Market Coupling Operation Integration Plan

in accordance with Article 7(3) of EnC CACM

31 January 2025

This document is submitted by:

Nominated electricity market operators from members states of the European Union:

BRM, BSP, CROPEX, SEMOpx (EirGrid and SONI), EPEX, ETPA, EXAA, GME, HEnEx, HUPX, IBEX, Nord Pool, OMIE, OKTE, OPCOM, OTE, and TGE

Table of Contents

1. Introduction

Whereas:

1. The Market Coupling Integration Plan (the "MCO IP") is a common proposal developed by all Nominated Electricity Market Operators from the EU Member States ("EU NEMOs") pursuant to Article 7(3) of the CACM adapted via specific adaptations pursuant to Article 6 of the Energy Community Ministerial Council Decision D/2022/03/MC-EnG (the "EnC CACM"), in conjunction with article 9(6) of the EnC CACM.

2. According to Article 7(3) of the EnC CACM: "By twelve months after the entry into force of this Regulation all NEMOs from Contracting Parties and Member States shall submit to all regulatory authorities, the Energy Community Regulatory Board and the Agency for the Cooperation of Energy Regulators a plan on integration of the NEMOs from Contracting Parties in the MCO Functions set out in paragraph 2, and in the agreements between NEMOs and with third parties. The plan shall be consistent with the plan drafted in accordance with Regulation (EU) 2015/1222 and shall include a detailed description and the proposed timescale for implementation, <...> and a description of the expected impact of such integration on the <...> performance of the MCO Functions in Article 7(2) of Regulation (EU) 2015/1222."

3. In line with Article 7(3) of the EnC CACM, the MCO IP is consistent with the plan that sets out how EU NEMOs jointly set up and perform the Market Coupling Operator (MCO) Function (the "MCO Plan"), which was created pursuant to Article 7(2) of Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management (the "CACM Regulation") and which was approved by all National Regulatory Authorities (the "NRAs") on the 20 June 2017.

4. This MCO IP is a methodology developed pursuant to a different legal framework as described in Recital 1 and 2, and is applicable only to the EnC NEMOs, both designated at the time of submission of this MCO IP and the EnC NEMOs that will be designated in the future. Therefore, this MCO IP does not constitute an amendment of the existing MCO Plan developed pursuant to Article 7(2) and 7(3) of CACM Regulation. The MCO IP describes the requirements applicable to EnC NEMOs only and lists the divergences between the provisions of the MCO Plan and MCO IP in order to facilitate the integration of the EnC NEMOs in the existing European Electricity Market (SDAC and SIDC). The MCO IP shall be read in conjunction with the MCO Plan.

5. According to Article 7(3) of the EnC CACM, the MCO IP is to be submitted by all EU and all EnC NEMOs jointly. Based on the guidance received from the relevant EU authorities, this

MCO IP is submitted only by EU NEMOs, and it is the result of the interpretation of textual differences between CACM Regulation and EnC CACM.

6. The MCO Functions comprise developing and maintaining the algorithms, systems and procedures for single day-ahead and intraday coupling, processing input data on cross-zonal capacity and allocation constraints provided by coordinated capacity calculators, operating the price coupling and continuous trading algorithms, and validating and sending single day-ahead and intraday coupling results to NEMOs (the "MCO Functions").

7. To comply with the provisions of the Methodology for pricing intraday cross-zonal capacity developed in accordance with Article 55 of the CACM Regulation, the scope of the single intraday coupling ("SIDC") has been extended to include intraday auctions ("IDA"), as a part of SIDC. The intraday coupling therefore consists of continuous SIDC and auction SIDC. The auction SIDC applying IDAs complements the ID MCO Function.

8. The governance of the NEMOs, set in the MCO Plan and described in this MCO IP, is based on the following contracts: one "All NEMO Cooperation Agreement" (the "**ANCA**"), two "NEMO Operational Agreements" (one for the DA and one for the ID), plus a set of contracts between EU NEMOs and third-party service providers needed for the delivery of the MCO Functions.

9. Article 7(2) of the CACM Regulation, applicable to EU NEMOs, states that "NEMOs shall carry out MCO functions jointly with other NEMOs. These functions shall include the following:
    a) developing and maintaining the algorithms, systems and procedures for single day-ahead and intraday coupling in accordance with Articles 36 and 51".

Additionally, Article 36(1) of the CACM Regulation states that "All NEMOs shall develop, maintain and operate the following algorithms:
    a) a price coupling algorithm;
    b) a continuous trading matching algorithm".

10. The EnC CACM clearly differentiates between the legal obligations of EU NEMOs and EnC NEMOs in relation to the possibility to perform MCO functions. The EnC CACM, in Article 7(2), states that "NEMOs may carry out MCO functions jointly with NEMOs from Member States. Those functions shall include the following:
    a) Developing, maintaining and applying the algorithms, systems and procedures for single day-ahead and intraday coupling in accordance with Articles 36 and 51".

Additionally, according to Article 36(1) of the EnC CACM: "All NEMOs shall apply:
    a) The price coupling algorithm, and

b) The continuous trading matching algorithm developed in accordance with Article 37 of Regulation (EU) 2015/1222."

11. The general provisions of EnC CACM, included in Recital 10 above, clearly state that EnC NEMOs only have the option to apply the price coupling algorithm and continuous trading matching algorithm. In contrast, the wording of Article 36(1) of the CACM Regulation, states that EU NEMOs are responsible for the development, maintenance and operation of the price coupling algorithm and the continuous trading matching algorithm.

12. Pursuant to Article 9(6) of the EnC CACM, the EnC NEMOs shall apply the terms and conditions or methodologies developed according to the CACM Regulation. Since Article 9(2) of the CACM Regulation has not been included in the EnC CACM, the EnC NEMOs do not have the same voting rights as EU NEMOs and they cannot vote on terms and conditions or methodologies adopted pursuant to the CACM Regulation.

13. This is further supported by textual differences between Article 10 of EnC CACM and Article 10 of the CACM Regulation, which is applicable to EU NEMOs, and states that "TSOs and NEMOs shall jointly organise the day-to-day management of the single day-ahead and intraday coupling. They shall meet regularly to discuss and decide on day-to-day operational issues. TSOs and NEMOs shall invite the Agency and the Commission as observers to these meetings and shall publish summary minutes of the meetings."

14. The EnC CACM clearly differentiates between EU NEMOs' and EnC NEMOs' obligations regarding the SDAC and SIDC. Article 10 of EnC CACM states that "TSOs and NEMOs shall jointly contribute to organisation of the day-to-day management of the single day-ahead and intraday coupling. They shall meet regularly to discuss and decide on day-to-day operational issues…"

15. All the above Recitals lead to the conclusion that the EnC CACM foresees a clear distinction between EU NEMOs and EnC NEMOs in relation to the development, maintenance and operation of the algorithms, as well as to the voting rights on terms and conditions and methodologies. Since EU NEMOs and EnC NEMOs have distinct legal statuses under applicable legislation, these differences need to be duly described in this MCO IP.

