

MESC

Update on SDAC & SIDC

08 October 2024

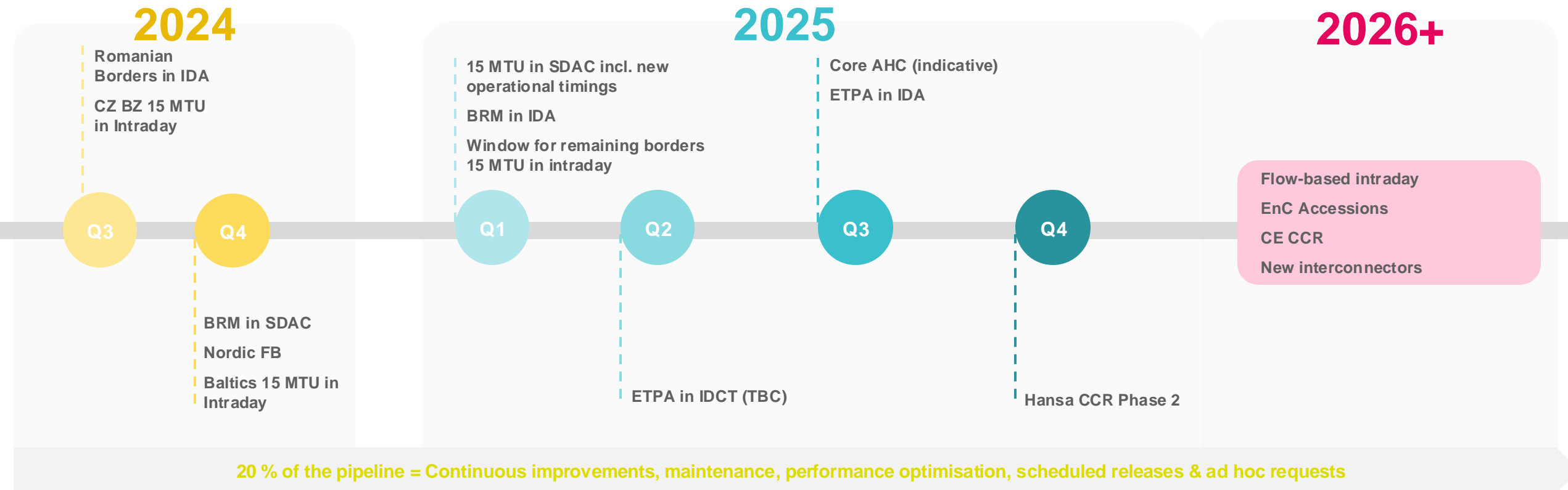


Joint Status Updates

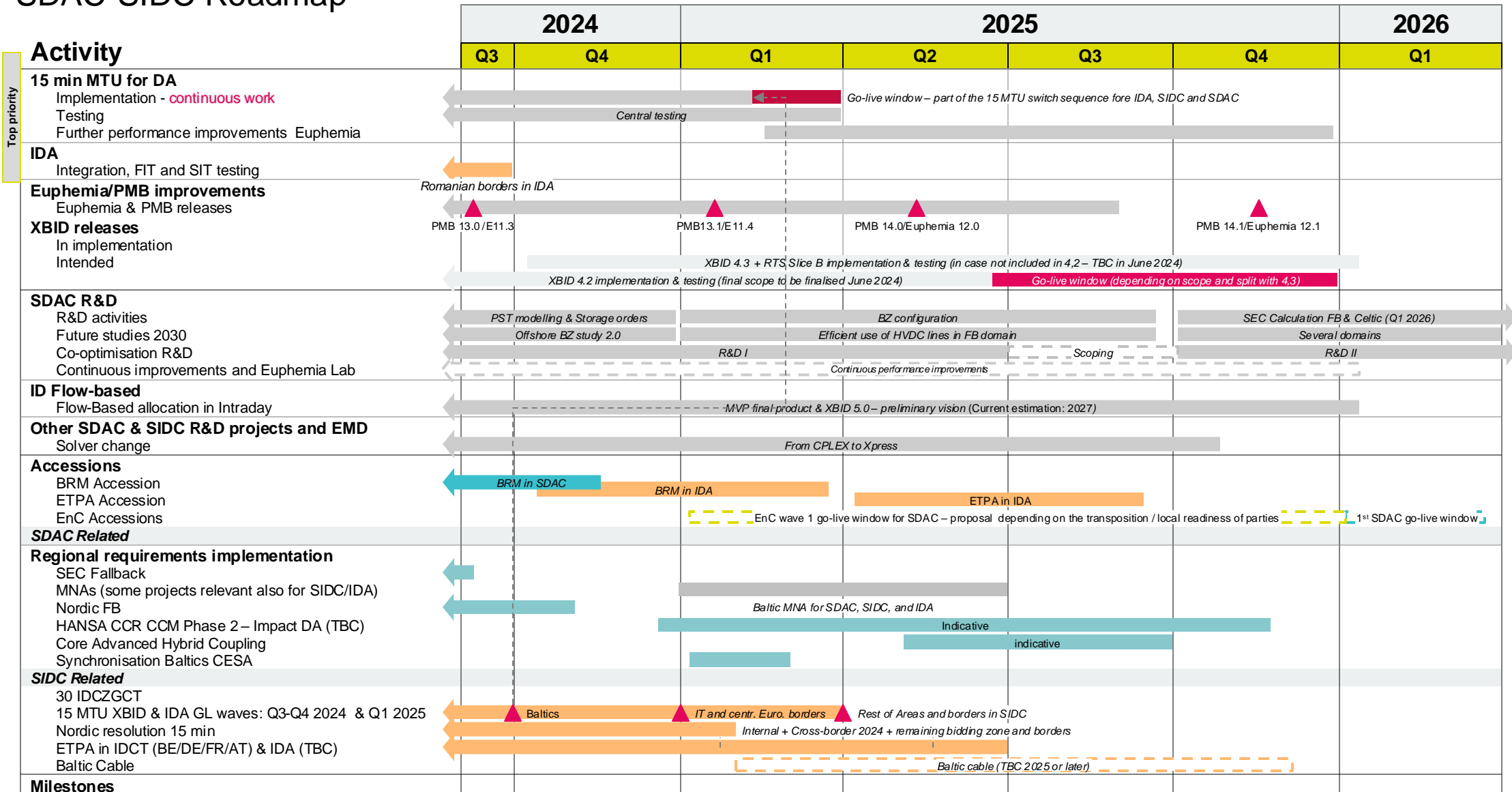
SDAC-SIDC Roadmap – Key projects

NEMOs and TSOs are working on a more **forward-looking timeline to distinguish:**

- Detailed operation timeline (up to 18 months) including the R&D activities.
- Longer timeline with monitoring of projects in the prioritisation context.



Joint Status Updates SDAC-SIDC Roadmap



Future Outlook Beyond 2025

Activity	2026				2027				2028	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
EnC countries accession <i>Proposed Go-lives (waves) → depending on the parties' readiness and transposition progress</i>	SDAC 1 st window			SIDC 1 st window	SDAC 2 nd window			SIDC 2 nd window	SDAC 3 rd window	
SDAC R&D <i>Co-optimisation</i> <i>R&D activities</i>	Continuation of R&D II				R&D III					
Label Celtic Interconnector Potential MRLVC R&D placeholder	Celtic Interconnector		Potential MRLVC R&D placeholder							
