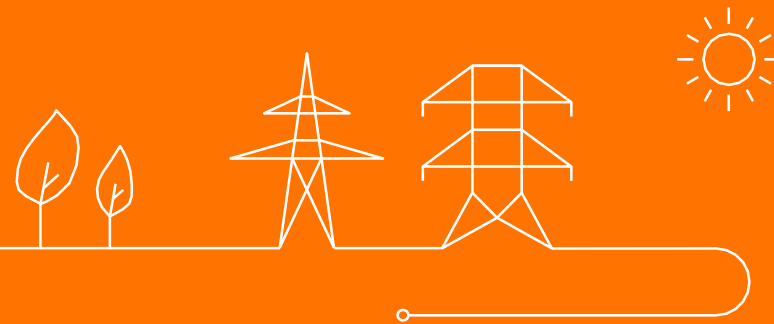


# Users' Group

**Plenary meeting of the Elia Users' Group,**  
Monday, June 10th



# Agenda

1. Approval report 01/03/2024
2. Reorganization of the working groups
3. Incompressibility
4. Grid User Flex for Congestion Management
5. Feedback working groups



# Agenda

- 1. Approval report 01/03/2024**
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# Users' Group – Reorganization working groups



# Proposal working groups

Chairman: J. Voet  
S: W. Mennen/F. Dessain

## WG Adequacy

- Adequacy Solutions
- Flexibility Studies

## WG Belgian Grid

- Connection and Access to the grid
- Federal and Regional Grid Codes
- European Netcodes
- Grid Development
- Grid User impact

TF Scenario's

Members: As is

Chairman: A. Torreele  
S: T. Van der Vorst

## WG Energy Solutions

- Flexibility
  - DiMax
  - Real-Time Price evolution
- Balancing
  - PICASSO / MARI
  - BRP
  - Ancillary Services

NEW

Members: WG BAL & WG CCMD

Chairmen: W.Geelen & B.Genêt  
S: G. Valentin

## WG Grid

- European Market
- System Services Design
- Operations

NEW

TF PEZ

TF Icaros

Workshops GUFlex

Members: WG BAL & WG SO&EMD

# WG Energy Solutions – roadmap as from 01/09/2024

Chairman: Alexandre Torreele  
Secretary: Thomas Van der Vorst

NEW

## FLEXIBILITY

- DiMax - Wave 2 – Q3 & Q4 2024
  - T&C BRP revision for faster imbalance settlement
  - Implementation of facilitation tools for BRP services
  - Continue investigations with power exchanges
- Real-Time Price
  - Integration of feedback from the public consultation on the design
  - Deep-dive 'how' + open design questions
  - Public consultation second design note
  - Final design note (Q4)

## BALANCING

- PICASSO– MARI (PIM)
  - Local go live of the new mFRR bidding and iCAROS phase 1 Mid May 2024
  - Connection to EU mFRR balancing energy platform Fall 2024
  - Connection to EU aFRR balancing energy platform October 2024
- Other initiatives:
  - aFRR Design Evolutions
  - FCR Design Evolutions
  - aFRR Dimensioning
  - Amendment T&C BRP
- Incentives
  - Improvement in the data provision by Elia
  - Establishment of load management strategy requirements for delivery points with limited energy storage and offering multiple balancing services simultaneously
  - BRP settlement / invoice process

# WG Grid – roadmap as from 01/09/2024

Chairmen: Walter Geelen & Benjamin Genêt  
Secretary: Guillaume Valentin

NEW

- European Market :

- Forward, Day-Ahead, Intraday
- Design and implementation of congestion management and market coupling solutions
- Evolution of the regulatory framework

*2024: IDCC and IDA go-live, forward market impact assessment, 70% derogation*

- System Services Design:

- Scheduling Agent (SA)
- Outage Planning Agent (OPA)
- Voltage Service Provider (VSP)
- Restoration Service Provider (RSP)
- Flexible connection agreement
- Grid Losses
- Emergency services

*2024: start iCaros phase 2, evolution VSP and RSP, incentive CREG GUFlex, LFDD, blackout-proof phone*

- Operations:

- NCC yearly report
- Winter/Summer outlook and review
- Discussion on exceptional market situations

