

Status und geplante Entwicklungen in den gesamteuropäischen CACM-Märkten

SDAC, SIDC Continuous und IDAs

**NORD
POOL**

EXAA
Energy Exchange Austria

APG Markt Forum

Wien, 9. November 2023

> epexspot

Agenda

1. Einleitung und Vorstellung der Präsentatoren
2. Updates zu letztem Marktforum
3. SDAC Entwicklungen
4. SIDC Entwicklungen
5. IDA Go-Live
6. Q&A



1. Einleitung und Vorstellung der Präsentatoren

Vortragende

- EPEX Spot: **Arnold Weiss**
- EXAA: **Mag. Dr. Rudolf Schneider**
- NordPool: **Rickard Nilsson (Armin Fleig)**

2. Update zu letztem Marktforum

- **Second Auction:** kommende Konsultation
- **Shipping Lösung AT-SI Grenze:** Verzögerung bei Beendigung der Zwischenlösung

3. SDAC Entwicklungen

- **15 Minuten MTU Implementierung**
- **Änderungen operationelle Abläufe**
- **Zweite Auktion bei extremen Preisen**

Die folgenden Folien repräsentieren einen Auszug aus den Präsentationen, die im Rahmen des MCCG-Treffens am 20. Oktober von NEMOs und TSOs vorgestellt und mit den Beteiligten diskutiert wurden

Quelle: <https://www.nemo-committee.eu/assets/files/MCCG-20102023-for-publishing-1bba37e3d4e7ca9ce1680954e91acc95>

15 min MTU implementation in SDAC

Update on extended algorithm calculation time:

As extension of calculation time is necessary from the current 17', the calculation time has been evaluated within SDAC and following options have been discussed:

- 30min calculation time
 - With optimal go-live configurations (BZ MTU and product configuration) simulations shows that the 30min is sufficient to find at least one solution
- 45min calculation time
 - More complex configurations can be used if the calculation time will be extended to 45min

The simulations have also indicated that the calculation time is significantly dependent on market data used

- A safety buffer in calculation time must be considered to avoid unnecessary calculation time extensions

SDAC '25 - Setting the scene on different Market Design options

Possible identified options for several open points in the market design for 15 min MTU and IDA

1 Alternative options for computation time

30 min computation time

40 min computation time

~~60 min computation time~~

2 Products

Implication on product mix given the computation time set for 30 minutes

Compatible product mix (illustrated by SDAC MSD)

Ratio 15'/60' products (80/20), SCO, NO PUN, LTA

Ratio 15'/60' products (80/20), SCO, NO PUN, LTA, Delay of Core BZ

Ratio 15'/60' products (100/0), Increased number of block orders, SCO, NO PUN, LTA

3 Operational timings

Based on the proposed 30 min computation time operational process to be prolonged by **13 minutes**

4 IDA1 interaction with SDAC

IDA1 cancelled if DA results are late (after 14:10*/14:20)

IDA1 to be delayed (with maximum time limit and cancellation when the time limit is reached)

Use IDA as fallback

Potential removal of second auctions

Keeping the Shadow auction as fallback for SDAC

Alternative options for computation time, product mix – 30 <-> 40 min

SDAC MSD aims to **minimize the disruption** to market participants caused by the introduction of the 15min MTU.

MSD proposed the **30min** calculation time

- As it minimizes the impact to Results Publication schedule
- Additional time, over 30 minutes, has very marginal improvements to the key indicators
 - No welfare gain
 - No significant increase to the number of found solution

If market participants start using **15 min** MTU (curve) orders **extensively** from the go-live, the performance is under control even in case one large BZ in Core region remains in 30/60 min MTU.

- In that case, liquidity is shifted from 60min to 15min

If market participants continue to use **60min** MTU (curve) orders extensively after the go live, the performance will not be sufficient for the go live and some mitigations measures shall be considered.

Summary:

- With the planned go-live configuration, the 30min calculation time can be supported in cases where **15 min** MTU orders are used extensively by **Market Participants**.
- In case the trading continues largely with 60min MTU orders, **mitigation measures** needs to be considered to secure **daily calculation** and **operational robustness**.