16. The NEMO agreements described in the MCO Plan and mentioned in this MCO IP, are necessary for the design, implementation and operation of the MCO Functions. These NEMO agreements are complemented by additional "all NEMO - all TSO" agreements, as well as national and regional "NEMO and TSO" agreements, which are necessary for pre-coupling and post-coupling activities. These additional agreements are necessary for the operation of SDAC and SIDC and are outside the scope of the MCO IP.

17. The reference language for the MCO IP shall be English. For the avoidance of doubt, where NEMOs need to translate this MCO IP into the national language(s) of the relevant NRA, in the event of inconsistencies between the English version submitted in accordance with article 9(14) of the EnC CACM and any version in another language, the relevant NEMO(s) shall be obliged to dispel any inconsistencies by providing a revised version of this MCO IP to their relevant national regulatory authorities. In any case, the English version of the MCO IP shall prevail.

2. Definitions

In this MCO IP, the same definitions used in the MCO Plan and other terms, conditions and methodologies (TCMs) approved in accordance with Commission Regulation (EU) 2015/1222 of 24 July 2015, are applied.

In addition to the definitions mentioned above, the following definitions apply:

1. ACER: means the Agency for the Cooperation of Energy Regulators.
2. CACM Regulation: means the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management.
3. Contracting Parties: means the Contracting parties defined and listed as such in the Treaty establishing the Energy Community.
4. ECRB: means the Energy Community Regulatory Board.
5. EnC: means the Energy Community, an international organisation founded by the Treaty establishing the Energy Community.
6. EnC CACM: means the Regulation establishing a guideline on capacity allocation and congestion management pursuant to article 6 of the Energy Community Ministerial Council Decision D/2022/03/MC-EnG.
7. EnC NEMO: means an entity designated by the competent authority of an EnC Contracting Party to perform tasks related to single day-ahead or single intraday coupling in at least one of the Contracting Parties in line with Article 4 of the EnC CACM. An EnC NEMO can only act in a capacity of a serviced NEMO, to fulfil the obligations set out in Article 36(1) of the EnC CACM and as such is referred to throughout the document as Serviced EnC NEMO.
8. EnC TSO: means a transmission system operator established in one of the Contracting Parties established pursuant to Article 2(35) of Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU as adopted by Decision 2021/13/MCEnC of the Ministerial Council of 30 November 2021.
9. EU NEMO: means Nominated Electricity Market Operator in EU Member states, as defined in article 2(23) of the CACM Regulation.
10. IA: means the Impact Assessments, which are part of this MCO IP as Annex 1 and Annex 2.
11. IDA: means Intraday Auction in accordance with ACER decision n 01/2019 on the methodology for pricing cross-border capacity in the intraday electricity market.

12. MCO Plan: means the plan on joint performance of MCO Functions adopted pursuant to Article 7(2) and 7(3) of CACM Regulation.
13. Member States: means the Member States of the European Union where the CACM Regulation is in force.[1]
14. MTU: means Market Time Unit.
15. Nominated Electricity Market Operator (NEMO): means EU NEMOs and EnC NEMOs collectively.
16. Servicing NEMO: means an EU NEMO, who:
    - For the DA MCO Function: shall be a DA MCO Function Asset Co-owner, acting in the name and for the account of an EnC NEMO to allow the fulfilment of the obligation of EnC NEMOs set forth in Article 36(1) of EnC CACM;
    - For the ID MCO Function: shall be an EU NEMO, acting in the name and for the account of a Serviced EnC NEMO, to allow the fulfilment of the obligation of EnC NEMOs set forth in Article 36(1) of EnC CACM.
17. Single Day-Ahead Coupling (SDAC): as defined in article 2(26) of the CACM Regulation.
18. Single Intraday Coupling (SIDC): means the continuous SIDC and auction SIDC as defined in the Methodology for pricing intraday cross-zonal capacity developed in accordance with Article 55 of the CACM Regulation.
19. The Treaty: means the Treaty establishing the Energy Community.
20. TSO: means Transmission System Operator in accordance with Article 2(35) of Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU.

3. High-level principles

1. This MCO IP needs to be read in conjunction with the MCO Plan, established pursuant to Article 7(3) of the CACM Regulation, which sets forward the principles related to the development, maintenance and operation of the MCO functions.
2. By means of this MCO IP, the EnC NEMOs commit to comply with all the relevant applicable provisions of the MCO Plan. In addition, the MCO IP describes the requirements applicable to the EnC NEMOs and lists the diverging applicable provisions for the EnC NEMOs compared to the MCO Plan.
3. EU NEMOs carry out MCO Functions, the EnC NEMOs contribute to the safe and successful operation of the SDAC/SIDC in line with Article 10 of the EnC CACM.
4. EnC NEMOs acknowledge the existing structure of the SDAC and SIDC established pursuant to the CACM regulation and commit to integrate themselves into this existing structure, without hampering the cooperation and well-functioning of the SDAC and SIDC.
5. EnC NEMOs shall comply with the operational requirements of the SDAC and SIDC, as established by the MCO Plan, and relevant NEMO Operational Agreements, as well as NEMO-TSO Agreements. For the avoidance of doubt, this also applies to EU NEMOs.

[1] Additionally, the CACM Regulation also applies in Norway (EEA) and Northern Ireland (as part of the Single electricity market – SEM).

6. EnC NEMOs acknowledge the clear distinction between EU NEMOs and EnC NEMOs in relation to the development, maintenance and operation of the algorithms, as well as related to the voting rights on terms, conditions and methodologies. EnC NEMOs accept the fact that EU NEMOs shall carry out the MCO functions and the operation of SDAC and SIDC in line with EU legislative requirements.
7. Serviced EnC NEMOs are not responsible for the development, maintenance and operation of algorithms, unlike the EU NEMOs. These differences stem from textual differences between Articles of the CACM Regulation and EnC CACM, specifically Article 7 and Article 36.
8. EnC NEMOs can only act in the capacity of serviced NEMOs, due to the differences in responsibilities referred to in Section 3, Point 7 of this MCO IP.
9. As a consequence of Point 7 and Point 8, EnC NEMOs cannot perform the role of Coordinator and Back-up Coordinator. The performance of the Operator role shall be delegated to the Servicing NEMO, in line with the process in Section 6.1.2.2 of the MCO Plan.
10. EnC NEMOs shall join the All NEMO Cooperation Agreement (ANCA), which shall be amended with a dedicated Annex to include the relevant differences and which shall take into account all the diverging responsibilities of EU NEMOs and EnC NEMOs. This dedicated Annex will also deal with all relevant provisions related to operational activities and EnC NEMOs shall not be part of the All NEMO DA Operational Agreement and All NEMO ID Operational Agreement.
11. EnC NEMOs shall not enter into direct contractual arrangements with DA Service Providers due to their Serviced EnC NEMO status.
12. EnC NEMO shall not enter into direct contractual arrangement with ID Service Providers, with the exception of the PMO contract.
13. Specific limitations related to voting rights of EnC NEMOs:
    - EnC NEMOs are not entitled to vote on proposals for terms, conditions or methodologies adopted pursuant to CACM Regulation.
    - As a consequence of diverging responsibilities for the development, maintenance and operation of the algorithms, as described in Point 7 above, EnC NEMOs shall not be entitled to participate in voting on these aspects. EnC NEMOs may express their opinions that can be taken into account during voting.
    - Operational decisions by EnC NEMOs - No voting rights for operational decisions with the exception of resolution of incidents that concern their area.
    - For the Change control procedure pursuant to Section 6.2.1 and Section 7.3.1 of the MCO Plan, EnC NEMOs can request changes, however decisions are taken by EU NEMOs only. As a consequence of diverging responsibilities for the development, maintenance and operations of the algorithms, as described in Point 7 of the High-level principles, EnC NEMOs shall not be entitled to participate in voting on these aspects. EnC NEMOs may express their opinions, EU NEMOs may take into account the opinions expressed by EnC NEMOs.

