SDAC Single Day-Ahead Coupling

SDAC

Reaching the SDAC enduring phase

Interim Coupling project webinar

21st April 2021

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Reaching the SDAC enduring phase

Opening remarks

21st April 2021

Mario Turčík

SEPS / Interim Coupling Steering Group Chair

AGENDA

14:30 – 14:35	Opening, welcome	**Mário TURČÍK** ICP SG Chair/SEPS
14:35 – 14:45	Keynote speeches	**Mathilde LALLEMAND** European Commission **Tamás GYARMATI** ICP NRAs Chair – Hungarian NRA
14:45 – 14:50	SDAC – overview of the cooperation	**Miha Pregl** SDAC Co-Chair
14:50 – 14:55	Welcoming and introduction to the centralized regional IT solution of the Interim Coupling	**Martin Riegel** SEPS Board representative
14:55 – 15:55	Interim Coupling project insights ▪ technical details of the daily market coupling process ▪ main changes for market participants	**Arnold WEISS** EPEX Spot **Radka MAŇUROVÁ** OTE **Marius SCHRADE** 50Hertz **Bianka SZIRJÁK** MAVIR
15:55 – 16:10	Information on Member Testing	**Patrícia BRHLÍKOVÁ** SEPS
16:10 – 16:25	Q&A session	
16:25 – 16:30	Closing remarks	**Mário TURČÍK** ICP SG Chair/ SEPS

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Keynote speeches

21st April 2021

Mathilde Lallemand
European Commission

Tamás Gyarmati
ICP NRAs Chair – Hungarian NRA

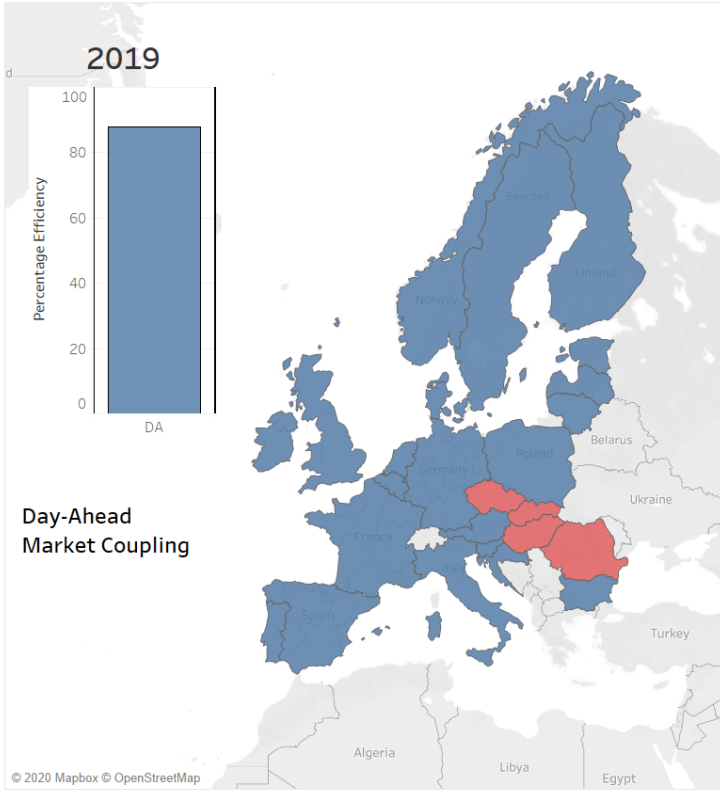
ICP Go-live Webinar

21st April 2021

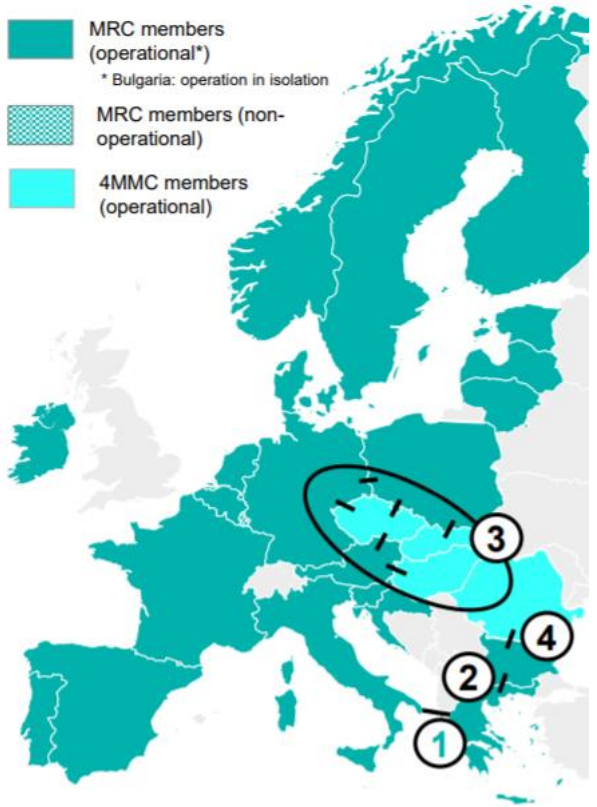
Mathilde Lallemand, DG ENER, Unit C.3 – Internal Energy Market
European Commission

Energy

Market coupling is progressing: ICP go-live is a key milestone



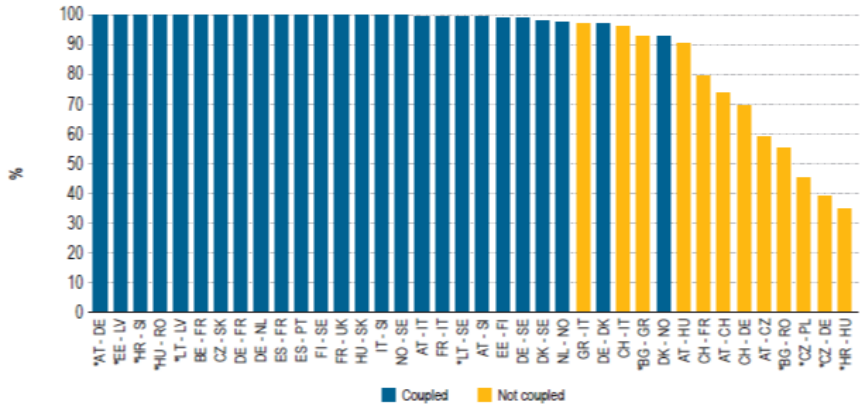
Source: 2020 ACER MMR



Source: SDAC, MESC 2021

Pan-EU Market Coupling: cornerstone of the European Internal Electricity Market

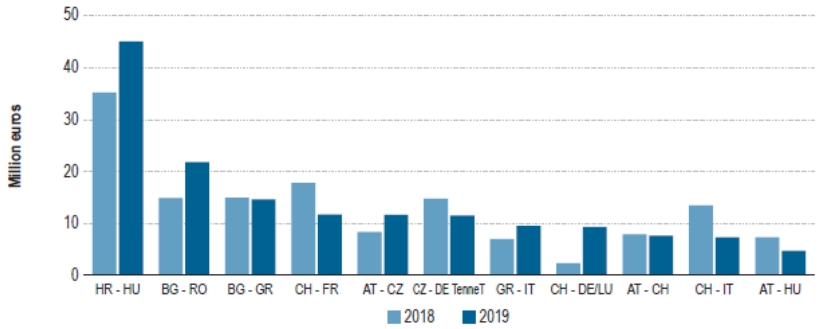
Figure 25: Level of efficient use of cross-zonal capacity in the DA market timeframe, per border in Europe – 2019 (%)



Source: ACER calculations based on ENTSO-E data.

Source: 2020 ACER MMR

Figure 26: Estimated social welfare gains still to be obtained from further extending DA market coupling per border – 2018–2019 (million euros)



Source: ACER calculations based on ENTSO-E, NRAs and Vulcanus data.

Note: Only non-coupled borders are shown.

A fundamental tool to achieve the Green Deal

What is next?

A key milestone and legal requirement: integration of the various market coupling projects into a single EU one

With further challenges:

- Implementation of flow-based market coupling by February 2022
- Evolution of the algorithm to be fit for market design, e.g. implementation of 15 min MTU

Thank you for your attention!

ICP NRAs* foreword

ICP workshop with Market Parties

Wednesday, 21 April 2021

web conference

*** ANRE; Bundesnetzagentur; E-Control; ERU; HEA; ÚRSO; URE**

A long journey to implement DE-AT-PL-4M MC (ICP)

- Participating NRAs requested Project Parties to initiate the interim project for an NTC-based market coupling between DE, AT, PL and 4MMC in their joint letter dated on 21 December 2018
- After years of joint work and cooperation between Project parties and NRAs – including delays due to implementation bottlenecks the European Commission – with commitment of all Core NRAs – issued a guidance how to continue the project with expected go-live date
- While NRAs regret already declared delay they look over Project Parties for the speediest project implementation and to keep the newly indicated go-live date of 10 June 2021, as agreed by parties including SDAC, ICP members jointly and by each individually
- Go-live of ICP will bring closer the enduring phase of SDAC i.e. the Pan European Day-Ahead Market Coupling required by EU legislation as cornerstone of the European Internal Electricity Market
- Final goal is the Core FB DA MC, Flow-Based capacity calculation and market coupling of Core region

The project and its benefits

- By this project we will unify MRC and 4MMC, harmonize GCT (12:00 CET), and further align pre-coupling and post-coupling processes and timings.

- Introduction of implicit day-ahead capacity allocation on six borders (DE-PL; DE-CZ; PL-CZ; PL-SK; AT-CZ; AT-HU) with go-live, and introduction of FTRs for monthly and later also yearly capacity allocation on AT-HU and AT-CZ soon after go-live

- To highlight some benefits the project:
  - generates social welfare (by implicit allocation) until go-live of Core FBMC,
  - increases and contributes to the liquidity of cross-border day-ahead trade volume (FTRs as mentioned also),
  - operational and market experience to be gained by project parties and market participants;
  - some elements of ICP could be entirely or partially reused for FBMC project as well making thus easier to implements FBMC;
  - may positively contribute to further geographical extension of SDAC

NRAs message for today

- NRAs encourage Market Participants to take an active participation in the workshop, during the market tests and prepare well for the go-live of ICP
- After go-live of ICP, Market Participants will profit from the benefits of the coupled markets
- NRAs encourage Market Participants to also prepare actively for the go-live of Core Flow Based Market Coupling (expected in February 2022)
- NRAs appreciate active and timely communication from Project Parties and for organizing workshops for market participants

Thank you for your kind attention!

