.8.2017, p. 1.



- (60) The four reports and deadlines are specified in Article 4(16) of Annex I and explained below:
 - (a) By 30 March 2025, submission of first draft report (R0) covering R&D on bidding products, bidding formats and prices. The deadline of 30 March 2025 is two months earlier than the deadline proposed by NEMOs and TSOs during the hearing phase (30 May 2025). ACER notes that it is time efficient if the review of consultants' report is done by ACER, NEMOs and TSOs simultaneously. In addition, it creates an environment where all parties are equally informed, which encourages constructive exchanges on the draft report at an early stage, either in established platforms (e.g. Joint Expert Team on the Algorithm) or in specific ad-hoc meetings, if necessary. The parallel review also allows to consult market participants on the report earlier, already in May 2025. For transparency, the documents published for consultation should include the draft report (R0) and the assessment of the draft report done by NEMOs, in cooperation with TSOs, as well as ACER's assessment of the draft report.
 - (b) **By 30 September 2025, submission of a new version (R1)** of the R0 report, updated based on the public consultation's results. The views of market participants must be carefully considered in finalising R1, because this updated report must select options for product design and bid design to be further assessed in the next R&D phases. The deadline of 30 September 2025 is based on NEMOs' and TSOs' comments and ensures that they have enough time to consult market participants (minimum a month), evaluate their feedback and update the report accordingly. Before the start of the next R&D phase, ACER should be given the possibility to review the list of selected options and complement it with additional options to be also assessed in the next R&D phases.
 - (c) **By 31 May 2026, submission of the second report (R2)** covering areas listed in points d) to g) of Article 4(15) of Annex I. R2 must conclude on the technical feasibility of the options selected in R1. The deadline of 30 May 2026 is based on NEMOs' and TSOs' estimates for the duration of this phase.
 - (d) By 30 November 2026, submission of the third report (R3), covering the remaining areas, i.e. points h) i) of Article 4(15) of Annex I. This third R&D phase lasts six months, which is three months less than the duration proposed by NEMOs and TSOs. In their estimates, this phase included the time for developing proposals for amending the affected TCMs and running the related consultations. ACER considers that it will be more efficient to develop proposals for amendments and consult them with market participants once also this last phase of R&D work is completed. With no public consultations, a shorter duration of this phase is justified.
 - 6.2.2.3. Next steps following the completion of the R&D work



- (61) ACER expects that the outcomes of the R&D work will provide sufficient information to determine the most appropriate approach to implement co-optimisation in the SDAC algorithm and to estimate the timeline for this implementation.
- (62) In its preliminary position, ACER intended to require NEMOs, in cooperation with TSOs, to submit a proposal for further amendments to the Algorithm methodology based on the outcomes of the R&D within six months following the planned completion of the R&D. The amendment proposal was meant to include a deadline for implementing co-optimisation in the price coupling algorithm.
- (63) Based on the exchanges with NEMOs and TSOs on the R&D work, ACER has deleted this requirement. ACER has concluded that it is more appropriate to first discuss the R&D outcomes with NEMOs and TSOs, understand all the implications for the existing TCMs, and mutually agree on the best course of action regarding TCM amendments. Therefore, upon completion of the R&D work with the submission of R3, ACER will consider all R&D outcomes, discuss them with NEMOs and TSOs, and request further amendments to the Algorithm methodology and, if required, to the related TCMs.
 - 6.2.3. <u>Proposed amendments specifying co-optimisation-related requirements in the</u> <u>Algorithm methodology</u>
- (64) In their Proposal, NEMOs acknowledged that further R&D on co-optimisation is needed before a fully-fledged methodology can be described and implemented (Recital (45) of the Proposal). At the same time, NEMOs already specified certain high-level requirements related to co-optimisation in relevant provisions of the Algorithm methodology:
 - (a) In the main document, co-optimisation-related references were included in Articles 1(1), 3(4), 3(5)(c), 4(2), 4(5), 4(11), 4(12), 4(13), 4(18), 12(5), 12(6), 12(13).
 - (b) In Annex 1, co-optimisation-related requirements were added to the common set of requirements for the price coupling algorithm in section 7.
 - (c) In Annex 3, co-optimisation-related provisions were added to the Algorithm monitoring methodology for single day-ahead coupling in Articles 1(4), 10(2), 10(3), 11(f), 13, 14.
- (65) ACER had extensive discussions with NEMOs and TSOs about these requirements and attempted, in its preliminary position, to further specify them and determine a process for setting their implementation deadline (see section 6.2.2.3). Based on comments from NEMOs and TSOs, ACER concluded that it is premature to insert such requirements in the Algorithm methodology, as they are not yet applicable, and their further specification and implementation is anyway subject to future R&D outcomes. Therefore, to prevent confusion with the existing and applicable provisions of the Algorithm methodology, ACER has deleted them from the main document and Annex 3. ACER has kept co-optimisation-related requirements only in Annex 1, as



