# USERS' GROUP

## WG EMD-SO

29/02/2024
09:00 – 12:00

# Wifi Code

# Agenda

| _ | Domain | Agenda topic | From - Till | Presenter | Time (min) |
|---|--------|--------------|-------------|-----------|------------|
| 1 | General | Welcome & intro | 9:00 - 9:05 | *Chairs* | 5 |
| 2 | General | Approval of MoM & status action points | 9:05 9:10 | *Secretary* | 5 |
| 3 | SO | NCC Yearly report 2023 | 9:10 - 9:40 | *Kristof Geens* | 30 |
| 4 | SO | Emergency & Restoration: LFDD | 9:40 - 10:00 | *Peter Van Meirhaeghe* | 20 |
| 5 | SO | Tendering Black Start Q2 2024 | 10:00 10:20 | *Carsten Bakker & Peter Van Meirhaeghe* | 20 |
| 6 | EMD | Core Intraday Capacity Calculation project: status | 10:20 - 10:45 | *Ruud Bouwhuis & Steve Van Campenhout* | 25 |
| 7 | EMD | IDA Go live planning + attention points from BE perspective | 10:45 11:10 | *Jean-Michel Reghem & Thomas Van Den Broucke* | 25 |
| 8 | EMD | Long Term evolutions: insights on the LT FB implementation & Elia's view | 11:10 - 11:35 | *Cyriac De Villenfagne* | 25 |
| 9 | EMD | 15' MTU SDAC project plan to go live Q1 2025 & relevant aspects on BE level | 11:35 - 11:55 | *Elmo Van Tielen* | 20 |
| 10 | General | AOB & conclusions | 11:55 - 12:00 | *Chairs/Secretary* | 5 |
| | | | | Total | **3:00** |

# Approval of Minutes & Action points

- Approval of the Minutes of WG EMD-SO   17/10/2023

- Status of Action points

# System Operations

# NCC Yearly report 2023

Kristof Geens

# Emergency & restoration

Peter Van Meirhaeghe

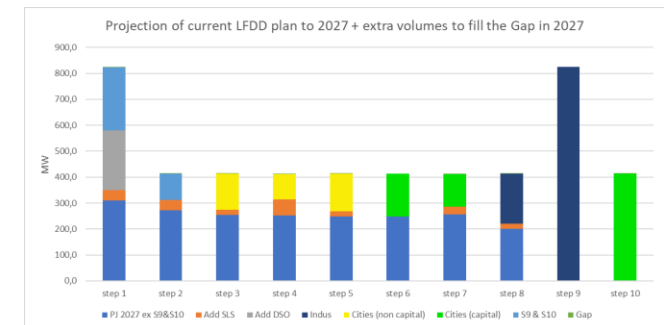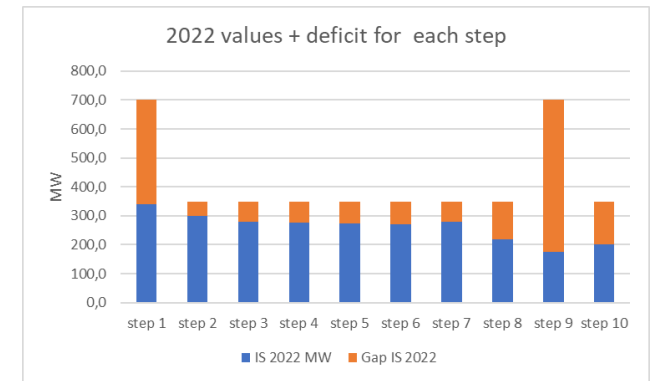# Update Defense and Restoration Plans

– Minister approved System Defense Plan and Restoration Plan on 25/1/2024

– LFDD implementation in 2024:

- Selective load shedding will be implemented in 15 DSO substations

- Adjust frequency threshold of 31 substations now in step 9 & 10

- Re-activation of 4 existing frequency relays

- De-activate frequency relays in 5 substations with too much reverse power flows

- End 2024: start roll-out campaign over several years of additional substations:

  first **focus on step 1** (rural areas)

– LFDD: inclusion of transmission connected demand facilities

- Information sessions were organized on 25/1/2024: slides + faq on [website](website)

- Choices (LFDD grouping, 1 or 2 thresholds) to be fixed in connection agreement by 30/6/2024

- Set up detailed roll-out planning for 2026-2029 → two years in advance notice by letter



2022 values + deficit for each step



Projection of current LFDD plan to 2027 + extra volumes to fill the Gap in 2027

# Test plan : retro planning

➤ Ministerial decree of 29 April 2021 for approval of the Test plan foresees a submission of an updated Test plan to the Minister within the 6 months of approval of the System defence plan and Restoration plan.

➤ Testplan submission: beginning of July (officially before 25th July 2024)

➤ Public consultation: 14/05/2024 → 14/06/2024

➤ Preliminary meetings between AD Energie / Creg / Industry → April 2024 → Dates to be agreed soon

➤ First Draft by Elia: end of March

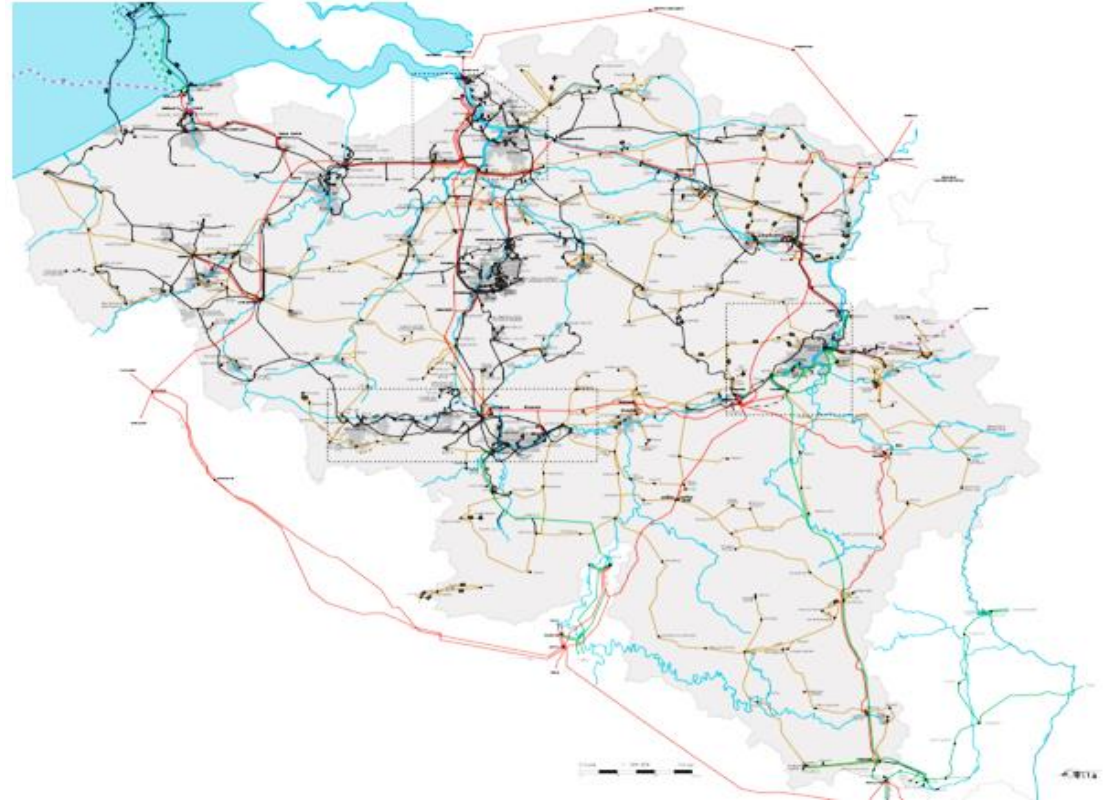➤ New: LFDD test for transmission connected demand facilities

# Tendering Black Start
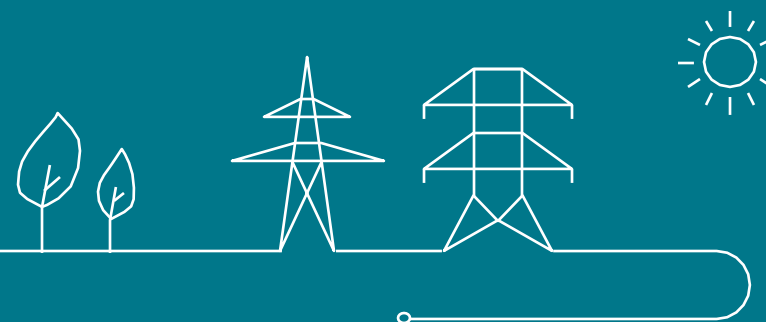
Carten Bakker & Peter Van Meirhaeghe

# Agenda for today

- **Introduction**

- **Current Black Start service**

- **Evolutions of the Black Start Service**

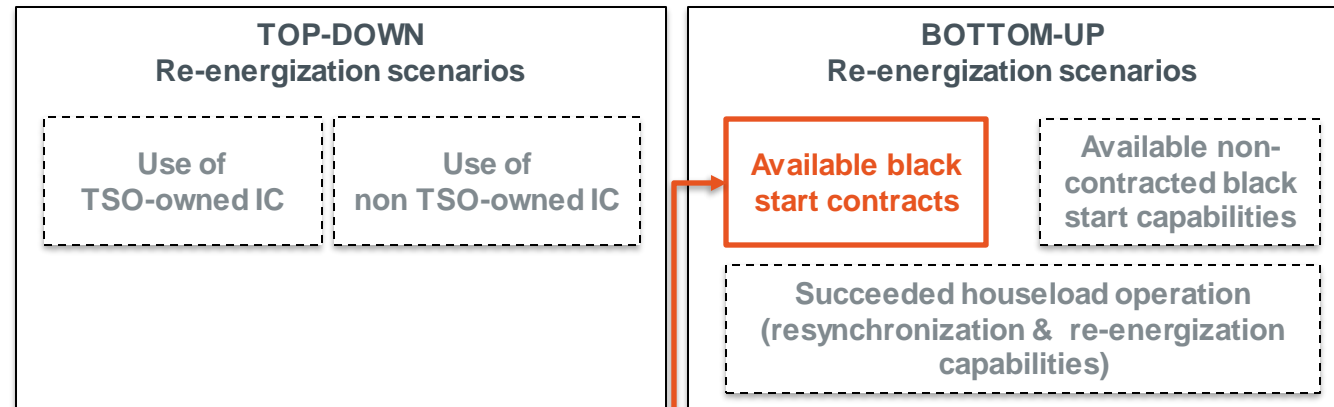- **Public consultation**

- **Tender planning**

# Current Black Start Service

# Purpose of the service

- Belgium's economy must be able to rely on **swift restoration of the power supply** from the grid when a **blackout** occurs.