Tamás Gyarmati
Head of Unit

EU Internal Energy Market Integration Unit
International Affairs Department
E-mail: nkeht@mekh.hu

Hungarian Energy and Public Utility Regulatory Authority
1054 Budapest, Bajcsy-Zsilinszky út 52.
Web: www.mekh.hu

SDAC – overview of the cooperation

ICP webinar

21 April 2021

Miha Pregl

SDAC Co-chair

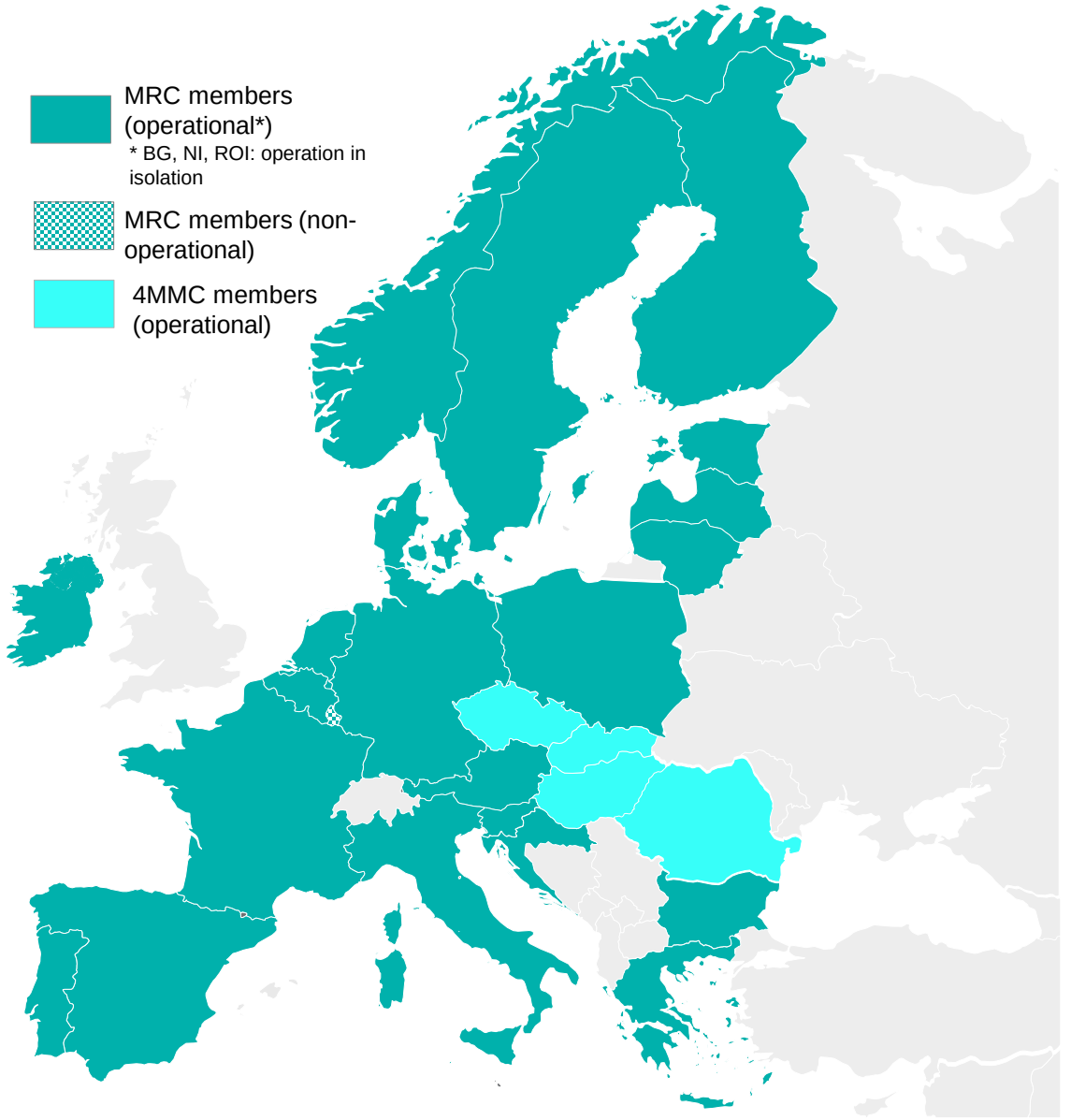
SDAC parties/countries involved and their status

The aim of Single Day-ahead Coupling (SDAC) is to create a single pan European cross zonal day-ahead electricity market.

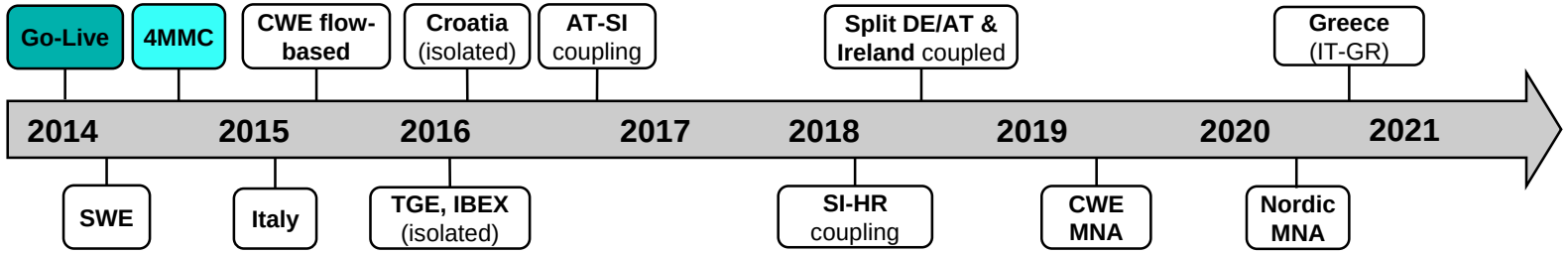
SDAC allocates scarce cross-border transmission capacity in the most efficient way by coupling wholesale electricity markets from different regions through a common Algorithm, simultaneously taking into account cross-border transmission constraints thereby maximising social welfare.

Currently 47 parties forming SDAC

Coupling	Members
MRC	Operational parties: NEMOs: BSP, CROPEX, Eirgrid/SONI (SEMO PX, non-coupled), EMCO Nord Pool, EPEX, EXAA, GME, HEnEX, IBEX (non-coupled), OMIE, TGE TSOs: 50Hertz, Admie, Amprion, APG, AST, EirGrid, Elering, ELES, Elia, Energinet, Fingrid, HOPS, Litgrid, PSE, REE, REN, RTE, SONI, Statnett, SvK, Terna, TransnetBW, TTG, TTN Non-operational parties: NEMOs: Nasdaq TSOs: Creos, ESO
4MMC	NEMOs: HUPX, OKTE, OPCOM, OTE TSOs: ČEPS, MAVIR, SEPS, Transelectrica



SDAC roadmap – extensions



PLANNED

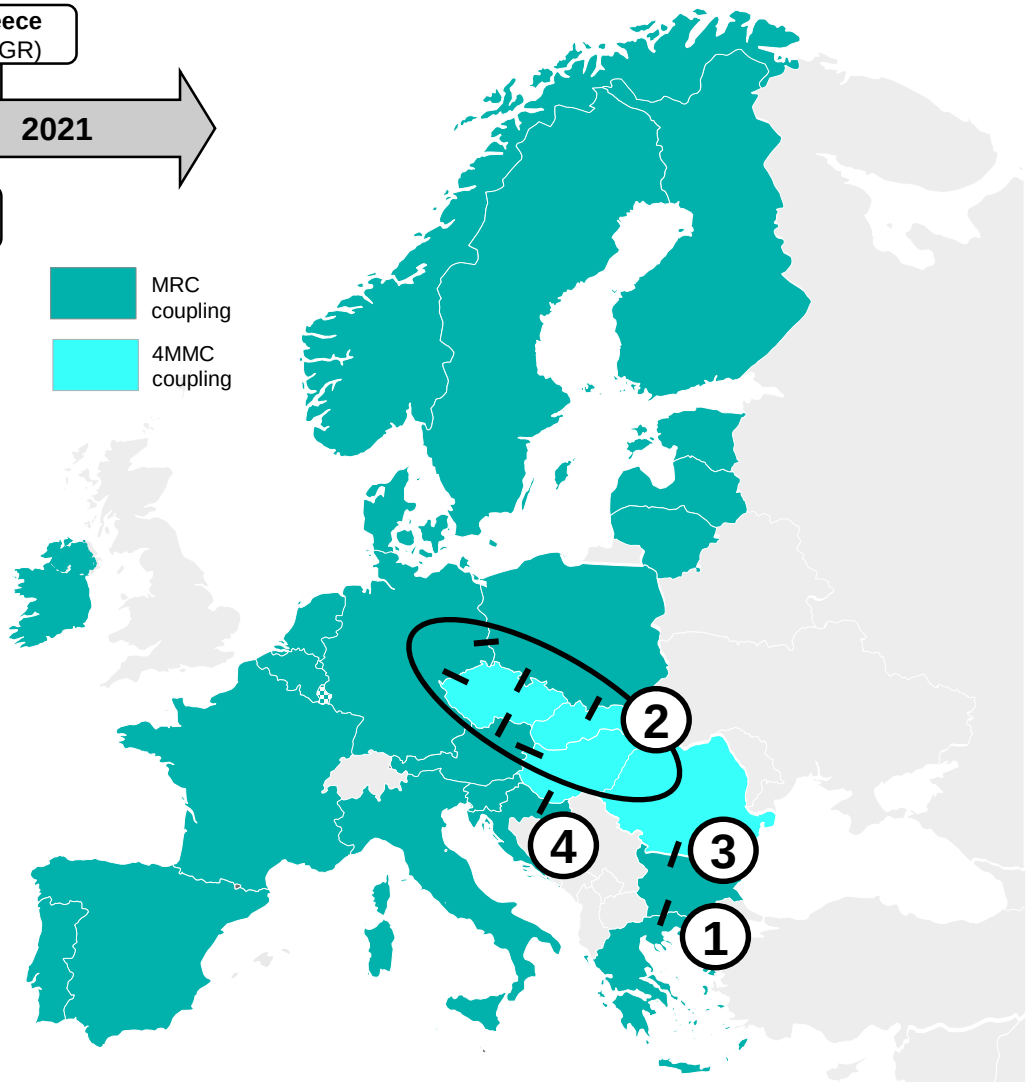
1 Greek – Bulgarian MC Project
- Go-live: 11/05/2021 with delivery day 12/05