*2024: regular follow-up of above topics, incompressibility*

TF PEZ

Chair: B. Genêt  
Secretary: B. Hahati

TF Icaros

Chair: B. Genêt  
Secretary: V. Illegems

Workshops GUFlex

Chair: B. Genêt  
Secretary: A. Weynants



# WG Adequacy & Belgian Grid – roadmap as from 01/09/2024

Chairman: Jan Voet  
Secretary: William Mennen

- Adequacy and Flexibility Study
  - Scenario and parameter determination for Adequacy & Flexibility Study '25
  - Update on external studies
- CRM design
  - CRM design evolutions (including Cross-Border CRM).
  - Public Consultation of the CRM Functioning Rules for Y-1/2025-26 & Y-4/2028-29
  - Public Consultation of the Capacity Contract
  - Update on external studies
- CRM calibration
  - Scenario determination and calibration for the auctions Y-1/2026-27, Y-2/2027-28 & Y-4/2029-30
- CRM Implementation & Operations
  - Update on Go-to-Market timelines
  - Preparation of the organization of the two upcoming auctions: Y-1 2025/26 & Y-4 2028/29

Chairman: Jan Voet  
Secretary: François Dessain

- Contracts
  - Access Contract (consultation est. Q3)
  - Connection Contract
- European Network Codes
  - Requirements for Generators (voting EU est. Q1 2025)
  - Demand Connection Code (voting EU est. Q2 2025)
- Grid codes and Code of Conduct (CoC)
  - CoC – amendment book 2 – EDS/EOS/capacity reservation
  - CoC - Implementation & processes
  - Federal Grid Code – impact of European network codes
- Development plans
  - Federal Development plan – start discussion

TF Scenario's  
(TBD)

Thank you.



# Agenda

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# Incompressibility





UG 10-06-2024

Walter Geelen

## Incompressibility Risk – Executive Summary

The concern about incompressibility follows a combination of two separate **challenges**:

- A. Ability of the market to manage well ‘predicted’ situations of high renewable generation. It is related to the ability of market parties to maintain a balanced portfolio during high renewable energy conditions (DA/ID demand side shifting & RES flexibility)**
- B. Ability of the system to maintain sufficient flexibility to manage unexpected outages or forecasting errors. It is related to available downward flexibility in the system (ID/RT demand side shifting & RES flexibility)**

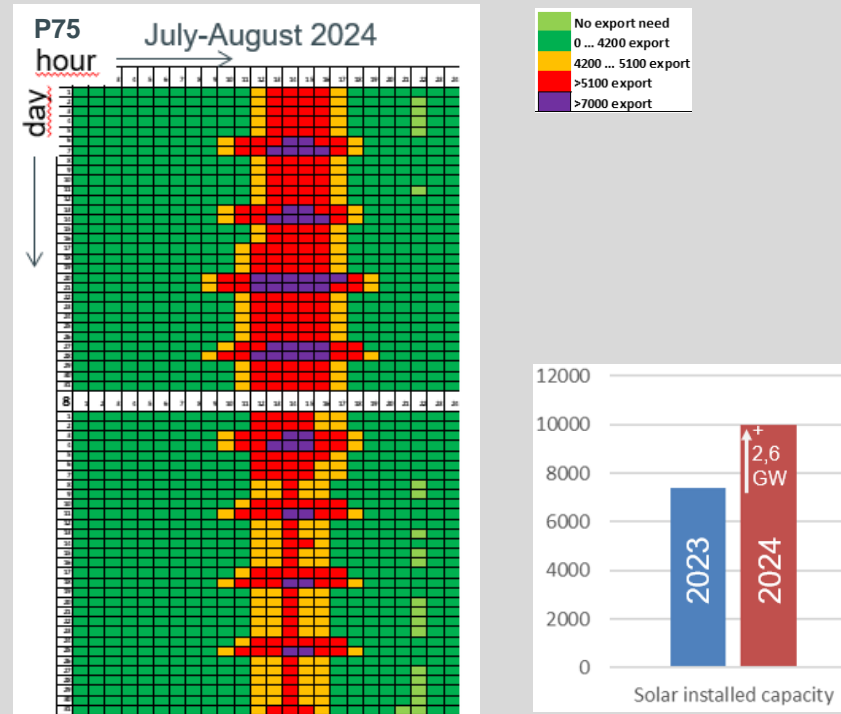
Elia’s key belief is that challenge A needs to be solved within the. If not, reduction/modulation of renewable generation will grow every year linearly with increase of PV and wind generation. Solving challenge A will also resolve challenge B by liberating flexibility for the balancing time frame, at least from renewable generation.

Based on the 7/4 events as well as the Summer Outlook, Elia is of the opinion that, in certain circumstances (i.e. high RES generation and low load), there may be an insufficient amount of flexibility available in the market to keep ensure safe system operations (i.e. frequency deviations with large & persistent imbalance from Elia).

For this reason, we would like to be able to access the “technical flexibility” available on (TSO-) DSO level as well as a “hard stop” on a nuclear asset.