- As a Transmission System Operator (TSO), Elia has set up a **Restoration Plan**, which it will execute at the time needed in coordination with crisis teams, neighbouring TSOs, Belgian DSOs (distribution system operators) and relevant grid users.

- Depending on the situation, Elia restores the system :
  - Using energy supplied by neighbouring TSO's (top-down approach)
  - If this is not available, by relying **on services supplied by market parties within the Belgian system** (bottom-up approach).

**TOP-DOWN**
**Re-energization scenarios**

| Use of TSO-owned IC | Use of non TSO-owned IC |

**BOTTOM-UP**
**Re-energization scenarios**

**Available black start contracts**

**Available non-contracted black start capabilities**

**Succeeded houseload operation (resynchronization & re-energization capabilities)**

- ELIA procures a minimum amount of services for bottom-up re-energization using **black start capabilities**
- Elia procures Black-start service from the **Restoration Service Providers** (RSP)

# Black-start service – Geographical distribution

- Elia contracts **5 units** able to provide the Black-start service in each of the following **zones** in Belgium:
  - 380kV
  - North-West (NW)
  - North-East (NE)
  - South-West (SW)
  - South East (SE)

- If Elia cannot contract a unit providing Black-start service for one of the 4 regional zones (NW, NE, SW or SE), Elia can contract an additional black-start unit in a adjacent zone or in the 380 kV zone if it is compatible with the Restoration Plan

- If Elia cannot contract a unit providing Black-start service for the 380 kV zone, Elia can contract an additional black-start unit in a regional zone if it is compatible with the Restoration Plan
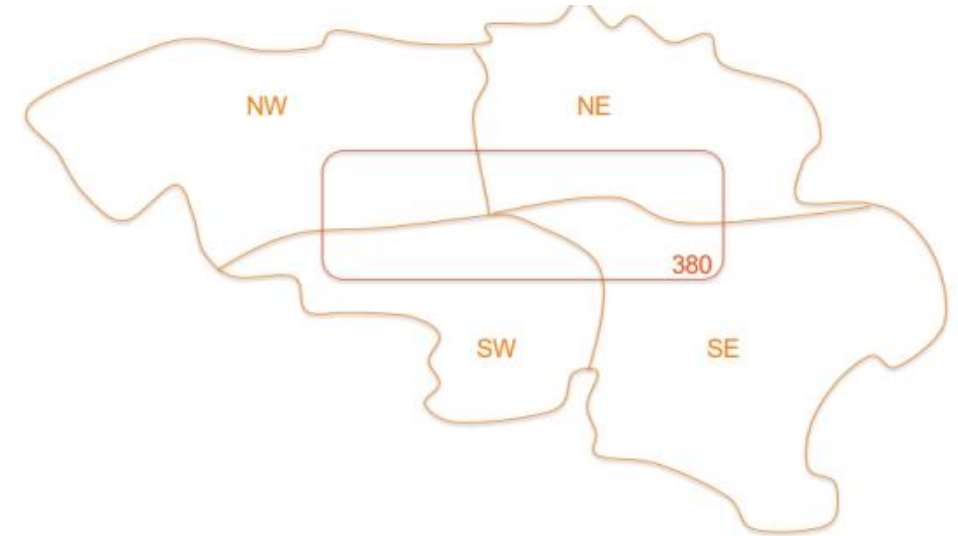
# Black-start service – Technical requirements

A power generating module providing Black-start service needs to be able of **starting up without an external electricity** supply and re-energising the grid

## Requirements to perform a black-start:
✓ Connection with a 'self-starter' (diesel generator, battery)
✓ Start-up time of the whole service (Restore power to sections of the transmission system)
  - 'Hot' state: within maximum 1,5h
  - 'Cold' state: within maximum 3h
✓ At least 3 consecutively black-start tentatives to cover a potential collapse of the island during the grid restoration phase
✓ Technically able to continue operation in black start mode for at least 24 h

## Active power/energy and reactive power requirements
✓ Reactive Power absorption of at least 30 MVAr
✓ Instantly accepting an offtake of at least 10 MW (cos phi=0.8 inductive), while remaining within frequency range (49-51 Hz) and within specified voltage range at the connection point
✓ Sufficient energy to supply auxiliaries of other production units (power & minimum energy requirement)

## Equipment
✓ Speed regulator
✓ Synchronoscope
✓ Single interface with Elia



Black-starter feeds the auxiliaries to allow restarting the power plant
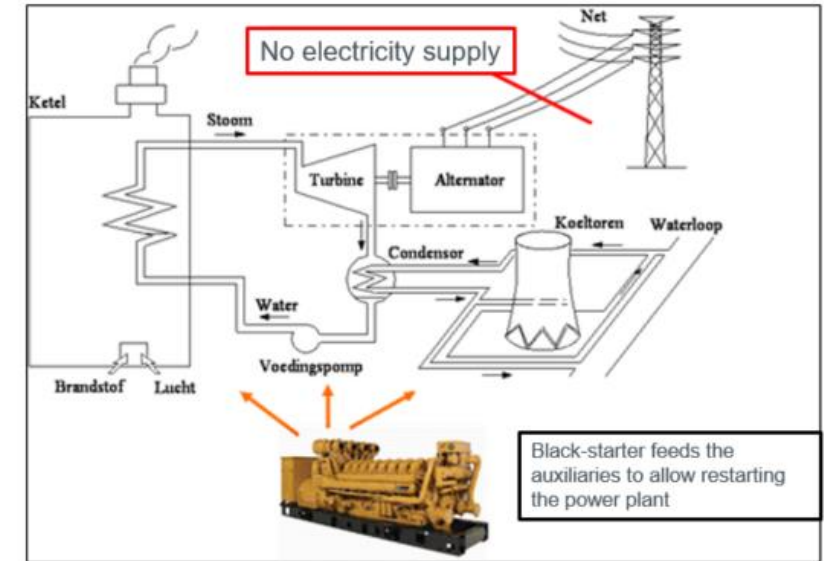
# Participation to the service

**Who can participate to the service?**

- ✓ The Grid User of technical units connected to the Elia grid or CDSO grid
- ✓ An aggregation of technical units is possible if they are connected to the same connection point

**Who can become a Restoration Service Provider?**

- ✓ The Grid User himself
- ✓ A third party designated by the Grid User

**How to participate?**

- ✓ Participation to black-start service starts with submitting an offer in the **multi-yearly tender** organized for the procurement of the service
- ✓ Relevant documents are published on the Elia website
- ✓ Submitted offers are subject to a **reasonability analysis of the price** by the regulator
- ✓ Selection of black-start units per restoration zone is made according to the bidding instructions available on the Elia website

# Evolutions of the Black Start Service

# T&C RSP – Design evolutions in T&C RSP

## Objectives of the new design

- Extending the participation possibilities to the Black-start service
- Opening the participation to the service to more potential candidates
- Future proof solution considering the evolution of the market

**Main changes** introduced in the next version of the T&C RSP

1. **Extending the participation** to the Black-start service to more units (e.g. combination of small CHP with large thermal unit) via extended **aggregation possibilities**

2. Proposing a **new public procurement process (competitive dialogue)** for the Black-start service that will allow innovative solutions to be proposed by RSPs to deliver the service

3. Changing the **settlement** of the Black-start service via the introduction of a **capital cost component** for the remuneration of the service
   - Including relevant modalities related to the availability check and the settlement of Black-start tests