2 Interim Coupling Project (DE-AT-PL-4M)
- Go-live: 10/06/2021 with delivery day 11/06

➡ **One Single Day-Ahead Coupling**

3 Bulgarian – Romanian MC Project
- Precondition: successful delivery of the ICP
- Go-live window: up to 3 months after go-live of the ICP

4 Croatian – Hungarian MC Project
- Will be included with CORE FB project go-live



SDAC Single Day-Ahead Coupling

SDAC

Reaching the SDAC enduring phase

Introduction to the centralized regional IT solution of the Interim Coupling

21st April 2021

Martin Riegel

SEPS / Member of the Board

A STEP TOWARDS TRULY INTEGRATED PAN-EUROPEAN DAY-AHEAD MARKET

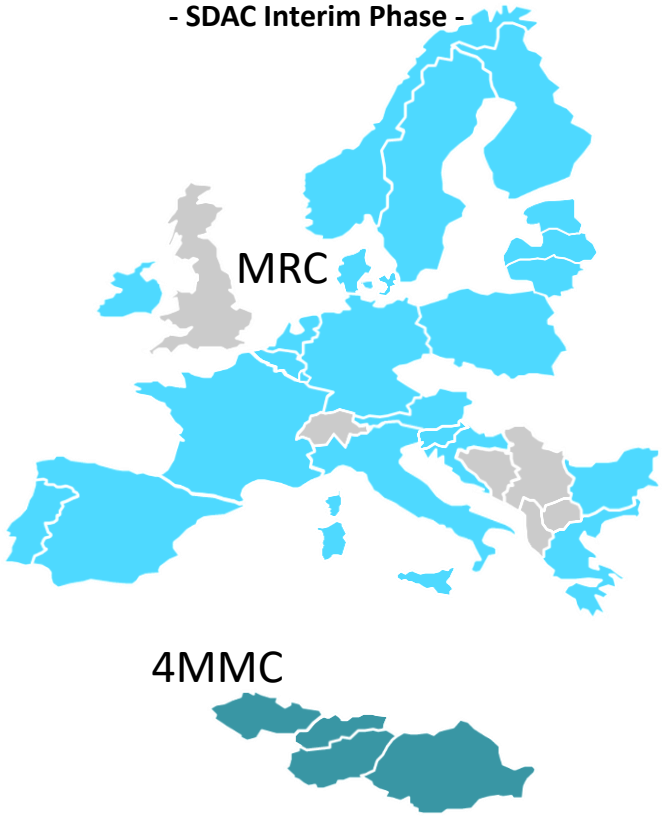
INTRODUCTION TO THE CENTRALIZED REGIONAL IT SOLUTION OF THE DE-AT-PL-4MMC PROJECT

Interim Coupling project webinar

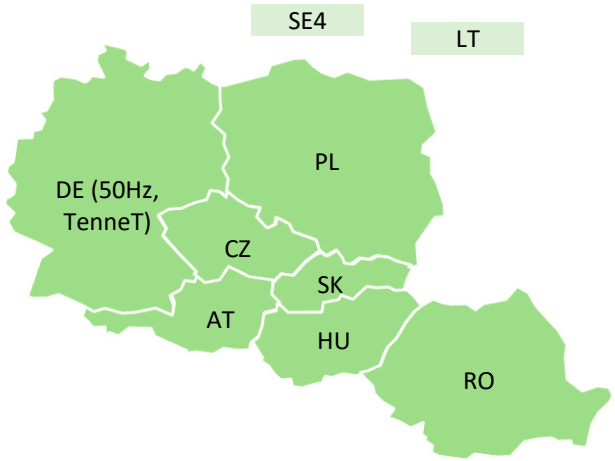
21.04.2021

Martin Riegel
Member of the BoD
Slovenská elektrizačná prenosová sústava, a.s. (SEPS)

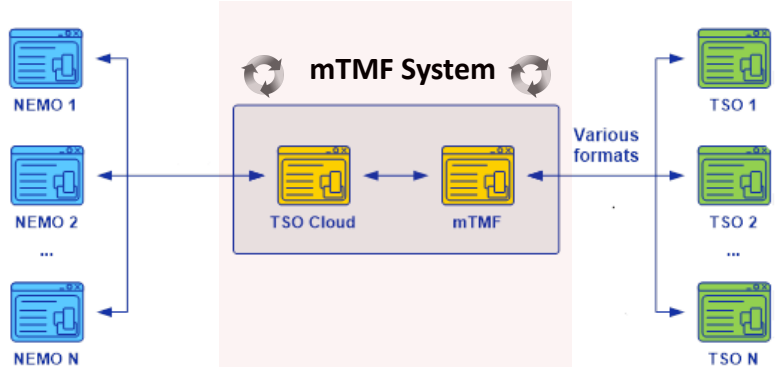
Today
- SDAC Interim Phase -



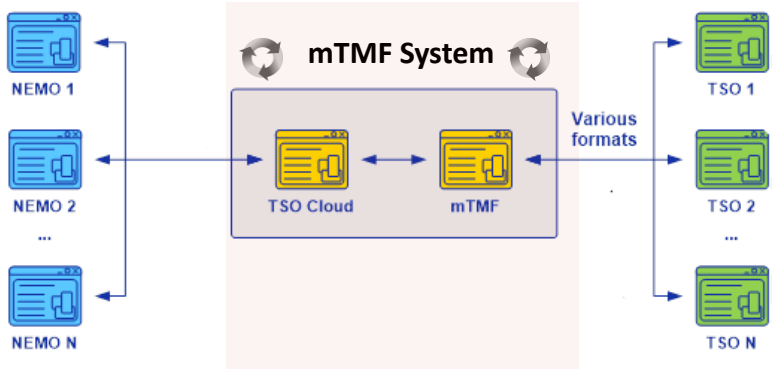
Scope of DE-AT-PL-4MMC regional solution



In order to allow merge two operationally independent solutions a tailor-made centralized regional hub was designed, developed and is currently being tested – **the mTMF System**:



After Go-live of DE-AT-PL-4MMC
- SDAC Enduring Phase -



- TSO Management Function (TMF)/Modified TSO Management Function (mTMF) was developed and continuously modified with the aim to reliably support MC integration and operation during the last decade: CZ-SK MC (2009), 3MMC (2011), 4MMC (2014), DE-AT-PL-4MMC (2021).
- DE-AT-PL-4MMC uses the centralised tailor-made version of mTMF system operated by Slovak TSO SEPS.

Main features of mTMF System

- ✓ Primarily covers business processes of the pre-coupling and post-coupling: management of transmission capacities and their provision to the MC, specific validation of MC results and distribution of the results in specific formats in the post-coupling.
- ✓ Supports specific NEMO and TSO processes during the normal, backup as well as fallback setup – partial/full decoupling functionalities implemented.
- ✓ Reflects the regulatory requirements (e.g. Multi-NEMO Arrangement) and specific requirements of the project parties (e.g. handling of technical profiles).
- ✓ Fully-fledged, semi-automated backup of mTMF system in place.

THANK YOU FOR YOUR ATTENTION!

SDAC Single Day-Ahead Coupling

SDAC

Reaching the SDAC enduring phase

Interim Coupling project insights
Technical details of the daily market coupling process

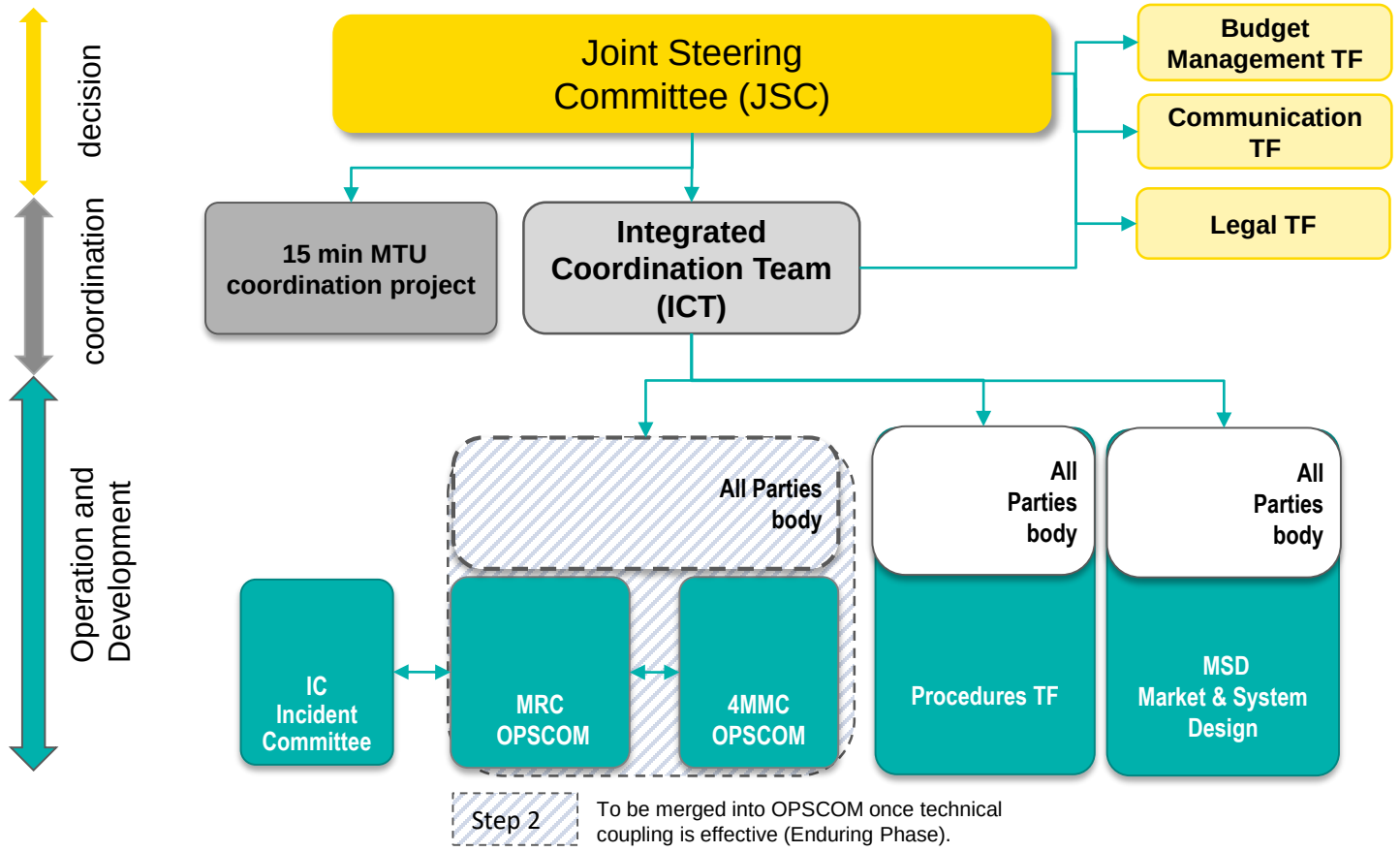
21st April 2021

Arnold Weiss

EPEX Spot / Interim Coupling Steering Group member

Disclaimer: The operational timings shown in this presentation already incorporate the forthcoming changes, which will apply to the whole SDAC as of the go-live of Interim Coupling.