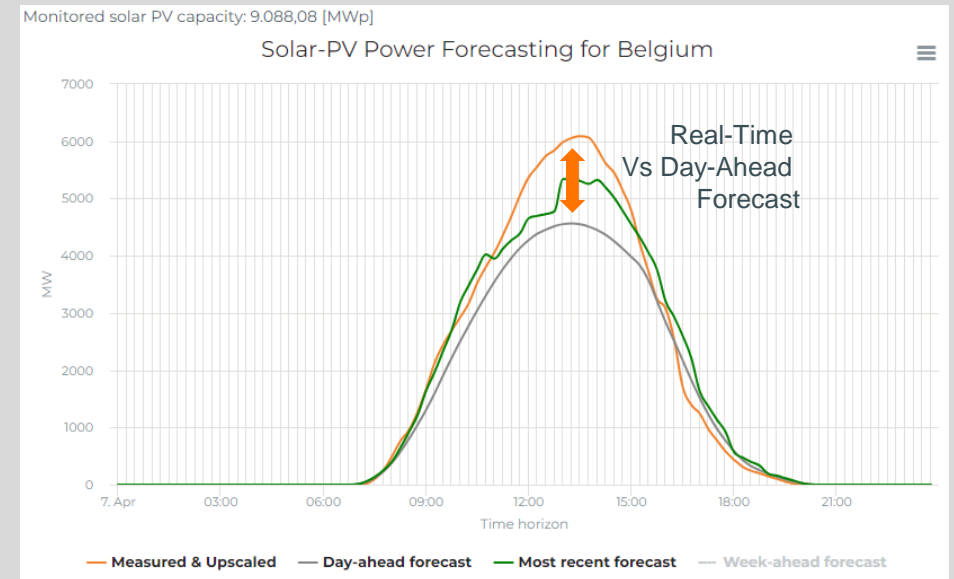
# Incompressibility Risk - Needs

## Challenge A High Renewables generation – Export Need



Summer Outlook

## Challenge B Forecasting Error – Balancing Flexibility Need



Or unexpected outage like Nemo Link Ltd in export

On the 7/4 events

**1 out of 4 week-end (P75), Belgium will need to export more than 7GW which is nearly 2GW more than in 2023. For the same forecasting quality, the growth of the PV installed made the balancing flexibility need much higher than in 2023.**

# Incompressibility Risk: Beyond Market Flexibility → Technical Flexibility

## Market Flexibility:

### **Incompressibility risks at Day-Ahead stage: >7GW export need (1 out of 4 WE)**

- Same EU export need at the same time (NL 26GW PV & FR 5-10GW more NUC available)
- Complex EU Technical Capacity Calculation Process (fallback solution provides much lower cross-border capacities)

### **Incompressibility risk at Intraday/Real Time stage: mainly linked to forecast errors (till >2GW)**

- New EU Intraday Capacity Calculation process (worst case scenario: no Intraday market during several hours)
- After Day-Ahead optimization, No left over of Available Transfer Capacity
- No guarantee of Reserve Sharing availability from our neighboring TSOs (they first fulfill their own need)