they are clearly denoted as 'COOPT' to differentiate them from 'EXISTING' requirements. For the avoidance of doubt, ACER has clarified in Annex 1 and recital 41 of the Whereas section of the Algorithm methodology that the 'COOPT' requirements are not yet applicable, and their specification and implementation is subject to further R&D.

6.2.4. Proposed amendments for new definitions

- (66) NEMOs proposed to add new definitions to Article 2 of the Proposal: 'bidding guide', 'bidding structure', 'linking' and 'SBCPs'.
- (67) ACER does not see the need for defining 'bidding guide', 'bidding structure' and 'linking' at this stage, since these definitions might need to be amended based on the outcome of the R&D work. A more general wording for intertemporal and cross-product dependencies seems more appropriate at this point in time. Hence, ACER has deleted these definitions.
- (68) For consistency with the EB Regulation, ACER aligned the definition of 'SBCPs' with the terminology used in Article 25(2) of the EB Regulation and the related methodology, namely 'Standard Products for Balancing Capacity' or 'SPBC'.
- (69) Finally, ACER has defined two new terms which apply to the 'COOPT' requirements specified in Annex 1:
 - (a) 'TSO balancing capacity (BC) demand'

The definition of TSO BC demand refers to Article 32(1) of the EB Regulation and therefore implicitly includes the consideration of sharing of reserves and requirements from the SO Regulation. Furthermore, TSO BC demand is defined per bidding zone or scheduling area to specifically allow the price coupling algorithm to consider the requirement of Article 157(2)(g) of the SO Regulation.

(b) 'SPBC supply order'

While the EB Regulation and the HCZCAM in accordance with Article 38(3) of the EB Regulation mainly refer to balancing services providers bids for balancing capacity or SPBC bids, the Algorithm methodology uses the term 'order' which is defined in Article 2(21) of the CACM Regulation²⁴. While the terms 'balancing capacity bids' and 'SPBC supply orders' have essentially the same meaning, the definition of 'SPBC supply order' for the Algorithm methodology is in line with the terminology used in the CACM Regulation. Additionally, in ACER's understanding, a SPBC supply order is the same as

²⁴ Article 2(21) of the CACM Regulation defines 'order' as an intention to purchase or sell energy or capacity expressed by a market participant subject to specified execution conditions.



what is addressed (but not explicitly defined) as a balancing capacity bid under the EB Regulation.

- 6.2.5. <u>Proposed amendments linked to the methodology to calculate IDAs' scheduled</u> <u>exchanges</u>
- (70) Article 6(2) of the Algorithm methodology states that the IDA algorithm shall calculate scheduled exchanges between bidding zones and between scheduling areas as well as scheduled exchanges between NEMO trading hubs in accordance with the methodology for calculating scheduled exchanges for the day-ahead timeframe, applied for the needs of IDAs *mutatis mutandis*.
- (71) In the Proposal, NEMOs supplemented Article 6(2) with the following text: '(to the exception of the deadlines set forth in Article 7 paragraph 3 of such methodology, which are not applicable to IDAs).' ACER understands that the proposed text is to ensure that the deadlines specified in Article 7(3) of the methodology for the day-ahead scheduled exchanges do not apply to IDAs.
- (72) ACER notes that the application of the methodology for the day-ahead scheduled exchanges to IDAs was meant to be only an interim solution. While the algorithm used for IDAs is essentially the same as the one used for SDAC, IDAs formally remain part of SIDC (and not SDAC), and the IDAs scheduled exchanges fall under the scope of the methodology for calculating the scheduled exchanges for the intraday timeframe (and not the day-ahead one). Therefore, the intraday scheduled exchanges methodology must be amended to include the rules applicable for IDAs. Having discussed this with the relevant ENTSO-E and TSO representatives²⁵, ACER intends to request amendments to this methodology in due course.
- (73) Given the above, ACER has specified in Article 6(2) of Annex I that the day-ahead scheduled exchanges methodology applies to IDA (*mutatis mutandis*) only until the methodology for calculating scheduled exchanges for the intraday timeframe is amended to include the specific rules for the calculation of the scheduled exchanges for IDAs. ACER has made related changes to Article 6(13) and Article 6(16) of the main document as well as to paragraph 10.3 of Annex 2 to ensure consistency throughout the Algorithm methodology.
- (74) ACER has also deleted the exception proposed by NEMOs. ACER does not see the need to explicitly state that the deadlines in Article 7(3) do not apply to IDAs, since the methodology for day-ahead scheduled exchanges anyway is to be applied *mutatis mutandis*, i.e. with the necessary changes made considering the differences between the two calculations.