4. Updating the **procurement procedures** and **awarding criteria**

5. Updating the **structure of the contract** in line with the other contracts related to ancillary services
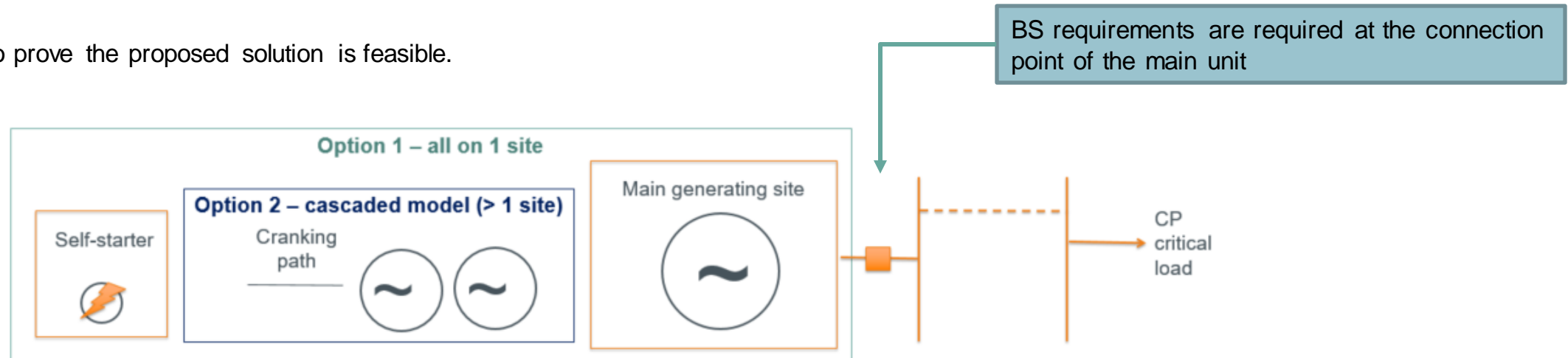
# 1. Extension of aggregation possibilities

The restoration service based on black start capability consists of **3 components** ("Black-start providing group") **that should not necessary be located behind the same connection point** :

1. the black-starter (e.g. diesel generator or battery), given the lack of supply from the grid

2. the cranking path between the black-starter and the main generating unit(s) (direct, or via start-up of smaller units along the path)

3. The main generating site (with capabilities concerning block load and MVAr absorption to counter the high amount of MVArs produced during re-energization of a dead grid): this could be 1 PGM/storage or a combination of multiple PGM, storage, shunt reactors

A feasibility study to prove the proposed solution is feasible.

BS requirements are required at the connection point of the main unit



Option 1 – all on 1 site

Option 2 – cascaded model (> 1 site)

Self-starter

Cranking path

Main generating site

CP critical load

- Aggregated elements must operate similarly to a single technical unit providing the BS service ("BS providing group")
- Configurations using part of the ELIA grid or (C)DSO grid are to be analyzed by the relevant RSO

# 2. Public procurement process (competitive dialogue)

- **Competitive dialogue procedure** will replace the current open qualification procedure
- Competitive dialogue allows more flexibility for the RSP to **submit possible innovative solutions to provide the BS service** (e.g. via aggregation)
- Possible solutions will be discussed and analyzed between Elia and the RSP during the **call for tender**
  - Some technical criteria to deliver the service could be refined during this phase (cfr next slide)
  - Studies could be necessary to assess the proposed solution
  - Once the solution is suitable for both RSP and Elia, the RSP can submit a final offer
- During the selection phase, Elia will compare the different received offers and make a selection based on selection criteria that need to be clearly defined in the contract

➔ In terms of operational process, the competitive dialogue procedure is quite similar to the open qualification procedure except that more interaction are necessary between Elia and the RSP during the call for tender phase to assess the proposed solution(s)

| Call for candidates | Call for tender | Evaluation by CREG | Contract awarding | Preparation for implementation | Service provision |
|---|---|---|---|---|---|

**RSP** candidacy & approval

Submission of **first offers** by the RSPs

**RSP** may update offer after negotiation

Submission of **final offers** by the RSPs

**ELIA** evaluates the offers, makes a selection, and possibly starts bilateral negotiation.

**CREG** evaluates whether offered prices are reasonable.

**ELIA** informs RSP of the selection (standstill) and awards the contracts with the concerned RSP.

**RSP** prepares the service for implementation, including execution of prequalification tests.

| Minimum 4 months. The call can even start together with new contract period and last longer than a year. | Minimum 3 months | 3 months (60 workdays) | 1,5 - 2 months | 18 months if possible | = 2,5 - 3 years |
|---|---|---|---|---|---|

# 2. Competitive dialogue – Parameters to be refined during dialogue phase

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**Requirements to be fixed in the call for participation**
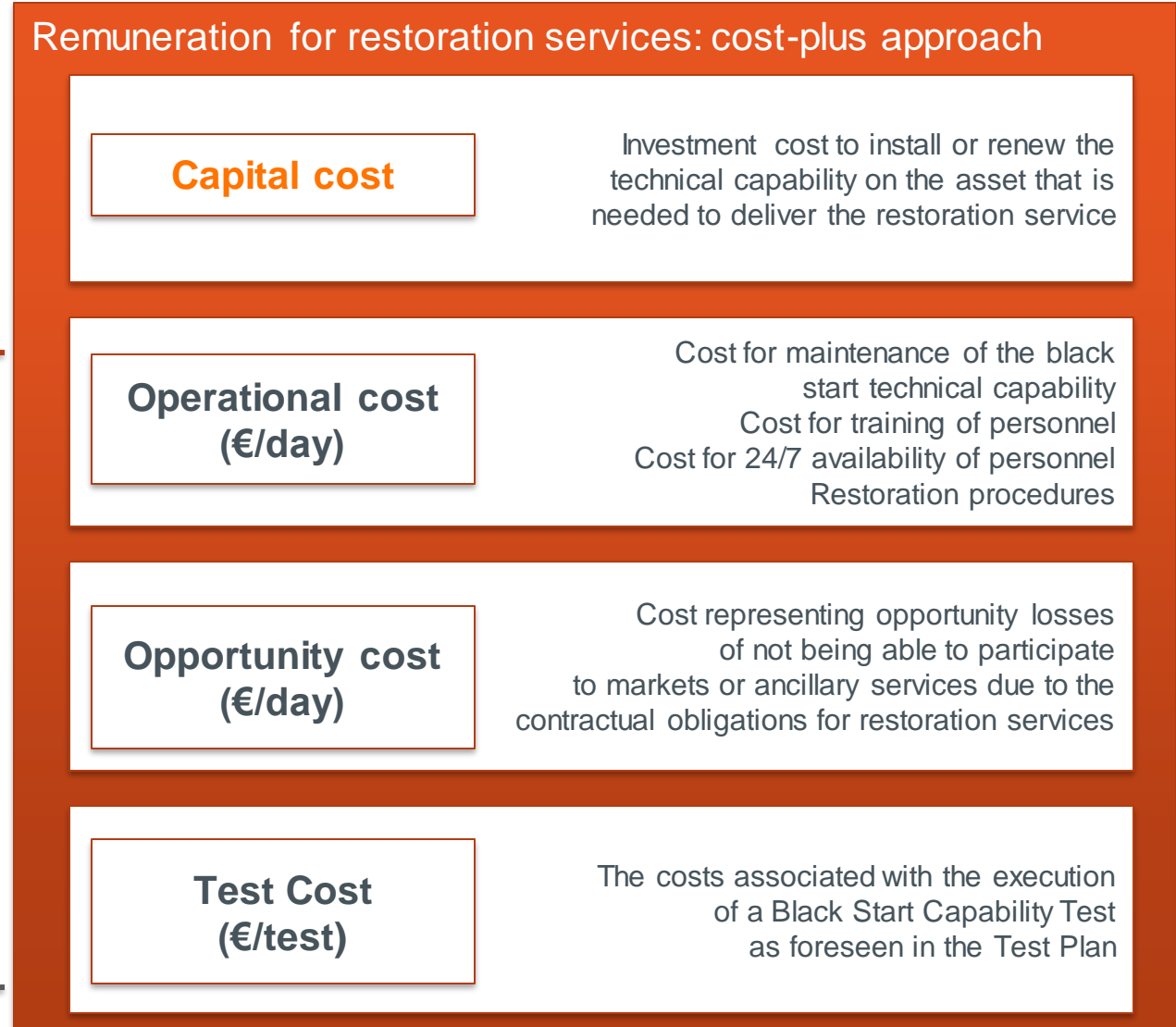
1. The **energy to supply auxiliaries of other production units** (active power): minimum installed capacity of the main generator, to be confirmed/modified in call for tender
2. The **minimum absorption of reactive power:** minimum 20 Mvar, but to be confirmed/modified in call for tender
3. The **energy requirement**: requirement of minimum energy content or minimum fuel stock to be available at all times and to be used to operate during a Blackout and restoration state

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These requirements will be **defined in the call for tender** according to the role of the BS Restoration Facility in the Restoration Plan and the specific technical characteristics of the BS Restoration Facility, such as, but not limited to:

- The **distance between the BS Restoration Facility and the power plant** that needs to be re-energized in the restoration plan considering
    – The necessary power to re-energize the auxiliaries of the target power plant
    – The losses on the network elements
    – The minimum time necessary for the start-up of the power plant that needs to be re-energized
    – The obligation to be able to start three times during the application of the restoration plan

- The **type of restoration** (zonal, 380 kV backbone or for an adjacent zone)

# 3. Settlement of the BS service

## Costs of restoration services

**Availability cost**

**Activation cost**

See "Rules for market suspension & restoration": Remuneration for produced energy during period of central dispatch

## Remuneration for restoration services: cost-plus approach

| | |
|---|---|
| **Capital cost** | Investment cost to install or renew the technical capability on the asset that is needed to deliver the restoration service |
| **Operational cost (€/day)** | Cost for maintenance of the black start technical capability<br>Cost for training of personnel<br>Cost for 24/7 availability of personnel<br>Restoration procedures |
| **Opportunity cost (€/day)** | Cost representing opportunity losses of not being able to participate to markets or ancillary services due to the contractual obligations for restoration services |
| **Test Cost (€/test)** | The costs associated with the execution of a Black Start Capability Test as foreseen in the Test Plan |

