Market Coupling Consultative Group

Webinar

23 October 2025

Q&A via **Slido.com**
Enter code: **1184334**

MCSC

Agenda

	TOPIC	PRESENTER	TIME
1	**Welcome & Introduction** - Welcome, Agenda and Action Points Review	Zélie Gautier, Pierre Milon, Andreas Papanaklis (MCCG)	09:00 – 09:10 (10 min)
2	**SDAC and SIDC 15 Min Market Time Unit (MTU)** - First observations after the SDAC go-live - First observations after the SIDC W6 go-live - Questions and Feedback from MPs	Joël Hoeksema (PCR ALG) Zélie Gautier, Pierre Milon, Andreas Papanaklis (MCCG)	09:10 – 09:55 (45 min)
3	**SDAC and SIDC Scalability Report**	Vladimír Satek (SIDC QARM) Chiara Vitelli, Christoforos Zoumas (NEMO Tech TF)	09:55 – 10:15 (20 min)
4	**SDAC and SIDC Corrective Measures**		10:15 – 10:40 (25 min)
	Break		**10:40 – 10:50**
5	**6th September 2025 XBID Operational Incident**	Martim Stilwell (SIDC OPSCOM)	10:50 – 11:00 (10 min)
6	**SDAC Fallback Improvements** - Fallback manual - Update on NEMOs and TSOs measures - Main takeaways from the 07/10 PCG WS - Questions and Feedback from MPs	Luiza Holban-Fediuc (SDAC OPSCOM) Zélie Gautier, Pierre Milon, Andreas Papanaklis (MCCG) Gergő Holló (Fallback Expert Group)	11:00 – 11:30 (30 min)
7	**Implementation of 30 min IDCZGCT and Go-live in 2026**	Gergő Holló (30 min IDCZGCT SPoC)	11:30 – 11:45 (15 min)
8	**Regulatory Deliverables and Consultations** - SDAC/SIDC HMMCP Methodology	Chiara Vitelli, Christoforos Zoumas (NEMO Tech TF)	11:45 – 11:55 (10 min)
9	**SDAC-SIDC Roadmap and Key Projects** - SDAC Co-Optimisation – Results of the public consultation & Updated planning of the R1 and R2	André Estermann, Cosimo Campidoglio, Ondřej Máca (MCSC Co-Chairs) Timo Suhonen, Marja Eronen (SDAC MSD)	11:55 – 12:20 (25 min)
10	**AOB and Closure**	Zélie Gautier, Pierre Milon, Andreas Papanaklis (MCCG)	12:20 – 12:30 (10 min)

MCSC

Welcome!

MCCG is led by three Co-conveners:

Market Participants Co-convener:

Zélie GAUTIER, ENGIE

TSO Co-convener:

Andreas PAPANAKLIS, IPTO / ADMIE

NEMO Co-convener:

Pierre MILON, EPEX SPOT

Scope of MCCG Discussion

- This overview aims to clarify which topics and discussions fall within the scope of MCSC/MCCG versus CCRs. Only the main/overlying topics currently discussed in the respective projects are listed.
- As the main guiding principle, **only topics directly stemming from the CACM guidelines and considered as MCO matters are discussed in MCCG**.
- NEMOs and TSOs would like to make clear that some requests cannot be channelled through MCCG. It is up to the market participants to raise it in the proper forum.

	MCSC / MCCG	CCRs (Capacity Calculation Regions)
General scope	- Capacity allocation	- Capacity Calculation (CC) (Core Flow Based, Nordic Flow Based)
Intraday Auctions (IDAs)	- Timings - Products & central algorithm functionalities - Central testing	- Capacity calculation (IDCC in Core CCR)
Advanced Hybrid Coupling	- Testing allocation algorithm - Central testing	- Design & Implementation into DACC - Impact assessment
SDAC & SIDC 15 Min MTU	- Timings - Products & central algorithm functionalities - Central testing	- Regional testing

Q&A and Review of Action Points

Q&A from the previous MCCG meetings are available on [NEMO Committee] & [ENTSO-E] websites

Overview of action points from the last MCCG:

Date	Responsible	Description	Deadline / Status
02/06/2025	MPs	Inform MCSC NEMOs and TSOs as soon as possible in case there is a shared, strong support for including in the 08-12/09 Additional Joint Member Testing the scenario on Full decoupling / Partial decoupling and if so, whether to include also the Shadow auction simulation.	13/06/2025 - **Closed**
02/06/2025	MPs	Inform MCSC NEMOs and TSOs as soon as possible if there is a shared, strong request to extend the go-live preparation period from 2 to 3 weeks by moving the Additional Member Tests to 01-05/09.	13/06/2025 - **Closed**
02/06/2025	MCSC NEMOs	Clarify whether and when they will publish the auctions results for the Additional Joint Member Testing in September 2025.	July 2025 - **Closed**
02/06/2025	MCSC NEMOs and TSOs	Clarify whether the results of the past Joint Member Tests can be published in full (incl. aggregated curves, cross-border flows, etc.).	July 2025 - **Closed**
02/06/2025	MPs	Inform MCSC NEMOs and TSOs about any other highly desired scenario to include in the 19/11/2025 testing on full decoupling.	July 2025 - **Closed**
02/06/2025	MCSC NEMOs and TSOs	Clarify the final list of SDAC fallback improvement measures for implementation and the implementation timeline.	H2 2025 MCCG - **Today**
02/06/2025	MCSC NEMOs and TSOs	MCSC NEMOs and TSOs to consider whether the IDA liquidity data per bidding zone can be provided.	H2 2025 MCCG - **Today**

SDAC and SIDC 15 Min MTU

Joël Hoeksema (PCR ALG)

Zélie Gautier, Pierre Milon, Andreas Papanaklis (MCCG)

Q&A via **Slido.com**
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SDAC and SIDC 15 Min MTU

Summary

Background

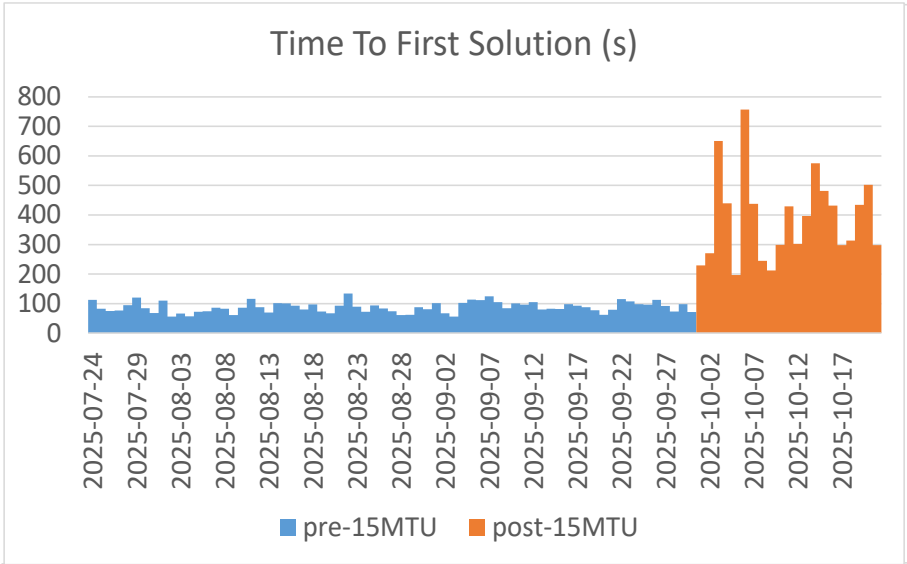
- In the past years, MCSC NEMOs and TSOs have been working on the development and implementation of the 15 min MTU in SDAC and SIDC (IDAs and CT).

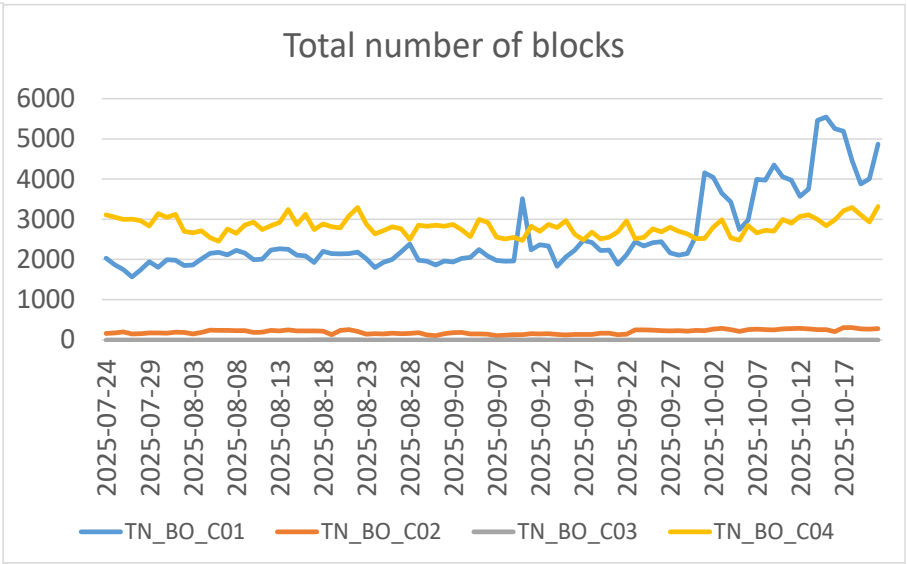
Update

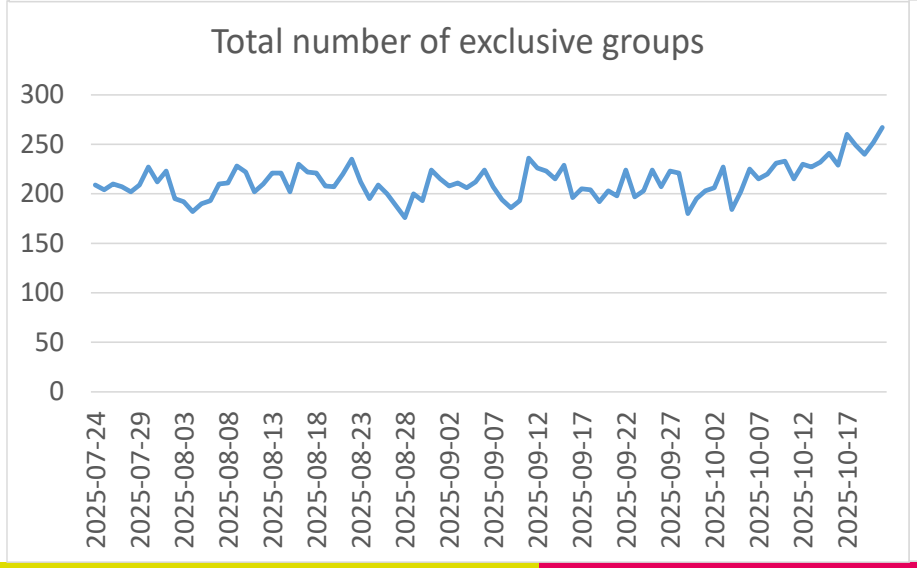
- On 01/10, NEMOs and TSOs confirmed that the **15 min MTU in SDAC was implemented across all European bidding zones and bidding zone borders** on trading day 30 September 2025 for delivery day 1 October 2025. The published press release can be found on [ENTSO-E] and [NC] websites. NEMOs and TSOs also confirmed that **rollback monitoring period successfully ended on 06 October 2025.**
- Connected to the SDAC go-live, the **15 min MTU was implemented in the Greek bidding zone and on the GR-BG bidding zone border, thus completing the 15 min MTU implementation in SIDC as well.** The published press release can be found on [ENTSO-E] and [NC] websites.
- Project parties will closely monitor the stability and robustness of system performance over the coming weeks of operations. Market participants will be promptly informed of any relevant developments.
- NEMOs and TSOs have collected data to assess the impact of the change on SDAC which will be presented in the following slides.