SDAC 2025 product mix and calculation Conclusions

- Since, the **product mix and computation time** are not mutually exclusive topics, fixing the computation time to 30 minutes leads to certain implications if the product mix is not following the recommended 15min MTU.
- The **Market Participants** are encouraged to take the **necessary actions** with their NEMOs and be prepared to **support 15min** MTU from the first day of the go-live.
 - **Lack** of liquidity on 15min MTU products is at the best **manageable** operationally or may lead to **Full Decoupling**
- SDAC NEMOs cannot control or anticipate with 100% guarantee the orders of different MTUs submitted by market participants.
- SDAC NEMOs can monitor ex-post from the Bid Curve Aggregation data the actual usage of the 15, 30 and 60min orders.
 - Necessary corrective measures can be initiated based on monitoring results

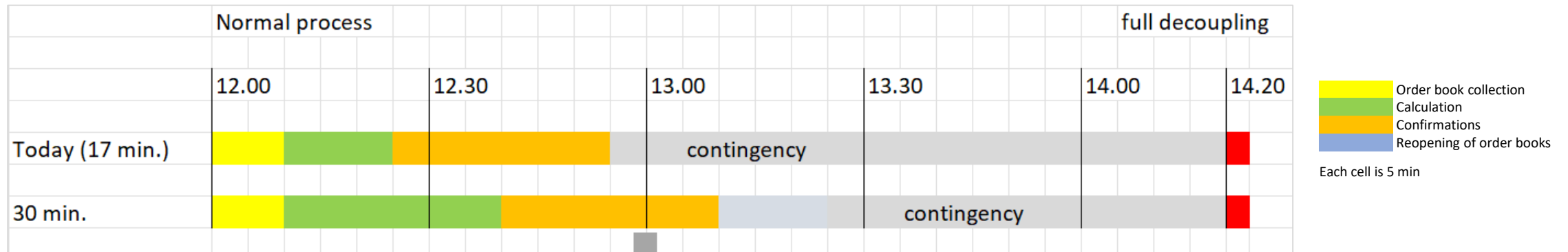
Summary:

- MCSC expects Market Participants to be ready to use **15 MTU** at a noticeable level and to be prepared to a scenario where only 15' time resolution is proposed.
- MCSC is working hard to propose the combination of 15 and 60 min products at go-live. However, given that MCSC parties are not in full control of the **15 min** product usage, MCSC is not in a position at this moment to confirm a go-live with both 15 and 60 min products available in Q1 2025.
- MCSC would like to receive the **feedback from MPs** on the anticipated usage as well as when the final decision shall be taken, if not in October 23.

Daily operational process given 30 min computation time

Topic description & background

Currently, the time dedicated to the SDAC process is 12.00 -14.20. 12.00 is the order book gate closure and is written in CACM. 14.20 is the full decoupling deadline and is derived from the deadline for nomination which is set at 15.30 in several countries. Time from 14.20 to 15.30 is the time dedicated to the actions after full decoupling to respect the 15.30 deadline. With an extension in the calculation, contingency time is reduced.



	17' calculation time	30' calculation time
Preliminary results publication	12h45	12h58
Publication of Final Results	12h58	13h11

Summary:

- **Extension of calculation time to 30 min requires finding additional 13 min in the daily operational process.**
- Hence, assessment of possible parallelization **or time shortening** of the SDAC results confirmation process is ongoing. The assessment is ongoing in SDAC OPSCOM.
- The results publication deadline is **foreseen to be 13:11**. This is without any positive outcome on possible parallelization **or time shortening** of processes for the confirmation. Market Participants shall be clearly informed about the proposed timings and impacts on the result publication.

SDAC 2nd Auction

NEMOs and TSOs consider that from an operational perspective:

- Second auction process could still be proposed even with a calculation time extended to 30mins by 2025.
- Second auction process application is still risky and experience has proven that no contingency exists in case of deviation from the agreed process.
- The efficiency of the second auction process on the price formation can be challenged, given that not 100% of the situations were improved after the second calculation run. On the contrary, a significant number of occurrences led to no bid being modified or to a change of the price into the wrong direction.