Celtic Link (Ireland/SEM integration) CCR Merger Core/Italy (CE CCR) (DA) Interconnectors integration (DE-SE, PL-LT, ...) Hansa CCR CC Phase 3 and 4 ID Flow-based allocation in Intraday Nordic Flow Based ID CC Impact of Core ROSC RD&CT on Core ID CC Impact of AHC in ID Core Balancing CC after ID Interconnectors integration (NO4-FI)		Implementation & testing		Go-live			Implementation & testing		Go-live	
Project pipeline reserve	20 % of the pipeline = Maintenance, performance optimisation, scheduled releases & ad hoc requests									

Planning not defined yet

On Hold / Out of scope

SDAC:

- MRLVC @ * (project dependent on the outcome of the political discussion), Non-uniform pricing, Co-Optimization (besides Initial R&D in 2024)

SIDC:

- Cross-Product Matching in Continuous trading & Losses in Continuous trading



EnC SDAC/SIDC extensions

- MCSC TSOs and NEMOs are discussing future-proof contractual arrangements.
- The go-live window timelines shall be centrally agreed to provide stable conditions for the further evolution of SDAC and SIDC while allowing for the market coupling extensions to new regions.
- Moreover, a regular EnC Observer reporting from JET EnC shall be established to improve transparency and planning.
- BELEN and CGES (PX and TSO from Montenegro) were approved as Observer to SDAC and SIDC.