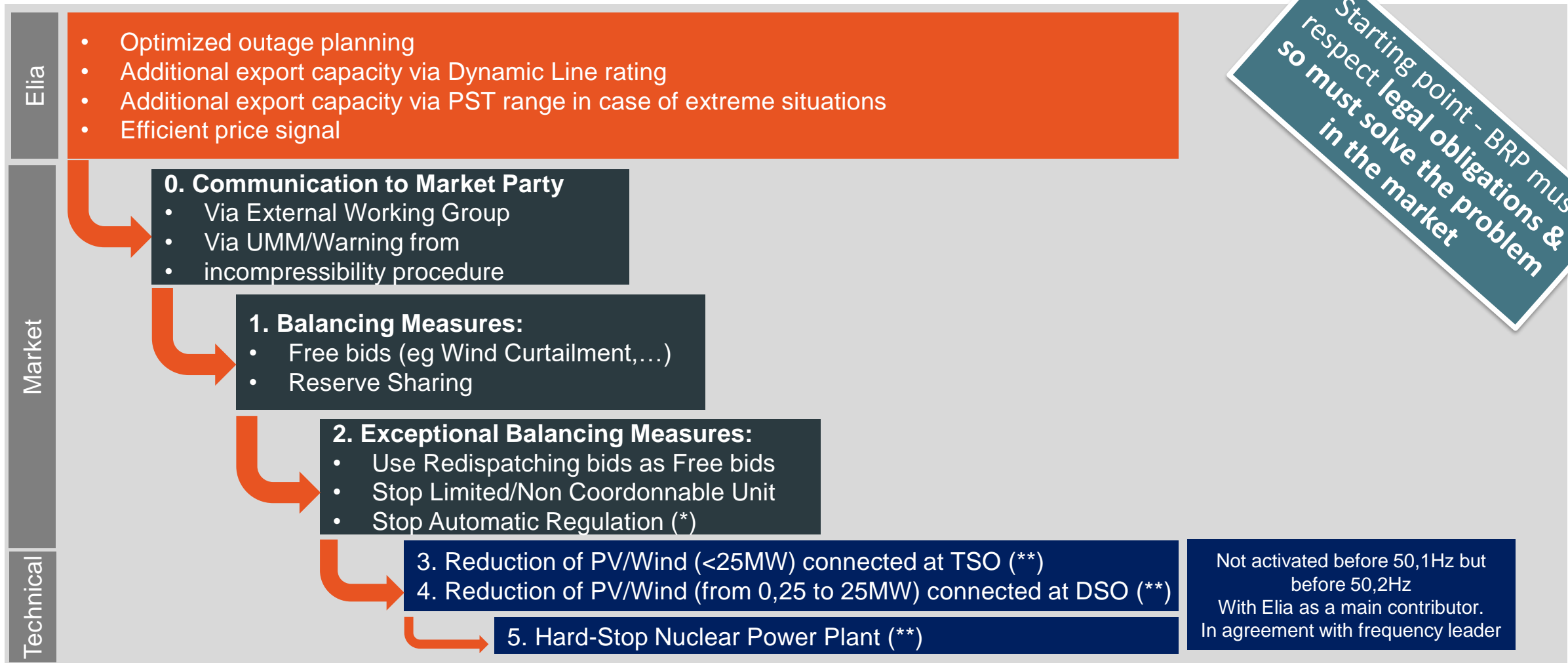
Elia is of the opinion that, in certain circumstances (i.e. high RES generation and low load), there may be an insufficient amount of flexibility available in the market to keep ensure safe system operations (i.e. avoid large and persistent imbalances and frequency deviations with large & persistent imbalance from Elia).

For this reason, we would like to be able to access the “technical flexibility” available on (TSO-) DSO level as well as a “hard stop” on a nuclear asset.