²⁵ This discussion took place in the meeting of 20 June, held in the context of ACER's decision-making process for the amendment of the day-ahead scheduled exchanges methodology (ref. ACER-ELE-2024-009).



6.2.6. <u>Proposed amendments to Annex 1: Common set of requirements for the price</u> <u>coupling algorithm</u>

- (75) Annex 1 of the Proposal includes sections 1 to 6 listing the existing (i.e. already applicable) requirements related to day-ahead energy and a new section 7 outlining the proposed requirements related to co-optimisation. ACER has substantially revised the structure of Annex 1 by integrating most of the proposed requirements from section 7 into sections 1 to 6, however, clearly denoting them as 'COOPT' to differentiate them from the 'EXISTING' requirements. In section 7, ACER has kept only those requirements which cannot be assigned to any of the preceding sections (i.e. requirements related to cross-product linking). This improves clarity by avoiding duplication of requirements or unnecessary cross-references and establishes consistency with the functioning of the SDAC algorithm, in preparation for the implementation of co-optimisation. At the same time, different denotations ('COOPT' versus 'EXISTING') ensure that there is no ambiguity and confusion between the already applicable requirements and those not yet applicable, as their further specification and implementation is subject to R&D.
- (76) ACER has also revised the wording of certain requirements to improve clarity and ensure consistency with the definitions used in the main document.
- (77) In the column 'requirement deadlines', ACER has denoted all co-optimisation-related requirements as 'COOPT' and clarified that they are not yet applicable and subject to further R&D (see recital 41 of the Whereas section of Annex I as well as footnote 2 in Annex II to this Decision).

(78)	ACER has added several	additional requirements	from the HCZCAM, as follows:
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Requirement	HCZCAM article(s)	Annex 1 point(s)
Economic surplus maximisation	13(4)	1.1.c
Result of economic surplus form the exchange of balancing capacity or sharing of reserves	26(4)(b)	5.6.c
Multiple balancing capacity uses of the same cross-zonal capacity	4(7)	2.1.m
	4(8)	2.1.n
	7(1)	5.2.1
Reserve requirements of the SO Regulation	10(2)	3.4
		3.5
Possibility to limit the maximum volume of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves	10	2.1.1
Consideration of balancing capacity inputs for the co-optimised allocation process	13(2)	1.1.a.iii 1.1.a.iv

(79) Some requirements in Annex 1 of the Proposal refer to requirements or concepts related to day-ahead energy to be considered for balancing capacity (e.g. point 7.3.a)



or point 7.4.d). ACER has revised these requirements to better capture the differences between day-ahead energy and balancing capacity:

- (a) The term 'net position' is defined in Article 2(5) of the CACM Regulation and relates to the commercially scheduled electricity imports and exports. As balancing capacity exchange does not necessarily relate to electricity flows across borders but only to the reservation of cross-zonal capacity for a potential exchange of balancing energy, this term cannot be used for balancing capacity. In agreement with TSOs, ACER has concluded that no equivalent term for balancing capacity is needed as the results defined under points 5.2.h to k of Annex 1 of the revised Proposal (i.e. Annex II to this Decision) are sufficient.
- (b) ACER has added a new requirement in point 3.6 of Annex 1 of the revised Proposal to consider the relevant allocation constraints from the day-ahead timeframe. ACER considers the allocation constraint for losses (i.e. point 3.1.d of Annex 1 to the Proposal) as not applicable for balancing capacity due to uncertain energy flows in case of balancing capacity.
- (c) Scheduled exchanges relate to (energy) net positions and as such, this concept does not apply to balancing capacity. Possible balancing energy flows from balancing capacity need to be considered for requirements in points 2.1.h.ii and 3.6 of Annex 1 to the revised Proposal. The wording of the requirement in point 2.1.h.ii has been adjusted accordingly.
- (d) In agreement with TSOs, ACER has concluded that the price coupling algorithm would not need to perform an available transfer capacity (ATC) extraction from the allocated flow-based cross-zonal capacities for the needs of balancing energy platforms. If necessary (see recital (85)(b)), this should be addressed within the relevant capacity calculation processes.
- (80) ACER has revised the requirements concerning cross-product linking by replacing requirements in points 7.5.a, 7.5.b and 7.5.c of the Proposal with a more general requirement for linking (see point 7.1 of Annex 1 to the revised Proposal). ACER notes that the formulation is general and should be further specified based on the R&D work. ACER has moved all the requirements related to cross-product linking to section 7 (i.e. 7.4.h, 7.4.m, 7.4.n). Finally, as requested by TSOs, ACER has added a new requirement in point 7.2 in Annex 1 to the revised Proposal to define the prioritisation rule for links between day-ahead energy and SPBC in case of equal social welfare results.
- (81) In agreement with TSOs, ACER has added a new requirement in point 1.1.b of Annex 1 to the revised Proposal to specify, as part of the TSO BC demand, the consideration of sharing of reserves between load frequency control blocks or the equivalent process within a load frequency control block.