Organigram SDAC cooperation



Overview of operational processes

Normal Day process

Backup, Special or Other Procedures

Partial Decoupling of SDAC (declared at 12:45)

Full Decoupling of SDAC (declared at 14:00)

Normal Procedures

Normal Procedures describe per phase the normal actions to be performed by the SDAC parties in a so called “clear-weather” scenario. They are performed before the respective target time on a daily basis.

a) Cross Zonal Capacities Submission and Allocation Constraints Submission
b) Final Confirmation of Results
c) Market Coupling Results and Scheduled Exchanges Transfer
d) Trading Confirmation and Scheduled Exchanges Notification

> **!** **Please note that shipping-related activities are not included in the MRC/SDAC procedures and are addressed locally**

These Procedures are accompanied by several NEMO only procedures (PCR/ANDOA):

a) Configuration Synchronization
b) Network Data Sending and Receiving
c) Order Data Sending and Receiving
d) Calculation Process
e) Results Sharing and Receiving
f) Preliminary Confirmation of the Results
g) Final Confirmation of the Results (parallel to the joint procedures)
h) Daily Report and Euphemia Session Dump
i) Time to get first solution gathering

Normal Procedures – General Concepts

Pre-Coupling

- Verification that the NEMO systems use the same parameters and are configured accordingly
- TSO submission of Cross Zonal Capacities (CZC) and Allocation Constraints (AC) and reception by NEMOs
- Network Data (all CZCs and ACs) and market orders sending to market coupling systems

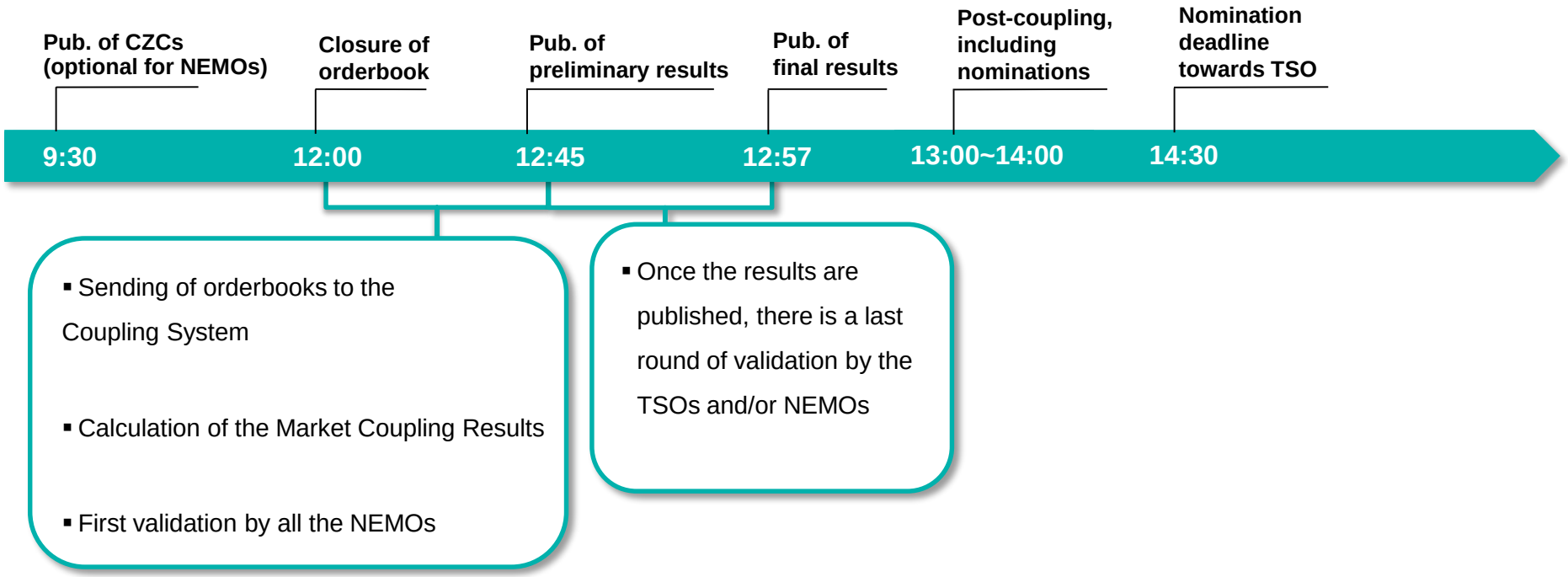
Coupling

- Price calculation process
- Results sharing and receiving among NEMOs
- Preliminary confirmation of the results by NEMOs
- Final confirmation of market coupling results by involved parties and considering them final

Post-Coupling

- Transfer final market coupling results and scheduled exchange to post-coupling systems
- Provision of local and cross-border trade files to CCP and/or cross-border shipper entities
- Share information on timing of processes and store it for further analysis
- Reporting and archiving coupling related information
- Publication of results

Normal Day process



Please note: All timings are in CET/CEST and refer to the procedures in place as of the ICP go-live. They reserve additional five minutes for the algorithm to derive the results. The point in time to publish the results are shifted accordingly.

Pub. = publication
CZC = Cross-Zonal Capacity

Overview of operational processes

Normal Day process

Backup, Special or Other Procedures

Partial Decoupling of SDAC

(declared at 12:45)

Full Decoupling of SDAC

(declared at 14:00)

Fallback Procedures – General Concepts

Fallback Procedures are triggered when the Market Coupling Results cannot be given in due time to start an Incident Committee by using normal, backup or special procedures.

a) Incident Management
b) Full Decoupling
c) Partial Decoupling

Fallback Procedure can be split into two parts:

- Preparation of the Decoupling (triggering an Incident Committee)
- Decoupling of the relevant interconnectors from the Market Coupling process
  - Capacities are allocated via explicit (shadow) auctions
  - Order books are reopened locally, and a new (local) price calculation is launched

! **In the event that the issue is resolved, a fallback procedure can still be stopped.**

The respective procedures also exist for the NEMO-only tasks (both Incident Management and Full/Partial Decoupling).

Fallback Procedure – General concepts

! Core principle of the Single Day-ahead Coupling (SDAC):
Ensure as many bidding areas / interconnectors as possible remain coupled

At SDAC level, two main decoupling situations exist:

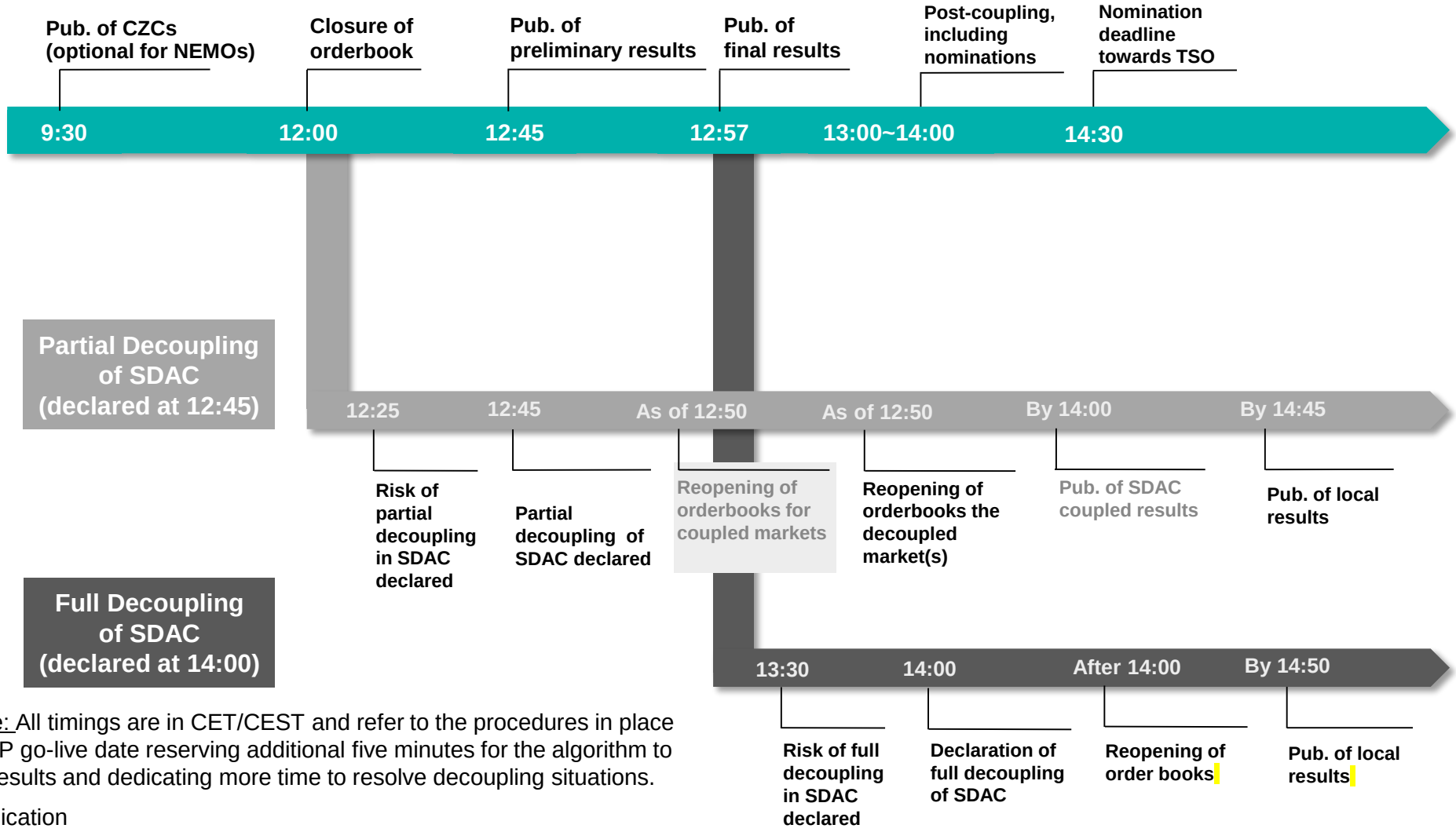
a) A Partial Decoupling of SDAC is a situation that is triggered at 12:45 **where one or more operational NEMOs are unable to participate in SDAC.** The impact of the decoupling can be realized at **interconnector level or orderbook level.** The remaining bidding areas and interconnectors still participate in the SDAC.