# Incompressibility Risk : Where is Technical Flexibility Process located?

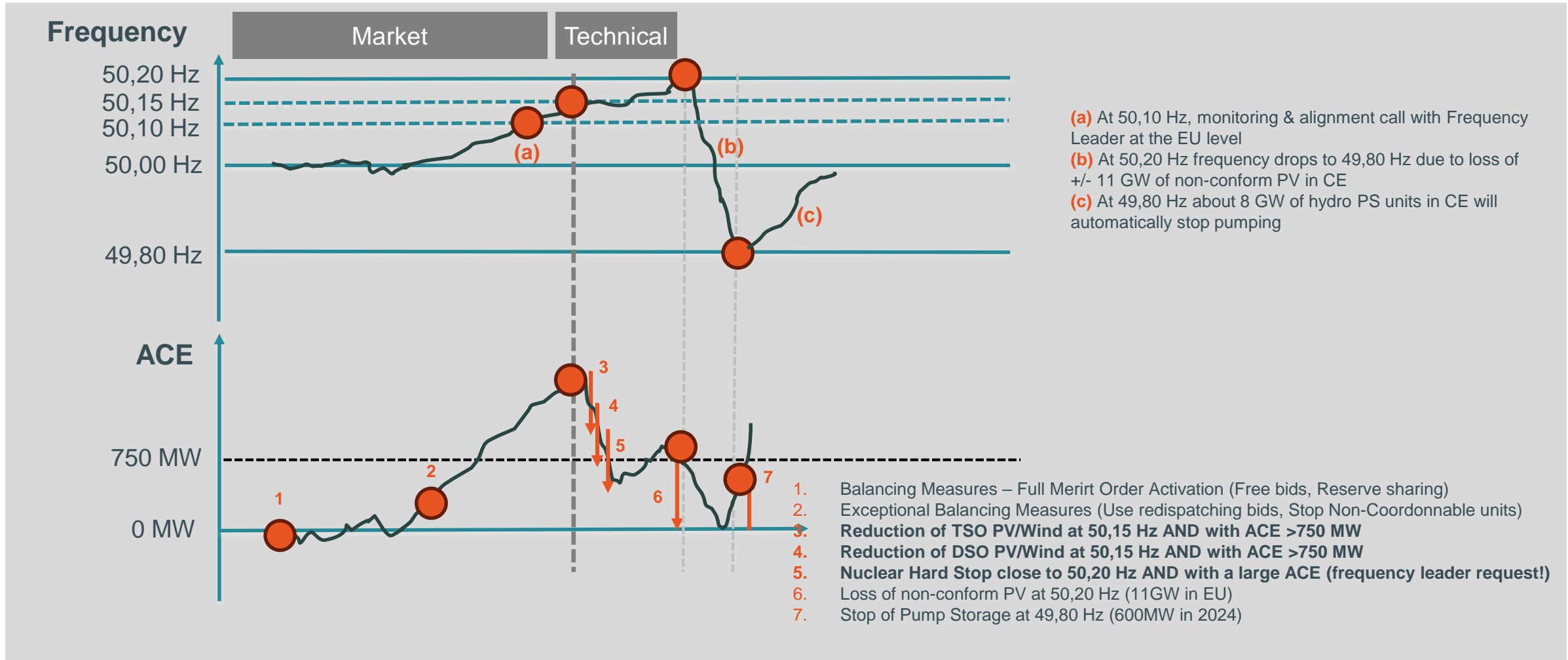


**Technical Flexibility will be used in last resort in Belgium before losing the old Belgian PV + > 11GW in the Rest of Europe and before frequency drop and restabilize**

(\*): Automatic Regulation Stop means no aFRR anymore for gaining Pmin of the machine – Impact on quality regulation for several hours.

(\*\*): Triggered by Exceptional Balancing Measures. (4): No Residential reduction/modulation!

# Incompressibility Risk : Technical Flexibility Process (with measurement)



**Technical Flexibility will be used in last resort in Belgium before losing the old Belgian PV + > 11GW in the Rest of Europe and before frequency drop and restabilize**



UG 10-06-2024

Alexandre Torreele

## Action Plan

Early identification is key for market



Awareness & transparency



- **Communication** (WG Bal, WG EMD SO) – **Summer Outlook & Key Events**
- Reinforce (common) understanding
- **Publication Forecasting & Balancing:** PV/Wind,.. Balancing Warning
- Reaction and **action plan of BRPs causing issue**
- **Monitoring** of available flexibility
- **Reporting** (ad-hoc basis & at the end of the summer)

Unlock more downward flex



Actions with Short & mid-term impact



- **Forecasting Improvement** (alarm,...)
- **Prospection for extra volumes** (large PV, CHP, “Technical flex at DSO level”)
- **New high risk of Incompressibility procedure**
- Investigate possibilities for **more extreme modulations** (aFRR,...)
- Investigate **price signals** imbalance tariff (Reserve Sharing,...)
- **Outage planning management**
- Extra capacity via **Dynamic Line Rating** + Optimization export capacities