NEMOs would like to engage with market participants in order to consider a potential removal of the second auction process from the SDAC framework:

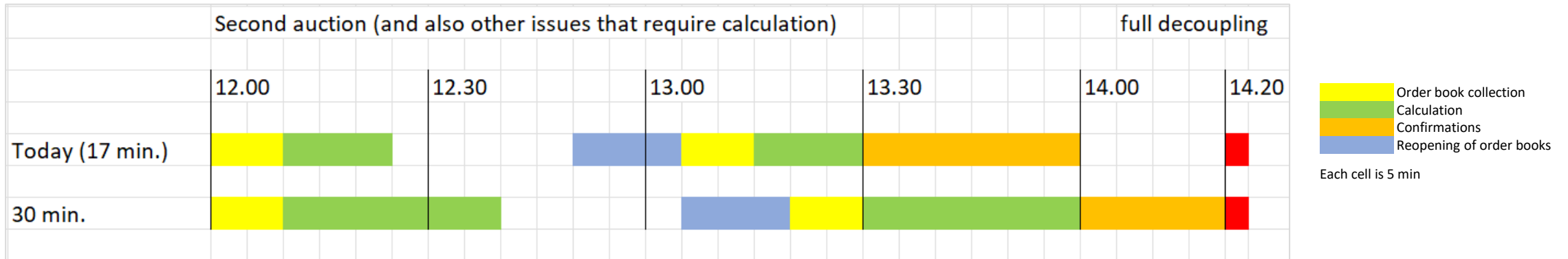
- **Pros**
 - More time to solve incidents
 - Simplified operational framework
- **Cons**
 - Market participants need to anticipate (ie before 12:00 Gate Closure Time), in cooperation with individual NEMOs, any case of mistake as well as exceptional situation from a clearing price level perspective

Summary:

- SDAC NEMOs would like to receive confirmation from the market participants that a plan can be drafted in order to remove second auction process by 2024 or 2025. If confirmed, SDAC NEMOs welcome inputs with regards to the timeline or the process (consultation)

Daily operational process given 30 computation time: Second auction

Topic description	30 min are required between the end of the first calculation and the second one. <ul style="list-style-type: none"> • 5 - 10 minutes organization and information to MPs • 15 minutes reopening of order books • 10 minutes resending of order books
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Summary:

- From the process and usage perspective MCSC advocates to remove second auction process due to limited to no benefit, higher operational risk (tight process timeline).
- By removing the second auction the operation process can benefit from more contingency time available.

Note: topic is still under discussion

4. SIDC Entwicklungen

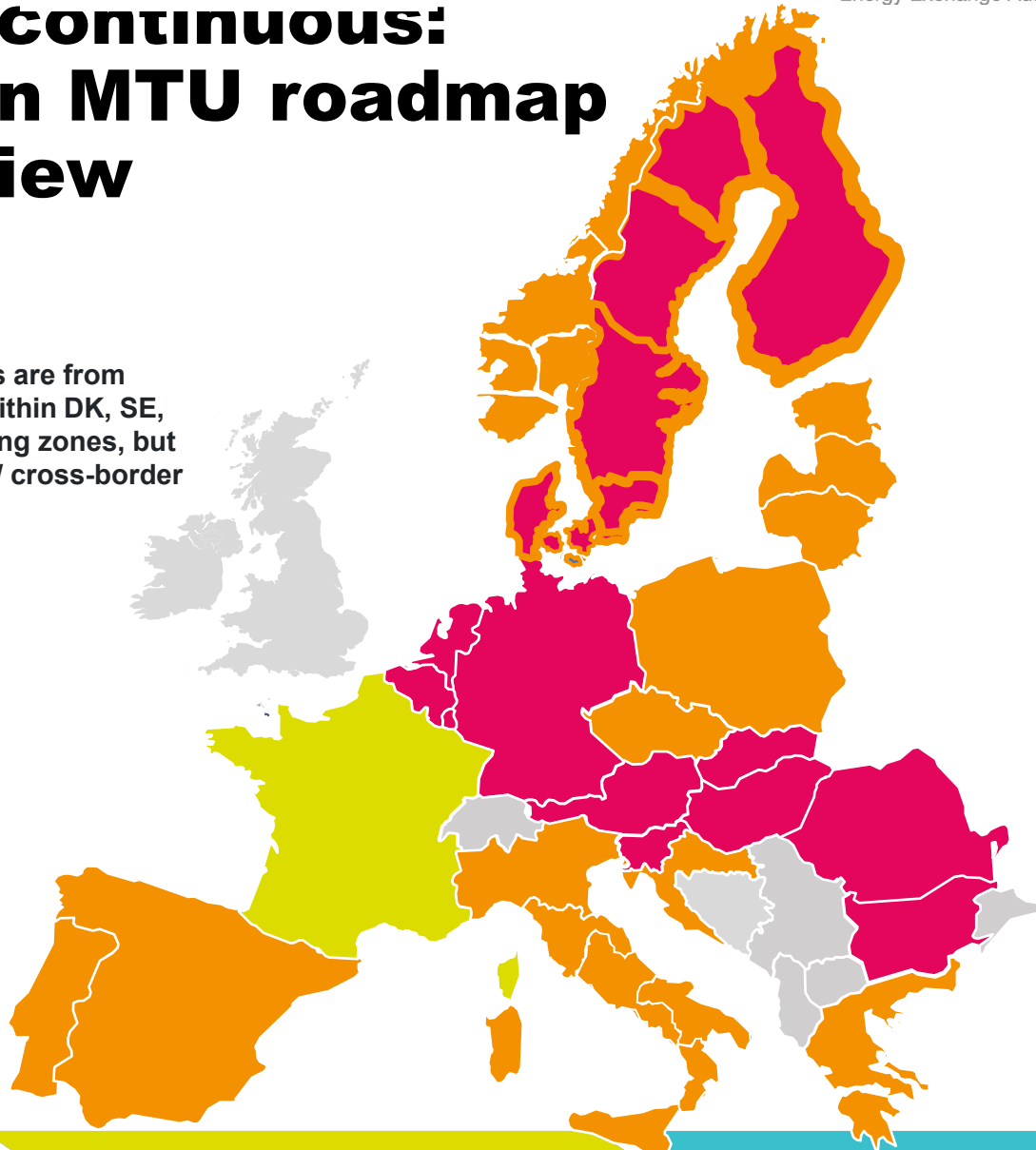
- 15 Minuten MTU Implementierung
- Go-Live 5th wave