- Special case for Multi-NEMO setup: As long as one or more MNA NEMOs remain coupled, the respective bidding area and interconnectors still participate in SDAC.
- Special case for interconnectors: One or more interconnectors can be decoupled at 11:30 without removing the respective bidding zone(s) from SDAC (if they remain coupled via other interconnectors).

b) A Full Decoupling of SDAC is a situation where **no bidding area and interconnector remain coupled** due to the unavailability of the Market Coupling Results at the deadline of 14:00.

In a decoupling case, the Cross-Zonal Capacities for the decoupled interconnectors are allocated via the available fallback allocation solutions (e.g. Shadow/Explicit Auctions, Regional Coupling, Capacity goes back to Interconnector Owner, Intraday Continuous Market etc.).

Fallback Procedure – General concepts



Please note: All timings are in CET/CEST and refer to the procedures in place as of the ICP go-live date reserving additional five minutes for the algorithm to derive the results and dedicating more time to resolve decoupling situations.

Pub. = publication
CZC = Cross-Zonal Capacity

Normal Day process

Backup, Special or Other Procedures

Partial Decoupling of SDAC (declared at 12:45)

Full Decoupling of SDAC (declared at 14:00)

Backup Procedures

Backup Procedures describe the actions that are available to overcome any issue. Ideally, they should be triggered once the target time associated to a specific process step cannot be met or is foreseen not the be met with Normal Procedures.

a) Cross Zonal Capacities Submission and Allocation Constraints Submission
b) Final Confirmation of Results

! **Please note that Backup Procedures are triggered to ensure that Market Coupling can still be performed. They might be linked to any Special Procedure, but they are independent and different to Fallback Procedures activities. In fact, they exist to avoid a decoupling event described by Fallback Procedures.**

The number of NEMO only procedures is more extensive. They illustrate that there are backups for all normal day procedure in the end.

a) Configuration Synchronization
b) Network Data Sending and Receiving
c) Order Data Sending and Receiving
d) Calculation Process
e) Results Sharing and Receiving
f) Preliminary Confirmation of the Results
g) Final Confirmation of the Results (in parallel to the joint procedure)
h) Daily Report

Backup Procedures – Examples

Exchange of information

- Use automatized backup system
- Exchange information manually (in pre-agreed processes to ensure efficiency)

Generation of reports

- Trigger manual processes

Calculation process

- Apply different technical configurations
- Trigger manual processes
- Use other parties' resources

Special Procedures

Special Procedures are executed when exceptional situations occur in the market requiring specific measures to be taken.

! **Backup Procedures can still be applied during Special Procedures**

a) Impact of Second Auctions
b) Impact of thresholds Nordic-Baltic reached

Other Procedures

Other Procedure are related to certain planned specific situations, which need to be managed by a formalized procedure and for any other subject that needs a common approach on SDAC level.

a) Procedure Reading Instructions
b) Internal and External Communications (joint and NEMOs only)
c) Norwegian Bidding Area Change
d) Change Control Procedure
e) Modification of Maximum Clearing Price
f) Maximum Clearing Price Management (NEMOs only)

SDAC Single Day-Ahead Coupling

SDAC

Reaching the SDAC enduring phase

Interim Coupling project insights

Main changes for market participants

21st April 2021

Radka Maňurová

OTE

Summary of changes in coupling process

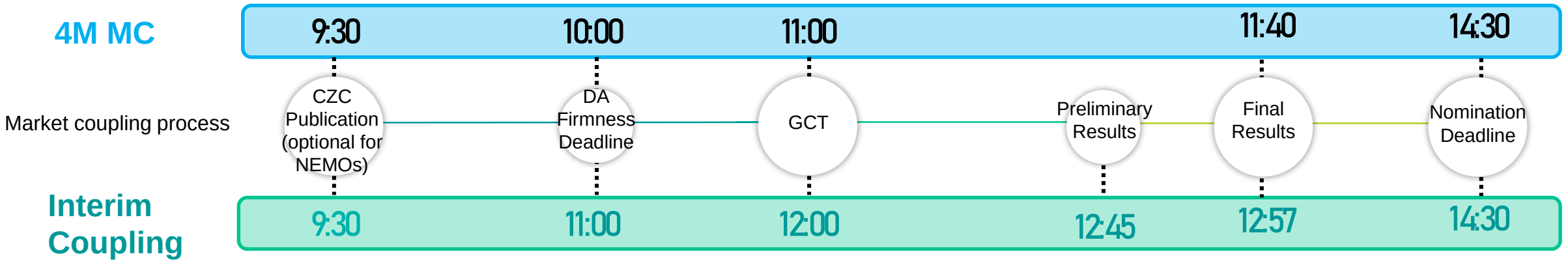
Partial Decoupling during CZC process

Partial decoupling during coupling process

List of communication

Summary of changes in coupling process in comparison to 4M MC operation

- **Change of timings:**



- **Introduction of the concept of partial decoupling for ICP region**
  - The unaffected interconnectors or Bidding Zones remain in the coupled region, the process is delayed

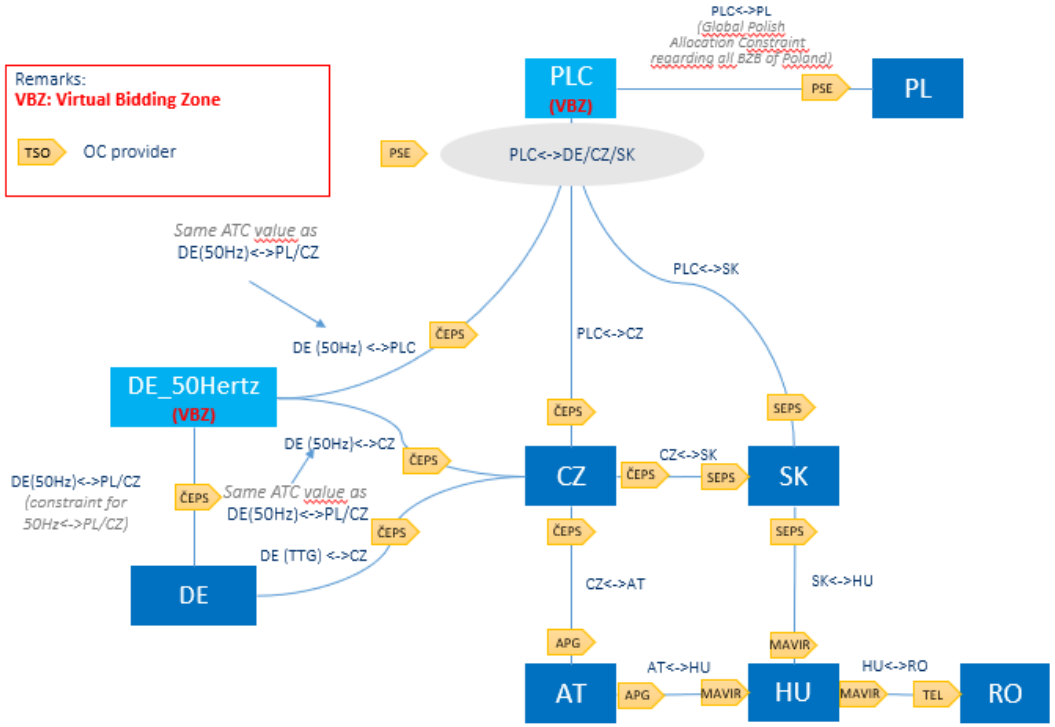
- **New messages sent to Market Participants**
  - List of messages that will be sent to market participants in the ICP region

Introduction of new topology

- The Interim Coupling Project introduces implicit market coupling on the following bidding zone borders: AT-HU, AT-CZ, DE-PL, DE-CZ, PL-CZ, PL-SK.

- The currently applied **capacity calculation methods will remain the same**, and hence the technical profiles for cross-border capacity calculation and allocation of 50Hertz* and PSE will be used for this project as well.