4. List of divergences compared to the MCO Plan

For the purposes of this MCO IP the sections of the MCO Plan are adapted as follows:

Section 1 Introduction

Introduction is replaced by the Introduction in Section 1 of this MCO IP.

For Section 1, subsection 1.1 of the MCO Plan:

Divergence - The applicable law for EnC NEMOs is the EnC CACM, instead of the CACM Regulation.

Section 1.1.1 of the MCO Plan - General remarks

Divergence - In Paragraph 4. (b) EnC NEMOs can participate only as Serviced EnC NEMOs so cannot perform the Operator function.

Divergence - In Paragraph 4. (c) EnC NEMOs can communicate the validation of the results only through or together with their Servicing NEMOs.
The rejection of the results by an EnC NEMO, if not solvable, shall not lead to a situation, where a full decoupling of the SDAC can occur.[2]

Divergence - Addition of Energy Community and ECRB, especially in relation to Section 1.1.5 and the reporting obligations.

Section 1.1.9 (Creating a level playing field for NEMOs)

The wording of the MCO Plan is fully applicable only to the level playing field among EU NEMOs. The MCO IP shall ensure level playing field among EnC NEMOs.
The key elements, as described in Paragraph 2. of Section 1.1.9, to create a level playing field for EnC NEMOs include:

a. The requirement on EnC NEMOs to sign up to the ANCA agreement, however with different applicable provisions compared to EU NEMOs.
b. EnC NEMOs shall not sign the DA and ID Operational Agreements respectively, in divergence with the MCO Plan. The relevant operational provisions will be dealt with via a dedicated Annex of the ANCA.

The rest of the Section 1.1.9 of the MCO Plan is not applicable to the EnC NEMOs.

Section 2 Definitions

[2] This also applies to the situation where EnC NEMO (through or together with its Servicing NEMO) forwards the validation of results by the TSO.

In this MCO IP, the same definitions used in the MCO Plan and other terms, conditions and methodologies (TCMs) approved in accordance with Commission Regulation (EU) 2015/1222 of 24 July 2015, are applied. In addition, the definitions contained in Section 2 of this MCO IP apply.

Section 3 General Principles for the NEMO Cooperation

Paragraph 1 – Contracts already established, no divergence in terms of what Contracts are used for the management of the MCO Functions.

Divergence

- Contracts under letter b. – EnC NEMOs shall not adhere to the NEMO Operational Agreements. The relevant operational provisions will be dealt with via a dedicated Annex of the ANCA.
- Contracts under letter c. are not applicable to EnC NEMOs, with the exception of the PMO Contract.

Paragraph 2

Divergence

- Letter b., which specifies that "Be extended via an adherence process to NEMOs that are not yet signatories" only applies in terms of EnC NEMOs for ANCA, i.e. Contracts listed in Paragraph 1, letters b. and c. are not open to the adherence of EnC NEMOs, with the exception of the PMO Contract.
- Letter e., the Contracts set obligations for EU NEMOs to deliver MCO Function, these obligations are not applicable to EnC NEMOs.

Paragraph 3
For the purposes of this MCO IP, this provision needs to be interpreted in line with the Divergences mentioned above in relation to Paragraph 1 and Paragraph 2.

Paragraph 4
Not applicable to EnC NEMOs due to differences in roles and responsibilities as described in this MCO IP, see Recital 4 in Section 1.

Paragraph 5
Not applicable to EnC NEMOs, see Recital 4 Section 1.

Paragraph 6

No divergence from MCO Plan.

Paragraph 7

For the purpose of this MCO IP, this provision specifically the wording "managed by all NEMOs", needs to be interpreted as follows:

For letter a. – The approval of budget, high-level investment and planning is subject to the MCO Plan and CACM Regulation. EnC NEMOs may contribute to the process of deliberation, but the approval is done by EU NEMOs.
For letter b. – No divergence.
For letter c. – EnC NEMOs only participate in the external reporting and representation to the degree foreseen by EnC CACM.
For letter d. – EnC NEMOs are responsible for stakeholder consultations that fall under the scope of the relevant EnC CACM Article 12 and are not responsible for stakeholder consultations that fall under the scope of the relevant CACM Regulation Article 12.

Paragraph 8

Divergence – EnC NEMOs shall not sign the NEMO Operational Agreements. EnC specific provisions, related to, among other aspects, operational responsibilities, will be dealt with via a specific Annex of the ANCA.
For letter a. – Not applicable to EnC NEMOs.
For letter b. – EnC NEMOs shall participate in the preparation of proposals for investment and contribute to the process of deliberation of budgets, but the approval is done by EU NEMOs, as referred to in Paragraph 7 (a) above.
For letter c. – Regarding the management of the change control process EnC NEMOs can request changes, however decisions are taken by EU NEMOs only.

Divergence – The provision "Any decision needed to fulfil the tasks mentioned above shall be taken unanimously. The decision shall be escalated to the All NEMO Committee if no consensus can be reached among Operational NEMOs." needs to be read in conjunction with the divergences in the previous part of this Paragraph 8, therefore decisions to fulfil these tasks are to be understood as taken by EU NEMOs only.

Paragraph 9

Divergence – EnC NEMOs shall not sign the NEMO Operational Agreements. EnC specific provisions, related to, among other aspects, operational responsibilities, will be dealt with via a specific Annex of the ANCA.
For letter a. – Divergence – Although EnC NEMOs are Operational NEMOs, this is EU NEMO responsibility.
For letter b. – No divergence.
For letter c. – No divergence.
For letter d. – No divergence.

Paragraph 10

Divergence – For the purposes of the MCO IP, the concept of Servicing is, compared to the situation in the MCO Plan, structured as follows:

EnC NEMOs shall delegate operational activities associated with the performance of the MCO Function to a Servicing NEMO.

For letter a. - Divergence - The responsibilities of Serviced EnC NEMOs are defined in Section 3 of this MCO IP and in Article 7 and 36 of the EnC CACM.
For letter b. - No divergence in principle, addition of "EnC CACM" after CACM Regulation.
For letter c. - Divergence – The rights of the EnC NEMOs are those defined in letter a.

Paragraph 11
Out of scope of this MCO IP, process applies according to MCO Plan.

Paragraph 12
Out of scope of this MCO IP, process applies according to MCO Plan.

Section 4 – ALL NEMO COMMITTEE
Section 4.1 – All NEMO Cooperation Agreement (ANCA)

Paragraph 1

No divergence from MCO Plan.