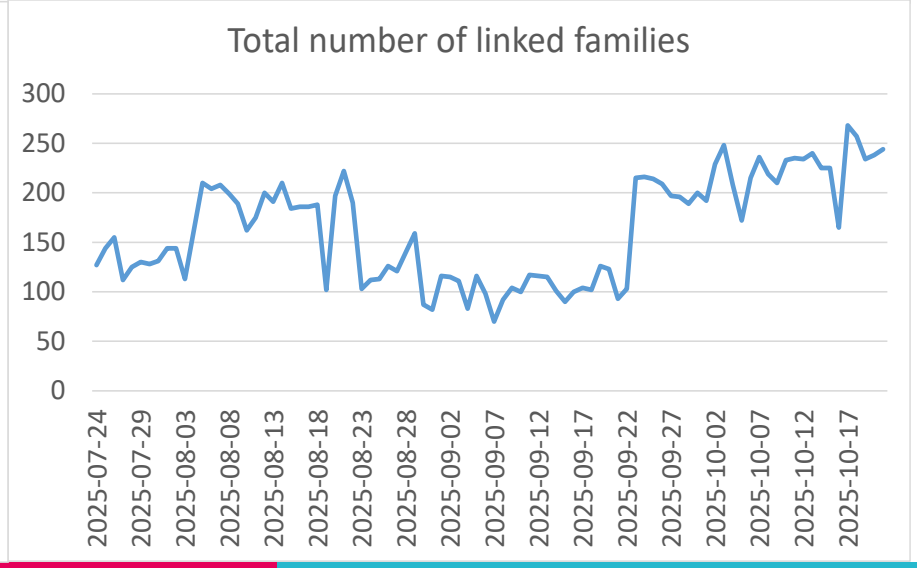
SDAC 15 Min MTU

Statistics on Algorithm in Last 90 Days: Block Order Usage







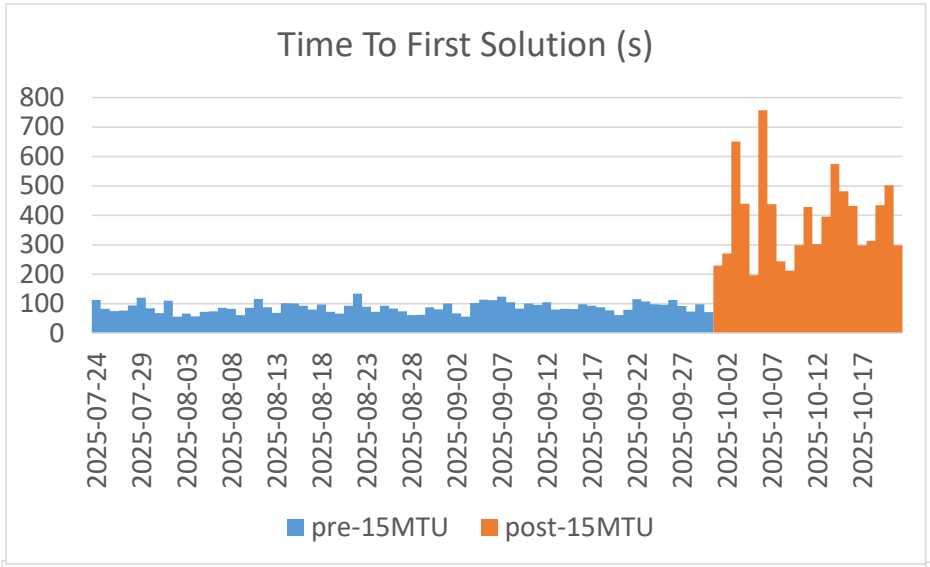


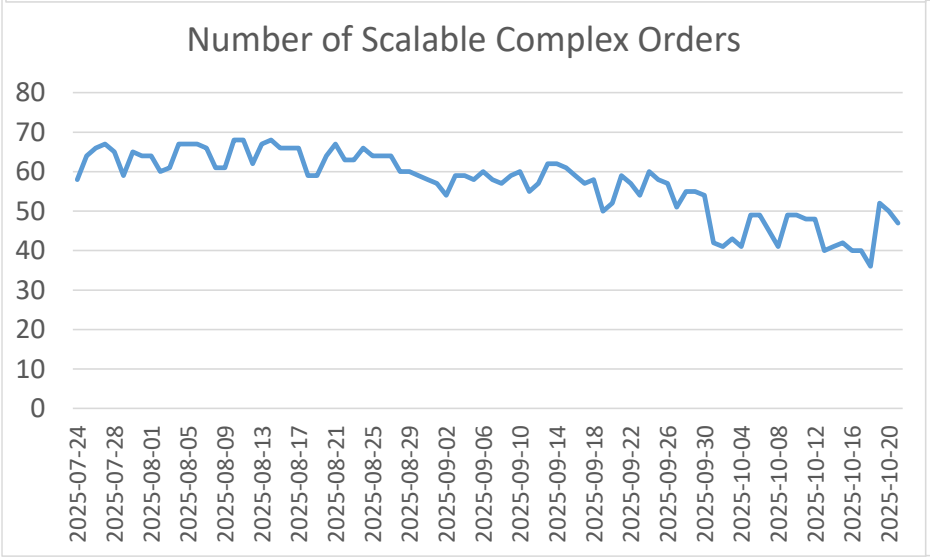
Operational calculation time of the SDAC algorithm:

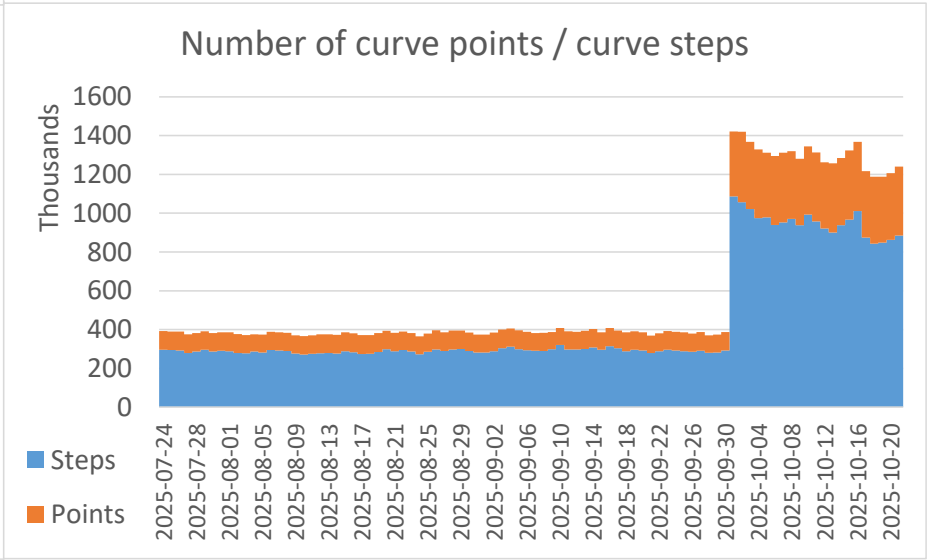
- *Before* 30.09.25, incl.: 17mins = 1020s
- *After* 01.10.25, incl.: 30mins = 1800s
- Before 30.09, SDAC algorithm was already running on powerful machines meeting requirement for 15' MTU
- **NEMOs and TSOs have invested into SDAC algorithm in the past years to make 2025 go live a success**