- The SDAC topology is enhanced by the following topology (in Decoupling scenarios, there will be no virtual bidding zone for Poland):



*50Hertz technical profile will be dissolved for Core Flow-based Market Coupling

Summary of changes in coupling process

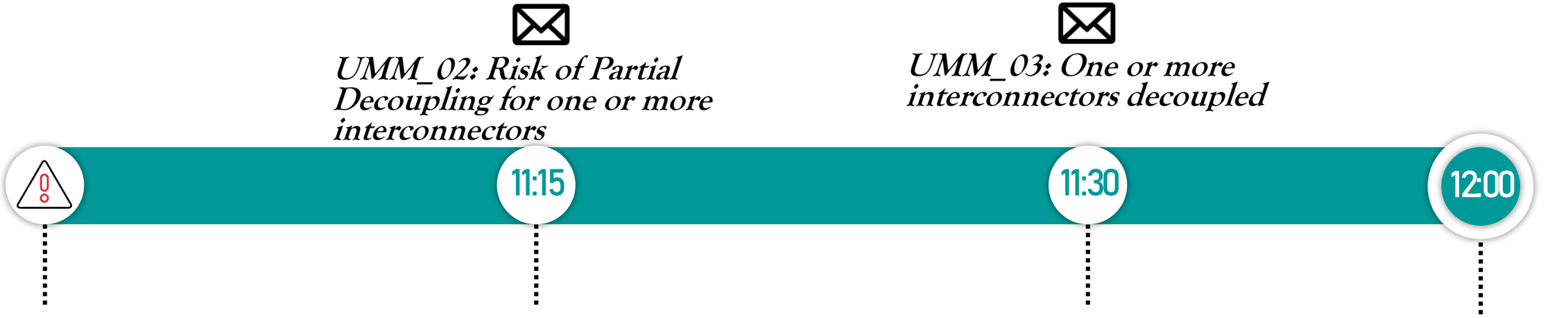
Partial Decoupling during CZC process

Partial decoupling during coupling process

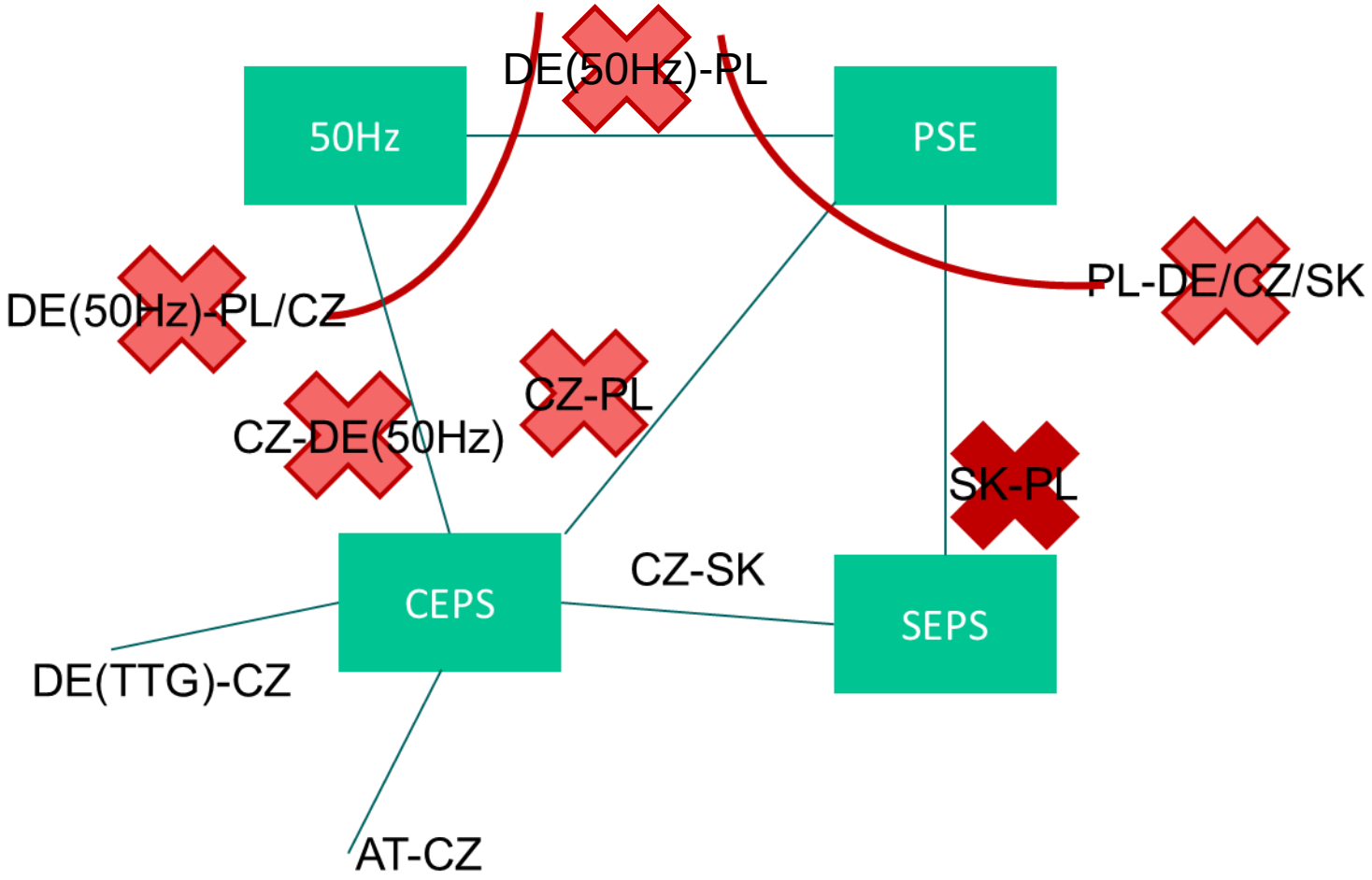
List of communication

Partial Decoupling due to the issue encountered in CZC process

- Market situation leading to **decoupling of one or more interconnectors**
- The **Gate Closure Time is not affected** and the Market coupling session continues **without decoupled interconnector(s)** in normal timing



Partial decoupling due to the issue in CZC process impacting technical profiles (example of SK-PL CZC issue)



SK-PL CZCs are unavailable

Missing SK-PL CZCs decouple the Polish technical profile

The Polish technical profile decouple CZ-PL, DE(50Hz)-PL and DE(50Hz)-PL/CZ.

The DE(50Hz)-PL/CZ technical profile decouples CEPS-DE(50Hz)

Summary of changes in coupling process

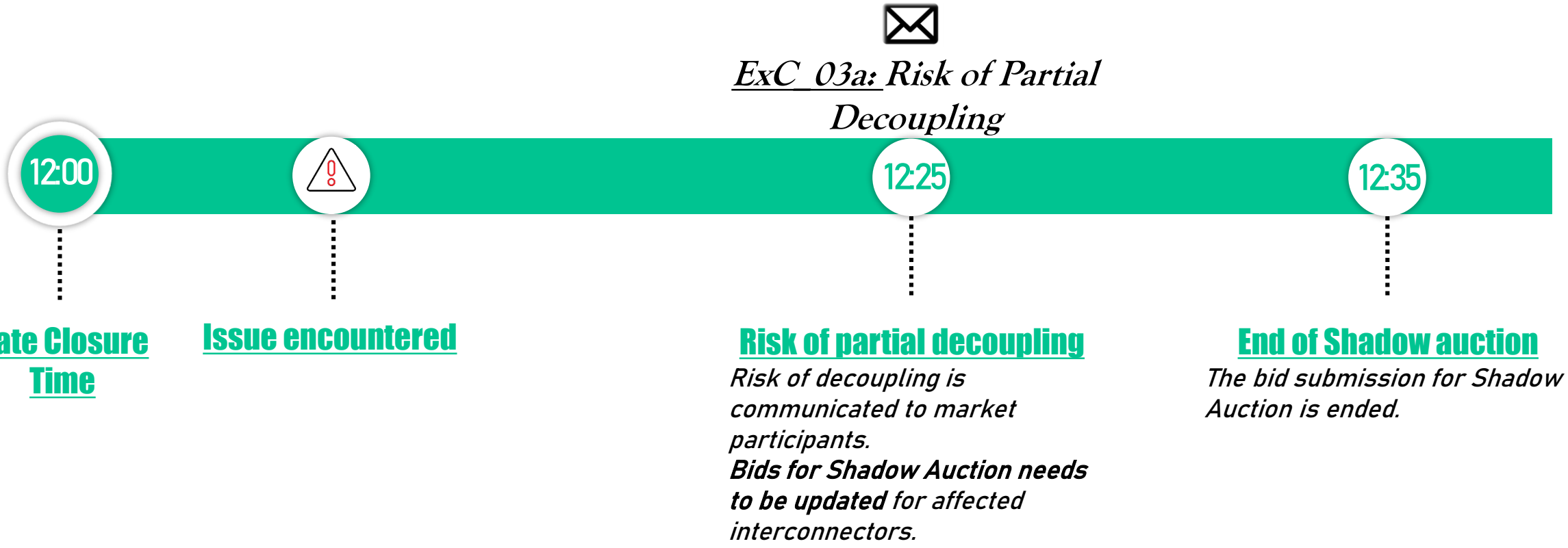
Partial Decoupling during CZC process

Partial decoupling during coupling process

List of communication

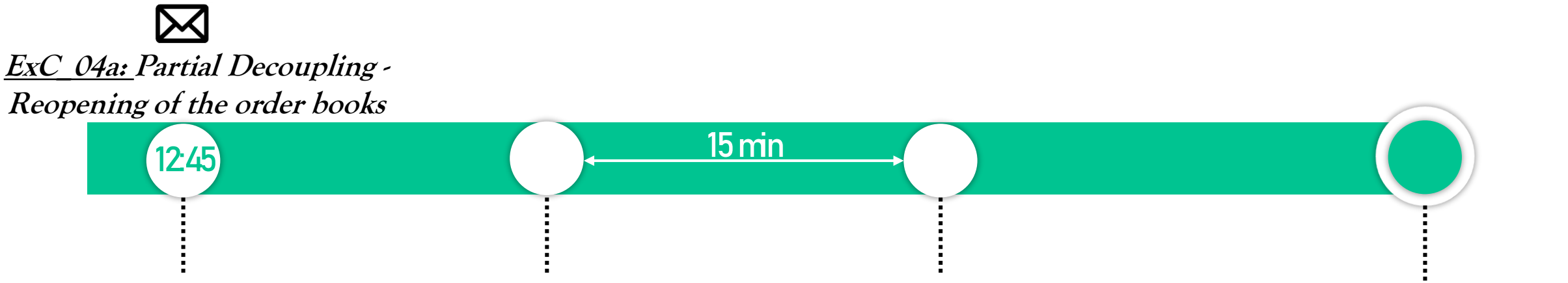
Partial decoupling due to the issue encountered in coupling process

- Situation leading to **decoupling of one or more Bidding zone(s)**
- After the declaration of partial decoupling affected Bidding zone(s) will run local auction and rest of the coupled Bidding zones will continue with joint operation