Joint Status Updates

Co-Optimization R&D Update

Current status

- The SDAC MSD Co-Opt SG has worked with Use cases, outlining diverse situations occurring in co-optimised markets, together with the service providers to illustrate design considerations mainly concerning bidding language and pricing. In the next step – requirements document shall be prepared based on use case findings and approved by MCSC as a basis for prototype building.
- ACER technical WS took place in Ljubljana 10-11/09 with the **objective to discuss alternative solutions for the bidding products and the most suitable pricing methodology**. MCSC TSOs and NEMOs had constructive discussions with ACER and other participants leading to positive outcomes.

The longer-term R&D timeline was aligned with Algorithm methodology:

- Delivery of simulation results by March 2025 followed by review and analysis of the report & findings by NEMOs and TSOs.
- MCSC approval of the (R0) report to be shared with ACER before end of May 2025.

Involvement of market participants

- MCSC NEMOs and TSOs in cooperation with ENTSO-E intend to conduct an informal survey among market participants.
- **Why:** to collect inputs about cost structures and their impact on bid designs and to avoid developing concepts that do not fit the needs of the market upon implementation.
- **When:** Autumn 2024.
- **Who:** MCCG & EBSG participants (widest coverage of MP & BSPs).

Key messages

- **Complexity of Co-optimisation, divergence of the view on integrated bidding/explicit bidding linking and pricing impacts require significant efforts in order to consider key market design aspects prior any prototyping and industrialisation takes place.**

Joint Status Updates

Summary of the June 27 MCCG #6

Background

- During another successful MCCG, both MCSC TSOs and NEMOs as well as MPs further deepened their understanding of each other's goals and challenges with regards to the three main topics of discussion:
 1. **SDAC&SIDC 15'MTU implementation;**
 2. **IDAs first experiences after go-live;**
 3. **Removal of SDAC second auction.**

Main messages

- **Continued discussion on the 15'MTU implementation in SDAC&SIDC with a particular focus on the member testing is needed.** As a part of this exchange, MCSC NEMOs and TSOs are to clarify what systems will be tested on the local / central level. MPs will propose suggestions for organization of the member testing.
- **The go-live of the first pan-European Intraday Auctions in one single, coordinated effort marks a significant success within the SIDC project.** After the initial operational challenges, further timing optimization to speed up the process has already taken place and will continue to be monitored for potential improvements.
- **SDAC second auctions will be removed by January 2025** except of Baltic (linked with introduction of 15' MTU to the Baltic later in 2025). NEMOs published the dedicated presentation [[LINK](#)] and Q&A [[LINK](#)] describing the functioning of the alternative and improvement made against trading errors.

Main Bulletins – SDAC Status Updates (1/2)

15 min MTU updated operational timings

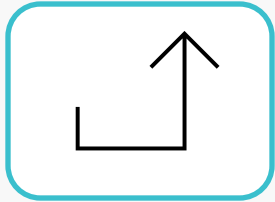
- The timings update for Partial Decoupling scenarios have been finalised.
- The full set of new operational timings, including the technical proposal for the optimization of operational timings, will be tested as a part of the procedural testing in 15 min MTU testing.

Status of 15 min MTU implementation

- During the summer, parties have been working on completing and testing the local, regional and central implementation of 15 min MTU. Most parties are now fully ready for 15 min MTU testing.
- For certain parties, the completion of readiness has been impacted by some operational incidents in both SDAC and SIDC IDA, as well as parallel projects (Nordic Flow Based, Core CCR,...); parties are committed to having their systems fixed and ready for End-To-End functional testing by 14/10. Assessment of potential impact on planning and SIDC 15 MTU implementation is ongoing and related mitigations are being investigated. These will be communicated as soon as available. Some mitigation measures for testing have been put in place.
- Currently, testing is ongoing; all parties are preparing for the full-scope functional integration testing campaign.
- **Market Parties communicated to MCSC additional specific needs regarding Member Testing (End-to-End testing with Market Participants). MCSC is aligning with them to assess the potential way forward. The additional requests from MPs are not yet reflected in the timeline as presented in the last MCCG in June 2024.**

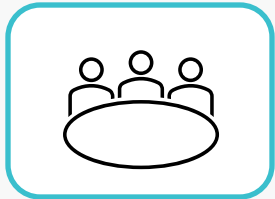


Main Bulletins – SDAC Status Updates (2/2)



15 min MTU rollback

- First round of local technical impacts were assessed.
- SDAC WGs are working on the plan.