# 4. Selection criteria

- The **minimum technical requirements** to deliver the service are defined in the RSP contract
- The **comparison and selection of offers will be made per zone** according to BS needs determination (or between adjacent zones in case no offer is received for given zone)
- Selection of offers will be based on techno-economic criteria:
  - Price of the received offer using the price components
  - Technical criteria

| n° | Criteria | Weight |
|---|---|---|
| 1 | Lowest total cost (capital, operational, opportunity and test costs) [€/year ] | 50% |
| 2 | Highest additional active power that can be injected [MW] on top of the active power injection required after the technical specifications assessment of ELIA | 10% |
| 3 | Highest additional reactive power that can be absorbed [MVAr] on top of the reactive absorption required after the technical specifications assessment of ELIA | 10% |
| 4 | Highest kinetic energy of the inertia [J]; | 5% |
| 5 | Highest instantaneous load acceptance [MW]; | 10% |
| 6 | Lowest Start-up Time while in operation (injecting power at the moment of the Black-Out) [min]; | 5% |
| 7 | Lowest Start-up Time when shut-down (not injecting power at the moment of the Black-Out) [min]; | 5% |
| 8 | Highest operational simplicity to provide Black Start Service in accordance with the Restoration Plan [Scale of 1-4]; | 5% |

# Public Consultation
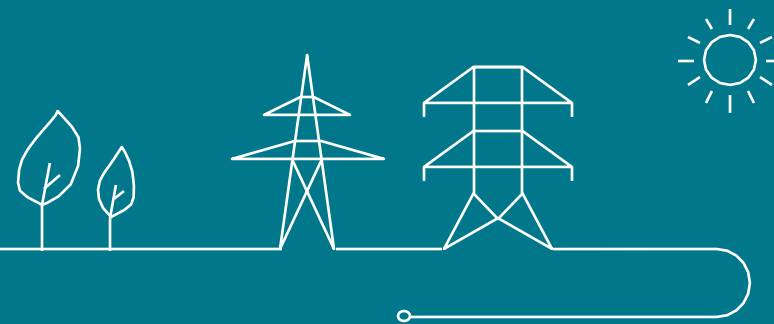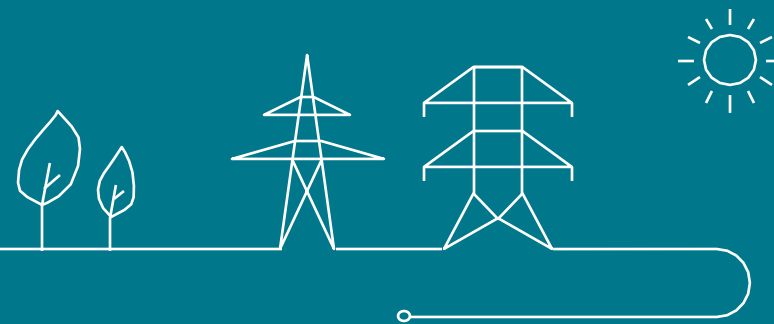
# Public consultation
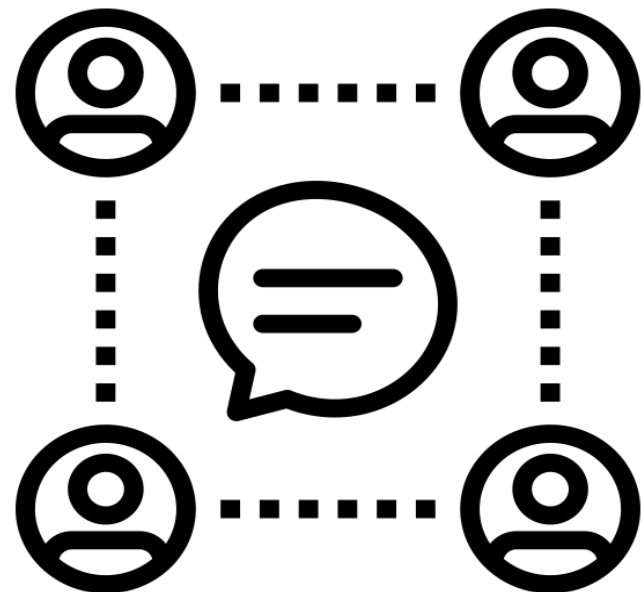
The public consultation for the new T&C RSP and procurement procedures is currently ongoing.
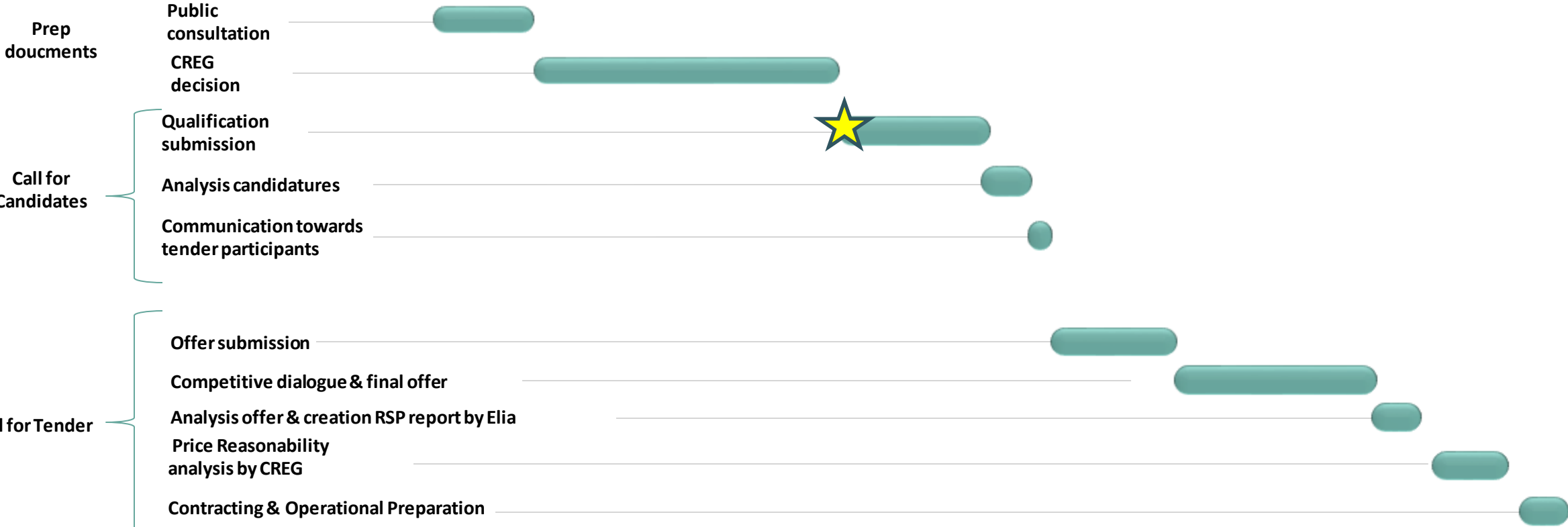
The consultation will **end on the 25th of March**.

**Please provide all feedback on the new documents via the Public consultation**

# Tender planning

# Indicative tender timing

## Indicative timeline

# European Market Design

# Core Intraday Capacity Calculation

Ruud Bouwhuis

# Latest status Core ID CCM escalation process

## Approaching the finish line (?)

– In 2023, the 2nd & 3rd Core ID CCM amendments could not be approved commonly by Core NRAs, leading to an escalation towards ACER. Most controversial topics were are the applicability of the 70% rule in ID and XNEC to CNEC conversion.

– After 3 rounds of hearing, ACER provided the draft methodology and decision to During the AEWG, aiming for a decision by the Board of Regulators on Mar 6. A compromise seems to be found:

  – The 70% in ID topic is not enforced through the use of virtual capacity. Instead, there is would be a study requirement (Apr 2025) how to increase capacities in general and reach 70% over time, followed by a request for amendment (Oct 2025)

  – The XNEC to CNEC conversion: remains an exceptional measure. Is allowed without PTDF threshold for 1-year testing period after ROSC Go-live. Then TSOs may propose a PTDF threshold together with rules to avoid undue discrimination between internal and cross-border exchanges.