SDAC 15 Min MTU

Statistics on Algorithm in Last 90 Days: Curves / SCO Usage

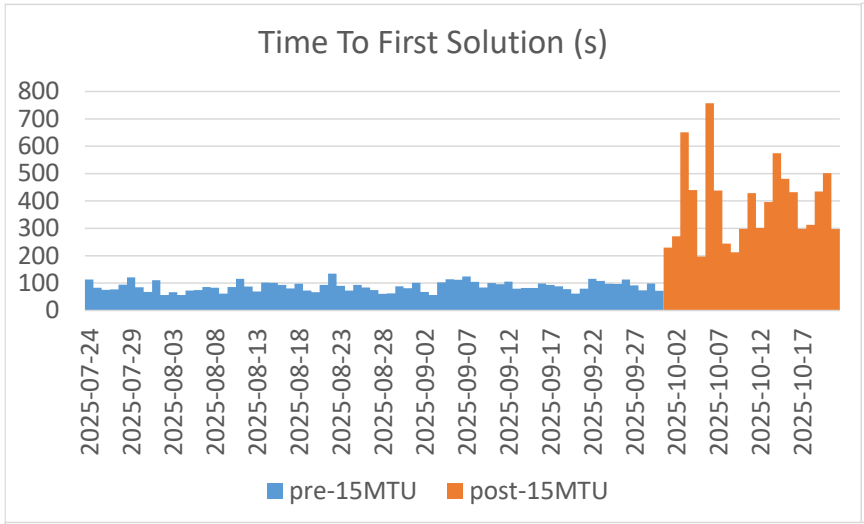


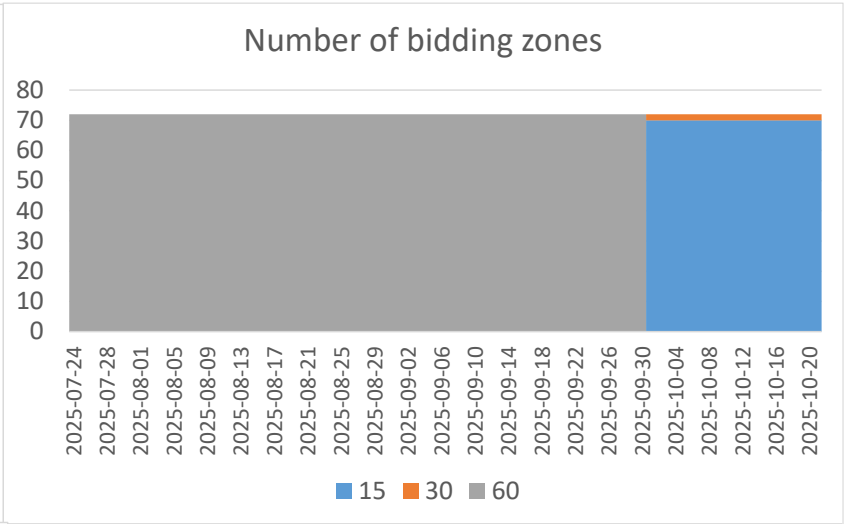


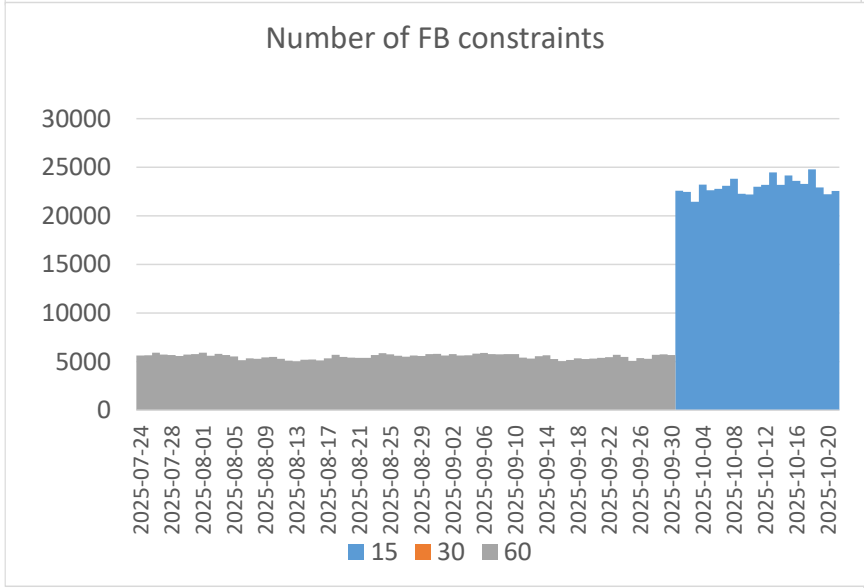


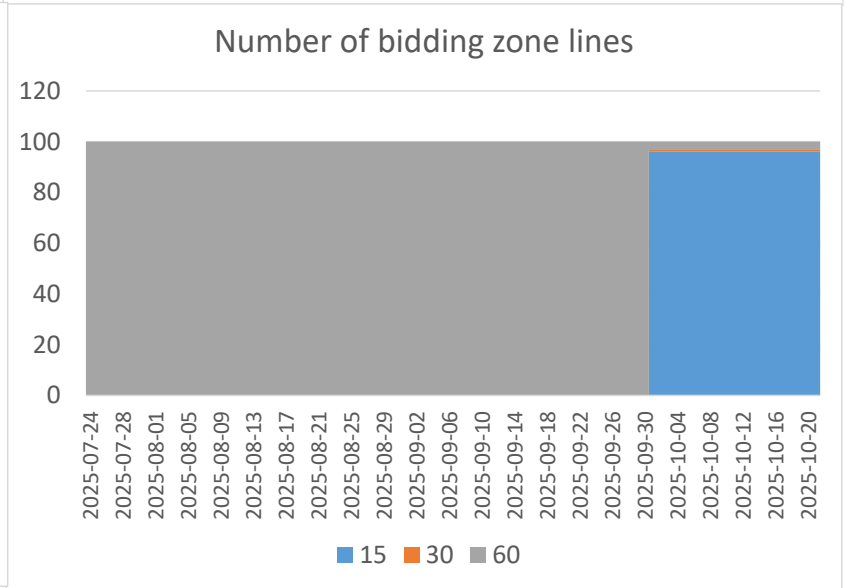
SDAC 15 Min MTU

Statistics on Algorithm in Last 90 Days: Effective Usage Network







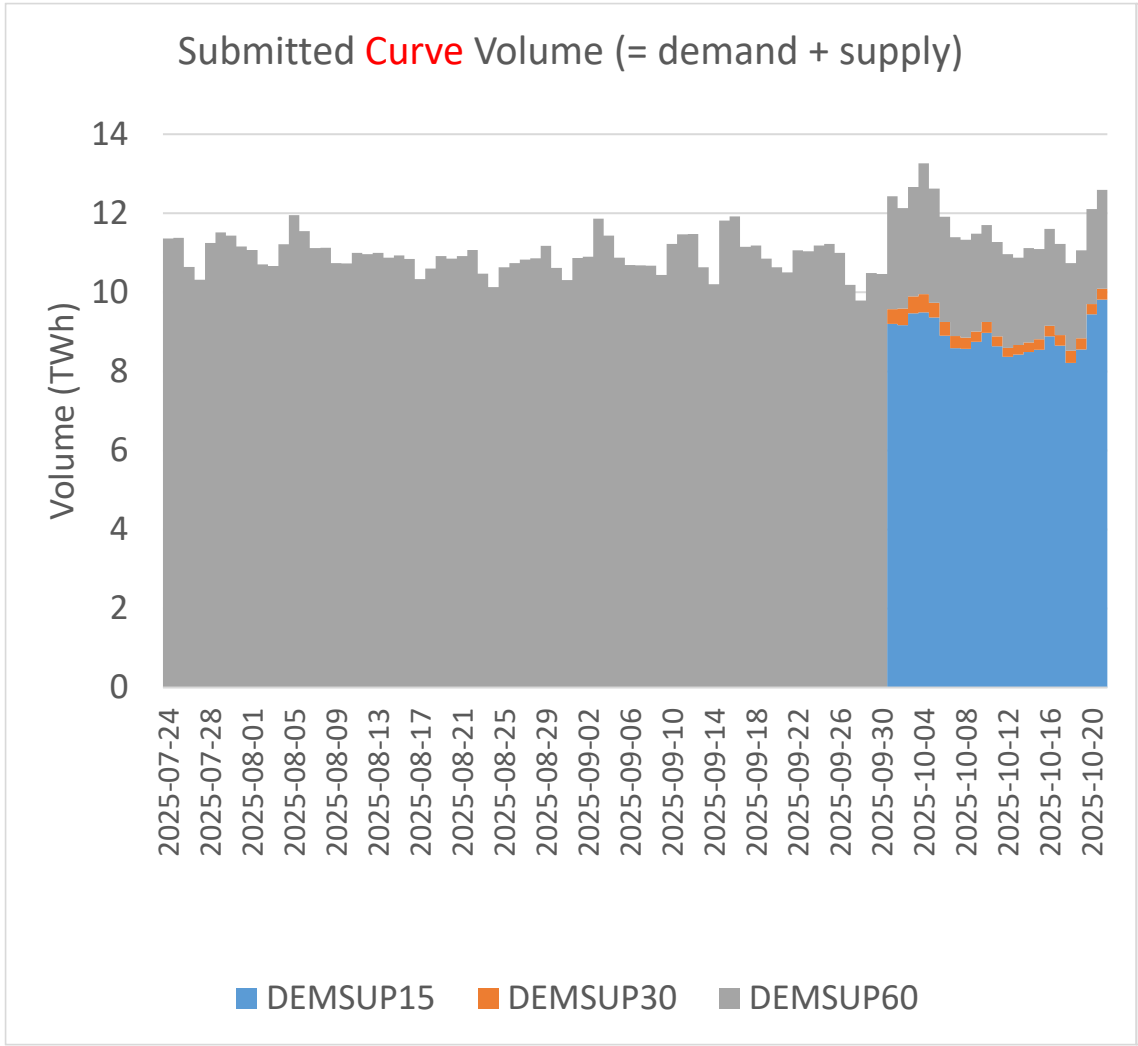


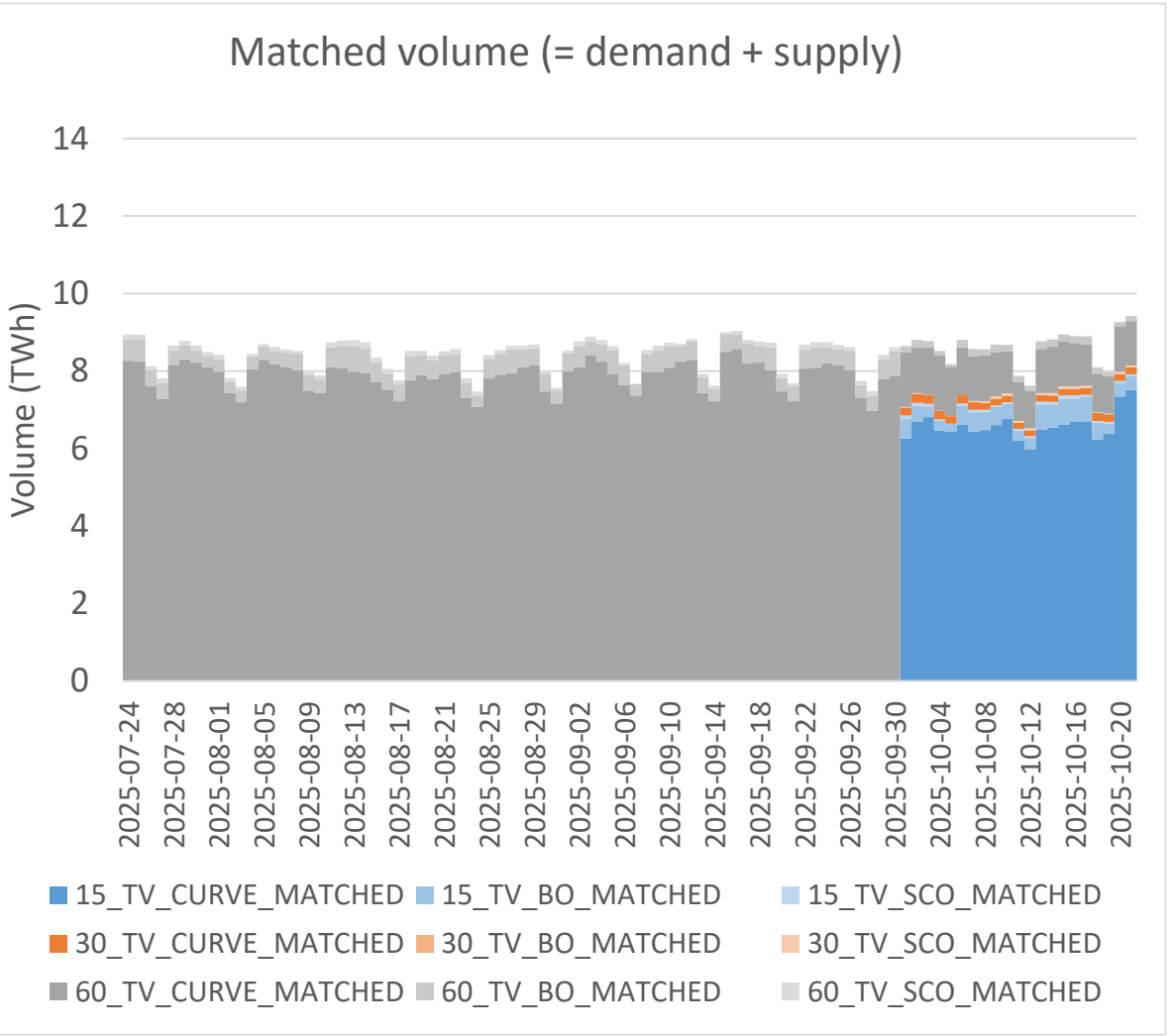
Operational calculation time of the SDAC algorithm:

- *Before* 30.09.25, incl.: 17mins = 1020s
- *After* 01.10.25, incl.: 30mins = 1800s

SDAC 15 Min MTU

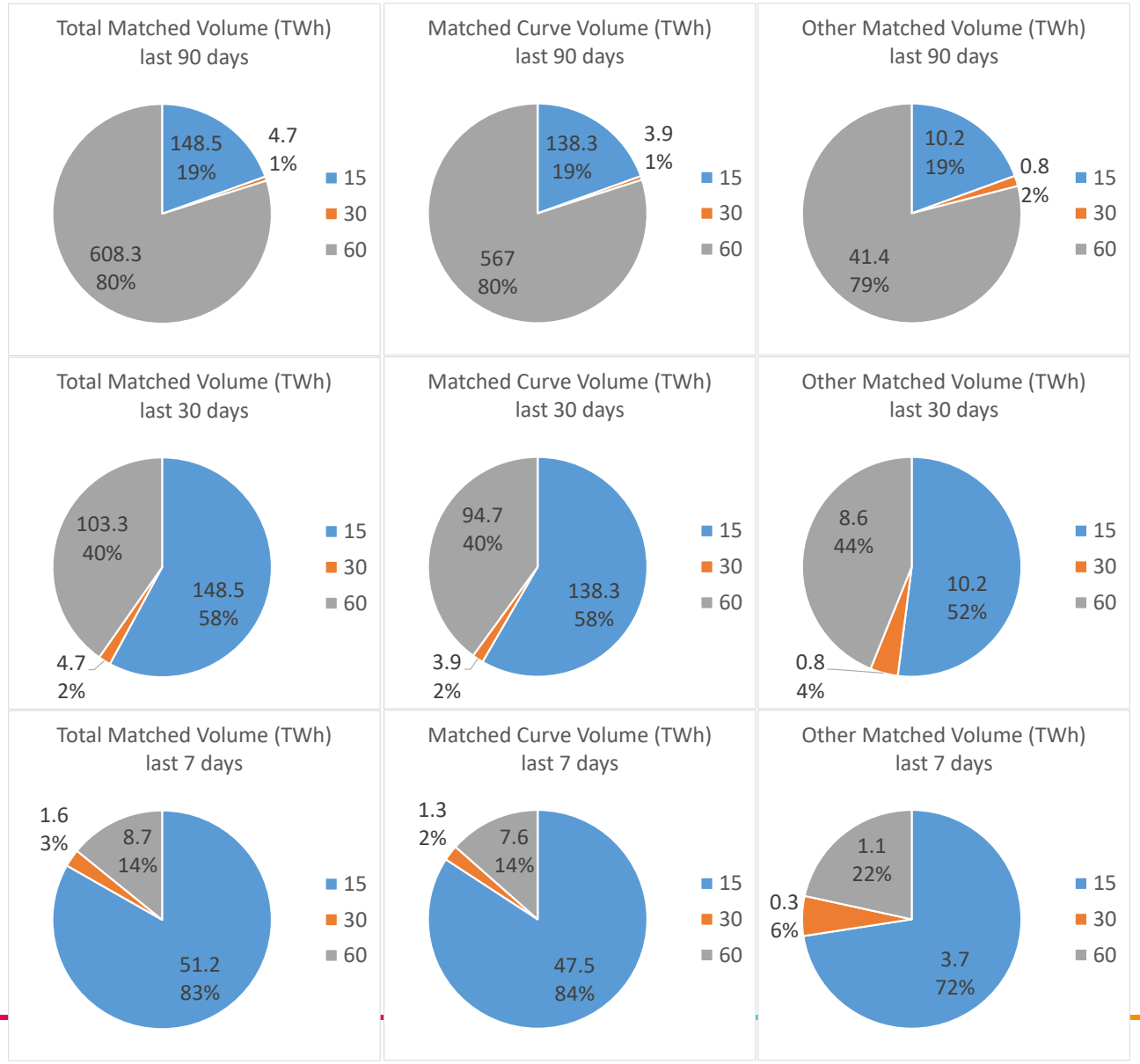
Statistics on Algorithm in Last 90 Days: Volumes