- (82) Following the proposal of TSOs and considering the expected decommissioning of the TERRE platform²⁶, ACER has deleted all references to the replacement reserves process and limited the support of SPBC to automatic frequency restoration reserves and manual frequency restoration reserves in the requirement specified in point 1.1.a.iii of Annex 1 to the revised Proposal.
- (83) Following the proposal of TSOs, ACER added a new requirement in its preliminary position for identifying the locational source of the procured SPBC to consider the requirement of Article 18(2)(b) of the SO Regulation, according to which the alert state of the transmission system is triggered, among other factors, based on the availability of TSO's reserve capacity. However, ACER has subsequently deleted this new requirement from Annex 1 to the revised Proposal. ACER understands that through regional coordination TSOs could monitor the criterion under Article 18(2)(b) of the SO Regulation and act accordingly also without receiving the information about the bidding zone where balancing capacity is sourced. Furthermore, the consistency of such requirement with the functioning of the SDAC algorithm is doubtful since direct matches of single buy and sell offers, which would allow an allocation of a single source, is currently not done in SDAC. Therefore, ACER is of the opinion that this requirement should be addressed within the R&D focus area foreseen under Article 4(15)(d) of Annex I.
- (84) Concerning BNetzA's comments in the AEWG consultation (see section 5.3), ACER recognises that co-optimisation may have potential impacts on operational security and hence, these will be further investigated in the R&D phase. ACER expects that the R&D will show whether a specific requirement for the identification of the locational source of the procured SPBC is strictly necessary or whether it is more efficient to facilitate the monitoring of the criterion under Article 18(2)(b) of the SO Regulation by other means than the SDAC algorithm providing such information. ACER notes that this information may be provided in the future by the regional cooperation centres pursuant to the tasks assigned to them by Regulation (EU) 2019/943 on the internal market for electricity²⁷. These tasks involve regional outage planning coordination and facilitation of the regional procurement of balancing capacity, performance of which is governed by already approved methodologies²⁸.
- (85) ACER has also deleted some requirements for co-optimisation to avoid repetition or for the following reasons (if not due to the reasons already mentioned above):
 - (a) ACER has deleted point 7.4.i from Annex 1 to the Proposal. TSOs are of the view that, considering the price-taking TSO BC demand and the prioritisation of cross-

²⁶ Trans European Replacement Reserves Exchange, TERRE Stakeholder Workshop, 17 May 2024.

²⁷ OJ L 158, 14.6.2019, p. 54. See points (f) and (k) of Article 37(1).

²⁸ Methodology for assessing the relevance of assets for outage coordination (<u>Annex I</u> to <u>ACER Decision No</u> 08/2019) and methodology for the regional procurement of balancing capacity (<u>Annex I</u> to <u>ACER Decision No</u> 13/2023).



zonal capacity for day-ahead energy²⁹, an exchange of balancing capacity cannot cause an unsatisfied TSO BC demand. A prioritisation of SPBC supply orders in case of cross-product linking for satisfying the TSO demand would be against the requirement specified in point 7.2 of Annex 1 to the revised Proposal. The consideration of linked products in case of unsatisfied TSO BC demand may be investigated as part of R&D on curtailment procedures.