## Now expected implementation timings for Core IDCC(s)

*Decision: early March 2024*

| Phase: | Preceding CROSA ends: | ID capacity allocation: | For MTUs: | Implementation: | |
|---|---|---|---|---|---|
| IDCC(a) | / (DA, leftovers) | 15h D-1 | 00-24h | | with IDA1: Jun'24 |
| IDCC(b) | 22h (⇒intermediate results) | 22h D-1 | 00-24h | by 4M after the Decision | expected May'24 |
| IDCC(c) | 02h | 04h D | 06-24h | by 9M after IDCC(b) | exp. Feb'25 |
| IDCC(d) | 08h | 10h D | 12-24h | by 22M after IDCC(b) | exp. Mar'26 |
| IDCC(e) | 14h | 16h D | 18-24h | by 3M after the corresp. CROSA | exp. 1st half'26 |

**Newly introduced IDCCs via ID CCM escalation process** → (IDCC(c), IDCC(e))

**Acer will provide further insight towards MPs on the status of the Core ID CCM during the Core Consultatative Group meeting on 12 March 2024**

# Impact of ID CCM change on (Core) Congestion Management Target model
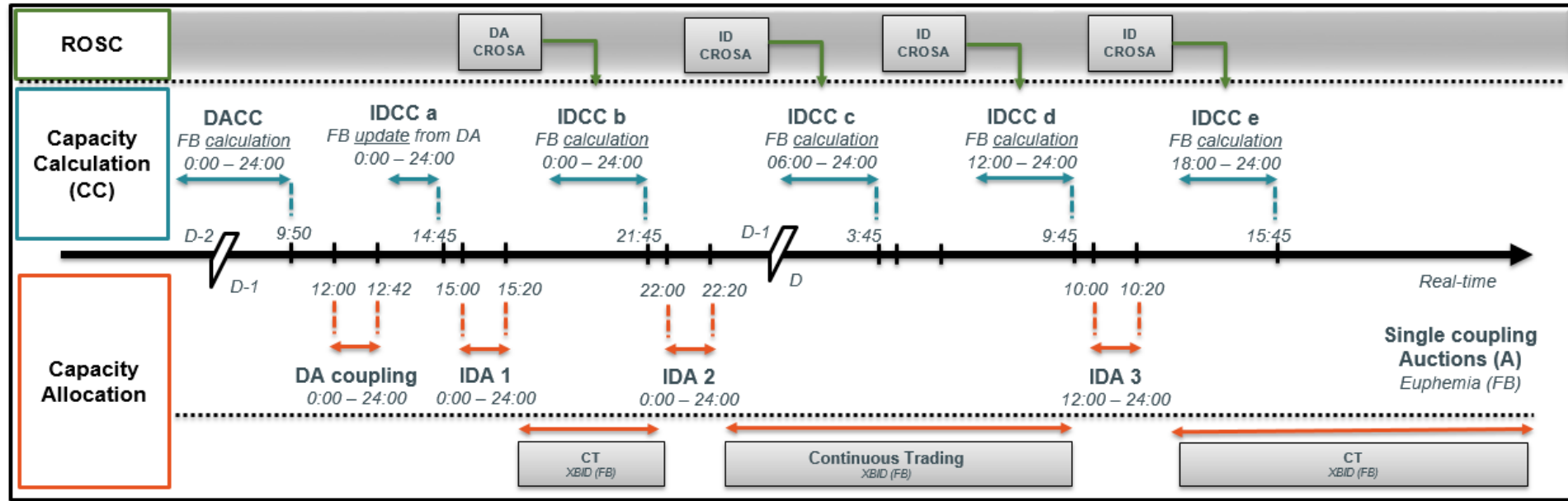
# Impact of ID CCM change on (Core) Congestion Management Target model
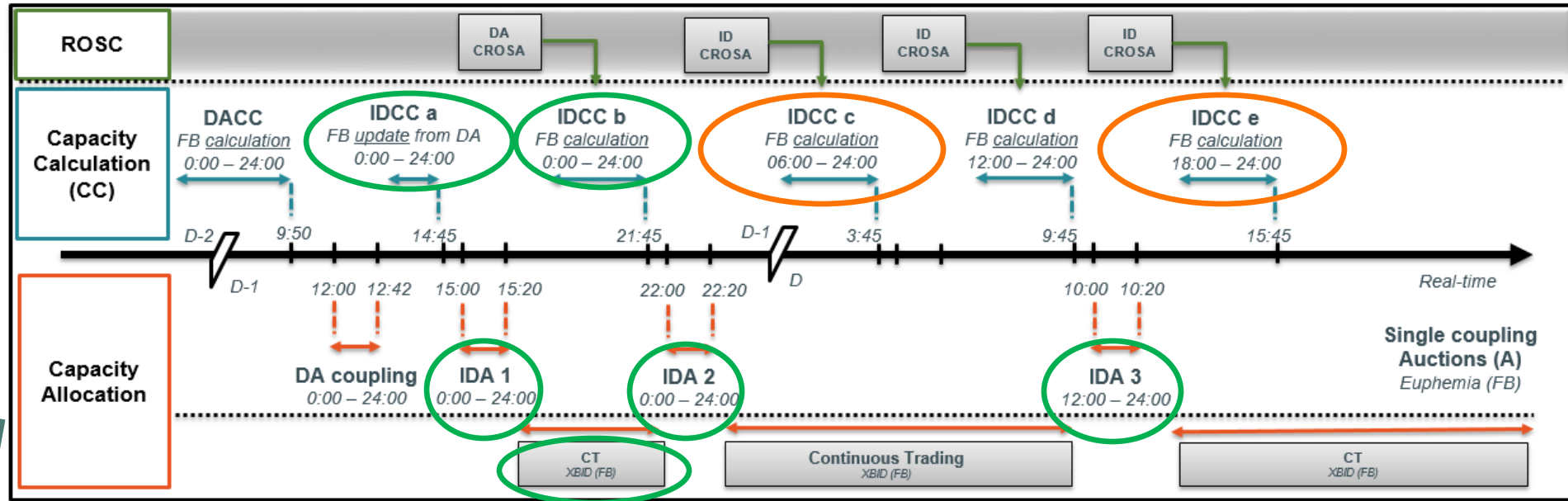


**Core IDCC A:**
- DA leftovers, based on DA FB domain provided to ID market at D-1 14:45 instead of D-1 21:45.

**Core IDCC B to E:**
- Full new ID FB (re)computations, based on latest grid models (DA Congestion Forecasts / ID Congestion Forecasts)

◯ = Planned ID market model changes in 2023

◯ = Newly added IDCCs

# Reminder main high level processes & scope of Core IDCCs

**Core Day-Ahead FB process**

| D2CF Grid Model creation | Initial FB computation | CNEC selection | ~~Remedial Action Optimization~~ | ~~Intermediate computation~~ | ~~Assignment for minRAM~~ | ~~...~~ | Validation | ~~Pre-final FB computation~~ | Final FB computation | ID ATC extraction for DA leftovers |

**Crossed out DA process steps are not part of IDCC B to E**

i.e. (Future) IDCC A Process

**Core Intraday FB process**

| DACF or IDCF grid model creation | Initial FB Computation & CNEC selection | Validation | Final FB computation | ID ATC Extraction |

**Not part of Core ID Methodology**

i.e. (Future) IDCC B-E Processes

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**Main challenge of the Intraday project is to produce accurate results, taking into consideration the security of the grid, in a limited amount of time**

In order to do so, several differences are in place, compared to todays Core DA FB process :

- No virtual capacity (minRAM nor LTA inclusion)
- An as late as possible process to take into consideration as much as possible the application of remedial actions from the regional security analysis processes, to solve congestions via the DACF / IDCF grid models.
  - In the future the Core IDCC(s) B to E will be connected to the Core ROSC process
  - Giving up of the Non costly Remedial Action Optimization (NRAO) – To allow for waiting on more mature grid models
- Merge of the Initial and Intermediate computation, Merge Pre-final with Final computation
- No coordinated validation (now nor in the future)

# Update on Core IDCC A (i.e. new DA leftovers) & IDCC B (a.k.a. IDCC1) parallel runs

## Reminder

– The Core IDCC1 (now called IDCC B) External // run started on **Dec 5th 2022**. The Core IDCC A External parallel run started on **Dec 8th 2023.** Both processes are foreseen (and required) to Go-live at ID auctions go-live at the latest.

## Main assumptions & configurations taken in both parallel runs

| Topic | 15:00 D-1 | 22:00 D-1 | |
|---|---|---|---|
| | **IDCC A** | **Today in operation: operational DA leftovers + increase/decrease** | **IDCC B** |
| FB Domain (Input) | DA Leftover FB domain – Shifted to DA MCP point + Updated TSO preferences for virtual capacity (Based on D-2 grid model)<br><br>LTA capped to 1500 MW | DA Leftover FB domain – Shifted to DA MCP point + Updated TSO preferences for virtual capacity (Based on D-2 grid model)<br><br>LTA capped to 1500 MW | New ID FB domain (Based on D-1 grid model) |
| FRM | 10% | 10% | 5% |
| ATC Extraction Algorithm | Iterative approach<br><br>PTDF threshold: 0.5%<br>RAM_ID threshold: 10 MW[1] | Optimized approach<br><br>PTDF threshold: 0.5%<br>RAM_ID threshold: 10 MW | Iterative approach<br><br>PTDF threshold: 3%<br>RAM_ID threshold: 50 MW |
| Other | Decrease with justification possible via ATC validation as discretionary action of a TSO | + 300 MW increases possible if both TSOs confirm<br><br>Decrease with justification possible as discretionary action of a TSO | Decrease with justification possible via ATC validation as discretionary action of a TSO |

1) Measure to increase capacities by avoiding that ~pre-congested elements far away from the border limit the capacity on the border. Concretely, CNECs with RAM below the RAM_ID threshold are ignored during the ID ATC extraction for border X if the PTDF impact of an exchange through border X is below the PTDF threshold.