Paragraph 2

For letter e. – After the approval of this MCO IP, the ANCA shall be complemented with the principles set out in the MCO IP.

Paragraph 3

Not applicable for EnC NEMOs, Paragraph 3 of Section 4 of the MCO Plan applies only to Switzerland in accordance with the requirements of article 1(4) of the CACM Regulation.

Paragraph 4

Divergence – Not applicable for EnC NEMOs, the distinction between EU NEMOs and EnC NEMOs is made throughout the provisions of this MCO IP.

Section 4.2 – All NEMO Committee: roles and responsibilities

Paragraph 1

No divergence, All NEMO Committee already established.

Paragraph 2

No divergence, the governance of the All NEMO Committee is already established.

Paragraph 3

No divergence, procedure already established and followed.

Paragraph 4

Divergence – In addition to European Commission and the Agency, the ECRB and the Energy Community Secretariat shall be invited to participate.

Paragraph 5

a. Divergence – The tasks related to the development, consultation, approval, submission, implementation, publication and future amendment of the MCO Plan, and other terms and conditions or methodologies required by Article 9, paragraph 6 of the CACM Regulation, are not applicable to EnC NEMOs. Any future amendment of this MCO IP and all related tasks to this amendment shall be facilitated by the All NEMO Committee.
b. No divergence.
c. No divergence.
d. Divergence:
    I. In line with Article 7, paragraph 5 of the EnC CACM, in addition to reporting to ACER, reporting to the ECRB is established. The same report shall be provided to ECRB as is provided to ACER.
    II. Not applicable for EnC NEMOs, since Article 37 of CACM Regulation is completely removed in EnC CACM.
e. Divergence – In line with Article 82, paragraph 6 of the EnC CACM, the request can also originate from ECRB.
f. Divergence – Pursuant to Section 3 of this MCO IP, paragraph 7, the EnC NEMOs are not responsible for the development, maintenance and operation of the algorithms, therefore this is not applicable to EnC NEMOs.
g. Divergence – Pursuant to Section 3 of this MCO IP, paragraph 7, the EnC NEMOs are not responsible for the development, maintenance and operation of the algorithms, not applicable to EnC NEMOs.
h. No divergence, already established. EnC NEMOs are not Parties to Operational Agreements pursuant to Section 3 of this MCO IP, paragraph 10.
i. No divergence.
j. The approval of the proposed budget related to All NEMO responsibilities, as described in the MCO Plan, is subject to the MCO Plan and CACM Regulation. EnC NEMOs may contribute to the process of deliberation, but the approval is done by EU NEMOs.
k. Divergence – According to Article 10 of the EnC CACM, there is a distinction between the responsibilities of EU NEMOs and EnC NEMOs. EnC NEMO jointly contribute to the organisation of the day-to-day management of the SDAC and SIDC.
l. Divergence –On top of the listed authorities/organisations, ECRB and Energy Community Secretariat shall be considered as an addition.
m. No divergence.

Paragraph 6

Divergence – The decision-making rules of the All NEMO Committee are established. Specific rules for EnC NEMOs will be applicable, pursuant to all the divergences listed in this MCO IP.

Paragraph 7

No divergence.

Section 5 – Implementation timeline

Section 5.1 Implementation of the DA MCO Function

Paragraph 1

No divergence, DA MCO Function is already established and performed by EU NEMOs.

Paragraph 2

No divergence, DA MCO Function is already established and performed by EU NEMOs.

Paragraph 3

No divergence.

Paragraph 4

Divergence – For EnC NEMOs, the following technical and contractual preconditions are necessary for their Go-live (i.e. to become Operational NEMOs for SDAC):

Technical readiness – EnC NEMOs to fulfil the same technical preconditions as EU NEMOs.
Contractual readiness – EnC NEMOs to adhere to All NEMO Cooperation Agreement. EnC NEMOs shall not adhere to the NEMO DA Operational Agreement, in line with the High-level principles in Section 3 of this MCO IP.
Local implementation readiness – Fulfil obligations in line with Section 5.1.4 of the MCO Plan, except for the adherence to NEMO DA Operational Agreement.

Paragraph 5

DA MCO Function implemented, no divergence.

Paragraph 6

No divergence.

Section 5.1.1. Adoption of PCR Solution as the DA MCO Function

Paragraph 1

DA MCO Function established, no divergence.

Paragraph 2

Divergence - for the purposes of the MCO IP, Member State is replaced with “EnC Contracting Party”.

Section 5.1.2 Contractual milestones for implementation of the DA MCO Function

Paragraph 1

The contractual framework for the NEMO cooperation for the delivery of the DA MCO Function is established according to Section 5.1.2 of the MCO Plan, however EnC NEMOs shall not sign the NEMO DA Operational Agreement. The relevant operational provisions will be dealt with via a dedicated Annex of the ANCA.

Paragraph 2

No divergence.

Paragraph 3

No divergence.

Paragraph 4

Divergence – EnC NEMOs shall not become a party to the NEMO DA Operational Agreement, however they will participate in SDAC. EnC NEMOs shall adhere to ANCA, which shall be amended in line with Section 3 of this MCO IP. This dedicated Annex will also deal with all relevant provisions related to operational activities.

Paragraph 5

No divergence, not applicable to EnC NEMOs.

Section 5.1.3 Technical milestones for implementation of the DA MCO Function

No divergence, DA MCO Function already established pursuant to the MCO Plan.

Section 5.1.4 Milestone for NEMOs local implementation of the DA MCO Function

Paragraph 1

Letter a. – Divergence - EnC NEMOs shall not enter into NEMO DA Operational Agreement.

Letter b. - Divergence – While EnC NEMOs shall not enter into NEMO DA Operational Agreement, they shall be required to perform necessary testing and simulations and ensure a smooth testing and integration into the DA MCO Function.

Paragraph 2

No divergence.

Section 5.2 Implementation of the ID MCO Function

Paragraph 1

No divergence, ID MCO Function is already established and performed by EU NEMOs.

Paragraph 2

No divergence, ID MCO Function is already established and performed by EU NEMOs.

Paragraph 3

No divergence.

Paragraph 4

Divergence - For EnC NEMOs, the following technical and contractual preconditions are necessary for their Go-live (i.e. to become Operational NEMOs for SIDC):

Technical readiness – EnC NEMOs to fulfil the same technical preconditions as EU NEMOs.
Contractual readiness – EnC NEMOs to adhere to ANCA. EnC NEMOs shall not adhere to the NEMO ID Operational Agreement, in line with the High-level principles in Section 3 of this MCO IP.
Local implementation readiness – Fulfil obligations in line with Section 5.2.4 of the MCO Plan.

Paragraph 5

ID MCO Function implemented, no divergence.

Paragraph 6

No divergence.

Section 5.2.1 Adoption of the XBID Solution as the ID MCO Function

Paragraph 1

ID MCO Function implemented, no divergence.

Paragraph 2

No divergence.
Paragraph 3

Divergence - For the purposes of the MCO IP, Member State is replaced with “EnC Contracting Party”.