2024 Simulation Facility Workshop

- On 10/09, SDAC SIM TF organised the 2024 Simulation Facility Workshop in Ljubljana.
- The main objective of the workshop was to provide a comprehensive overview of the main functionalities in the Simulation Facility. More than 60 SF users, including NRAs and ACER representatives joined the program, finding the Workshop very useful.
- SIM TF will follow-up with a dedicated Q&A document compiled during and after the Workshop.

Recent Relevant Updates on SDAC Operational Incidents (1/2)

In JET-A, NRAs requested that SDAC and SIDC report regularly on type 1 & 2 incidents*.

Updates and Points of Attention

- There have been two category 1 incidents (no category 2) since the last PCG, on the 19th of June 2024.

Background

- On **25/06 (delivery date 26/06)**, an incident took place that led to a partial decoupling of some areas in Europe caused by local issues at EPEX SPOT preventing the order books from EPEX SPOT for the Core region and for the Nordics to be submitted before the operational deadline. Following regional agreements, in the Nordic also the remaining NEMO (EMCO-Nordic) was decoupled.
- Market participants were properly informed in time. Correct execution of partial decoupling allowed NEMOs and TSOs to not trigger Full Decoupling.
- Capacity allocation could be secured on all SDAC borders: Explicitly (shadow auctions) on NO2-NL, DK1-NL, NO2-DE, DK1-DE, DK2-DE borders. Implicitly and in line with regional fallback procedures on other SDAC borders.
- The robust organization of market coupling ensured market results computation and publication despite major operational challenges. The final SDAC market coupling results for the remaining coupled parties were published at 14:09 CEST. The common coupling system worked as expected and ensured the coupling of the remaining part of SDAC topology.
- Due to the same local issue, IDA3 on June 25 at 10:00 CEST was cancelled for all participating NEMOs, as per SIDC IDAs decoupling procedures. Instead, the subsequent IDA1 on June 25 at 15:00 CEST was performed. However, as per the agreed SIDC IDA market coupling procedures, EPEX SPOT and Nord Pool – as Nordic NEMOs – were partially decoupled in advance from IDA1.
- Market situation turned back to normal in the next SDAC coupling session.
- NEMOs and TSOs strive to improve the communication process during an incident with an aim to ensure a successful application of the fallback measures in case of future decoupling situations, including a smoother process for running Shadow Auctions for the decoupled interconnectors. Some regional procedures have already been improved. Moreover, a deeper understanding of the specific decoupling scenarios will be fostered by increasing the awareness on these fallback procedures and scenarios.

The full SDAC report on the partial decoupling incident of 25/06 can be found on the [NEMO Committee](#) and [ENTSO-E](#) websites

* Type 1 incident means partial or full decoupling. Type 2 incident means that the message that there is a risk of partial or full decoupling was sent (but the decoupling did not materialize).

Recent Relevant Updates on SDAC Operational Incidents (2/2)

In JET-A, NRAs requested that SDAC and SIDC report regularly on type 1 & 2 incidents*.

Background

- On **24/07 (delivery date 25/07)** an incident took place that led to a partial decoupling of the Czech Republic caused by local issues at the OTE Local Trading System (LTS) preventing the order books from OTE to be submitted before the operational deadline. Hence, OTE-CZ was decoupled at 13:05 CEST in line with the relevant procedures.
- Market participants were properly informed in time. Correct execution of partial decoupling allowed NEMOs and TSOs to not trigger Full Decoupling.
- The Shadow Auctions and the operational process for performing them worked as expected and were performed by JAO according to the operational procedures.
- The robust organization of market coupling worked as expected and ensured the coupling of the remaining parts of the SDAC topology with adapted capacity for the internal Core borders. As the partial decoupling involved a bidding zone located within a flow-based region, an additional fallback procedure had to be applied to allocate the capacity of the non-decoupled Core CCR internal borders with ATC instead of using flow-based parameters. The final SDAC market coupling results were published around 14:15 CEST.
- Due to the same local issue, OTE was also decoupled in advance from two IDAs: IDA 3 at 10:00 CEST, and from IDA 1 at 15:00 CEST on the day of the SDAC decoupling.
- Market situation turned back to normal in the next SDAC coupling session.
- OTE and their IT provider will implement further deployment testing of third-party hardware / software updates. However, as this issue was caused by third party hardware / software fault, it cannot be fully prevented for the future. The issue would occur in the same manner independently from the MCO setup (e.g. for single NEMO arrangement) as it was caused by a local issue at OTE.