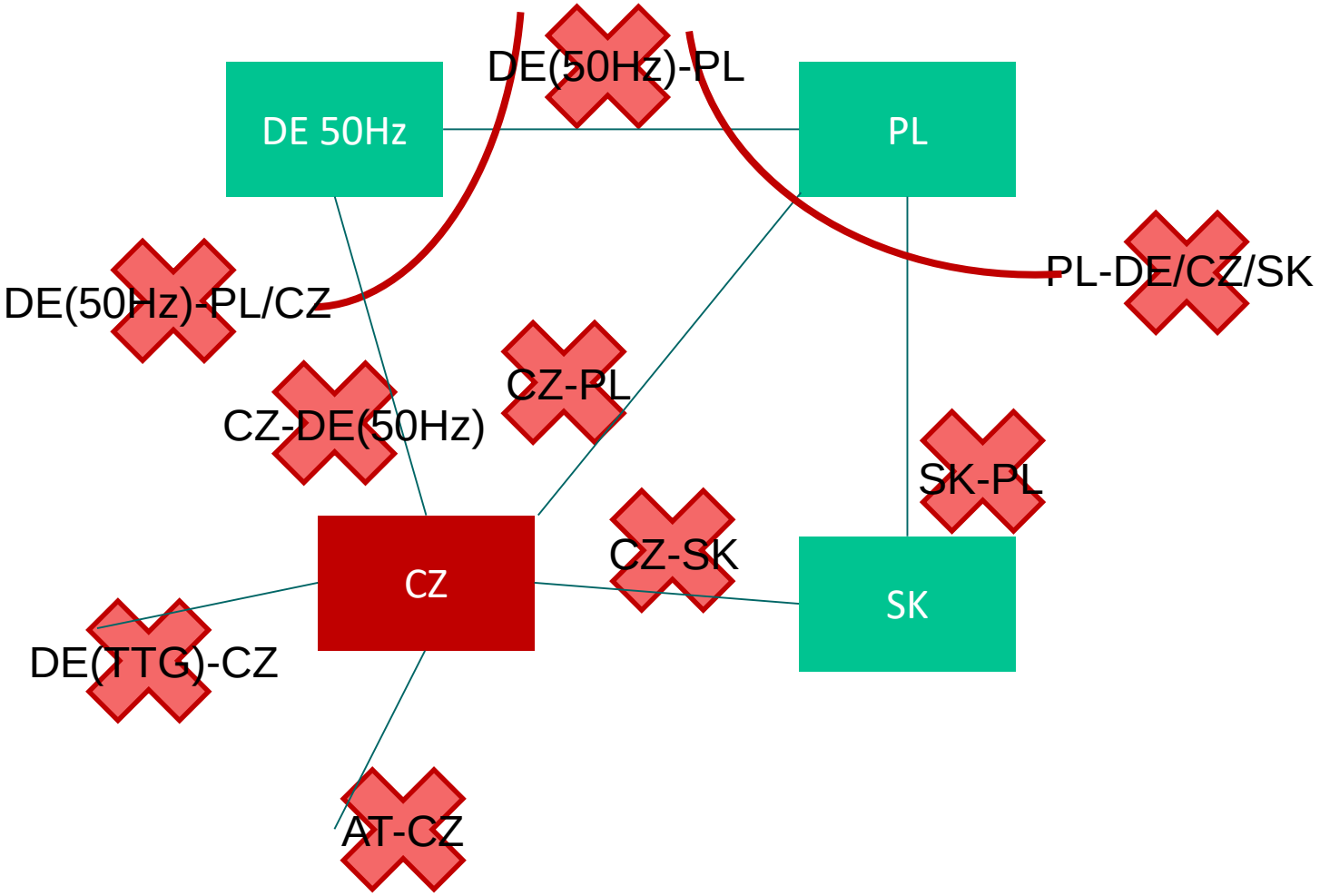


Partial decoupling due to the issue encountered in coupling process

- After the affected Bidding zone is decoupled, the rest of the Bidding zones continue in coupling process



Partial decoupling due to the issue in coupling process impacting technical profiles (example of CZ BZ decoupling)



Potential scenario: CZ BZ is decoupled

CZ BZ-related borders become decoupled

Consequently PL-DE/CZ/SK and DE(50Hz)-PL/CZ are decoupled

PL-DE/CZ/SK profile decouples SK-PL

DE(50Hz)-PL/CZ profile decouples DE(50Hz)-PL

Summary of changes in coupling process

Partial Decoupling during CZC process

Partial decoupling during coupling process

List of communication

Communication – list of messages sent

- **UMM_01a: Delay in final Market Coupling Results publication, at 13:05 (for the coupled Areas)**
  - This message will be sent at 13:05 in case results are not available yet
- **UMM_02: Risk of Partial Decoupling for one or more interconnectors**
  - This message is sent at 11:15, if there is a risk of decoupling for the concerned interconnector(s).
- **UMM_03: One or more interconnectors decoupled**
  - This message is sent at 11:30, if the concerned interconnector(s) has been declared as decoupled.
- **ExC_03a: Risk of Partial Decoupling**
  - This message is sent at 12:25, if there is a risk of decoupling of concerned Bidding Zone (s)
- **ExC_04a: Partial Decoupling – Reopening of the order books**
  - This message is sent at 12:45, if the concerned Bidding zone(s) has been declared as decoupled
- **ExC_03b: Further delay of the Market Coupling Session**
  - This message is sent at 13:30, if the final Market Coupling Results has not been published
- **ExC_04b: Full Decoupling**
  - This message is sent at 14:00 to announce the whole price coupled area is fully decoupled
- **UMM_06a-c: Nomination process delayed**
  - UMM_6a sent at 13:15 / UMM_6b sent at 13:50 / UMM_6c sent at 14:20, only if UMM_01a / ExC_03b / ExC_04b was not sent previously.

SDAC Single Day-Ahead Coupling

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Main changes in the nomination process

21st April 2021

Marius Schrade

50Hertz

Scheduling & Nominations: Standard day-ahead market coupling procedure

- An updated version of the „Guide to Scheduling“ will be published on JAO in due time prior to the go-live.

- The main change is that market parties do not need to nominate cross-border capacities anymore, but NEMOs will do it on their behalf in a normal day scenario.

- Standard day-ahead market coupling procedure:

Process	Start of the process (CET)	End of the process (CET)
Daily nomination		D-1 14:30
Correction cycle Daily	D-1 14:30	D-1 15:30
Daily nomination – Delay 1		D-1 15:00
Correction cycle Daily – Delay 1	D-1 15:00	D-1 15:30
Daily nomination – Delay 2		D-1 15:30
Daily matching cycle at COT	D-1 15:30	D-1 15:45

Scheduling & Nominations: In case of full or partial decoupling

- In case of full or partial decoupling and participation in the Shadow Auction process on affected borders, market parties need to perform nominations.

Process	Start of the process (CET)	End of the process (CET)	Related Messages
FD2, PD1, PD3: Daily nomination		D-1 14:30	UMM_01a (UMM_06a)
FD2, PD1, PD3: Correction cycle Daily	D-1 14:30	D-1 15:30	
PD2, delayed FD2, PD1, PD3: Daily nomination		D-1 15:00	ExC_03b (UMM_06b)
PD2, delayed FD2, PD1, PD3: Correction cycle Daily	D-1 15:00	D-1 15:30	
FD1, delayed FD2, PD3: Daily nomination		D-1 15:30	ExC_04b (UMM_06c)
FD1, delayed FD2, PD3: Correction cycle Daily: Correction cycle Daily	Only HU-SK, SK-CZ: D-1 15:30	Only HU-SK, SK-CZ: D-1 15:45	
Daily matching cycle at COT	D-1 15:30 Only HU-SK, SK-CZ: D-1 15:45	D-1 15:45 Only HU-SK, SK-CZ: D-1 15:50	
In case of curtailment: Deadline for curtailment of LT and ST nominations after Daily GCT		D-1 18:00**	
In case of curtailment: Matching after curtailment of LT and ST nominations after Daily GCT		asap (no dedicated timeslot foreseen)	

List of abbreviations:
FD1 – Full decoupling
FD2 – Full decoupling known in advance
PD1 – Partial decoupling for CZC-related reasons
PD2 – Partial decoupling for reasons not related to the CZCs
PD3 – Partial decoupling known in advance

** in case of Force Majeure or Emergency Situation, curtailment can be performed even later

Delays: specific market situations when ICP is delayed or decoupled and daily nomination deadline is postponed, all ordinary TSO schedule matching correction cycles affected by the delay is cancelled on relevant borders and market parties still have possibility to nominate their shadow capacity rights. “Delay 1” happens in case of delayed Market Coupling calculation (e.g. due to Partial decoupling), “Delay 2” happens when the Rights Documents cannot be generated in target time.

Publication of data

- After go-live of the project the following data items will be published in the implicit sections of respective platforms

- JAO website:
  - **The day-ahead price spread between bidding zones:**
    - Normal operation: Difference between the market prices on both sides of the border for each Interim coupling border and each hour of the day in €/MwH.
  - **The day-ahead allocated capacity per border**
    - Normal operation: Scheduled Exchange for each Interim Coupling border and each hour of the day in MW.
  - **The daily Congestion Income per border:**
    - Sum of gross Congestion Income for Interim Coupling borders where JAO calculates the Congestion Income and each hour of the day in €
  - **The day-ahead offered capacity**
    - ATCs or CZCs in both directions for each hour of the day in MW.

- ENTSO-E Transparency Platform
  - **Net Position (12.1.E) in MW**
    - Every day no later than one hour after each capacity allocation for every market time unit of each bidding zone in Interim Coupling.
  - **Day-ahead Prices (12.1.D) in €/Mwh**
    - Every day no later than one hour after gate closure for every market time unit in each bidding zone in Interim Coupling
  - **Congestion Income (12.1.E) in €**
    - Every day no later than one hour after each capacity allocation or after crosscheck against NEMOs Congestion Income calculation is complete, per border between bidding zones in Interim Coupling (except 4M borders)

- Public section of Damas Energy SEPS:
  - **The day-ahead offered capacity:**
    - ATCs or CZCs in both directions for each hour of the day in MW.
  - **Cross-border flow**
    - Scheduled Exchange for each Interim Coupling borders for each hour of the day in MW.
  - **The day-ahead price spread between bidding zones**
    - Difference between the market prices on both sides of the border for former 4MMC borders for each hour of the day.
  - **The daily Congestion Income per Bidding Zone border**
    - Sum of gross Congestion Income for former 4MMC borders where mTMF calculates Congestion Income for each hour of the day in €.

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Fallback allocation (shadow auctions) and FTR introduction on the AT-HU and AT-CZ borders

21st April 2021

Bianka Szirják

MAVIR / Interim Coupling Expert Group Convenor

Fallback Allocation Principles (1/2)

- In the event that the single day-ahead coupling is unable to produce results, a fallback procedure is established. For all of the Interim Coupling interconnectors the **fallback allocation solution** will be the **Shadow Auctions run by JAO** (explicit allocation of Physical Transmission Rights).
  - *Individual shadow auctions currently run in the 4MMC framework by TSOs on CZ-SK, SK-HU and HU-RO borders will also be replaced by the shadow auctions organized by JAO*.