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SIDC continuous: 15 min MTU roadmap overview

15-min products are from May available within DK, SE, Fi internal bidding zones, but not cross-zone / cross-border



Lowest product granularity in particular BZs

- BZ on 15 min MTU
- BZ on 30 min MTU
- BZ on 60 min MTU
- Not part of SIDC coupling

Note 1: Hourly products are available in every SIDC country

Note 2: 30-min products are currently tradable across the borders FR-DE, DE-NL, DE-BE, FR-BE and BE-NL.

Note 3: 15-min products are currently tradable across the borders BE-NL, BE-DE, NL-DE, AT-DE, AT-HU, AT-SI, AT-SK, HU-SK, HU-RO, BG-RO.

Upcoming 15m MTU go-lives in countries that are already in SIDC.

- ▷ Croatia cross-border (HR-SI, HR-HU) – Q1 2024
- ▷ Nordic Area cross-border and Poland intra-zonal – 2024 H1
- ▷ Czech Republic cross-border (CZ-DE, CZ-AU, CZ-SK) – Q3 2024

Regulatory Deadlines regarding 15 min implementation

All SIDC Bidding zones must have 15 min MTU (15 min XBID products proposed to market participants) by 01st January 2025

Cross-border resolution of 15 min OTU (Operational Time Unit) in the interconnectors must follow the implementation of 15 MTU once the two areas connected by one interconnector offer 15 min MTU granularity. Process agreed by TSOs and regulators:

- Dividing the process in 2 phases that don't have to take place simultaneously is valid:
 - 1. Implementation 15 Min MTU within BZ. Dependent on NEMO, TSO and regulators.
 - 2. Implementation 15 min OTU in the border. Dependent on TSOs and regulators.

In conclusion:

- All SIDC Bidding zones will offer 15 min MTU by 1st January 2025.
- 15 min OTU resolution in each border may have some delay with regards to 1st January 2025 deadline, depending on each TSO, national regulator (NRA) and ACER

5. IDA Go-Live

- **Update Projektstatus**
- **Status Grenzbewirtschaftung zum Go-Live**
- **Zusammenspiel SDAC – IDA1**

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IDA implementation timeline – Progress achieved