The full SDAC report on the partial decoupling incident of 24/07 can be found on the [NEMO Committee](#) and [ENTSO-E](#) websites

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Main Bulletins – SIDC Status Updates



FB in Intraday

- First MVP phase revealed issues mostly connected to the generation of crossed order books, while applying the routing for the update of the local view, and to the performance. Considered minor improvements were not resolving the issues.
- R&D continued introducing major concept changes and identifying 3 approaches which are planned to be further investigated trying to find a way how to implement FB to continuous allocation.
- **As further R&D and MVP would be required to complete the analysis, MCSC NEMOs and TSOs are considering to implement as an interim solution FB only for IDAs (subject to alignment with ACER).**



Successful ID 15 minMTU go-live in Poland (intra-zonal) and CZ BZs

- The first 15' MTU switch changes after IDA go-live executed successfully.
- All other SIDC borders not yet in 15' MTU will change in the next months in IDCT and IDA in 4 different go live windows at the end of 2024, in January 2025 and in March 2025. This switch is a prerequisite for SDAC 15' MTU project.

Recent Relevant Updates on SIDC Operational Incidents

In JET-A, NRAs requested that SDAC and SIDC report regularly on type 1 & 2 incidents*.

Updates and Points of Attention

- There has been 1 new major incident to report since May 2024.

Background

- Incident on 28/08 (Severity 1, Critical): Files from TSOs did not reach the XBID system when using ECP.
- The incident was caused by an internal change (certificate update) applied to Amprion infrastructure that runs and maintains all virtual machines. While the change was performed according to applicable guidelines, an issue occurred that was tackled by infrastructure specialists as soon as recognised.
- For future improvements, when certificates will need to be re-installed, Amprion Hosting Entity (HE) will do a check after installation and react faster if an issue is recognised.
- The technical cause is being investigated with the third-party service provider to prevent from happening in future. The report will be prepared and provided by SIDC OPSCOM as usually.

* Type 1 incident means partial or full decoupling. Type 2 incident means that the message that there is a risk of partial or full decoupling was sent (but the decoupling did not materialize).

Updates and Points of Attention

- Since IDA go-live on 13/06/2024, there have been 6 IDA cancellations resulting in **IDA availability rate of 97.72%** as of 08/09/2024.
- Eight partial decoupling cases of various parties have taken place since the IDA go-live. Each case is investigated by SIDC OPSCOM, and mitigating measures are applied either on local level or as process improvement centrally to improve operational robustness.
- SIDC OPSCOM is continuously monitoring and analysing each incident to assure no reoccurring cases and implementation of process / procedural improvements (when applicable).

Published IDA Weekly Reports Can Be Found on ENTSO-E [\[LINK\]](#) and NEMO Committee [\[LINK\]](#) websites

- **Cancellation of IDA:** Cancellation of the entire IDA for all participating NEMOs.
 - **Cause:** Issue faced prior (in advance) or during the Market Coupling Session (MCS) which doesn't allow the session to be completed successfully. In this case, no results published for any of the NEMOs. The session is cancelled in XBID by JAO.
- **Partial Decoupling in IDA:** Removal of a / some NEMOs from MCS. While some NEMOs are decoupled, there are still NEMOs remaining coupled, hence, called a Partial Decoupling (PD) and not Full Decoupling / Cancellation.
 - **Cause:** A request prior to the auction such as in case of maintenance (in advance / manual) or issue with provision of Order Book by a NEMO during the MCS (automatic). As per the design, the NEMOs that will not be decoupled, except if failing to provide the order data, are OMIE, GME and Henex. However, if they are the party having the issue, they will be removed from IDA session as well. In this case, there are results published for the NEMOs who remain coupled but not the others. Automatic PD will always be done during the MCS and without any action from IDA Coordinator, based on predefined parameters (time limit and list of NEMOs to be decoupled). In case of partial decoupling in advance, the IDA Coordinator is manually selecting the NEMO to be decoupled and only decoupling this NEMO (no other) based on the request of decoupling in advance.