Section 5.2.2 Contractual milestones for implementation of the ID MCO Function

Paragraph 1

The contractual framework for the NEMO cooperation for the delivery of the ID MCO Function is established according to Section 5.2.2 of the MCO Plan. However, EnC NEMOs shall sign the following agreements:

a. No divergence.
b. Divergence - EnC NEMOs shall not become a party to the NEMO ID Operational Agreement, however they will participate in SIDC. EnC NEMOs shall adhere to ANCA, which shall be amended in line with Section 3 of this MCO IP. This dedicated Annex will also deal with all relevant provisions related to operational activities.
c. No divergence.
d. No divergence.
e. Divergence – EnC NEMOs shall not enter into contract with ID MCO Function service providers which were established according to this letter e. under MCO Plan, with the exception of the Contract with PMO Service Provider listed under iii. of this letter e. of the MCO Plan.

Paragraph 2

No divergence.

Paragraph 3

No divergence.

Paragraph 4

PCA no longer in force, not applicable to EnC NEMOs.

Paragraph 5

PCA no longer in force, not applicable to EnC NEMOs.

Paragraph 6

No divergence, not applicable to EnC NEMOs.

Paragraph 7

No divergence, not applicable to EnC NEMOs.
Paragraph 8

Divergence – EnC NEMOs shall not join the NEMO ID Operational Agreement and the contracts with the ID MCO Function service providers and the ID MCO Function System Supplier, with the exception of the PMO Contract.

Paragraph 9

The contractual framework in line with this Paragraph was established prior to go-live to underpin NEMO cooperation for SIDC, however, EnC NEMOs shall sign the following agreements:

a. No divergence.
b. Divergence - EnC NEMOs shall not become a party to the NEMO ID Operational Agreement, however they will participate in SIDC. EnC NEMOs shall adhere to ANCA, which shall be amended in line with Section 3 of this MCO IP. This dedicated Annex will also deal with all relevant provisions related to operational activities.
c. No divergence.
d. Divergence – EnC NEMOs shall not become a party to the contracts with the ID MCO Function service providers and the ID MCO Function System Supplier, with the exception of the PMO Contract.

Paragraph 10

All NEMOs, including EnC NEMOs shall enter into the Intraday Operational Agreement. Nevertheless, due to the fact that EnC NEMOs will not be part of the contract with ID MCO Function System Supplier, the back to back provisions, which are part of the Intraday Operational Agreement, will not concern EnC NEMOs.

Paragraph 11

No divergence.

Paragraph 12

EnC NEMOs shall not become a party to the NEMO ID Operational Agreement, in line with Section 3 of this MCO IP.

Paragraph 13

Divergence – EnC NEMOs shall not become a party to the NEMO ID Operational Agreement, however they will participate in SIDC. EnC NEMOs shall adhere to ANCA, which shall be amended in line with Section 3 of this MCO IP. This dedicated Annex will also deal with all relevant provisions related to operational activities.

Paragraph 14

No divergence, not applicable to EnC NEMOs.

Paragraph 15

No divergence, the process described in this Paragraph was followed according to the MCO Plan. However, EnC NEMOs shall not become a party to the contracts with the ID MCO Function service providers and the ID MCO Function System Supplier, with the exception of the PMO Contract.

Paragraph 16

No divergence, the contracts are already in place.

Paragraph 17

Divergence - EnC NEMOs shall not become a party to the contracts with the ID MCO Function service providers and the ID MCO Function System Supplier, with the exception of the PMO Contract.

Section 5.2.3 Technical milestones for implementation of the ID MCO Function

No divergence, ID MCO Function already established pursuant to the MCO Plan.

Section 5.2.4 Milestone for NEMOs local implementation of the ID MCO Function

No divergence, the milestones for EnC NEMOs local implementation are those established in 5.2.4 of the MCO Plan.

Section 6 Day ahead cooperation

Section 6.1 Description of the DA MCO Function

Section 6.1.1 Operation

No divergence, DA MCO Function established in line with Section 6.1 of the MCO Plan.

Section 6.1.2 NEMO Operational Roles

Paragraph 1

Divergence – Operational aspects related to EnC NEMOs will be dealt with in a dedicated Annex of ANCA.

Paragraph 2

a. Divergence, not applicable for EnC NEMOs.
b. Divergence, not applicable for EnC NEMOs.
c. EnC NEMOs will become Operational NEMOs for SDAC as Serviced EnC NEMOs.

Paragraph 3

No divergence, options developed in line with MCO Plan.

Paragraph 4

Divergence - EnC NEMOs cannot perform:

a. The Coordinator and Backup Coordinator role.
b. The role of Operator – delegated to EnC Servicing NEMO in line with the process established in Section 6.1.2.2 of the MCO Plan.

Paragraph 5

The performance is governed by Paragraph 5 of Section 6.1.2.2 of the MCO Plan – EnC NEMOs cannot perform these roles, in line with Paragraph 4 above.

Paragraph 6

The rotation of the roles is governed by Paragraph 6 of Section 6.1.2.2 of the MCO Plan – EnC NEMOs cannot perform these roles, in line with Paragraph 4 above.

Paragraph 7

No divergence, process governed by Paragraph 7 of Section 6.1.2.2 of the MCO Plan.

Paragraph 8.

Divergence - EnC NEMOs cannot perform these roles, in line with Paragraph 4 above.

Paragraph 9

Since EnC NEMOs are not responsible for the development of the algorithm, this shall be interpreted as the decision of all concerned EU NEMOs (not applicable to EnC NEMOs).

Section 6.1.2.1 - Coordinator/Backup Coordinator

No divergence, the tasks of the Coordinator and Back-up Coordinator are established in line with Section 6.1.2.1 of the MCO Plan. EnC NEMOs cannot perform these roles.

Section 6.1.2.2 - Operator

EnC NEMOs do not have the possibility to perform the role of Operator directly, i.e. are required to always delegate the Operator role in accordance with article 81 of the EnC CACM.

Paragraph 1.

Not applicable, EnC NEMOs cannot perform the role of Operator directly.

Paragraph 2.

Not applicable to EnC NEMOs, as they cannot perform the Operator role.

Paragraph 3.

Divergence – EnC NEMOs, for the purposes of the MCO IP shall delegate the Operator role, in accordance with article 81 of the EnC CACM, instead of the CACM Regulation. Additionally, EnC NEMOs are not a Party to the NEMO DA Operational Agreement.

Paragraph 4

No divergence.

Paragraph 5

Divergence – The delegation is under EnC CACM, the obligations for EnC NEMOs stem from EnC CACM, this MCO IP and the MCO Plan. Additionally, EnC NEMOs are not a Party to the NEMO DA Operational Agreement.

Section 6.1.3 - Operational sequence of events in a Market Coupling session

Paragraph 1

No divergence, the operational sequence of events in a Market Coupling session is established in line with Section 6.1.3 of the MCO Plan.

Paragraph 2

No divergence, the NEMO DA Operational Agreement was already established in line with the MCO Plan. EnC NEMOs are not a Party to the NEMO DA Operational Agreement.

Section 6.1.4 - Validation of the Day Ahead Market Coupling session results

No divergence from the MCO Plan.
The rejection of the results by an EnC NEMO, if not solvable, shall not lead to a situation, where a full decoupling of the SDAC can occur.[3]

[3] This applies also to the situation where EnC NEMO (through or together with its Servicing NEMO) forwards the validation of results by the TSO.