SDAC 15 Min MTU

Statistics on Algorithm in Last 90 Days: Matched Volumes per Time Resolution



SIDC 15 Min MTU

Summary

Background

- The last wave of 15’MTU in SIDC (Greek Market Area and GR-BG border) was scheduled to go-live on 30/09, aligned with the 15’MTU implementation in SDAC.

Update

- SIDC parties have confirmed in SIDC OPSCOM that the 15’MTU implementation in the Greek Market Area and GR-BG border was successful. No issues were encountered during CT nor IDAs on 30/09 and 01/10.
- This implementation marks the last area and border to switch to 15’MTU in SIDC, which signifies **the entire EU Market is now unified in 15’MTU**.

SDAC and SIDC Scalability Report

Vladimír Satek (SIDC QARM)

Chiara Vitelli, Christoforos Zoumas (NEMO Tech TF)

Q&A via **Slido.com**
Enter code: **1184334**

SDAC and SIDC Scalability Report

Summary

Background

- In order to comply with the article 9(4) of the Algorithm Methodology, NEMOs perform a yearly scalability assessment.
- The objective is to assess the **estimated level of SDAC and SIDC scalability** for the coming years (up to Y+3) and provide an explanation **if this level meets adequate load and complexity management requirements**.
- The scalability is assessed by performing different **stress tests** which are executed to explore the behaviour of the system along different stress test scenarios. The results are then **compared with the predictions** of future load of the system and usage of products, the expected evolution of foreseen requests for change, and other.
- The results of the scalability assessment have been published in the NEMOs' yearly CACM Annual Reports. Starting from calendar year 2025 (as of the CACM Annual Report 2024) the scalability Report will be published separately from the CACM Annual Report by the end of October each year.
- In this section, the results of the 2024 Scalability report will be presented, focusing on the SDAC and SIDC-IDAs on one hand as well as on the SIDC-Continuous trading on the other.

Key Takeaways

- MCSC NEMOs in cooperation with TSOs perform the yearly SDAC and SIDC scalability assessment to report on whether the observed scalability levels meet the requirements.
- Results of the 2024 Scalability report will be presented in the next slides.

SDAC Scalability Report

SDAC

Points of attention

- The scalability of the SDAC is assessed based on the monitoring of one indicator - **Time To First Solution (TTFS)** of the SDAC algorithm and taking into account the **anticipated Requests for Change (RfCs) included in the project roadmap**, as well as to the **projected growth** in usage of the requirements or products. This exercise is carried out for the 2026-28 period, and using the latest available version of the SDAC Algorithm (Euphemia 11.4).

- The **Roadmap** anticipates the impact of RfCs expected to go-live in the next three years. Based on this two scenarios have been tested for 2026 (Y+1) and 2028 (Y+3).
  - Scenario 1 (2026): anticipates the usage of existing products and requirements in 2026. This includes changes such as Core Advanced Hybrid Coupling and several NEMO expansions (EPEX in Baltics, EXAA in NL, BE, FR, ETPA in NL, DE).
  - Scenario 2 (2028): anticipates the usage of existing products and requirements in 2028. This includes the Single Energy Market's integration of Energy Community BZs into SDAC as well as the go-live of the Celtic Interconnector (FR-IRL).

Topology: Both scalability scenarios do consider Nordic FB. Both scalability scenarios considered Core FB test data to reflect the anticipated Core AHC change; finally, the 15 minute MTU change introduces 4x as many network constraints.

Products usage: Both scalability scenarios reflect the phase out of merit orders (PUN/Demand/Supply) in force since 01.01.25 as well as Complex orders (replaced by Scalable complex orders). The number of curve steps increases due to the 15-minute implementation as well as the replacement of the merit orders. Finally, the number of blocks increases beyond the organic market growth due to a number of Product Usage related to the roadmap changes.

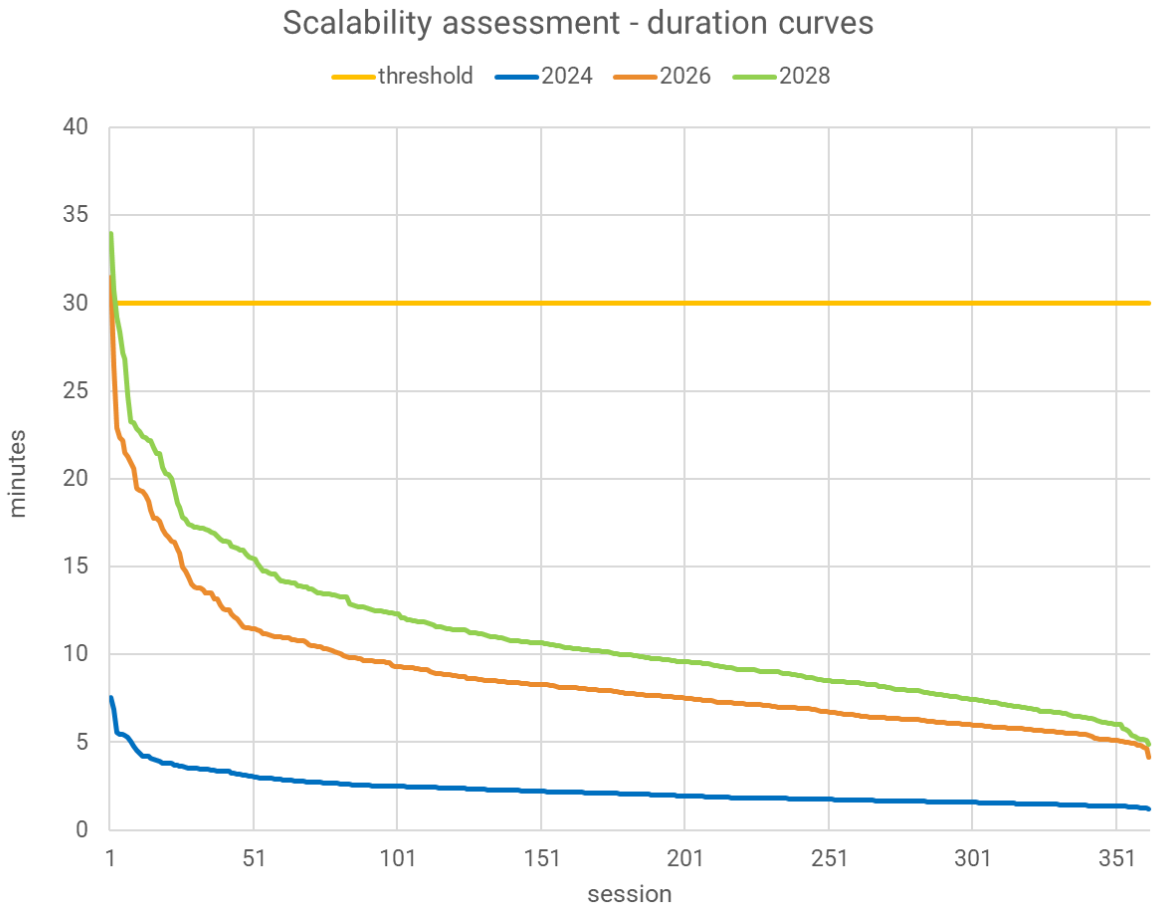
SDAC Scalability Report

SDAC – Current calculation time limit = 30mins

Points of attention

- **Scenario 1** requires on average 8 minutes and 46 seconds to find a solution. 0.3% of sessions required > 30 minutes, but never more than 32 minutes (1 session over 362 run in less than 32 minutes).
  - i.e. the scalability thresholds for Scenario 1 (97% < 30 minutes, and 100% < 54 minutes) are respected;

- **Scenario 2** requires on average 11 minutes and 4 seconds to find a solution, 0.6% of sessions required > 30 minutes, but never more than 34 minutes (2 sessions over 362 run in less than 34 minutes).
  - i.e. the scalability thresholds for Scenario 2 (97% < 30 minutes, and 100% < 54 minutes) are respected.



Key Takeaway

- SDAC algorithm finds solutions for most of the simulation sessions, always within a reasonable time, complying with the scalability thresholds. Only 3 outliers were observed (1 session in the sample in 2026 and 2 sessions in the sample in 2028). The Algorithm Provider identified mitigations able to manage the issues.

SIDC Scalability Report

SIDC-IDAs

Points of attention

- The scalability of the SIDC IDAs is assessed based on the monitoring of the same metrics as SDAC but under different operation and constraints (reduced calculation time). This exercise is carried out on top of production data from the period 1 July 2024 until 30 June 2025. This allowed for the compilation of the complete 1 year of data. The scope was limited to the most liquid IDA1 - 3pm, which should be similar or more complex compared to the other IDAs. Simulations were run using the release of the SIDC IDAs Algorithm available in the time of tests (Euphemia 11.4).