Further IDA Improvements

- After the two and a half months of experience with IDA in operation, **further optimization of times has already been performed to speed up the process**. Possible improvements are continued to being analysed with **five** already implemented into production in a short period of time and **three** more planned to be implemented within the next month.
- **Testing activities for each improvement are vigilantly executed**, numerous test cases and analyses have been performed focusing on the performance and system integration. In terms of human resources, numerous highly qualified and multidisciplinary experts are actively involved in the mentioned tests.
- The IDAs **procedures** are **continuously updated**, including improvements detected during the execution of IDAs in production, like optimization of times and clarification in communication, among others.

The operational staff has improved significantly with each IDA executed, being now fully familiar with the processes to follow.

IDA Reporting

First months of operations – data (1/4)

In 2 and a half months of operations, IDA market managed generally, approximately 600 millions of MWh of energy – considering both supply and demand – with an acceptance ratio established around 5% for each of the month (with a total of 27 millions of cleared MWh).

Months	Total Energy (MWh)	Total Cleared Energy (MWh)	Ratio
June*	116.416.516,17	5.392.568,50	4,6%
July	220.053.175,23	10.503.225,82	4,8%
August	256.426.629,65	11.388.680,59	4,4%
TOTAL	592.896.321,05	27.284.474,91	4,6%

Slight increment of offered energy from July to August can be noticed, which also corresponds to a small increasing of cleared energy.

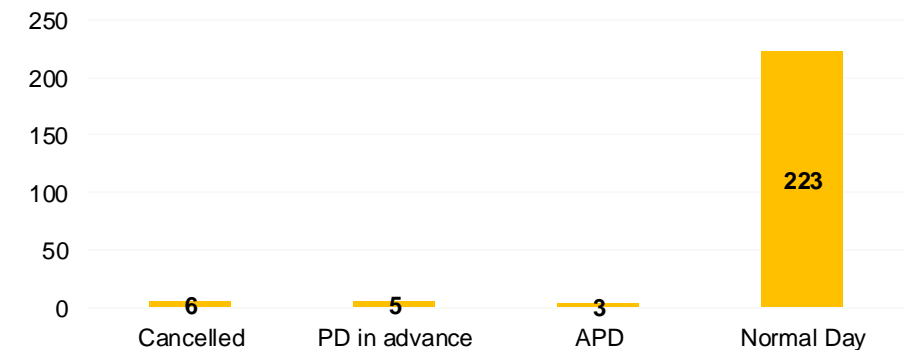
Out of **237 sessions** run in the observed period (from delivery 14th of June – date of Go Live – to 31st of August), **14 of them were affected by fallback procedures:**

- 6 cancelled,
- 5 affected by Partial Decoupling in advance,
- 3 affected by APD (Automatic Partial Decoupling).

Which means that:

- IDA has been working **smoothly in the 94%** of the times,
- in the 3% of the cases, no results were published at all;
- in the 3% of the cases, the results were available not for all parties (the case of partial decoupling in advance can involve even only one party (or BZ).

Overview of the sessions for fallback application



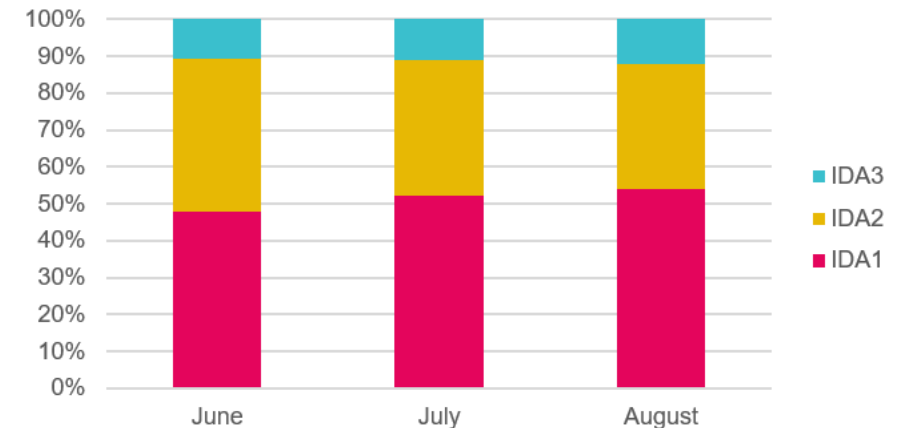
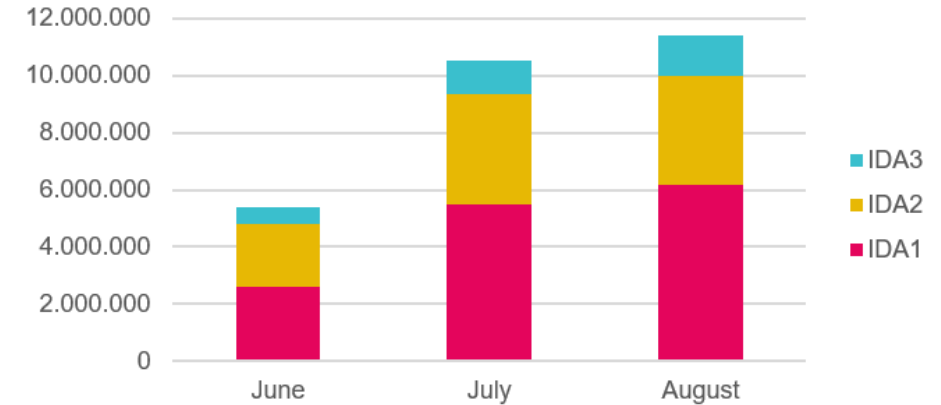
IDA Reporting