Pave the way for structural solution



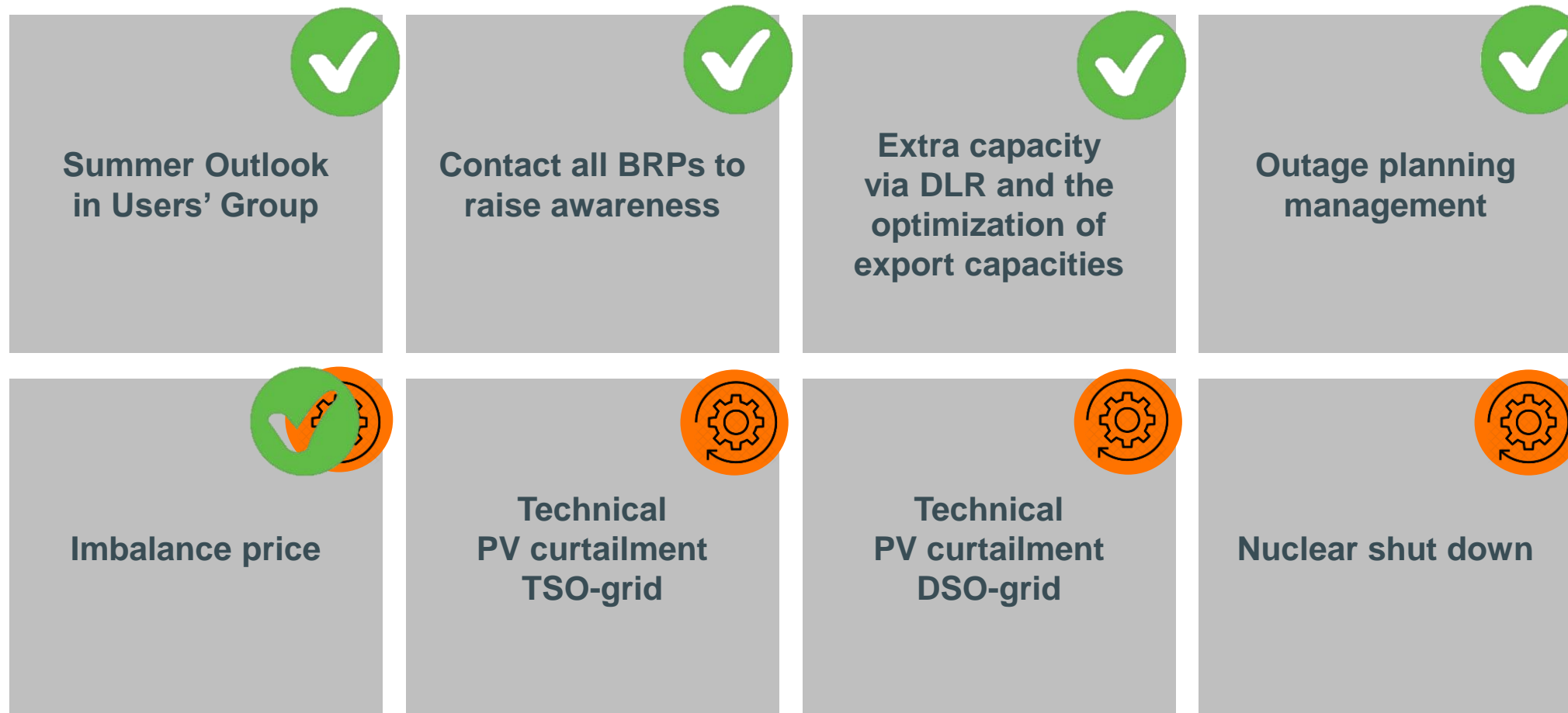
Actions with longer term impact



- Implementation of **Real-Time Price**
- Make (new) **PV capacity ‘flex ready’** (discussions Synergrid, policy makers,...)
- **Develop explicit flexibility (link Synergrid roadmap)**
- **Develop implicit flexibility, supply split and submeter (link Synergrid roadmaps)**
- Solution at the regional level (EU market design, RGCE, STA)

# Awareness & Short-term Impact: Market & Technical solutions for incompressibility

Investigate Price Signals Imbalance Prices & Prospection for Extra Volumes



# Conclusion

Starting point - BRP must respect their **legal obligations & so must solve the problem in the market (= only efficient & sustainable solution).**

## On the short-term for Summer 2024, Elia

- Maintains the **High Risk of Incompressibility procedure** & updates it by 22/5/2024 (Reminder in annex)
- **Updates the solar forecast**
- Optimizes outage planning management & provides **additional export capacities** via Dynamic Line rating which increases the capacity of the lines (much earlier project delivery than initially foreseen)
- Is analyzing the **price signal efficiency** (more specifically for the coming months)
- After all market-based mechanisms playing their role and still facing a very large frequency deviation (EU Impact) in which Elia is playing a major contribution (very large ACE); then, as a last resort, **Elia is actively building up two technical mitigation measures:**
  - **PV/Wind/Flexible asset shedding plan** at the TSO & DSO level for unit  $1\text{MW} < X < 25\text{MW}$
  - **Nuclear hard stop**
- **Monitors** each incompressibility event and will report at the end of the summer.

For the next summers, Elia gears up on **RTP, (PV,...) flex ready assets, solutions on Entso-E Level (frequency)/New Market Design Mechanism**

## Projection 2024 and beyond : no large improvements expected before 2026

- ✓ **While renewable generation increases, the amount of hours with low prices and excess generation will continue to increase**
  - ✓ Current best estimates a yearly increase of PV of around 900 MW – 1200 MW per year.
  - ✓ Also our in neighboring countries renewable generation is expected to increase (cf Netherlands,...)
  
- ✓ **This will be partially compensated by additional flexibility in the Belgian system. An amount of batteries have already announced to enter the market after 2024**
  - ✓ Substantial capacities are only expected as from Summer 2026/27
  
- ✓ **The (partial) phase out of nuclear base load and the Summer LTO will create additional room in the system after the Summer of 2025**

- *The situation with incompressibility for Summer 2024 is worsening compared to Summer 2023 (see Summer Outlook).*
- *The deployment of batteries and the nuclear phase out (and LTO) is expected to provide some margins by 2026 & Co.*