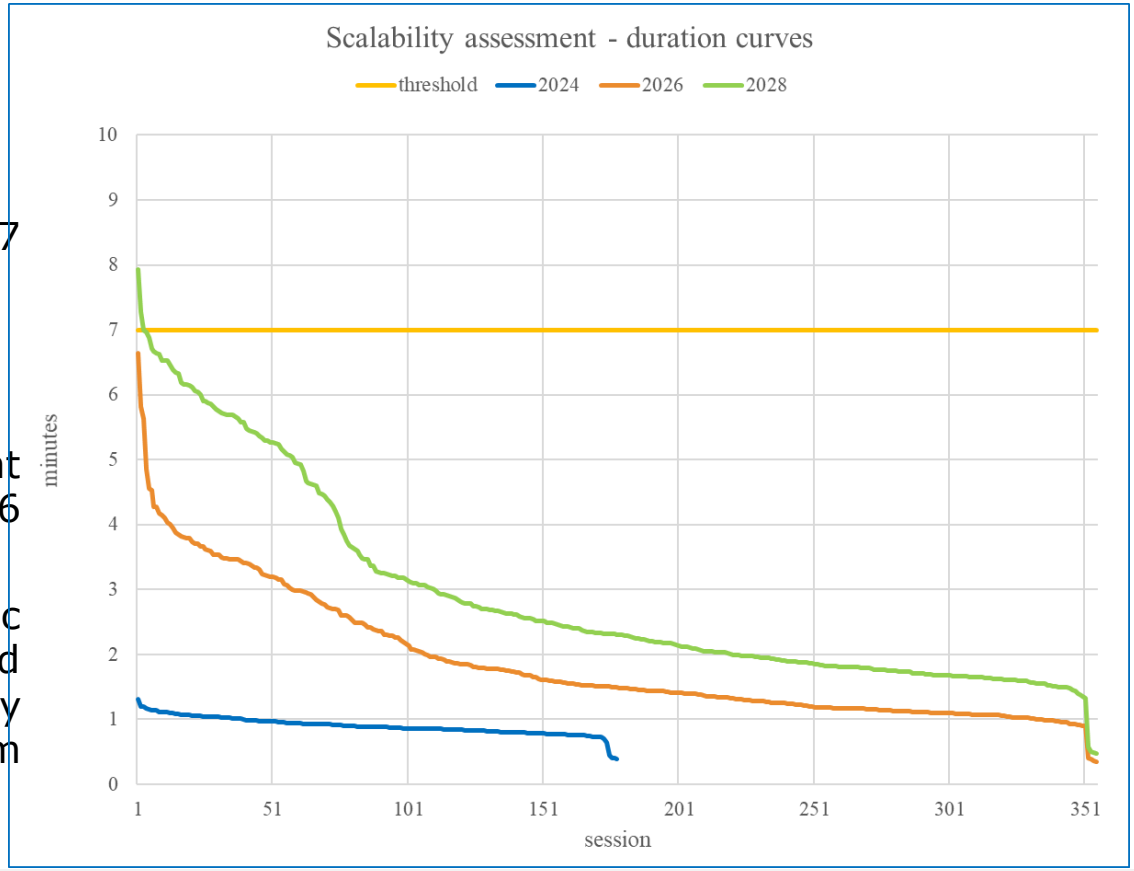
- The Roadmap anticipates the impact of RfCs expected to go-live in the next three years. Based on this two scenarios have been tested for 2026 (Y+1) and 2028 (Y+3) following the relevant provisions of the Algorithm Methodology.
  - Scenario 1: includes the anticipated usage of existing products and requirements in 2026.
  - Scenario 2: includes the anticipated usage of existing products and requirements in 2028.

Key Takeaways

- The expected usage of products and requirements reflects the actual usage recorded between the last half of 2024 and the first half of 2025 and projected to 2026–2028 by applying the historical usage growth of each product/requirement projected into the future.
- Since the IDAs are a fresh implementation, the extracted growth figures may have been exaggerated. This is expected to self-correct in the future Scalability reports.

SIDC Scalability Report

SIDC-IDA: Current calculation time limit = 7mins



Points of attention

- **Scenario 1**: Euphemia found a solution for all sessions within 7 minutes
- **Scenario 2**: Euphemia found a solution for all sessions;
  - For all but 5 sessions a solution was found within 7 minutes:
    - For these 5 outliers running Euphemia with a different configuration reduced the TTFS to at most 7 minutes and 56 seconds.
    - For 3 of the 5 outliers the input data showed an un-realisitic number of linked families: the historical number of linked families between H2 2024 and H1 2025 grew by 2300%, corresponding to an average use that went up from 1.25 family to 30.58 families.

Key Takeaways

- Growth trends likely picked up the initial growth / evolution of the IDAs, which cannot be sustainably projected to 2026 and 2028. Such projected values are clearly an overestimation of the anticipated usage of the products, that will be self-corrected in the future Scalability Report on the basis of a more stable historical scenario.
- **Despite the overestimation of specific products, the simulations converge in the great majority of the sessions.**

SIDC Scalability Report

SIDC-Continuous Trading

Points of attention

- SIDC-CT is based on distributed, **highly configurable architecture** with the central processing of the orders and trades up to the shipping information which is provided to shipping agents. The high level of configurability implies, that from a scalability perspective SIDC CT can deal with many requirements without modification of the code, hence the **scalability topic is rather translated in the ability of SIDC CT to provide an adequate level of performance in terms of load management**.
- To better understand real technical limitations of the central XBID platform, the new "stress test" approach focusing on **system limits** was adopted in 2024 in comparison to the Service Level Agreement (SLA) based approach of previous years. Contractual SLAs might be looser than technical boundaries of the platform.
- The **stress test is based on I) long runs**, stressing the system for 24+ hours with substantial order submission in the baseload processing with limited peak situations, **and II) short runs**, stressing the system up to 3 hours with significant peak situations.
- The stress tests resulted in **identification of areas of improvements** of the system which needs to be improved via implementation of **Performance Optimization Measures** (POMs) which are planned to be deployed in the period of **2025-2027**. The stress test confirmed that the technical limit **is substantially higher than the contractual limit**.
- **The scalability study proved that growth trajectory of order load (robotic trading leading into exponential increase) is greater than the technical possibilities of XBID platform** and anticipated short term improvement measures, therefore careful monitoring is already in place and discussion on application of corrective measures is ongoing
  - 2021 → 2024 : daily average Order to Transaction [15.17 → 25.33], ratio of submitted orders for 1MWh transaction [09.88 → 25.45]

Key Takeaways

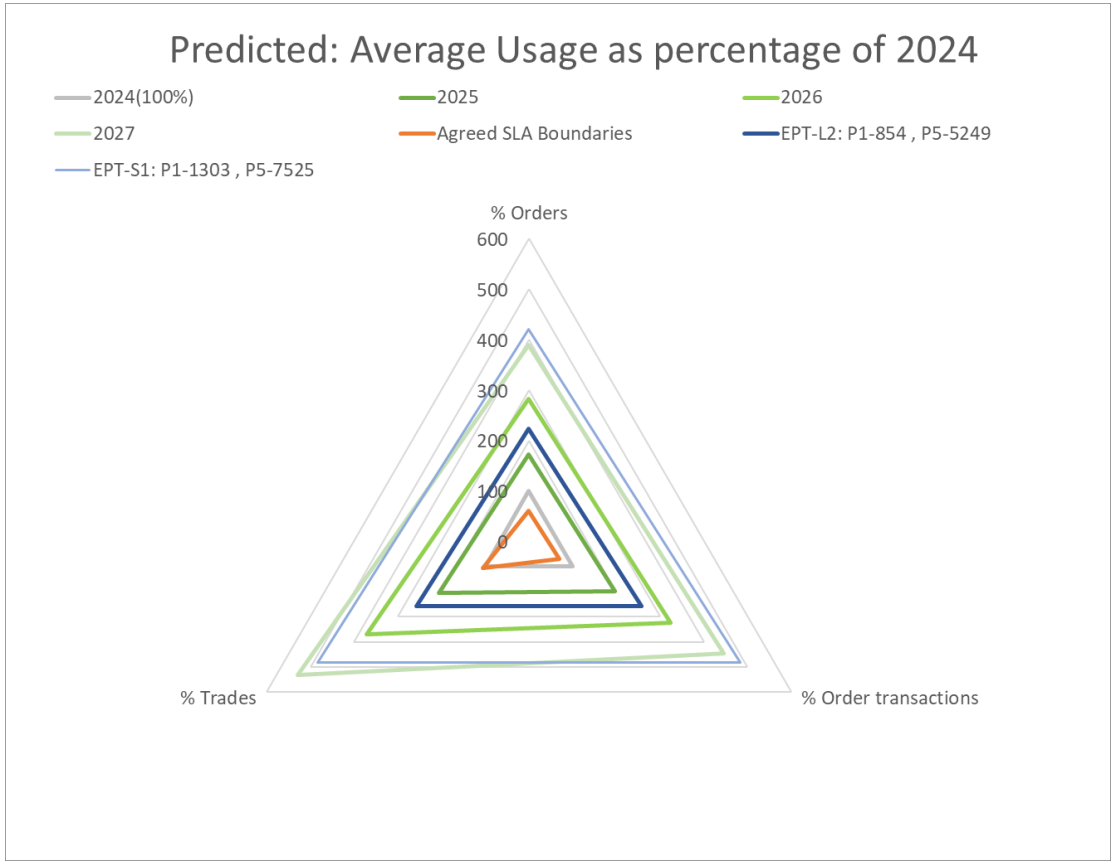
- Technical ability of SIDC-CT performance is much higher that SLAs.
- Careful monitoring of the load is needed. Technical capabilities of system need to be respected.
- XBID system performance capability has to be enhanced.

SDAC and SIDC Scalability Report

SIDC-Continuous Trading

Points of attention

- The recently deployed performance improvements (R4.1.50) have extended SIDC CT technical capability in number of Orders Transactions to 37 millions per day, and in number of trades to 1.5+ millions per day (dark blue line in the figure).
- New POMs, which are expected to go live in Q2 2026 (R5.0) are intended to increase processing performance of OTs to 50m+ per day, with the respective increase in transactions while ensuring processing of peak situations.
- This implies almost 500 times increase of OTs processing since SIDC Go Live in 2018. However, even such performance improvement still means that there are technical capabilities of the system which need to be respected.



Key Takeaways

- Significant improvements are planned for 2025-2027.
- Technical capabilities of system need to be respected.

SDAC and SIDC Corrective Measures

Vladimir Satek (SIDC QARM)

Chiara Vitelli, Christoforos Zoumas (NEMO Tech TF)

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MCSC

SDAC and SIDC Corrective Measures

Summary

Background

- NEMOs and TSOs are defining the corrective measures (CMs) securing the proper functioning of the SDAC and SIDC algorithms.
- **CMs are instruments provided by the Algorithm Methodology (AM) to handle performance issues, experienced or foreseen in production in the market coupling sessions.** These can be applied by NEMOs or TSOs.
  - According to the AM article 3.4, "*the **SDAC and SIDC algorithms shall support products listed in the Terms and conditions on SDAC products and SIDC products and all DA and ID algorithm requirements***".
  - However, in case the support of these products and requirements "*leads to a deterioration of the algorithm performance, all NEMOs may apply, through the procedures for corrective measure and/or request for changes:*
    - *a) **limitations to specific products** or their usage in specific bidding zones, and/or*
    - *b) **limitations to specific algorithm requirements** or their usage, if these requirements are specified in a way that excessively impacts the algorithm performance."*
- To make sure the algorithm can be alleviated in case of sustained performance degradation, several CMs are being designed in SDAC and SIDC. The first set of these measures have been ready for SDAC from the 15minMTU go-live.
- NEMOs and TSOs have published the **SDAC communication on the CMs** available on [ENTSO-E] and [NC] websites.
- In this section, the status of the preparation of measures for SDAC and SIDC will be introduced.

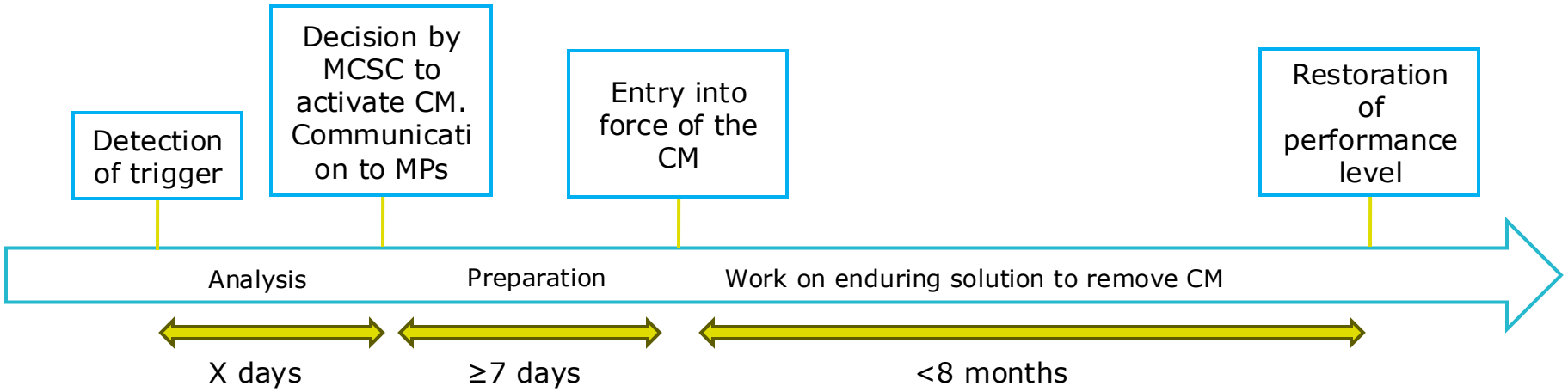
Key Takeaway: MCSC NEMOs and TSOs are working on the corrective measures for handling performance issues experienced or foreseen in production in the market coupling sessions.