First months of operations – data (2/4)

Giving a closer look to the available data:

- The cleared volume per month is increasing for each of the IDA (having in mind of course IDA3 manages half of the contracts)

- While the shares among the 3 auctions for each of the month can be considered quite stable, with a slight change in August where we can observe IDA2 slightly lagging behind the other two auctions

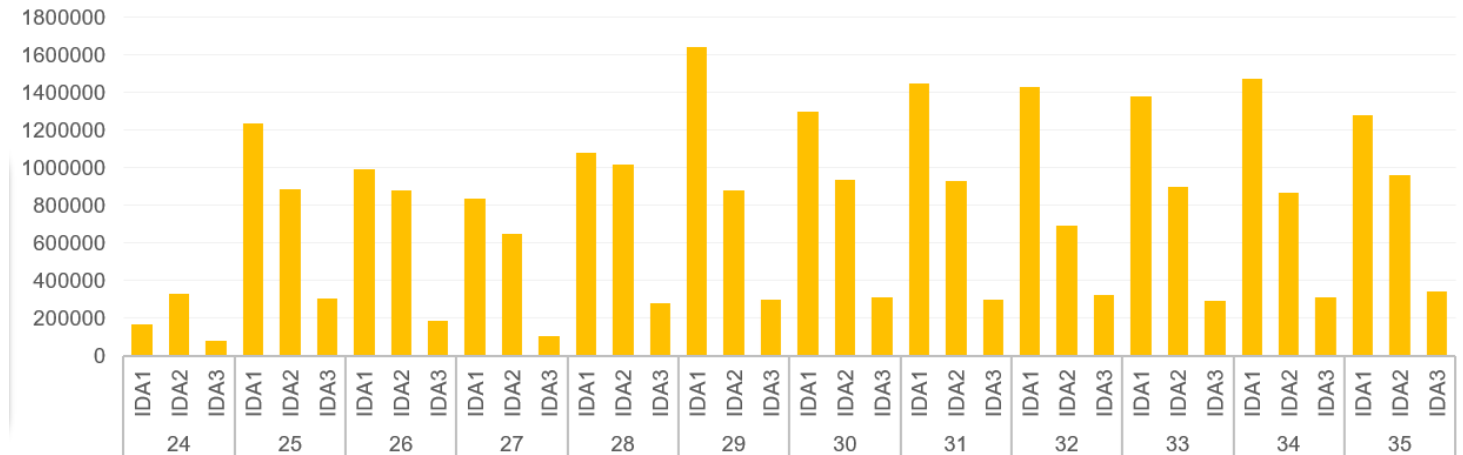


IDA Reporting

First months of operations – data (3/4)