# Update on Core IDCC A parallel run

Frequency of Isolated Core Bidding Zones by Import, Export and Both Directions
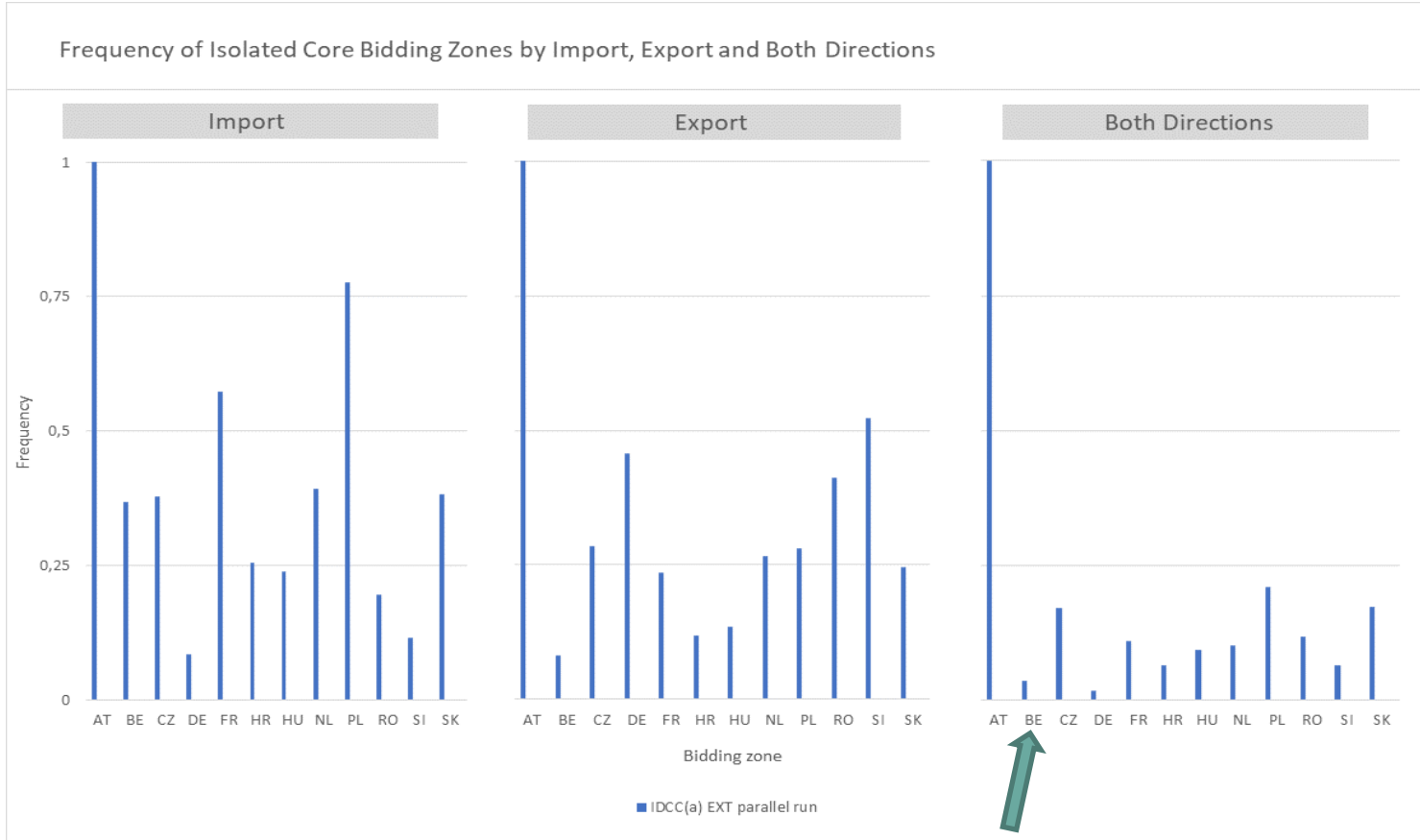
**When the ID market opens at 15:00 D-1, the available capacity will depend on how much capacity was taken by the DA market.**

**BZ isolation occurs throughout Core although full BZ isolation in Belgium is fairly limited.**

**Biggest impact on BZ isolation is when TSOs decide to keep their borders closed (meaning: 0 capacity until 22:00 D-1)**

- Driver: operational security analysis process is to be adapted to include the ID trades between 15:00 and 16:00 D-1. The implementation of this adaptation is ongoing (involving RCCs, TSOs & ENTSO-E) yet uncertain to be completed by June
- In the EXT//run APG has made this explicit.
- It is not excluded other Core TSOs will do it too. Elia will not do this, and continuous to monitor how this impacts the capacities on the Belgian borders

# Update on Core IDCC B parallel run

**UPDATE**



Frequency of Isolated Core Bidding Zones by Import, Export and Both Directions

| Import | Export | Both Directions |

Legend:
■ Complete results - DA leftovers after increase decrease
■ Complete results - IDCC(b) parallel run

**From BE perspective, the IDCC_B parallel run performs worse compared to the operational DA leftover + increase/decrease process.**

**Root cause: remaining precongestions in the grid models used for FB calculation, which impact in first order the Netherlands and in second order Belgium.**

**To put things in perspective: with IDCC_B the BZ isolation for BE is signficantly better compared to the period before Core go-live. Statistics from CWE period 2021 – mid 2022:**

- **Import closed: ~25%**
- **Export closed: 25 – 35%**
- **Full BZ isolation: 10 – 15%**

# Mitigation measures to improve capacities

As mentioned earlier, it is expected that there be a study requirement (Apr 2025) on how to increase ID capacities via the IDCC processes. In advance of the outcomes of this study, Core TSOs are investigating possibilities to improve IDCC A & IDCC B capacities.

**For IDCC A**

1. Adapt parameterization of ATC extraction algorithm. **Expectation:** this can bring some improvements and is possible to adapt by go-live

2. Adapt the settings for virtual capacity inclusion? **Expectation:** Core ID CCM gives the discretionary right to every TSO to define these parameters. In general TSOs have set these parameters in line with current operational process. For Elia this implies full inclusion of LTAs and 20% minRAM (rAMR), whereas further increasing the minRAM on Elia CNECs has no impact as the congestion is located elsewhere.

| Parameter setting EXT//run | 50 Hertz | Amprion | APG | CEPS | ELES | ELIA | HOPS | MAVIR | PSE | RTE | SEPS | TTG | TTN | TEL | TNG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rLTAincl | 0,2 | 0,2 | 0 | 1 | 1 | 1 | 1 | 0,2 | 0 | 1 | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 |
| rAMRid | 0,2 | 0,2 | 0 | 0,7 | 0,7 | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 | 0,5 | 0,2 | 0,2 | 0,2 | 0,2 |

# Mitigation measures to improve capacities

As mentioned earlier, it is expected that there be a study requirement (Apr 2025) on how to increase ID capacities via the IDCC processes. In advance of the outcomes of this study, Core TSOs are investigating possibilities to improve IDCC A & IDCC B capacities.

**For IDCC B**

1. **Continue investigations in improvements in IGM creation by individual TSOs**

   1. **Assumption:** less congested grid situations in IDCC

   2. **Status:** Elia has implemented improvements during summer 2023, no concrete plan from other TSOs

2. **Adapt losses compensation in FB calculation from „full Continental Europe" approach to „ bidding zone per bidding zone"**

   1. Losses compensation is required seen Grid models are balanced via a AC loadflow, while FB capacity calculation uses a DC loadflow (i.e. excluding losses).

   2. **Assumption:** increased accuracy for loadflow results and less congested grid situations in IDCC

   3. **Status:** POC stage, question mark on possibility to have it implemented by go-live IDCC B

3. **Implementation of additional IDCC computations – IDCC(c), IDCC(d) and IDCC(e)**

   1. **Assumption:** Update of capacities based on improved forecasts for congestion management including additional agreed remedial actions

   2. **Status:** expected as part of ACER decision, implementation in 2025/2026

# Intraday Auctions planning and Status

Jean-Michel Reghem - Thomas Van den Broucke

# Testing: Current Status 19/2/2024

- XBID 4.0 version (supporting IDA-IDCT transitions and IDA initialization/validation) testing closed to be completed

- PMB 12.2 (incl. Euphemia) supporting IDA allocation: final tests ongoing

- IDA Functional Integration Tests (FITs) completed (July 23-January 24)

- IDA Simulation Integration Tests (SITs) ongoing (December 23 – March 24)

- Post-coupling testing on Belgian borders finalized at 80% (Waiting TenneT NL systems finalization in March)

- Member tests organised by NEMOs: from 8/4 to 3/5 (under condition that SIT is finalized with expected quality)