SDAC and SIDC Corrective Measures

Process

Background

- Corrective measures are:
  - **Last resort** intervention, and by definition, **interim**
  - **Targeted and proportionate**
  - Potentially a combination of several measures can be selected



Key Takeaway: NEMOs and TSOs prepared a clear process. **Market Participants will be informed by MCSC and via the relevant NEMO at least one week before the activation of the CM itself.**

SDAC Corrective Measures

When to apply CMs – Monitoring and Evaluation

Monitoring

- The Corrective Measures process shall be activated in case the market coupling algorithm performance degrades.
- To this end, two monitoring processes will be in place: **short-term** and **long-term monitoring**. **Both of the processes monitor the TTFS** (Time To First Solution - The time SDAC algorithm EUPHEMIA needs to find an OK solution).

Evaluation

- During the monitoring process of the TTFS, performance degradation is considered as happening in case the TTFS breached the relevant thresholds:
  - **Slow trend monitoring:** Defined by AM article 12.1. Monitors TTFS on a monthly basis.
  - **Rapid trend monitoring:** More conservative, monitors TTFS daily and compares it with the relevant thresholds:
    - Case 1: TTFS > 85% of the allocated calculation time (30 min) for 3 days in the last 7 days.
    - Case 2: TTFS > 150% of the allocated calculation time (30 min) for 2 days in the last 7 days.

Key Takeaways

- In case the relevant thresholds will be breached (Case 1 or Case 2, not cumulative), the process for the evaluation of possible CM application will be initiated. Finding the right level of adequacy issue / solution is key to safeguard the proper functioning of the market platforms without unnecessarily restricting requirements or products usage.
- The application of any possible CM will follow after an evaluation process.

SDAC Corrective Measures

Application Process

Background

- After the monitoring thresholds have been breached, NEMOs and TSOs will be informed within the same day.
- Technical groups will then start an investigation on the next working day, formulating a recommendation, based on detailed monitoring data, for the possible application of a CM.
- Finally, technical groups will formulate a recommendation towards the Steering Committee **(MCSC), which will decide on the application of a Corrective Measure**. The introduction of any CMs will happen via the approval of a dedicated RfC.
  - **The activation of the CM shall be communicated to Market Participants (MP) and regulators** (NRAs and ACER) at least **one week before the activation** of the CM itself. Relevant information shall be published on the NEMO Committee and ENTSO-E websites.
  - **The application of a CM is limited to eight months**, after which, if the algorithm performance cannot be restored, all NEMOs shall develop a proposal for amendments of the AM or of the SDAC Products Methodology or SIDC Products Methodology.

Key Takeaways

- CMs are temporary solutions to be applied in order to restore the performance of the algorithm.
- The CMs will be applied after an evaluation process and a MCSC decision.

SDAC Corrective Measures

Different Options for CMs

Background

- As of September 2025, there are several **Mitigation and Corrective Measures approved and available for the 15 min MTU go-live**.
  - **Mitigation Measures:** Involve algorithm configuration parameters which are not visible to the market parties and are continuously checked/improved by NEMOs in order to enhance the algorithm performance. They are the **first option available** for use to restore the performance in case of performance degradation.
  - **Corrective Measures** for 15' MTU go-live:
    - Reduce overall NEMO product usage down to Scalability Study upper limit.
    - Remove Linked Block and Exclusive Group orders.
    - Removal of Ramping from HVDC line sets.
- **This list is to be expanded after 15' MTU go-live**, to cover a wide range of possible performance issues derived from increased system stress and higher system complexity.

Key Takeaways

- As of the go-live of the 15 min MTU, in order to restore the performance in case of performance degradation, NEMOs could apply any necessary Mitigation Measure.
- In case the Mitigation Measures would not solve the issue, the most suitable Corrective Measure would be applied.

SIDC CT Corrective Measures

Summary and short-term measures

Background

- NEMOs and TSOs are working on the SIDC CMs since September 2024.
  - In November 2024 (with results in January 2025) – XBID stress test were performed, and they have become an integral part of all new releases since then.
  - During this process, several weak points in SIDC CT were discovered which have been under improvements (spread across several releases: R4.1.50 already delivered in the operation, **R5.0 under testing with expected go live in Q2 2026,** and R5.1, which is currently under development, expected to come 2026/2027).
  - NEMOs and TSOs are committed to further performance improvements which, in optimal situation, should lead to a no need to use corrective measures.
  - Currently, use of the corrective measures cannot be avoided.
- Short-term corrective measures:
  - NEMOs are applying **hybrid model** for ensuring performance of SIDC CT. This implies that NEMOs apply individual corrective measures.
  - The corrective measures are focused on the overall maximum of order transactions and trades, either during large periods (days) or during peaks.

Key Takeaways

- Regular process for stress tests established.
- Individual short-term corrective measures are applied by NEMOs.

SIDC Corrective Measures

Long-term CMs

Background

- NEMOs and TSOs are working on multiple corrective measures for which harmonized approach is foreseen.
  - The scope of the corrective measures and their contribution to the performance improvement is under scrutiny and may require additional time.
  - The most mature CM is **Limitation of Orderbook Depth** which requires validation (testing) in the productive environment.
    - The preliminary timeline is to start with the testing in the production environment as of 1st December 2025 and in early 2026, by reducing the depth from 100 to 50.
    - The specific details are under finalization, and they will be communicated to MPs at the later stage.

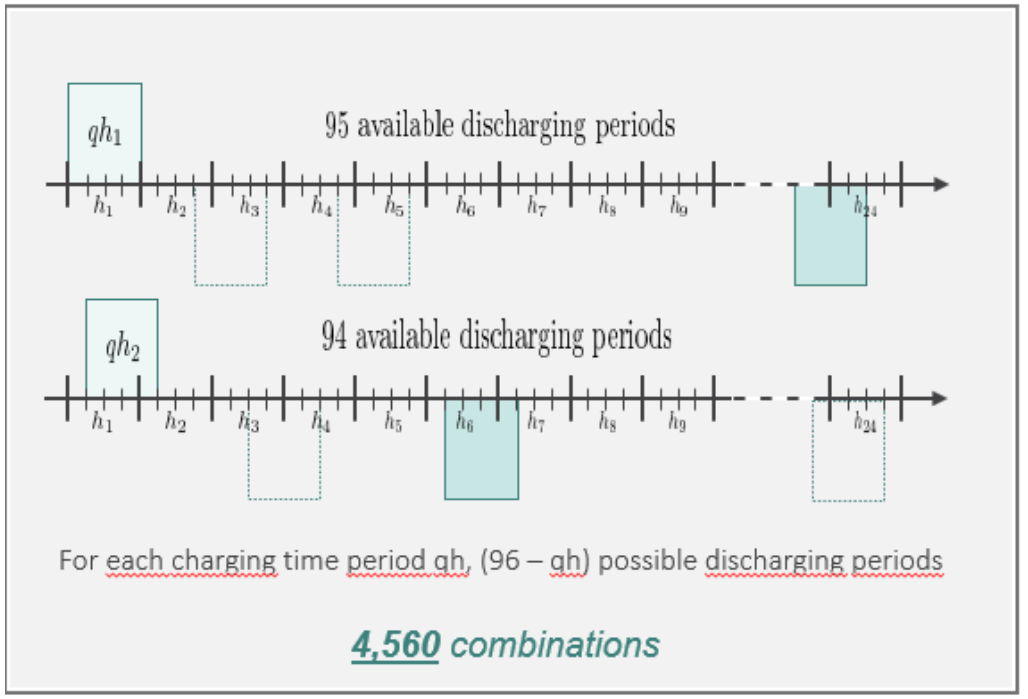
Key Takeaways

- Limitation of Orderbook Depth requires validation (testing) in the productive environment, before deployment in 2026.
- Scrutiny of long-term corrective measures (targeted and proportionate) requires more time.

SDAC and SIDC corrective measures

The change to the 15 minutes market time unit goal is to accomodate a **more flexbile system**:

- Using 15' MTU order exacerbates the risk that the cleared volumes are not technically feasible, increasing the need for intraday adjustments in contradiction with reform's objective.
- Only **smart block products** (linked blocks, exclusive group, flexible blocks,…) can ensure the respect of those technical constraints while providing the flexibility to the algorithm.



SDAC and SIDC corrective measures

Removing Linked Block and Exclusive Group orders would be highly disruptive and a source of very strong deoptimizations, and therefore not a viable option.

We urge the NEMOs to:

- Swiftly **invest in the algorithm capability** to increase the availability of smart block orders and foresee new products, enabling flexibility to be properly represented.
- **Harmonise the limits of smart block orders accessible to MPs**. The impacts will be unequal on the market participants of different NEMOs if they have different limits.
- **Consult market participants to discuss next steps** and possible solutions.

6th September 2025 XBID Operational Incident

Martim Stilwell (SIDC OPSCOM)

Q&A via **Slido.com**
Enter code: **1184334**

SIDC

6th September 2025 XBID Operational Incident

Background

- On 06th of September, 2025, the total downtime of over 10 hours has been experienced on the XBID system hosting infrastructure, including unscheduled downtime from 9:15 until 17:50, which temporarily affected system availability due to XBID service provider issues.
- The initially available information about the issue was published on the [ENTSO-E] and [NEMO Committee] websites.

Update

- **NEMOs and TSOs have closely monitored the details of the incident and have requested a full report and mitigating measures from the service provider.**
- As a precautionary measure, all maintenances were postponed until the service provider could provide the root cause and ensure future maintenances could be completed as planned.
- The issue was identified as a bug in the server firewall, and the service provider has taken measures to ensure that it does not happen again in the future.
- SIDC NEMOs and TSOs are working on a **Public Incident Report** with details of the investigation. The report is **expected to be ready for publication by the beginning of November.**

Key Takeaway: The Public Incident Report with details of the investigation is **expected to be published in November 2025.**

SDAC Fallback Improvements

Luiza Holban-Fediuc (SDAC OPSCOM)

Zélie Gautier, Pierre Milon, Andreas Papanaklis (MCCG)

Gergő Holló (Fallback Expert Group)

Q&A via **Slido.com**
Enter code: **1184334**

SDAC

SDAC Fallback Improvements

Fallback Manual

Background

- SDAC OPSCOM is making ongoing efforts to improve operational resilience and creating clear communication guidelines in case of incidents. The result of one of these efforts is the SDAC Fallback Manual.
- During Q2 MCCG meeting, a commitment was made to publish the Fallback Manual before the go-live of SDAC 15'MTU.

Update

- **On 24/09, the SDAC Fallback Manual was published on [ENTSO-E] and [NEMO Committee] websites** and a message was shared with MPs informing them of this milestone.
- This comprehensive guide is a collaborative initiative of the NEMOs and TSOs, designed to help companies navigate complex challenges and maintain operational resilience in the event of a SDAC partial or full decoupling.
- The manual provides essential information on communication channels, fallback procedures, and the operational timelines that are changing with the introduction of the 15-minute Market Time Unit.

Key takeaway: The SDAC Fallback Manual was **published and shared with Market parties on 24/09/2025**, achieving a relevant milestone for the improvement of the SDAC operational resilience.