Section 6.2 - DA MCO Function systems

No divergence, the DA MCO Function systems are established in line with Section 6.2 of the MCO Plan.

Section 6.2.1 – Change control procedure

Paragraph 1

No divergence.

Paragraph 2

No divergence.

Paragraph 3

Divergence – EnC NEMOs are entitled to request a change, nevertheless the final decision on the change request is an EU NEMO only decision.

Section 7 Intraday Cooperation

Section 7.1 Delivery of the ID MCO Function

Section 7.1.1 Delivery of the ID MCO Function operation

Section 7.1.1.1 Introduction

In this Section, only the following Divergences apply:

Paragraph 5

Letter a. ii. – Divergence - In case of EnC NEMO LTSs, they will, in their capacity as Serviced EnC NEMOs, not connect to the SOB via the public message interface.

Letter c. - Divergence – Due to the fact that Article 64 of CACM Regulation is not included in EnC CACM, this is not applicable to EnC NEMOs.

Paragraph 6

Divergence - EnC NEMOs, in their capacity as Serviced EnC NEMOs, shall not be provided with a direct access/connection to the SOB.

Section 7.1.1.2 Cross-border matching during the continuous trading period

No divergence, the Cross-border matching during the continuous trading period was already established in line with the Section 7.1.1.2 of the MCO Plan.

Section 7.1.1.3 Validation of the Intraday Market Coupling results

No divergence, the Validation of the Intraday Market Coupling results was already established in line with the Section 7.1.1.3 of the MCO Plan.

Section 7.1.1.4 Delegation of tasks assigned to NEMOs in the Intraday Market Coupling

Divergence – EnC NEMOs shall delegate the services performed to an EnC Servicing NEMO. Additionally, this delegation shall be in accordance with Article 81 of EnC CACM, instead of Article 81 of CACM Regulation. In line with High-level principle 10, the relevant operational provisions will be dealt with via a dedicated Annex of the ANCA.

Section 7.2 ID Matching concept

No divergence, the ID Matching Concept was already established in line with the Section 7.2 of the MCO Plan.

Section 7.2.1 ID Systems

No divergence, the ID Systems were already established in line with the Section 7.2.1 of the MCO Plan.

However, for Paragraph 1, letter d. – Divergence - EnC NEMOs, in their capacity as Serviced EnC NEMOs, shall not be provided with a direct access/connection to the SOB.

Section 7.2.2 ID Procedures

Paragraph 1

Divergence – While the NEMO ID Operational Agreement establishes all the steps in the Single Intraday Coupling process, the specific rules and obligations related to EnC NEMOs will be dealt with in a dedicated Annex of ANCA, in line with High-level principle 10 in Section 3 of this MCO IP.

Paragraph 2

No divergence.

Paragraph 3

No divergence.

Section 7.3 Governance

Section 7.3.1 Change Control Procedure

Divergence – EnC NEMOs are entitled to request a change, nevertheless the final decision on the change request is an EU NEMO only decision.

Section 8 Expected impact of CACM Methodologies

Section 8 of the MCO Plan is no longer relevant for the purposes of this MCO IP, since it dealt with the expected impact of other TCMs at the moment of submission of the MCO Plan and the implementation of the MCO Functions.

5. Milestones for EnC NEMOs local implementation

5.1 Integration of EnC NEMOs into SDAC

1. In addition to what is contained in Section 5.1.4 of the MCO Plan, the integration of EnC NEMOs into SDAC will require the establishment of local implementation projects (LIPs).
2. EnC NEMOs will join the SDAC via local implementation projects (LIPs). The LIPs are national and/or regional in scope and are therefore not part of this MCO IP. However, readiness of a LIP is a pre-condition to join SDAC operations.
3. In line with Section 5.1.4, paragraph 2 of the MCO Plan, the Agreements with TSOs are also out of scope of the MCO IP.
4. The first Go-live window for EnC NEMOs is expected to be Q4 of 2026, provided that EnC NEMOs have met all the necessary preconditions in due time. The Go-live is subject to a joint decision of NEMOs and TSOs in the decision-making body established in the DAOA. The EnC NEMOs who are not operationally ready with regard to the NEMO readiness as described in Section 5.1.1 of the MCO Plan, will join the SDAC at a later point in time in allocated Go-live waves.
5. This first Go-live window is conditional on timely transposition of the EnC CACM by EnC Contracting Parties (i.e. any delay shall result in a later first integration of EnC NEMOs into SDAC).

5.2 Integration of EnC NEMOs into SIDC

1. EnC NEMOs will join the SIDC via local implementation projects (LIPs). The LIPs are national and/or regional in scope and are therefore not part of this MCO IP. However, readiness of a LIP is a pre-condition to join SIDC operations.

2. In line with Section 5.2.4 paragraph 4 of the MCO Plan, the Agreements with TSOs are also out of scope of the MCO IP.
3. The first Go-live window for EnC NEMOs is expected to be Q4 of 2026, provided that EnC NEMOs have met all the necessary preconditions in due time. The Go-live for the continuous SIDC might be organised jointly with Intraday Auctions. The integration into SIDC by EnC NEMOs is subject to a joint decision of NEMOs and TSOs in the decision-making body established in the IDOA. The EnC NEMOs who are not operationally ready with regard to the NEMO readiness as described in the Section 5.2.1 of the MCO Plan, will join the continuous SIDC at a later point in time in allocated Go-live waves.
4. This first Go-live window is conditional on timely transposition of the EnC CACM by EnC Contracting Parties (i.e. any delay shall result in a later first integration of EnC NEMOs into SIDC).

6. MCO Plan Annexes

Annexes 1, 2 and 3 of the MCO Plan are not part of this MCO IP. The contractual framework of NEMOs, as established pursuant to the MCO Plan, is described in the Explanatory Note attached to this MCO IP.

7. Annex 1 – Impact assessment for SIDC

Continuous SIDC

Current status
The extension of the continuous SIDC to the bidding zones of Contracting Parties is not within the currently agreed system boundaries of the continuous SIDC.
For redefinition of the system boundaries the process described below applies:

Description of the process to revise boundaries with Intraday System Supplier
SIDC Impact Assessment for the continuous SIDC is a process executed on an annual basis in line with the applicable regulation. The process foresees several stages:

- **Collection** of technical and non-technical inputs reflecting market development and future needs such as:
    - Development of basic trading indicators such as number of placed orders, respectively order transactions, number of executed trades, including predictions for a future period,
    - Development in trading patterns – behaviour of the market at different points in time resulting in specific scenarios such as ratio of peak and non-peak situation, duration of peaks etc. (so called realistic trade scenarios),
    - Development in topology – changes in topology due to changes in established markets such as new interconnectors or changes due to geographical extensions,
    - Prediction of new needs in system boundaries (system boundaries represent a legal and technical framework between NEMOs and the

Intraday System Supplier within which NEMOs and the Intraday System Supplier strive to operate the continuous SIDC).