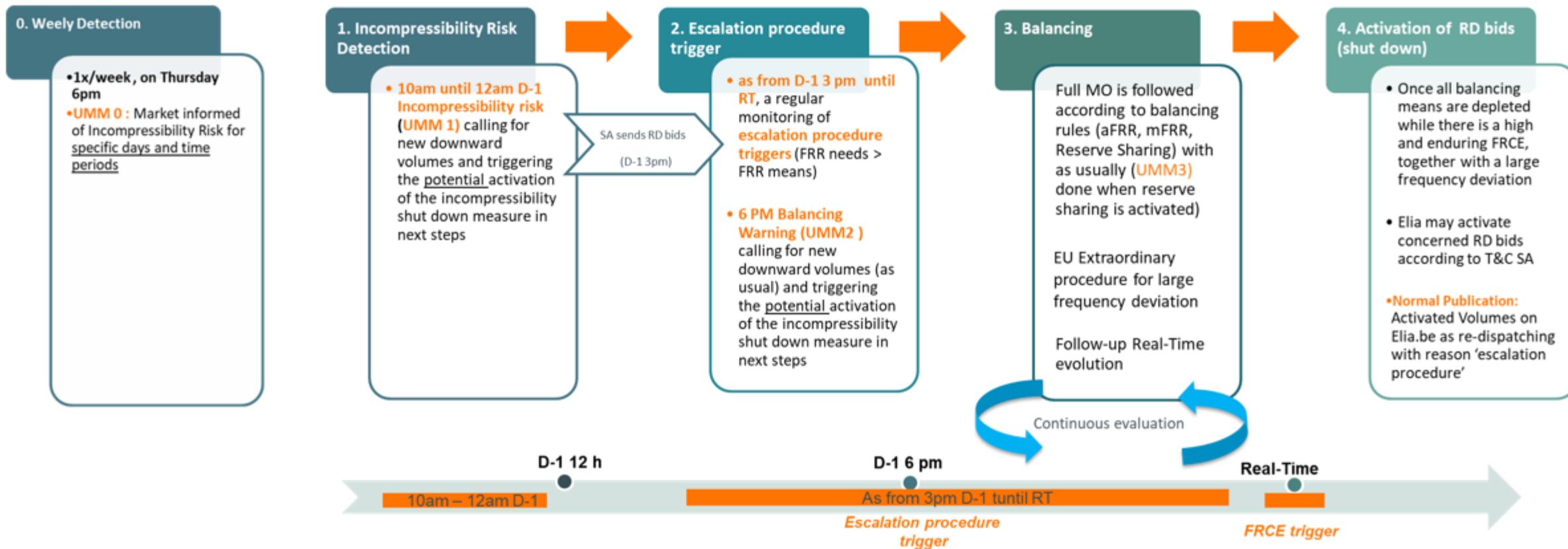
# Reminder





# Exceptional Balancing Measure (High Risk of Incompressibility Procedure)

## Process (as from 22/5)



LC/NC: Limited and Non-Coordinable unit



Thank you.



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# Grid User flex for Congestion Management (GUFlex4CM)

A. Weynants / B. Genêt





Design Note : Scope and Trigger



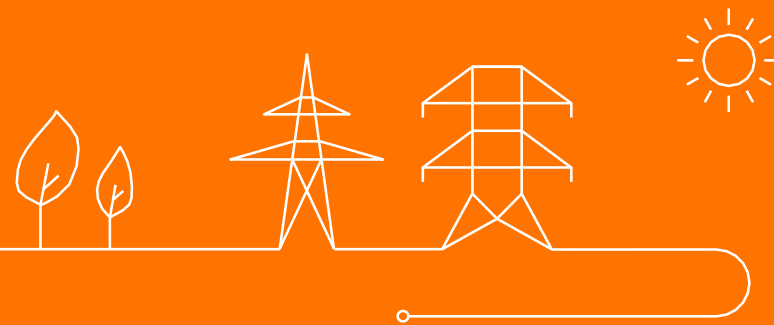
Design Note content



Next steps

# 1. Design note

Scope and Triggers



# Design note : Scope and Triggers

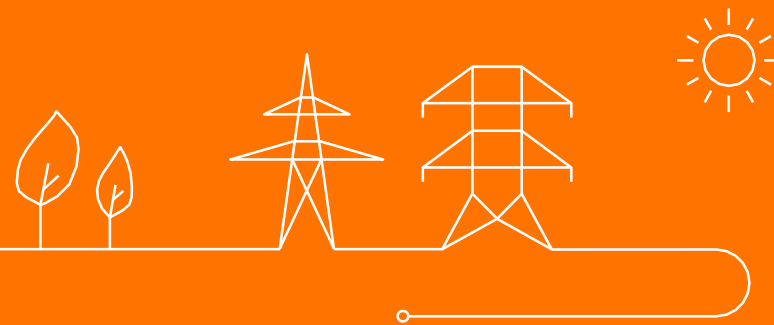
## Design Note Scope

- ❑ The note aims at describing a design related to the **evolution of connections with flexible access** and **evolution of client connection processes** in the **mid/short term** and with a **focus on the federal grid**. Those are **fundamental aspects** and **processes** which are **relevant for all Grid Users**,
- ❑ The design of the flexible access is **based** on the **existing “Gflex product”**, where the **flexibility is activated in Real Time** with **setpoints** based on **measurements** of critical grid elements
- ❑ Based on the proposed design and on the feedback from Market Parties, **a modification of Code of Conduct** will be proposed to the CREG by Q3 2024