SDAC Fallback Improvements

Update on all NEMOs and TSOs Measures

Overview of ongoing activities

- NEMOs, TSOs, ACER, and NRAs are continuing the investigation into operational robustness.
- The alignment in the dedicated PCG workshops is ongoing.

Workstream	Measure	Status/next step
Additional initiatives	Fallback manual	**Published**
	Improvements to messages during decoupling situations	**Implemented**
WS1 - *Minimize the likelihood of partial decoupling due to failed submission of order books in time*	-use an incomplete order book (before incident) snapshot for 12:00 SDAC auction -make submission of aggregated order books even more robust	-Usage of an incomplete snapshot of order book is discarded by NEMOs -Measures with a longer-term implementation period to be described and investigated by NEMOs
WS2 - *Relax existing deadlines*	Relaxing the 15:30 nomination deadline	Under consideration ENTSO-E if 16.00 is possible
WS3 - *Optimize existing SDAC timings and procedures*	Optimise existing timings and duration of each of the steps	Measures with a longer-term implementation period to be described and investigated by NEMOs and TSOs
WS4 - *Fallback capacity allocation*	Continuous SIDC used as the fallback solution for DA capacity allocation, replacing the shadow explicit auction	Analysis and design ongoing. Further investigation planned for the following aspects: Performance impact, scope of application, quality of SDAC price formation, impact on congestion income, legal analysis.
WS5 - *Preventing multiple SDAC prices in a bidding zone*	In case of partial decoupling, preventing multiple SDAC prices in a bidding zone where multiple NEMOs are operating	Core TSO and NEMO (Joint) Steering Committee (Core JSC) have agreed to implement an alternative to current local auctions design that prevents multiple SDAC prices in a bidding zone during a partial decoupling.
WS6 - *Ensuring a single SDAC reference price in every bidding zone in all situations*	Develop a single Day-Ahead price solution for the case of SDAC full decoupling	Further investigation into: Performance impact, scope of application, quality of SDAC price formation, impact on congestion income, legal analysis.

SDAC Fallback Improvements

Main Takeaways From the 07/10 PCG Workshop

Background

- In Q2 2025 MCCG, NEMOs and TSOs presented all measures under consideration to decrease the likelihood of incident occurrence, as well as mitigate the impacts if it materializes.
- NEMOs and TSOs are engaged with ACER to propose measures and are coordinating on their implementation or analysis.

Update

WS1 – prevention of partial decoupling

- NEMOs do not recommend the measure consisting in using an incomplete snapshot of the order book, taken before the incident occurs
- NEMOs are still analyzing improvements that would increase the likelihood to be in a position to submit an order book.

Key Takeaway: TSOs and NEMOs are engaged in the short- and long-term measures.

SDAC Fallback Improvements

Main Takeaways From the 07/10 PCG Workshop

WS2 – Relaxing the 15.30 nomination deadline

- ENTSO-E shares the outcomes of their assessment into the postponement of the nomination deadline. No blocking points have been identified so far for moving the deadline to 16:00, assuming that Shadow Auctions are replaced by a more efficient fallback process (see WS4) and that sufficiently reliable schedules can be sent to TSOs on time. TSOs' assessment is on-going; final position will be provided once it is finalized (See slide 40).

WS3 – Further optimisation of operational timeline/procedures

- New operational timings following 15' MTU SDAC go-live are in force. TSOs and NEMOs will further investigate changes to improve the efficiency of operational procedures, as a mid-long term measures.
- It is already acknowledged by NEMOs and TSOs that only optimization can be done; no game changer (gaining dozen of minutes) will be identified.

WS4 – SIDC CT as fallback for capacity allocation

- NEMOs and TSOs presented to ACER a first analysis on how the new process replacing shadow auctions could work.
- Analysis and design ongoing. Further investigation planned for the following aspects: Performance impact on XBID platform, scope of application, quality of SDAC price formation, impact on congestion income, legal analysis.

SDAC Fallback Improvements

Main Takeaways From the 07/10 PCG Workshop

WS5 – Preventing multiple SDAC prices within BZs in case of partial decoupling

- Core TSO and NEMO Joint Steering Committee (Core JSC) have agreed to implement a solution for decoupled NEMOs which prevents multiple SDAC prices in a bidding zone.
- Core TSOs, if applicable for the BZ and in coordination with NEMOs, are working on amendments of multiple NEMO arrangements ('MNA'), which aim to implement volume matching at SDAC price for decoupled NEMOs in case of partial decoupling without fallback capacity allocation.
- NRAs will have to approve the modified Multi-NEMOs Arrangements.

WS6 – Ensuring a single SDAC reference price in every Bidding Zone in case of full decoupling

- NEMOs and TSOs are investigating the proposal from ACER consisting in building a price based on SIDC CT trading over a pre-defined time window, and benefiting from the capacity allocation taking place in SIDC CT (see WS 4).
- Further analysis is ongoing: Performance impact on XBID, scope of application (BZs), quality of SDAC price formation, legal analysis.

Preliminary assessment of TSOs processes if shadow auctions are replaced by more efficient fallback process

According to TSOs' preliminary assessment, and under the assumption that:

- shadow auctions are replaced by a more efficient fallback process,
- sufficiently reliable schedules can be sent to TSOs on time, subject to confirmation by market participants

No blocking points have been identified **yet** for postponing the cross-border nomination deadline to **maximum 16:00** in case of decoupling.

The assessment on international coordination processes seems promising, but a final assessment of the implications on national level is pending/ongoing.

Additional notes :

- *Some regions (e.g. Nordic and Iberia) plan to keep the current fallback. This should not hinder the progress to find a solution in Core/Central Europe.*
- *Change of fallback process will take time. Hence postponement of nomination deadline shall be considered as a long-term option.*
- *If another fallback solution than IDCT is considered, TSOs' assessment needs to be redone*

Implementation of 30 Min IDCZGCT and Go-live in 2026

Gergő Holló (30 min IDCZGCT SPoC)

Q&A via **Slido.com**
Enter code: **1184334**

30 Min IDCZGCT
Go-Live Plans

Summary

- **Development is ongoing** in the local systems of TSOs. Central testing starts at the end of October.
- The **go-live date is set to 14/01/2026** (delivery day) for those countries and bidding zones where the TSOs were not asking for derogation (see next slide).
- TSOs will provide regular updates about the further planned go-live windows and affected countries.

Affected Borders for Go-live in January 2026

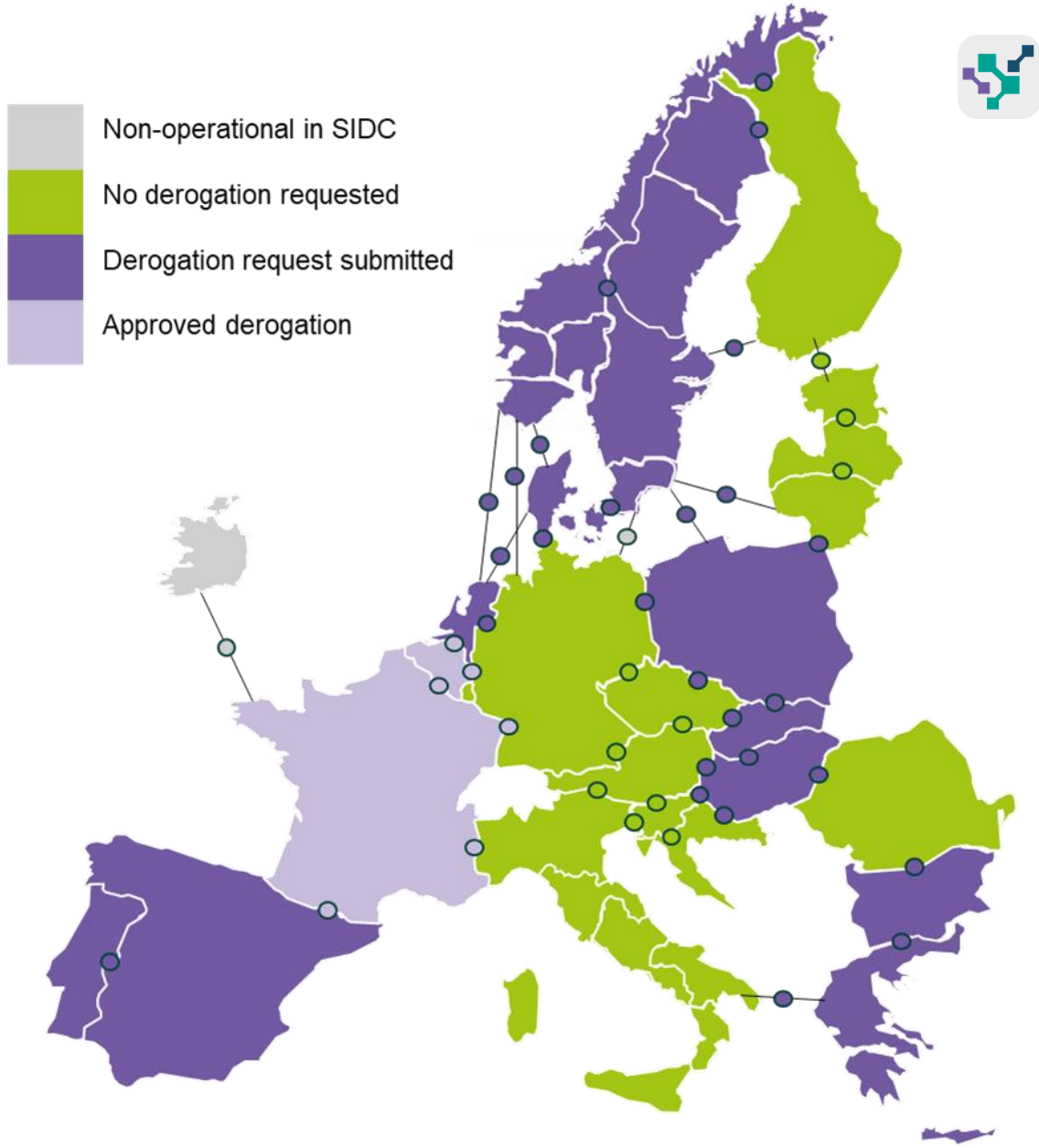
Borders	TSOs
AT-CZ	APG-CEPS
AT-DE/LU	APG-Amprion
AT-IT NORD	APG-Terna
AT-SI	APG-ELES
HR-SI	HOPS-ELES
CZ-DE/LU	CEPS-50Hertz
EE-FI*	Elering-Fingrid
EE-LV	Elering-AST
LV-LT**	AST-Litgrid
IT NORD-SI	Terna-ELES
IT internal borders	Terna

* 30min IDCZGCT is already implemented on EE-FI border
** Minor delay is foreseen in the implementation related to this border

30 Min IDCZGCT
Derogations and Consultations

Summary

- TSOs have submitted their derogations to the local NRAs after the market consultations and are now waiting for approval.
- A **border-based overview was published** on the [ENTSO-E website] in July; an **updated version is available as of mid-October on the [ENTSO-E website],** including information on the approved derogations.
- All of the affected TSOs have finished their local conslutations with the relevant market participants.
- TSOs have prepared a **Q&A compiling** common **questions and comments** together with the provided **answers** from local consultations.



Derogation request will only be officially submitted by Statnett after transposition of relevant regulation in Norway. Approved derogations for Belgium and France.

Consultation Q&A
Implementation Deadline

Question / comment	Answer
1. Many market parties (MPs) called for shortening the derogation period and/or to go-live as soon as possible. Some of them questioned whether TSOs can go live earlier than the derogation deadline.	1. The derogation sets the *latest* allowed go-live date. Most TSOs aim to go live earlier if technically feasible. Please monitor local and central updates for the latest information.
2. Some MPs asked to prioritize accession to MARI balacing platform over implementation of 30min IDCZGCT where relevant, while some advocated to do implementations parallel and not to ask for derogation at all.	2. The affected TSOs are all planning to join to MARI first, gain experience on the balancing market and only then reduce the IDCZGCT to 30-minute. In some cases this was one of the main reasons for the derogation.
3. Harmonization of implementation timeline was requested by many market parties, especially within the regions.	3. TSOs are coordinating between each other to the extent possible, but local specificities hinder the harmonization. As TSOs aim to implement 30min IDCZGCT as soon as possible, waiting for another TSO for a longer period could be less favourable for everyone.