- **Adaptation** of the scenarios to reflect new market technical and non-technical inputs. NEMOs in cooperation with the Intraday System Supplier adopt existing scenarios and/or develop new scenarios in order to test the behaviour of the Intraday Solution at various situations.
- **Execution** of the scenarios including a detailed analysis of the impact on the Intraday Solution, including identification of the weak points and mitigation measures for improvements (in both the central system and the local trading systems operated by NEMOs in case the proposed adaptation of the central system impacts interfaces).
- **Clarification and agreement** on a contractual impact related to the result of analysis and the proposed mitigation measures such as implementation plan of agreed mitigation measures, impact on the system boundaries etc.

The analysis, mitigation measures and contractual impact are basic elements of the SIDC Impact Assessment of the continuous SIDC.

Indicative timeline:
The foreseen process for the Impact Assessment of geographical extension of continuous SIDC to the bidding zones of Contracting Parties.

The process for the Impact Assessment that would cover the geographical extension to the bidding zones of the Contracting Parties is subject to the deadlines below:

- February 2025 – Collection period
- March/April 2025 - Adaptation
- May/June 2025 – Execution[4]
- July/September 2025 - Clarification and agreement

Current status
The extension of continuous SIDC to the bidding zones of Contracting Parties is not within the currently agreed system boundaries of the Intraday Solution.
For redefinition of the system boundaries the process described above will be applied in late 2024 and 2025.

[4] Note that Execution period is linked to the availability of the high-performance testing infrastructure, which requires alignment with ongoing developments and follows SIDC project priority such as IDAs).

8. Annex 2 – Impact assessment for SDAC and SIDC/IDAs

NEMOs would like to note that the Impact Assessment, as it is provided, contains the same version that was provided to ACER and all EU NRAs in December 2023.

Description of the expected impact of the integration on the performance of the MCO Functions pursuant to Article 7(3) of the EnC CACM

Disclaimer:
This section combines the impact assessments of the EnC integration on both the SDAC as well as the auction SIDC. There are synergies in the assessment of these auctions explored in the joint part. The dedicated sections for SDAC and auction SIDC explore their specificities.

Impact assessment on SDAC and auction SIDC of the integration of Contracting Parties of the EnC

Geographical scope

The geographical scope of this impact assessment is the extension of SDAC /auction SIDC to include the following additional bidding zones of Contracting Parties:

- Albania (AL)
- Bosnia and Herzegovina (BA)
- Georgia (GE)
- Kosovo* (XK)
- Moldova (MD)
- Montenegro (ME)
- North Macedonia (MK)
- Serbia (RS)
- Ukraine (UA)

EnC TSOs supported with the provision of the borders that shall be considered for this extension. Where information was missing, we complemented this with information from the ENTSO-E transparency platform. Specifically, the Net transmission Capacities (NTC) – DA[5] were consulted. All borders connecting bidding zones of Contracting Parties to either other bidding zones of Contracting Parties, or to SDAC (Member State) bidding zones were considered on top of the information EnC TSOs provided. The new bidding zone border and lines are illustrated in yellow and red in Figure 1.

[5] https://transparency.entsoe.eu/transmission-domain/ntcDay/show

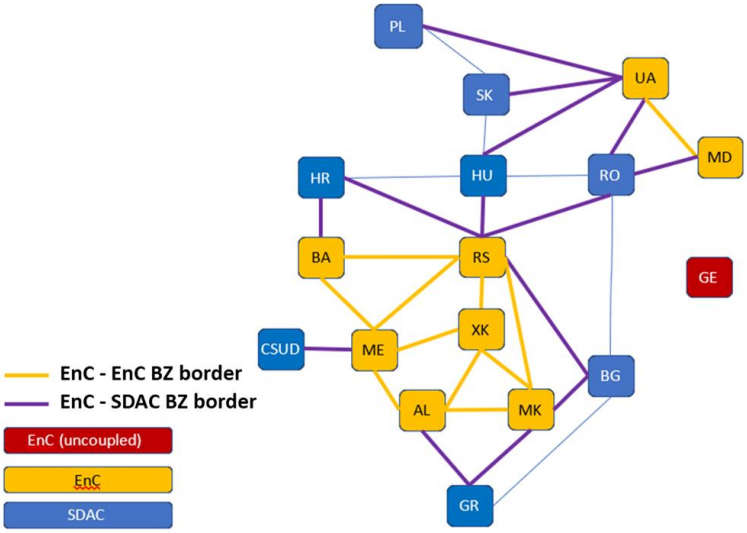

Figure 1: EnC topology (yellow) connecting the Contracting Parties to SDAC bidding zones. Georgia is added too, but is not currently connected to any of the other bidding zones of SDAC and other bidding zones of Contracting Parties.

Assumptions

This section outlines the different assumptions reflected in the data used to support the quantitative impact assessment of the integration of bidding zones of Contracting Parties into SDAC.

Assumptions are necessary to create data to support a quantitative analysis. These assumptions reflect some of the inherent uncertainty that exists today surrounding both the expected orders in markets of Contracting Parties, as well as some uncertainty in SDAC (where 15' MTU has yet to be introduced), and auction SIDC (which is not yet operational). This uncertainty will transfer to the conclusions that we can ultimately draw from this impact assessment.

This study should be considered indicative, and its purpose is to identify early on any potential performance challenges that shall be mitigated in the next couple of years. A final impact assessment for the integration of Contracting Parties shall still be completed closer to the go-live, following the existing SDAC and SIDC change control processes.

15' MTU

All data sets assume 15' MTU will be reflected in order and network data.

Network data of Contracting Parties

This IA is structured under the assumption that the bidding zones of the Contracting Parties will use a coordinated NTC approach, both for other bidding zones of Contracting Parties and

for bidding zones of Member States. We consider static Available transmission capacity (ATC) values for all MTUs of each of the new bidding zone borders of Contracting Parties.

Table 1 describes the ATC data that was used. The data is either provided directly by EnC TSOs, or was retrieved from ENTSO-E transparency platform, where either the average 2022 (ATC) or the (NTC) were used.

From	To	Source	Type	Up	Down
UA	RO	Ukrenergo (Ukraine)	NTC	400	400
UA	SK	Ukrenergo (Ukraine)	NTC	650	650
UA	HU	Ukrenergo (Ukraine)	NTC	650	450
UA	MD	Ukrenergo (Ukraine)	NTC	800	1200
UA	PL	Ukrenergo (Ukraine)	NTC	260	260
UA	PL	Ukrenergo (Ukraine)	NTC	1000	1000
ME	IT	ENTSO-E transparency	NTC	553.5091324	553.553653
ME	RS	ENTSO-E transparency	ATC	345.1943	209.9332
ME	XK	ENTSO-E transparency	ATC	260.7909	307.0174
ME	AL	OST (Albania)	NTC	300	300
ME	BA	NOSBiH (Bosnia and Herzegovina)	ATC	543	365
AL	XK	OST (Albania)	NTC	400	400
AL	GR	OST (Albania)	NTC	400	400
AL	MK	OST (Albania)	NTC	400	400
RS	BA	NOSBiH (Bosnia and Herzegovina)	ATC	513	482
RS	BG	ENTSO-E transparency	ATC	550.6663	149.1288
RS	HR	ENTSO-E transparency	NTC	572.1917808	563.2876712
RS	HU	ENTSO-E transparency	ATC	883.1877	823.5589
RS	MK	MEPSO	ATC	500	400
RS	RO	ENTSO-E transparency	ATC	647.4581	289.1007
RS	XK	ENTSO-E transparency	NTC	0	0
BA	HR	NOSBiH (Bosnia and Herzegovina)	ATC	561	669
MK	BG	MEPSO	ATC	250	250
MK	GR	MEPSO	ATC	300	300
MK	XK	MEPSO	ATC	150	150
MD	RO	ENTSO-E transparency	ATC	130.7382	492.4622

Table 1 ATC values for the different EnC borders. If a line is defined from A to B, the “Up” values correspond to the A->B capacity, whereas the “Down” values correspond to the B->A capacity that has been reflected in the IA test data.