- Go Live still planned for 13/6/2024 (Delivery Day 14/6/2024) with the 3 IDAs

**More info during SIDC IDA Go Live pre-launch event on 21/3/2024**

# Members testing planning (in case SIT exit criteria met)
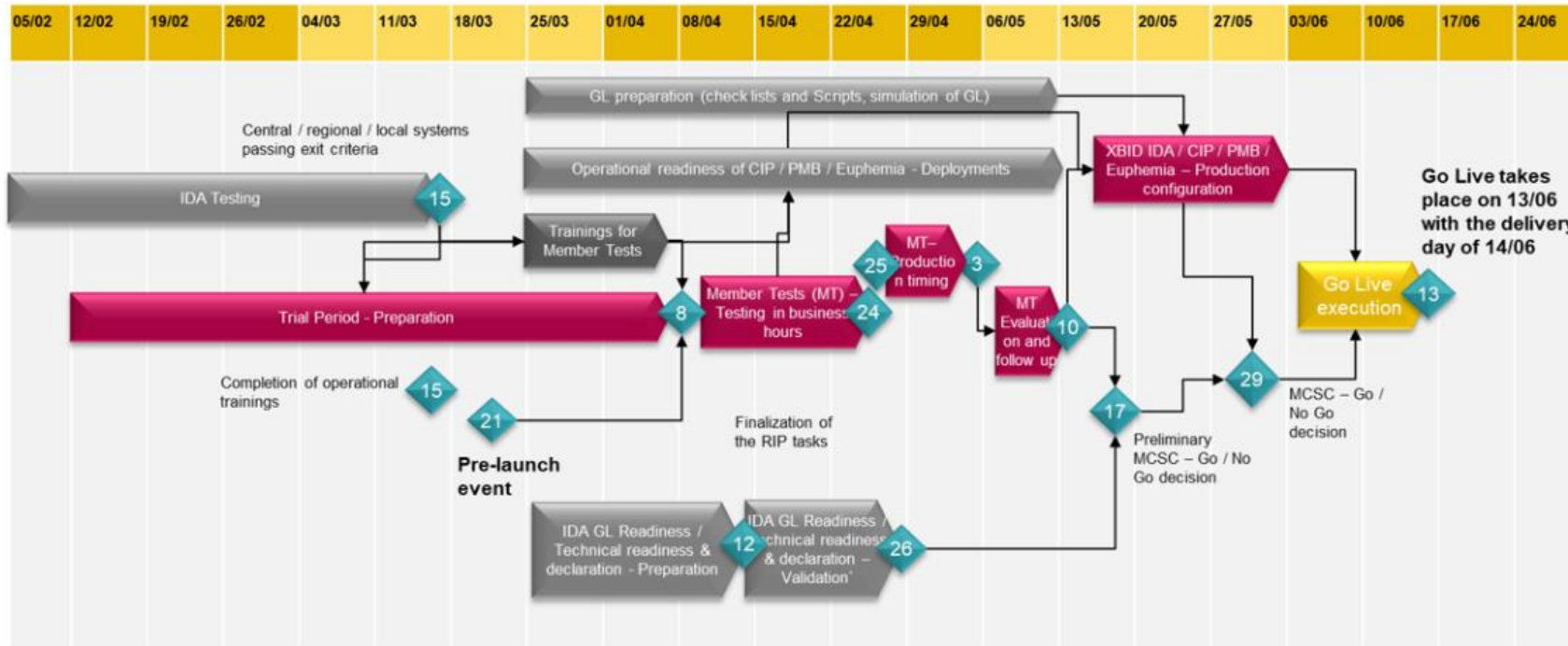


- **Member tests** are expected to take place for **4 weeks starting on April the 8th** with **two different timing arrangements**:
  - **Office hour timing: 08-12/04, 15-19/04 and 22-24/04**
    - IDA3: 09:00
    - IDA1: 14:00
    - IDA2: 16:00
  - **Production like timing: 25-26/04 and 29/4-03/05**
    - IDA3: 10:00
    - IDA1: 15:00
    - IDA2: 22:00

# Summary of IDA operational timings – regular process



IDA GCT

| Cross-border continuous allocation | Continuous intrazonal trading to continue (at least within MNA areas) | Cross-border continuous allocation |

-20 min  +20 min

| 14:40 D-1 | 15:20 D-1 | 21:40 D-1 | 22:20 D-1 | 09:40 D | 10:20 D |

| 12:00 D-1 | 15:00 D-1 | 22:00 D-1 | 10:00 D |

DA  IDA 1  IDA 2  IDA 3

all D delivery hours  all D delivery hours  delivery hours 12:00-24:00 on D

More info on unregular process (partial decoupling/Process extension/IDA cancellations) and MPs information in case of fallback

→ IDA Go Live pre-launch event on 21/3/2024

# Summary of impact for Belgian market parties

- At IDA Go live: Same border granularities as in continuous trading: BE-DE / BE-NL: 15min BE-FR: 30min
- Offered products by NEMOs in Belgium: 15min and blocks (no 60min).
  - Reason: simplification to allow allocation process in 7min max
  - Cross-product matching implemented in Euphemia to manage coupling with France and 60min BZs
- IDA: Even if IDCC in flow based, coupling in ATC (difference with DA) as IDCT → ATC extraction
- Allocation in flowbased: once ID continuous trading could support this allocation mode (R&D – init planning: Q4 26)
- At IDA go live: Capacity is expected to be available on Belgian borders to SIDC IDA from 15:00 and SIDC IDCT from 15:20 compared to 22:00 currently. Discretionary actions of other Core TSOs to reduce the capacity to their borders temporarily to 0 cannot be excluded at this moment. Elia will continue to monitor how these discretionary actions impact the capacities on the Belgian borders.

# Long Term FB implementation: insights on recent simulations and & Elia's view on way forward

Steve Van Campenhout, Cyriac de Villenfagne

**Since 2021 a flow-based implementation trajectory is ongoing for the 2025 yearly and monthly allocation of LTTRs on Core borders**

Regulatory ambition: Nov 2024 for yearly 2025 auctions

Flow-Based Allocation
*All TSOs + JAO*

Regulatory ambition: Nov 2024 for yearly 2025 auctions

Flow-Based Capacity Calculation CCR Core

Flow-Based Capacity Calculation CCR Nordic

Regulatory ambition: by 1 year after DA & ID delivery

# Recent simulations confirm the concern raised before by market parties re. a reduction of hedging possibilities

All TSOs have planned a workshop with market parties on Mar 22nd to present the results of these simulations. We share today the key insights and our view on the way forward.

**Multiple simulations for the yearly timeframe have been performed**
- Capacity input: 2023 Core Flow-Based domains as per Core LT CCM covering 12 timestamps, hereby taking minRAM as a variable parameter by making the calculations with 20%, 30% and 40% of minRAM
- Order book input: 2022 and 2023 data, including variants with normalized bid prices

**Key insights**
- Overall capacity allocated in FB is lower than in NTC
- **Low/zero volume of LTTRs allocated, even in both direction on some borders**. This effect is also present on the BE borders, with volume of LTTRs below 100 MW on BE>DE, BE>NL and NL>BE.
- Increasing the **minRAM** increases the overall volume of allocated LTTRs but **DOES NOT mitigate the low/zero effect.**
- This low/zero allocated volume effect **is a direct consequence of the design of the allocation algorithm**. Its objective function is to maximize welfare, whereby welfare is defined as congestion revenue (bid price * accepted volume) and borders are put in competition.

# Elia's view on the way forward (1/2)

1) Avoid a step back (reducing hedging possibilities) before going to the to-be-defined LT market model ➔ **put LT FBA implementation on hold**

2) Start a **conceptual discussion on the LT market model** as per the timeline set out in the **EMDR**

- The formal adoption of the EMDR is expected between Apr 2024 and June 2024

- The EMDR includes an assessment of possible improvements of the forward market design. This includes changes to the frequency of allocation / maturity / changes to the nature of LTTRs (options vs. obligations), ways to strengthen secondary market, and possible introduction of virtual power hubs.

- The EC is tasked to perform this impact assessment and adopt an implementing act by 18 respectively 24 months after entry into force of the EMDR ➔ FCA 2.0 would include these improvements by summer 2026.

# Elia's view on the way forward (2/2)

3) We anticipate discussion & pressure to evolve meanwhile to a coordinated capacity calculation approach, inspired by the current Core LT CCM scenario-based FB capacity calculation as basis and adding a NTC extraction step. Our view is to **continue the coming years with the uncoordinated NTC approach** as we believe stability and foresight is more important than moving from one suboptimal model to another suboptimal model:

- The long-term market model can take a completely different direction: flow-based, NTC, or something else

- A scenario-based approach does not fit with longer maturities (Y+2, Y+3). A statistical approach is needed.

- Designing an NTC extraction is not a quick win: there is some arbitrariness involved, and arbitrariness does not match well with providing efficient hedging possibilities and defining rules for congestion income distribution

4) Whilst the LT market model is being shaped and enshrined in regulation, we are open to **move forward in the coming years with no-regret – yet impactful! – evolutions**. When we think today about no-regret evolutions, we think about:

- Longer maturities (Y+2 / Y+3 products) hereby developing the foundation of a statistical approach ➔ this is possible to do on bilateral / border basis, without having to adapt the existing regulatory framework. Yet it requires some regulatory comfort

- Transition to a pure financial approach. This is about removing LTA inclusion from the DA timeframe, and about finding the right balance in volume of LTTRs to offer (hedging benefits ⇔ socialization of the LTTR's firmness) ➔ this requires adaptations of regulatory frameworks in Core (link with DA+ID CCM) and on pan-EU level (firmness - CID methodologies)

# SDAC 15 min MTU

Change in nomination deadline for Belgium

Elmo Van Tielen

# Shift to 15 minute Market Time Units (MTU) in SDAC requires changes in the operational process

- In October 2023, MCSC proposed an increase in runtime of the market coupling algorithm (Euphemia) from 17 to 30 minutes

- The consequence is a delayed publication of the final SDAC results:

| | Current timings | 2025. timings | |
|---|---|---|---|
| Coupling | 12:00 | 12:00 | NEMO Order book Gate Closure Time |
| | 12:10 | 12:10 | PMB GCT // Reception of all Order Data files in PMBs à Start of Calculation |
| | 12:40 | 12:27 | Deadline to send the message for Risk of Partial Decoupling |
| | 12:27 | 12:40 | End of Calculation |
| | 13:05 | 12:52 | Deadline to declare Partial Decoupling |
| | 12:45 | 12:58 | Publication of Preliminary Results and sending to the TSOs |
| | 12:58 | 13:11 | Publication of Final Results à Start of Notification Process |
| | 13:50 | 13:50 | Deadline to send the message for Risk of Full Decoupling |
| | 14:20 | 14:20 | Deadline to declare the SDAC Full Decoupling or Publication of coupled Results |

*Source:* MCSC

→ Reduced time between SDAC results publication and nomination deadline

# The later publication of SDAC results puts pressure on the nomination process

## The current SDAC timing is already tight: numerous operations must be performed between market results publication and nominations

1. **Fetch** the SDAC results data and **book** them in the local IT systems
2. **Rerun** the optimization models used to calculate the final DA production plans for every asset in every country/bidding zone based on the clearing prices
3. **Validate** the new production plans and **check/act** on any imbalances