Consultation Q&A
Alternative proposals for IDGCT

Question / comment	Answer
1. Some of the MPs called for shortening the IDCZGCT further (e.g. to 15 minutes).	1. While the regulation allows shorter IDCZGCT, TSOs plan to first gain experience with the 30-minute setup. At this time, no further reduction is planned in any country. Based on the assessments done by the TSOs so far, a further reduction could endanger the balancing processes.
2. Some MPs asked to prioritize reduction of IDCZGCT over any potential reduction of local IDGCT.	2. Local market rules are subject to alignments and approvals on local level, but TSOs also recognise the added value of the cross zonal developments and there is no intention to prioritize any local development on IDGCT over the cross zonal one.

Consultation Q&A

Other affected processes and market segments

Question / comment	Answer
1. Some MPs highligthed that balancing energy (BE) bid provision deadline seems to be challenging or even unfeasible until T-25 minutes.	1. Not all MPs foresee to have the same difficulties with the BE bid provision. If some MPs consider that more time is required to provide the bids after the clearing in ID then they can always decide to stop trading activities earlier than T-30 minutes on the ID market.
2. Some MPs asked to reconsider the planned local nomination deadline in some areas.	2. Local nomination deadlines are subject to alignments and approvals on local level. Relevant TSOs plan to continue the alignments with the relevant MPs to find acceptable solutions.
3. Some MPs called for further alignments regarding the required changes of grid security analysis and redispatch market in some areas, while it was not considered as a problem to be mitigated for others.	3. TSOs are always open for alignments and continously evaluate the necessary and beneficial improvements of local processes.

Regulatory Deliverables and Consultations

Chiara Vitelli, Christoforos Zoumas (NEMO Tech TF)

Q&A via **Slido.com**
Enter code: **1184334**

SDAC/SIDC HMMCP Methodology

- On August 4th, the all-NEMOs' proposal for an updated Harmonised maximum and minimum clearing prices for single day-ahead coupling (**HMMCP SDAC Methodology**) and the Harmonised maximum and minimum clearing prices for single intraday coupling (**HMMCP SIDC Methodology**) were **submitted to ACER.**

- In the submitted Methodologies, NEMOs proposed a **liquidity metric** (simplified with respect to the initial proposal), requesting the traded volumes per BZ/MTU in the auction to be greater than 5MW in order to trigger any update of the Max/Min price limits. The same metric, for consistency reasons, is proposed both for SDAC and SIDC.

- The Methodologies are **under ACER's assessment**. Decision is expected by February 2026.

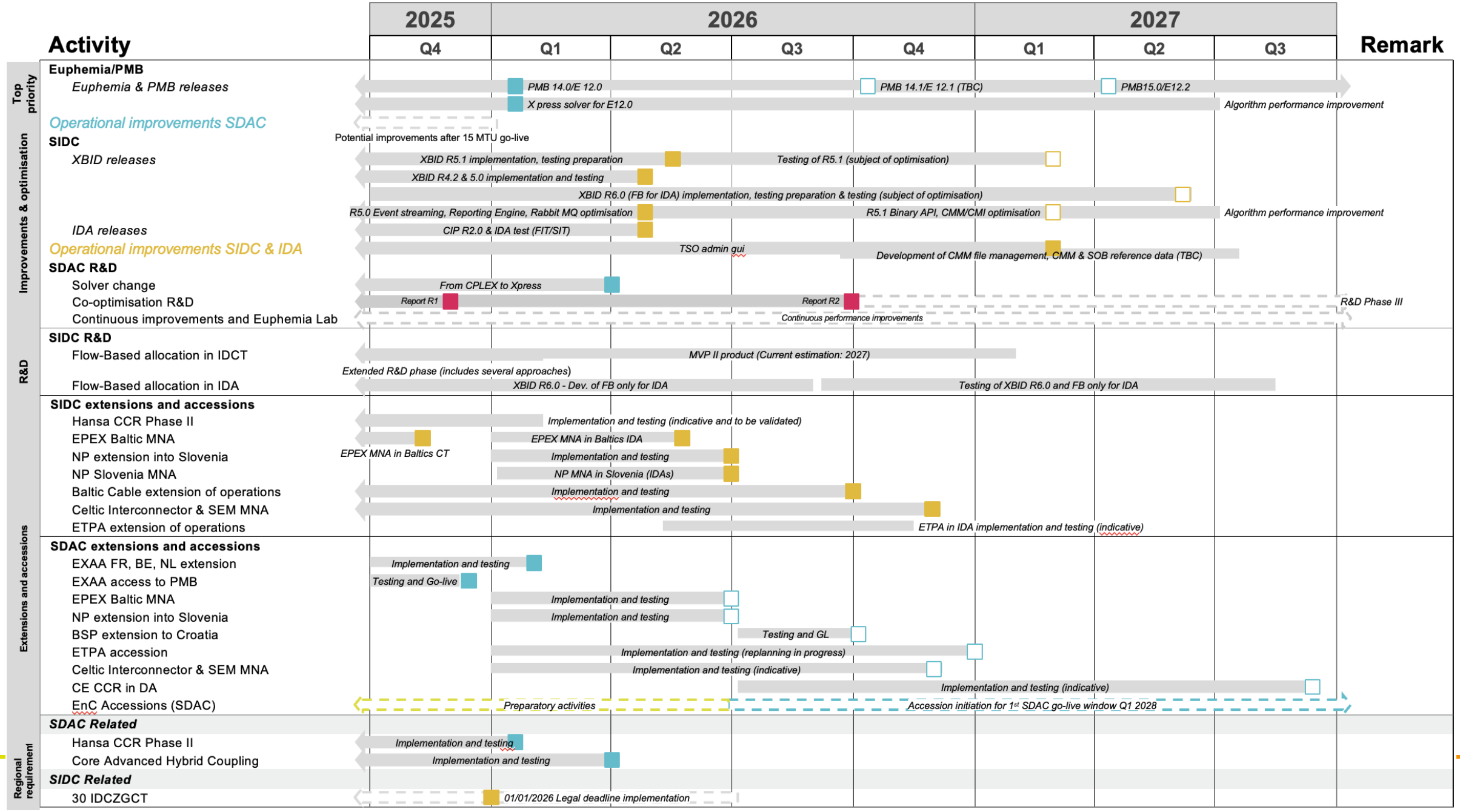
SDAC-SIDC Roadmap and Key Projects

André Estermann, Cosimo Campidoglio, Ondřej Máca (MCSC Co-Chairs)

Timo Suhonen, Marja Eronen (SDAC MSD)

Q&A via **Slido.com**
Enter code: **1184334**

SDAC-SIDC Roadmap and Key Projects



SDAC-SIDC Roadmap and Key Projects

SDAC Co-Optimisation – Public Consultation on R0

Background

- Co-optimisation R&D aim to cover the necessary activities in line with Algorithm methodology to assess design and requirements for Co-optimisation in SDAC.
- NEMOs and TSOs consulted the first report R0 in May-June 2025 with the aim to get detailed insights from the market on bid design, bidding products and pricing as well as other researched parameters & components.

Key outcomes from the May-June 2025 Public Consultation on R0:

- Market parties share **general support for implicit bidding**; yet, **further explanation of explicit bidding** and its challenges is needed.
- Market parties agree that:
  - A premium (or a way to present non-linear cost structures) is needed
  - Both linked and combined bids are needed, while some are in favour of using combined bids
  - Block bids, scalable complex orders remain relevant
  - There should not be any limits to the number of bids that can be provided to EUPHEMIA
  - For pricing, Option 0 (No-PaB) is preferred
  - Further research and elaboration on how storage bids are considered is needed
- Suggestions for additional characteristics of combined and linked bidding.

Key takeaway: In the Public Consultation, 25 insightful responses provided feedback to some of the design proposals and items which require further focus in the next reports and R&D. As the next step, NEMOs and TSOs assessed the comments and are preparing an updated version of the report (R1) as well as responses to the comments received in the Public Consultation.

SDAC-SIDC Roadmap and Key Projects

SDAC Co-Optimisation – R1 and Next Steps

R1 Update

- Planning: NEMOs and TSOs updated planning for R1 delivery. Currently the final delivery of the updated report to ACER is expected by the **end of November 2025**.
- Content: R1 is expected to include the following main updates:
  - Elaboration of PC feedback per topic area and recommended design options for the next R&D phases
  - Further elaborated reasoning and explanation for implicit bidding and the challenges of explicit bidding
  - Additional examples using block bids to be added and an explanation of challenges with usage
  - Storage consideration reasoning and explanation of ongoing R&D
  - Additional characteristics to be added/further specified for combined bids and linked bids

Next - Simulation Preparation

- Simulations will be an **integral part of R2 report preparation** with the aim to use a prototype based on the existing version of EUPHEMIA that will include the co-optimisation modelling which would cover a subset of BZs and then a large-scale model.
- Currently, the key focus for NEMOs and TSOs is to generate a representative balancing capacity dataset as no historical co-optimisation order data exists for balancing capacity.
- Next steps
  - By the end of 2025: Validate the prepared datasets for Phase 1, make prototype ready, prepare simulation scenarios
  - Beginning 2026: Initiate 1st simulation round

Key takeaway: NEMOs and TSOs note that **currently *no final requirements* can be drawn from the R&D as these require further assessment, simulations, and are an input to the next R&D phase.**

MCSC

AOB & Closure

Zélie Gautier, Pierre Milon, Andreas Papanaklis (MCCG)

Q&A via **Slido.com**
Enter code: **1184334**

Closing Remarks & Further Information

The Q&A from the webinar will be available on the NEMO Committee and ENTSO-E websites. The links will be sent out via email.

The next meeting will be scheduled in Q1/Q2 2026 - details & date will be shared soon.

Thank you for your participation!

Market Coupling Consultative Group

Webinar

23 October 2025

Annex

Abbreviations

ACER	Agency for the Cooperation of Energy Regulators
AM	Algorithm Methodology
BE	Balancing Energy
BZ	Bidding Zone
CC	Capacity Calculation
CCR	Capacity Calculation Region
CM	Corrective Measure
CT	Continuous Trading (context: SIDC-CT)
DACC	Day-Ahead Capacity Calculation
Go-live	The date when a new process/system becomes operational
HMMCP	Harmonised Maximum and Minimum Clearing Prices
IDA	Intraday Auction
IDCC	Intraday Capacity Calculation
IDCZGCT	Intraday Cross-Zonal Gate Closure Time
IDGCT	Intraday Gate Closure Time
LTS	Local Trading System
MCCG	Market Coupling Consultative Group
MCSC	Market Coupling Steering Committee
MNA	Multi-NEMO Arrangement
MP	Market Participant
MTU	Market Time Unit
NEMO	Nominated Electricity Market Operator
NRA	National Regulatory Authority
OBK	Orderbook (context: Orderbook Depth)
OPSCOM	Operations Committee (context: SDAC OPSCOM, SIDC OPSCOM)
POM	Performance Optimisation Measure
QARM	Quality Assurance and Risk Management (context: SIDC QARM)
R&D	Research and Development
RfC	Request for Change
SDAC	Single Day-Ahead Coupling
SIDC	Single Intraday Coupling
SLA	Service Level Agreement
TF	Task Force (context: NEMO Tech TF)
TSO	Transmission System Operator
TTFS	Time To First Solution
WS	Workstream
XBID	Cross-Border Intraday (European intraday electricity trading platform)