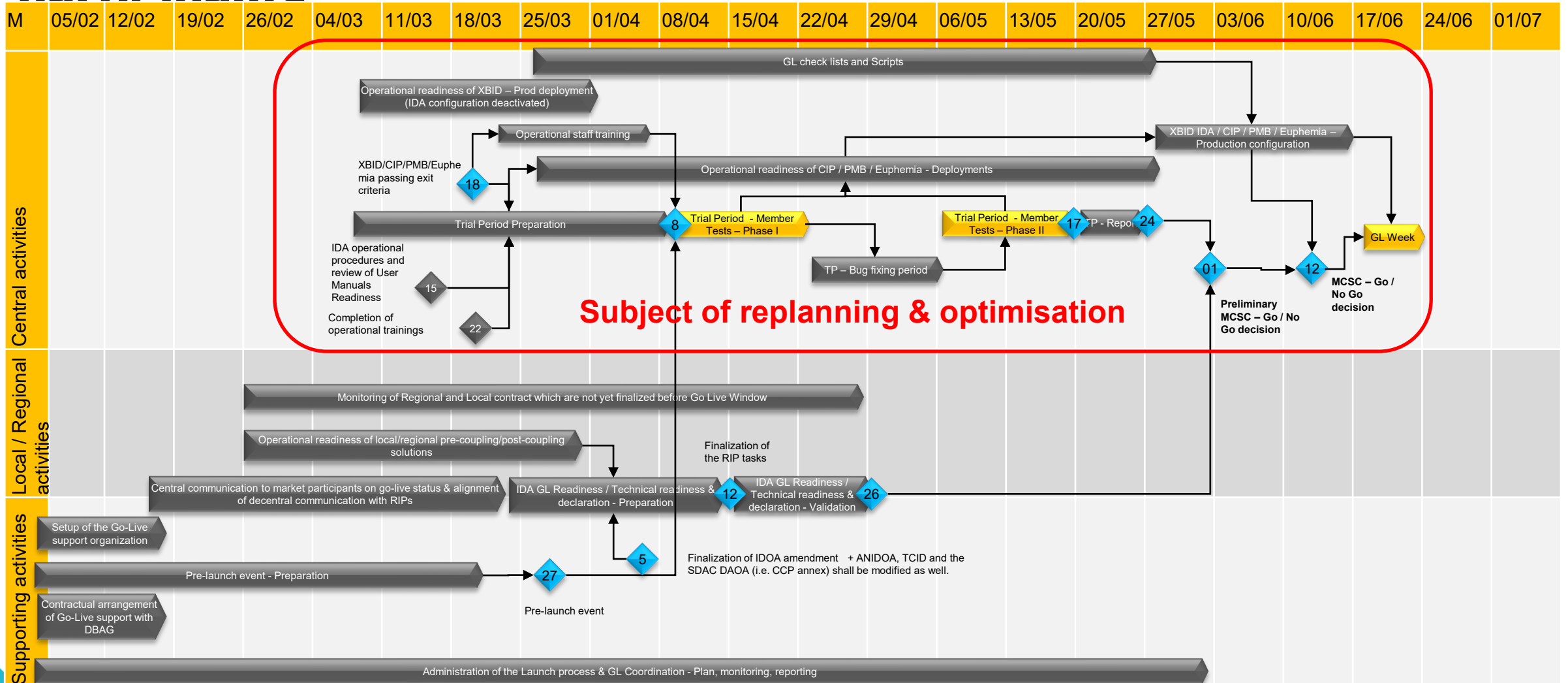
Progress on IDAs

- **Functional specification and development of all systems supporting IDAs is finalized.**
- **Functional testing, performance testing and failover testing of a system for continuous trading**, which prepares network data for IDAs, (XBID) is completed. The preparation of Daylight Saving Time (DST) tests is progressing in line with the plan.
- **Functional testing of action-based systems** for exchange of the messages (CIP) is completed. Functional testing of other systems such as PMB/Euphemia with the latest version supporting all operational situations, such as partial decoupling, is ready and is subject of functional and non-functional tests. There is a pending fix for borders with ramping constraint which implementation is take care of with a very high priority. 5 runs of the Functional Integration Tests (FITs) are completed, two additional runs are added, mainly to focus on the robustness and stability of post coupling processes. This results in the updated IDA Testing timeline.
- The **scenarios for non-functional testing of the whole chain** – e.g. End 2 End Testing, procedural testing (on top of IDA procedures also procedures for continuous and auction trading are subject of review) including testing of the dependencies of the trading timeframes (Day-Ahead → IDAs → Continuous trading) are completed. The testing of full chain scenario is rescheduled for early 2024, in order to reflect the latest regional development of Day-Ahead.
- Majority of **Regional Integration Projects (RIPs)** are in line with the updated IDA testing timeline. There are some development challenges for a limited number of parties, which shall not have a negative impact on the overall IDA timeline. The impact of the announced date of **Polish Balancing Market Reform (go live scheduled for 14/06/2024) on IDA Go Live**, which, due to a local need of synchronization with IDAs, is subject of analysis as well as optimization of Go Live process to secure Go Live by mid 2024.
- Detailed planning of so-called IDA Go Live window is established (see the next slide).