4. **Export** the results of these runs into the local IT systems, in order to generate the files required for the generation nomination
5. **Book** all day-ahead transactions in the Deal Capture System
6. **Nominate** the production plans to the TSOs (and circulate them to the plants)

*Source:* MCSC

| Scenario | Nomination type | Nomination deadlines depending on the Core bidding areas related to EPEX SPOT | | | | |
|---|---|---|---|---|---|---|
| | | BE | FR | DE/LU and AT | NL | PL |
| Normal day → Market Results published between 12:45 and 13:05 | Hub | 14:00 (hub 1) 14:30 (hub 2) | 14:30 | 14:30 | 14:00 | 14:30 |
| | Cross-border | 14:30 | 14:30 | 14:30 | 14:00 | 14:30 |
| | Generation | 15:00 | 16:30 | 14:30 | 15:15 | 15:00 14:30* |
| Market Results published between 13:05 and 13:50 | Hub | 14:45 (hub 1) 15:00 (hub 2) | 15:00 | 15:00 | 15:00 | 15:00 |
| | Cross-border | 15:00 | 15:00 | 15:00 | 15:00 | NA |
| | Generation | 15:30 | 17:15 | 15:00 | 15:45 | 15:00 14:30* |
| Market Results published between 14:20 and 14:50 | Hub | 15:15 (hub 1) 15:30 (hub 2) | 15:30 | 15:30 | 15:30 | 15:30 |
| | Cross-border | 15:30 | 15:30 | 15:30 | 15:30 | 15:30 |
| | Generation | 15:30 | 17:15 | 15:45 | 16:15 | 15:30 |

*Source : Epexspot*

→ Nomination deadline of 14:30 cannot be delayed as it impacts the start of the DA TSO security analysis
→ **Proposed BE solution:** Remove hub 1 nomination deadline to allow more time to BE market parties

# Elia proposes to remove the hub 1 nomination deadline and maintain a single nomination deadline for Belgian market parties

**Current nomination deadline:**

| HUB 1 | HUB 2 |
|---|---|
| 14:00 | 14:30 |
| Ultimate deadline for new nominations | Only modification of existing nominations |

**Nomination deadline with 15 min MTU:**

| HUB 1 | SINGLE HUB |
|---|---|
| 14:00 | 14:30 |
| Ultimate deadline for new nominations | Single deadline for all nominations |

➡ Elia intends to implement notification system to MPs in case of missing nominations

**TIMING:** entry into force when SDAC switches to 15 min MTU
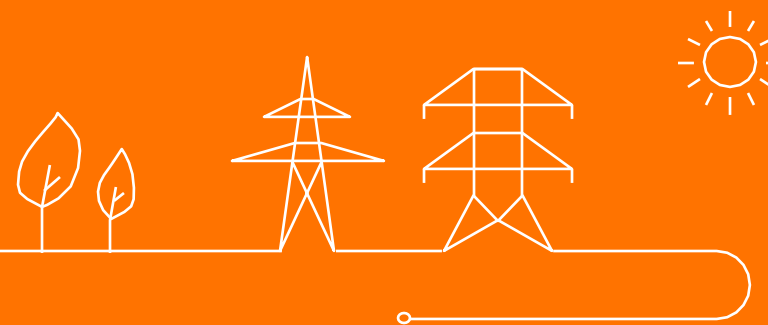
# AOB & Conclusions
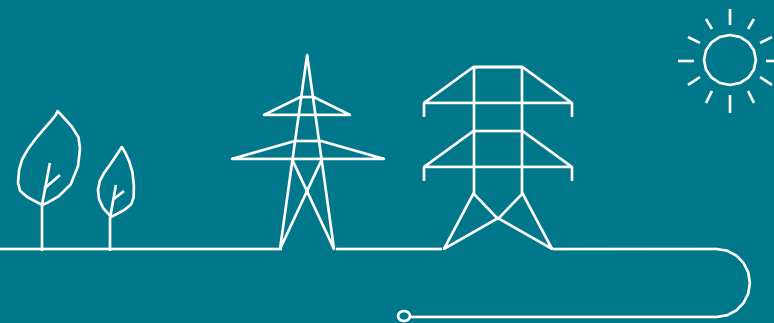
# AOB

- Change secretary: Guillaume Valentin will take over the secretary role of Thomas Van Den Broucke as from Q1 2024
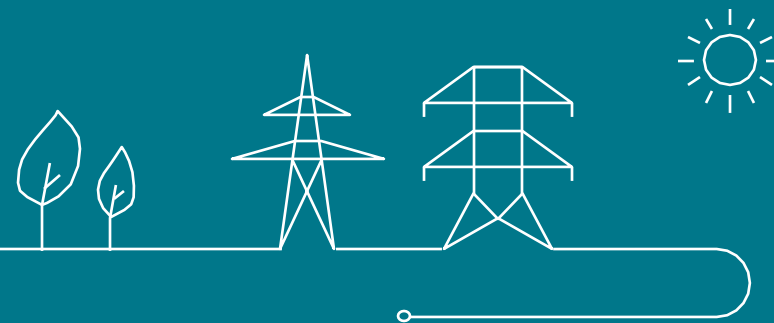
# Conclusions & next steps

Recap of main conclusions, actions & defined next steps after todays WG EMD-SO

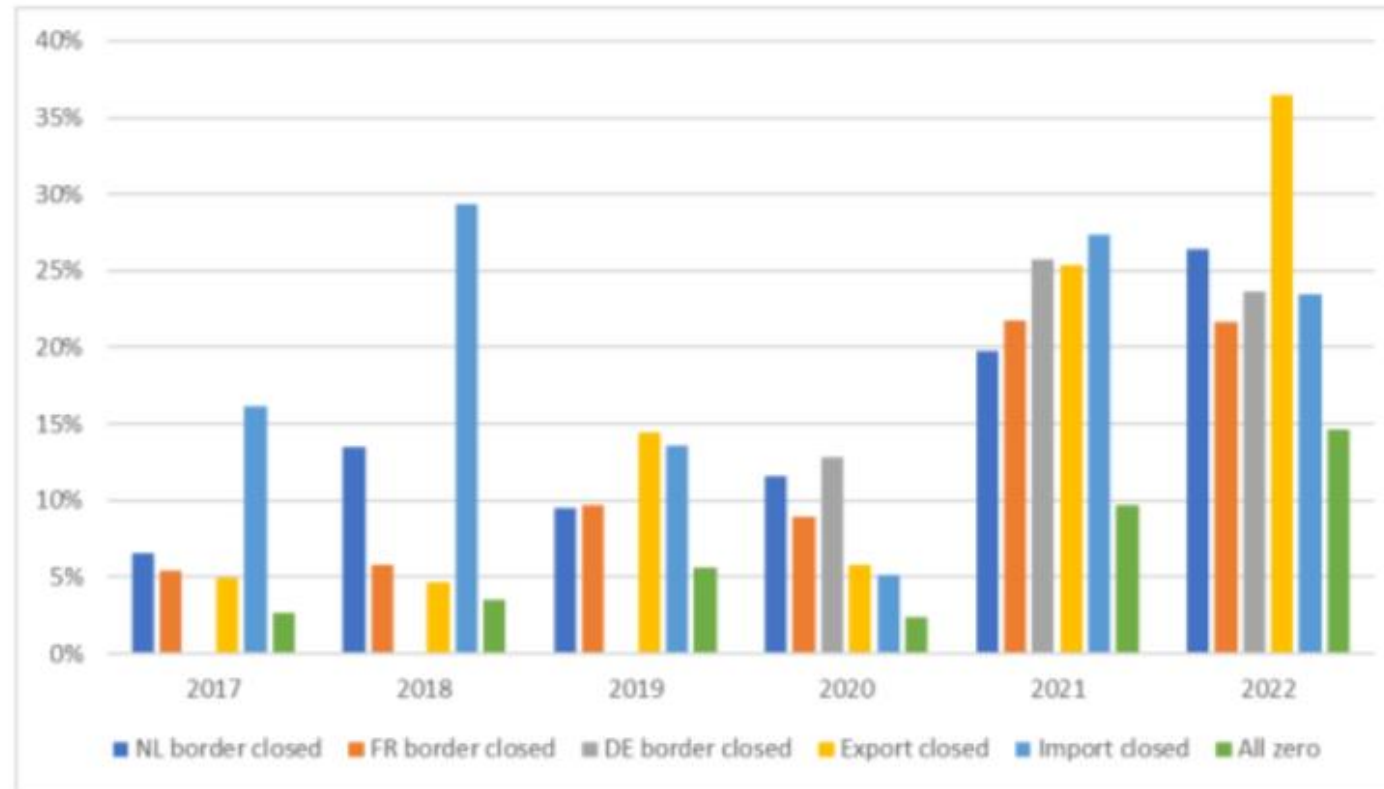- (based on discussion of meeting)

# ANNEX

# IDCC: historical statistics on BZ isolation

Figuur 8: Percentage van de uren waarin de waarde ID ATC gelijk is aan nul (< 1MW) per grens en per richting

Figuur 9: Percentage van de uren waarin de ID ATC waarde tegelijk gelijk is aan nul (<1MW) in beide richtingen van de grens met Nederland (NL *border*), de grens met Frankrijk (FR *border*) en op ALEGrO (DE *border*) en alle grenzen samen ("*All zero*"); alsook het percentage van de uren waarin de uitvoer- of invoercapaciteit gelijk is aan nul