Order book data of Contracting Parties

Similarly to the bidding zones within the SDAC, the bidding zones of Contracting Parties have

yet to adopt the 15' MTU. Since the test data assumes 15' MTU in all bidding zones, the bidding zones of the Contracting Parties are populated with 15' MTU data. Existing data of current SDAC bidding zones was used to simulate the bidding zones of the Contracting Parties. This was accomplished by matching the most similar current SDAC bidding zones to each of the bidding zones of the Contracting Parties, using the ENTSO-E transparency platform using the load data from 2022.Current SDAC bidding zones which use either scalable MIC orders or Merit Orders were excluded from this selection.

Figure 2 shows the average load in 2022 for all bidding zones of Contracting Parties and for all current SDAC bidding zones that can be considered as source data. The figure clearly shows that AL, BE, MD, XK and MK have quite low load, and the closest matching SDAC area would be Latvia (LV). From the chart other matching SDAC markets are visible, but an overview is provided in Table 2

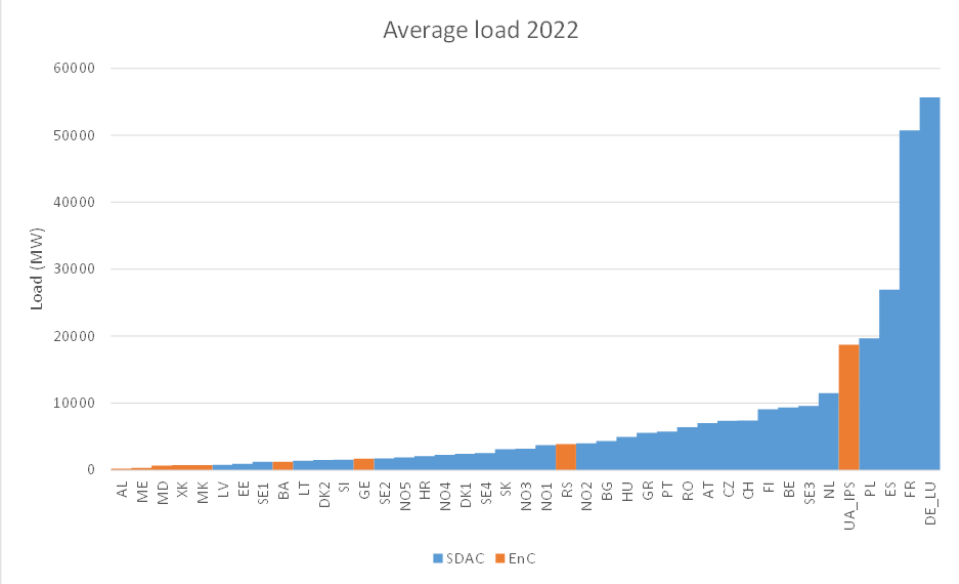

Figure 2 Average load in 2022 per bidding zone

EnC Bidding Zone	AL	BA	GE	MD	ME	MK	RS	UA_IPS	XK
SDAC match	LV	SE1	SE2	LV	LV	LV	NO2	PL	LV

Table 2 EnC bidding zones with their closest matching SDAC bidding zone in terms of 2022 load.[6]

Since the order data of some Contracting Parties was sourced from the same existing SDAC bidding zone (LV), this would create duplicates within the same session. This has been avoided by compiling data where order data was sourced from different sessions of LV order data.

For SIDC IDAs the same approach is used. In the dedicated SIDC IDA section the assumptions made to populate the order books of the SIDC IDA bidding zones can be found.

[6] SE1 and SE2 refer to Swedish bidding zones, while NO2 refers to a bidding zone in Norway. PL refers to Poland.

SDAC

15' MTU

SDAC has been working towards the implementation of 15' MTU support to comply with the relevant provisions included in the Algorithm methodology, and to implement the objectives outlined in the Clean Energy Package. The introduction of the 15' MTU is foreseen for 2025, and therefore the IA assumes the integration of the bidding zones of Contracting Parties will happen in a 15' MTU context.

As indicated in the previous Paragraph, the assumption is that 15' MTU in the data is used. For SDAC, this implies that historical (60' MTU) data cannot be used. Instead, further assumptions have to be made on the order and network data in SDAC.

The SDAC project has developed a series of datasets reflecting different assumptions for the 15' MTU scenario. The assumptions SDAC MSD proposed for this impact assessment are:

- Supported products: simple block orders, complex block orders, scalable MIC orders, merit orders;
- Cross product matching:
    - Cross product matching is assumed to be available;
    - The assumption is that 20% of the aggregated MTU orders are hourly, whereas 80% of aggregated MTU orders are quarter-hourly;
    - The 60' historical orders are the source for this 60'/ 15' split;
        - The transformation from 60' historical data into 15' data was automated through a series of scripts, that themselves rely on assumptions. These assumptions were validated by SDAC NEMOs, and are rooted in assumption uncovered in a dialogue with all NEMOs, but had to be further limited by practical constraints to develop the conversion scripts within a reasonable time.
- 15' MTU is available for all bidding zones except those with exemptions.

Results and conclusion – SDAC

Simulations show that compared to the situation without the bidding zones of Contracting Parties, an increase in the average time to first solution with 23% is observed.
As mentioned before, the test data that was used relies heavily on assumptions, since the used data was taken from the existing Bidding Zones hence any conclusions from this test data may only be considered a preliminary impact assessment. Still for the test data we are confident that the algorithm will be able to manage these sessions.

SIDC IDA

Like the 15' MTU SDAC data, also for auction SIDC no historical data is readily available, and assumptions had to be made. The simulation data considered for the SIDC IDA markets are based on SDAC data, and some additional assumptions were applied:

- IDAs are configured with a single MTU inside each bidding zone, only 15' MTU orders

were assumed;

- The liquidity of the IDAs in the simulation data is assumed to be 50% of what is present in SDAC order books;
- All block types are present in the order data, i.e. both simple block orders as well as complex block orders;
- The IDA topology uses NTC exclusively;
- The scenario assumes all bidding zones and network data have adapted the 15' time resolution.

Results and Conclusion – SIDC IDA

Similarly to the section dedicated to the SDAC conclusion, it is important to note that the test data which was used relies heavily on assumptions, and any conclusions from this test data may only be considered a preliminary impact assessment.

Those conclusions are positive: an average increase in time to first solution of 31% was observed, and the algorithm proved capable of managing all test sessions.