Progress on other developments

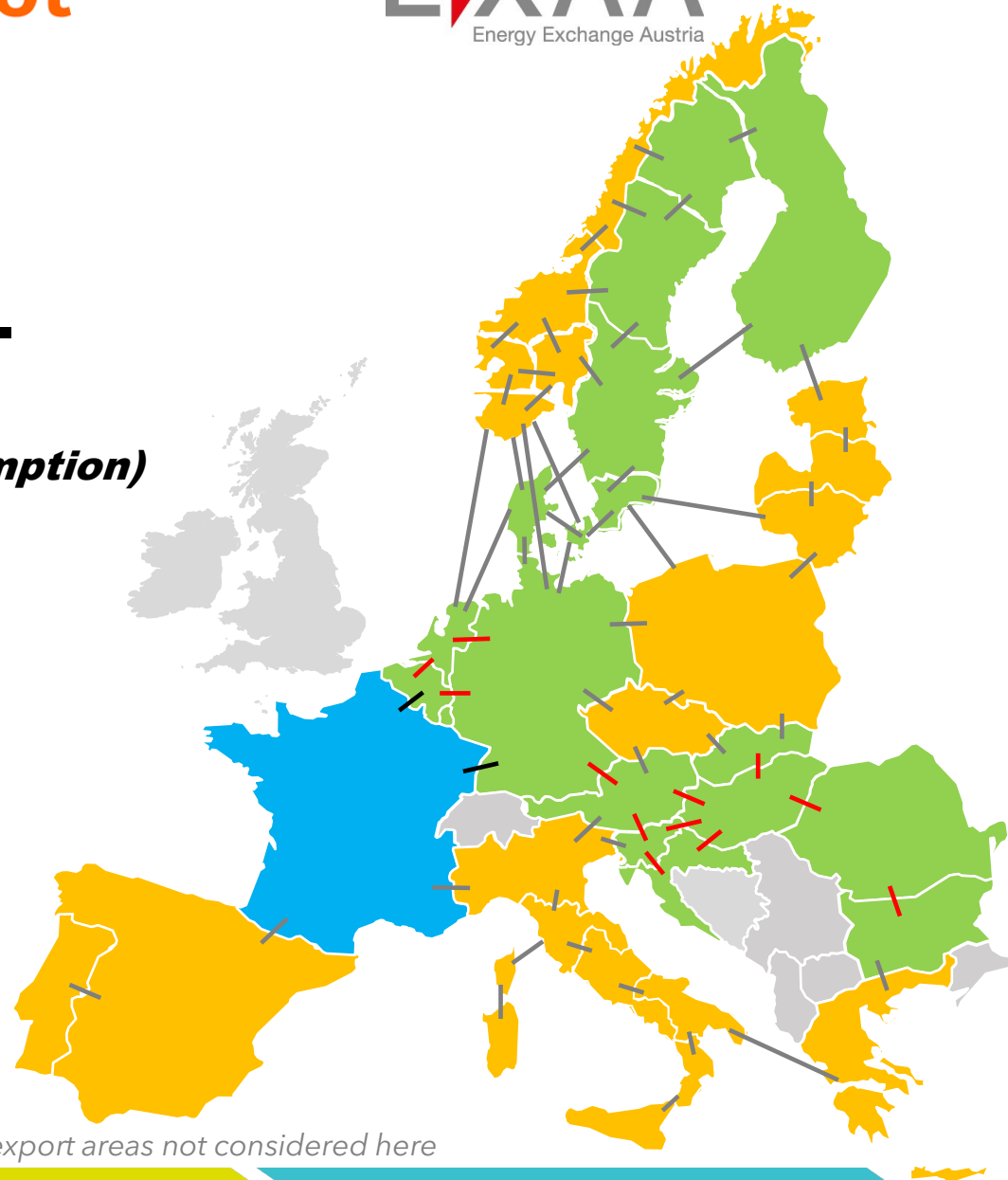
- Implementation of R4.1 is almost completed
- Implementation of the Flow based – Minimum Valuable Product has started

IDA Go Live Preparation Timeline – focus on market participants



SIDC IDAs Go-Live

Q2 2024 (working assumption)



- BZB on 15 min MTU
- BZB on 30 min MTU
- BZB on 60 min MTU
- BZ on 15 min MTU
- BZ on 30 min MTU
- BZ on 60 min MTU
- Not part of SIDC coupling

AT, BE, BG, FR, DE, NL, SI, SK areas will have to manage several BZB resolutions

note: import/export areas not considered here

Q&A



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