- (b) ACER has deleted point 7.3.o, the last sentence of point 7.3.m and point 7.4.k from Annex 1 to the Proposal. ACER understands that the deleted provisions imply a different approach, for flow-based and coordinated net transfer capacity, on specific bidding zone borders for the allocation of cross-zonal-capacity in SDAC and for balancing energy. The balancing energy platforms currently operate with the cross-zonal capacity values in the form of ATC either as remainders of net transfer capacity approach) or as the ATCs extracted from the flow-based domain (in flow-based regions). Although ACER understands that the extracted ATC values for the balancing energy platforms are always within the limits of the original flow-based cross-zonal capacities, a consistent application of the flow-based approach over the different timeframes would allow for a more efficient use of cross-zonal capacity. In any case, ACER expects that, by the time co-optimisation can be implemented, the balancing energy platforms will be able to apply the flow-based approach.
- (c) ACER has deleted point 7.4.1 from Annex 1 to the Proposal since TSOs are the ones who are required to publish the information pursuant to Article 12(3)(f) of the EB Regulation, and not the price coupling algorithm as such.
- (86) While not specifically related to co-optimisation, ACER has also made minor revisions to Annex 1 to the Proposal regarding the requirements related to day-ahead energy. These are mostly editorial changes and do not impact the current application of these requirements:
 - (a) ACER has revised points 1.1.a.ii and 1.1.b, following the revisions proposed by NEMOs.
 - (b) ACER has deleted point 1.n as all elements of this requirement are already addressed under section 5.
 - (c) ACER has revised points 1.2.a, 1.2.h, 1.3.f, 2.1.h, 3.1.d, 3.2, 3.3, 5.1.a, 5.1.b, 5.1.c, 5.2.a, 5.6.a, 5.6.b, 5.2.a, 5.2.h, 5.4.a, 5.8 to either make them generally applicable also for balancing capacity products once co-optimisation is implemented, or to

²⁹ Requirement 1.1.i of Annex 1 to the revised Proposal.



limit their scope to day-ahead energy. To ensure consistency with point 3.3, ACER has made the same revisions to the equivalent requirements in Annex 2.

- (d) ACER has also broadened the scope of the requirement in point 5.2.h, so that it applies to both coordinated net transfer capacity and flow-based approaches (as outlined in point 5.3 of Annex 1 to the revised Proposal). ACER understands that the required information is already available with the existing SDAC algorithm.
- (e) ACER has corrected the references in points 5.8 and 5.9 so that they refer to the right methodology.
- (87) In response to ACER's preliminary position, TSOs asked ACER for clarification on the granularity of the output of the price coupling algorithm as per points 5.2.h, 5.2.i, 5.2.j, 5.2.l of Annex 1 to the revised Proposal. ACER notes that the TSO BC demand is defined in the Algorithm methodology per bidding zone or scheduling area. In line with this definition, the relevant outputs must be provided with the same granularity.

6.2.7. Proposed amendments to Annex 2 and Annex 3

- (88) NEMOs proposed one amendment related to the expected go-live of IDAs, in point 6.2.c) of Annex 2 of the Proposal (common set of requirements for the continuous trading matching algorithm and the intraday auction algorithm). ACER has accepted this amendment. Additionally, as already mentioned in recital (73), paragraph 10.3 of Annex 2 has been amended to ensure consistency in the reference of the specific rules for the calculation of the scheduled exchanges for IDAs.
- (89) NEMOs specified a few indicators related to co-optimisation in Annex 3 (algorithm monitoring methodology for single day-ahead coupling). As explained in recital (65), ACER has deleted these proposed amendments.
- (90) Any additional revisions by ACER in Annex 2 and Annex 3 are editorial and hence not discussed here.

6.2.8. The list of entities to which the Algorithm methodology applies

- (91) Article 1(4) of the Proposal states that the Algorithm methodology shall apply to NEMOs and TSOs listed in Appendix 1. ACER notes that formally NEMOs are the only entities responsible for the development of the Algorithm methodology, and the addressees of this Decision. ACER has therefore deleted all TSOs from Article 1(4) of Annex I and from Appendix 1.
- (92) Notwithstanding the above, ACER recognises the importance of cooperation between NEMOs and TSOs in integrating co-optimisation in the SDAC algorithm. ACER welcomes the active participation of TSOs in the present amendment procedure. The need for involving TSOs is reflected in many provisions of the Algorithm methodology, where all NEMOs are required to carry out their tasks '*in cooperation with all TSOs*'.



(93) In addition, ACER has deleted Nasdaq from the list of NEMOs in Appendix 1 since, as of 13 November 2023, Nasdaq is no longer a designated NEMO in the EU.