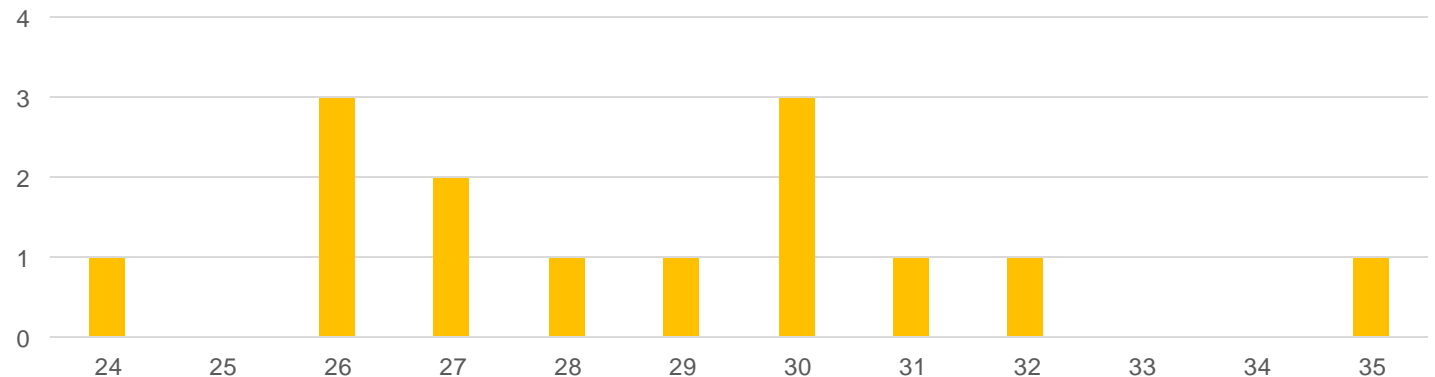
The weekly data overview shows offered and cleared volume over each of the weeks since Go Live, for each IDA session, with indication of fallback events occurrence:

- The highest level of cleared volume was reached during IDA1 sessions for week 29.



- The data above needs to be read in light of the weekly sessions affected by fallback.

Numbers of fallback sessions over the weeks

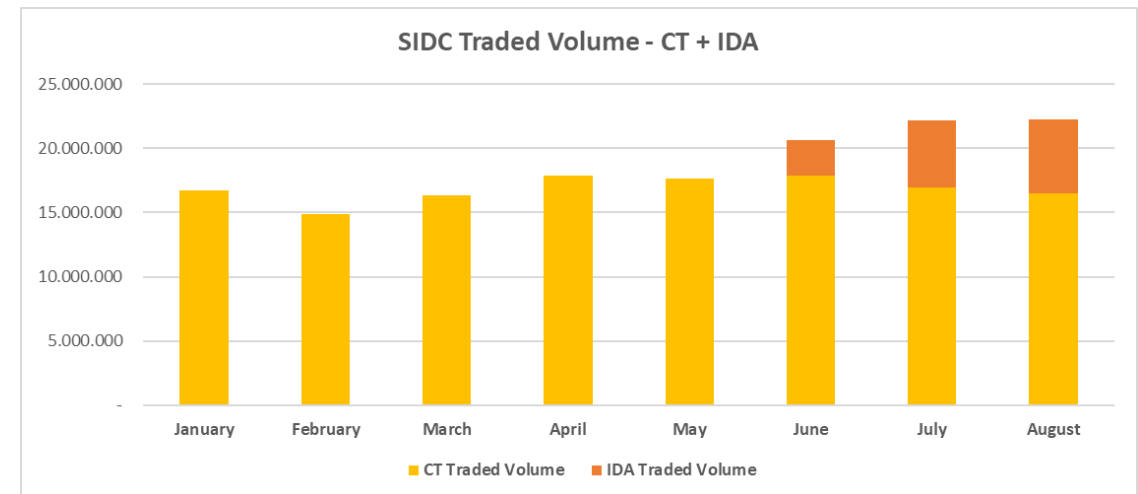


IDA Reporting

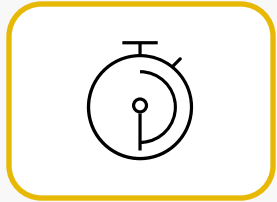
First months of operations – data (4/4)

The overall traded volume^(*) within SIDC (MWh) is growing over the summer, with the one exchanged via continuous trading slightly descending from June, letting IDA one going ahead.

Month	CT Traded Volume	IDA Traded Volume
January	16.729.284,60	
February	14.849.588,07	
March	16.314.405,07	
April	17.904.729,45	
May	17.659.513,65	
June	17.907.907,90	2.696.284,25
July	16.914.528,27	5.251.612,91
August	16.512.481,95	5.694.340,29



^(*)for this comparison, the data are adapted to those already collected and provided via AM/SH reports. Differently than the previous slide, there's just one side of the market considered for that.



- MCSC TSOs are collecting the national derogation plans for the 30min IDCZGCT and plan to create an overview based on the submitted information. This map will be presented in the next meeting.