- **Applicable Shadow Allocation Rules (SAR)** can be found in the **Annex of the Core CCR Fallback methodology** (available at JAO's website: https://www.jao.eu/support/resourcecenter/overview)

- **Main requirements for market participants for participating in the Shadow Auctions**:
  - **Participation Agreement** concluded with JAO (→ *see Art. 6 and 13. of the SAR*);
  - Access to the **Auction Tool** (→ *see Art. 14. of the SAR*);
  - Compliance with **specific provisions per TSO border** and, if applicable, conclusion of **necessary agreements with concerned TSOs**.

Fallback Allocation Principles (2/2)

- **Main process steps**:
  - Shadow Auctions can be **triggered in advance, or during the daily market coupling session**.
  - **JAO will notify the Registered Participants** as soon as possible in case Shadow Auctions may be triggered.
  - Registered Participants can place **default bids** which will apply automatically to future Shadow Auctions. Modification of default bids is possible until the launch of Shadow Auctions.
  - **Auction Specification** → If Shadow Auctions are triggered **JAO shall publish the Auction Specification (Offered Capacities) for the Shadow Auctions**.
  - **Shadow Auction results** → JAO shall determine the Shadow Auction results if Shadow Auctions are triggered and allocate the transmission rights. **JAO will publish on its website the Shadow Auction results** as soon as decoupling is finally declared, no later than at **14:00 on D-1**. No later than 15 minutes after the publication of the Shadow Auction results **JAO will make available the results via the Auction Tool and notify them to the Registered Participants**.
    - ❑Shadow auctions are running as precautionary measure for the case decoupling is finally decided.
    - ❑Shadow auctions results will only be published in case decoupling is decided.
  - **Nomination of allocated transmission rights** → The holder of allocated Transmission Rights may nominate the Transmission Rights for its physical use in line with the specific day-ahead nomination rules of TSOs. The non-nominated Transmission Rights after nomination deadline are not financially compensated.

Introduction of FTRs on AT-HU and AT-CZ borders

- In parallel to ICP go-live, **the type of long-term transmission rights will be changed from PTRs to FTR Options on the AT-HU and AT-CZ borders**.
- In line with the 2nd amendment of the Core LTTR design, „*the change of the long-term transmission right type, i.e. from physical transmission rights pursuant to UIOSI principle to FTR Options, on the AT-CZ and AT-HU bidding zone borders shall be effective at the date on which the first provisional auction specifications for long-term transmission rights auction, following the implementation of the single day-ahead coupling on the CZ-AT and AT-HU bidding zone borders, are published. The change of the type of the long-term transmission right shall not apply to already allocated transmission rights*".
- Allocation of FTRs on these borders will **start with the July 2021 monthly auction** (auction start: 21.06.2021.).
- **Yearly LTTRs will change from PTRs to FTRs only from January 2022**.
- **No nomination in case of FTRs**!
- **FTR remuneration** → In line with **Art. 48. of HAR** (Harmonized Allocation Rules).
  - Remuneration for all allocated MW per relevant hourly period in the case of FTRs, calculated as the volumes stated in the Rights Document, multiplied by a price, depending on the type of the day-ahead allocation (in case of day-ahead Implicit Allocation, including in case of fallback allocation for Implicit Allocation, the price shall be the Market Spread at the concerned Bidding Zone border).

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Information on Member Testing

21st April 2021

Patrícia Brhlíková

SEPS / Interim Coupling Testing Working Group convenor

What is the aim of Member tests?

The aim of the Member tests is to simulate production-like conditions to allow market participants to experience new market coupling procedures/processes and timings which will apply as of go-live of the Interim Coupling. Generally, the test scenarios shall focus on processes that are changed compared to current operational practice and have impact on market participants.

When the Member tests will be organized?

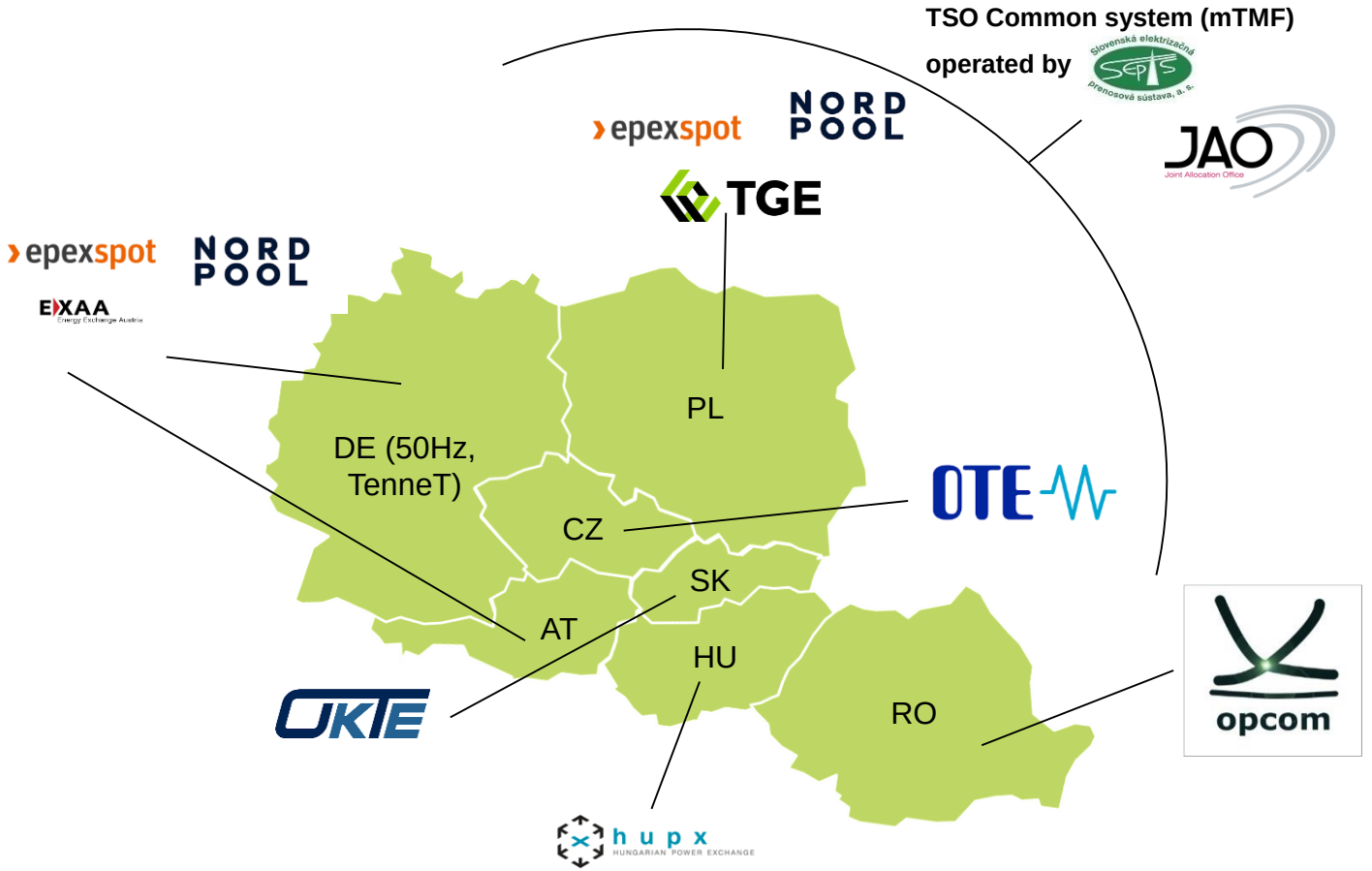
According to the Test Plan the Member tests will be organized from **20.05.2021** to **31.05.2021.**

Which systems will be used for Member tests?

Testing environments with set-up as for production shall be used.

Who will participate?

Focus of Member tests shall be on the interaction between **NEMOs and their members** while an active participation of individual TSOs is not expected.
The tests will be organized **jointly** by the NEMOs participating in the ICP project with the necessary support of the common TSO system and JAO.



Scope of Member tests

Test scenarios to be executed

- Normal day
- Full decoupling incl. Shadow Auctions performed by JAO (all Interim Coupling borders will be decoupled)
- Partial decoupling incl. Shadow Auctions performed by JAO (only some Interim Coupling borders will be decoupled due to CZC related reasons or OBK related reasons)
- Second auction

Market Participants will interact with:

- **NEMOs** via dedicated test trading platforms;
  - **Member Tests will cover at least these steps**: submission of bids to the implicit allocation, provision/publication of Preliminary Results and Final Results, resubmission of bids in case Order Books are reopened, necessary communication between NEMOs and their members by the means of market messages depending on the scenario, local auction in case of decoupling, other local processes.
- **JAO** in case of Shadow Auctions via the dedicated interface.
  - **Member Tests will cover at least these steps**: update of shadow bids on JAO platform in case of decoupling, provision/publication of Shadow Auction Results.

Note: The central TSO system (mTMF) will facilitate the tests, while active involvement of TSOs is not expected.

More information of the Member tests, including more detailed test scenarios will be provided to the market participants by the Interim Coupling project at the beginning of May 2021.

Further details on exact set-up on local level, incl. access to the testing environments and local requirements of NEMOs will be communicated individually by the NEMOs to their market participants.

Involvement of JAO

- JAO will organise the Shadow Auction on all ICP borders.
- For the purpose of Member Tests JAO will open a registration for Member testing in order to ensure that in the relevant test systems the participating Market Participants have the necessary rights for shadow auctions.

For shadow auction participation JAO will require the following information:

- Name of the company
- EIC code
- Name of the trader
- User (if already registered in production)
- Email address

The **registration will open on the 26th of April and will be closed on the 7th of May**. To register for the test, please send the above information to mc.test@jao.eu between this timeframe.

JAO will also share further information with via email with its registered Market Participants and via public message on its website (www.jao.eu) in the upcoming days.

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Closing remarks

21st April 2021

Mario Turčík

SEPS / Interim Coupling Steering Group Chair

Reaching the SDAC enduring phase

Thank you for your participation

See you in the Member Tests!

These slides will be available on the NEMOs' and TSOs' websites