6.2.9. On other amendments to the main document not linked to co-optimisation

- (94) In their written feedback on ACER's preliminary position, NEMOs (and TSOs) proposed amendments not related to co-optimisation, such as replacing 'MTU' with 'period' in Articles 3(5), 3(6), 4(1), 6(1) and 14(2) of Annex I.
- (95) Based on the comments provided at the oral hearing as well as the additional inputs submitted by NEMOs thereafter, ACER included minor amendments to Articles 4(1) and 6(1) of Annex I regarding the output of the price coupling algorithm for day-ahead energy and the output of the intraday auction algorithm. ACER understands that the Algorithm methodology should list the minimum required outputs of each relevant algorithm and that additional outputs may be provided.
- (96) ACER has rejected the proposed amendments to calculate, for each relevant period (instead of MTU), the scheduled exchanges for both the price coupling algorithm and the intraday auction algorithm for the following two reasons. First, scheduled exchanges are defined per MTU in accordance with the scheduled exchanges methodologies developed in accordance with Article 43 and Article 56 of the CACM Regulation. Second, the exceptional case of the Greece-Italy border, brought up by NEMOs during the oral hearing, is rather to be seen as an allocation constraint for this bidding zone border, which would allow to have a constant value of scheduled exchanges for each hour.

7. CONCLUSION

- (97) For all the above reasons, ACER considers that the Proposal complies with the requirements of the CACM Regulation and the EB Regulation, provided that the amendments described in this Decision are integrated in the Proposal, as presented in Annexes I to IV. The amendments, which have been consulted with NEMOs and TSOs, 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.
- (98) Therefore, ACER approves the Proposal subject to the necessary amendments. Annexes I to IV to this Decision set out the Proposal as amended and approved by ACER. The algorithm monitoring methodology for single intraday coupling is set out in Annex V to ACER Decision No 04/2020³⁰,

HAS ADOPTED THIS DECISION:

³⁰<u>Annex V</u> to <u>ACER Decision No 04/2020</u>.



Article 1

The price coupling algorithm and the continuous trading matching algorithm pursuant to Article 37(5) of Regulation (EU) 2015/1222, including the common sets of requirements, is amended and approved as set out in Annexes I to IV to this Decision.

Article 2

This Decision is addressed to the following NEMOs:

Bursa Română de Mărfuri S.A. **BSP** Energy Exchange LLC **CROATIAN POWER EXCHANGE Ltd** EirGrid plc EPEX SPOT SE ETPA Holding B.V. EXAA Abwicklungsstelle für Energieprodukte AG Gestore dei Mercati Energetici S.p.A., Hellenic Energy Exchange S.A. HUPX Hungarian Power Exchange Company Limited by Shares Independent Bulgarian Energy Exchange EAD Nord Pool European Market Coupling Operator AS OKTE, a.s. OMI Polo Español S.A. Operatorul Pieței de Energie Electrică și de Gaze Naturale "OPCOM" SA OTE. a.s. SONI Limited Towarowa Giełda Energii S.A.

Done at Ljubljana, on 23 September 2024.

- SIGNED -

For the Agency The Director

C. ZINGLERSEN



Annexes:

Annex I – Methodology for the price coupling algorithm, the continuous trading matching algorithm and the intraday auction algorithm

Annex Ia – Methodology for the price coupling algorithm, the continuous trading matching algorithm and the intraday auction algorithm – with amendments in track changes (for information only)

Annex II – Annex 1 to the Algorithm methodology – Common set of requirements for the price coupling algorithm

Annex IIa – Annex 1 to the Algorithm methodology – Common set of requirements for the price coupling algorithm – with amendments in track changes (for information only)

Annex III – Annex 2 to the Algorithm methodology – Common set of requirements for the continuous trading matching algorithm and the intraday auction algorithm

Annex IIIa – Annex 2 to the Algorithm methodology – Common set of requirements for the continuous trading matching algorithm and the intraday auction algorithm – with amendments in track changes (for information only)

Annex IV – Annex 3 to the Algorithm methodology – Algorithm monitoring methodology for single day-ahead coupling

Annex IVa – Annex 3 to the Algorithm methodology – Algorithm monitoring methodology for single day-ahead coupling – with amendments in track changes (for information only)

Annex V – Evaluation of responses to ACER's public consultations on the Proposal and on the Welfare Study (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 ACER's Board of Appeal 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.