## Triggers of the proposed design

- ❑ Growing importance of connections with flexible access in an **energy transition** context leading to a **massive increase of connection requests** for renewable, storage and electrified that often require to be connected earlier than the grid reinforcements that are necessary to absorb those additional injections/offtakes.
- ❑ Received **feedback from Market Parties** highlighting the need to **clarify the current way to treat** connection with **flexible access**
- ❑ **Willingness** from the **CREG** to **amend the Code of Conduct**, **incentive** on connections with flexible access

## 2. Content





## Design note : content (1/4)

1. Introduction
2. Regulatory framework
3. Early connection – notion of Temporary Period
4. Clarification on connection process : studies & capacity reservation
5. Procedures and criteria for client-connection studies
6. Guarantees provided to Grid Users that have a connection with flexible access
7. Clarification of operational processes
8. Reporting of flexibility activations
9. Target Model for integrating Grid User flexibility in optimal grid planning and operation
10. Conclusions and next steps



## 1. Introduction

- More **insight** on the **context** of connection with **flexible access**, trigger and scope of the note and **expected further evolution**

## 2. Regulatory framework

- **Overview** of the **existing federal, regional and European regulatory framework** related to connections with **flexible access** and their **expected evolutions**
- **Highlights** the fact that there are **divergence** between the **federal and regional** regulatory framework and that there is a **need for harmonization** between the different voltage levels.

## 3. Early connections – notion of Temporary Period

- Definition of **Temporary Period** concept, applicable to **Grid Users choosing for a connection** to the grid **prior** to the realization of the **needed grid reinforcements**
- Grid Users would have to **bear the cost** (i.e. no remuneration) of the **activated flexibility** needed to **solve congestions** (guarantees are foreseen to ensure the viability of their business case – cfr section 6)

## Design note content

### 4. Clarification of connections processes : studies and capacity reservation

- **Analysis** of the **current situation** and **proposition of improvements** in order to **streamline** those processes and **avoid “sleeping” reserved capacities**
- Main proposed **changes** : applying a **serial approach** for **linked orientation studies**, **limiting** the (currently illimited) **prolongations of reserved capacities** and introducing a **bank deposit**

### 5. Procedures and criteria for client connection studies

- Description of the **procedures** and **criteria used** when **performing connection studies** (reference context, which system states are analyzed...) and their **implications**

### 6. Guarantees provided to Grid Users that have a connection with flexible access

- Description of the **guarantees** that needs to be **provided to Grid User** with **flexible access** in order to enable them to **assess** the **viability** of their **business cases**.
- **Guarantees** relates to the **maximal duration** of the **temporary period**, the definition of a **binding cap** on maximal flexible volumes, the clarification of the **flexibility activations** that are considered within this cap, the quantification of **flexibility in operations**, the **compensation** of the flexibility activations **beyond the cap** – consistently with iCAROS framework – and **some considerations** on the **re-evaluation of flexible volumes**.

## 7. Clarification of operational principles

- How **connections with flexible access** are **considered** in the **operational congestion management process**.
- Before having reached their cap, connection with flexible access are considered first in the merit order. After having reached their cap, connections with flexible access are considered as permanent contracts
- Activation of connections with flexible access are always performed in real-time to avoid unnecessary activations

## 8. Reporting

- **Description** of the **methodology** used to **report on the flexibility activations** for connections with flexible access

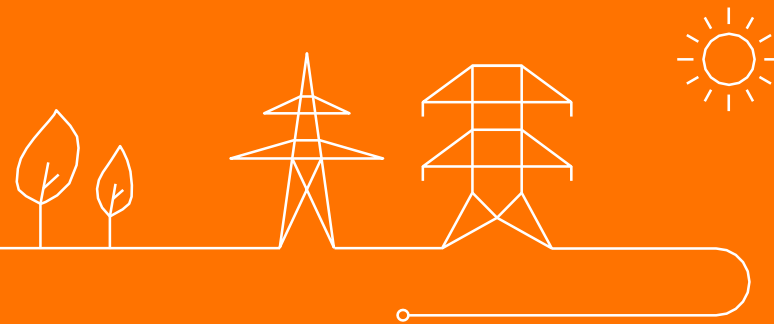
## 9. Target Model

- **Proposed vision** on how Grid User **Flexibility** could be used for **Congestion Management Purpose** in the **future**
- Description of the **fundamental principles** , **deep-dive** on evolution of **Long-Term Grid Planning** and **client connection processes**
- **Reflection** on the **need to develop new** congestion flexibility **products** in the future

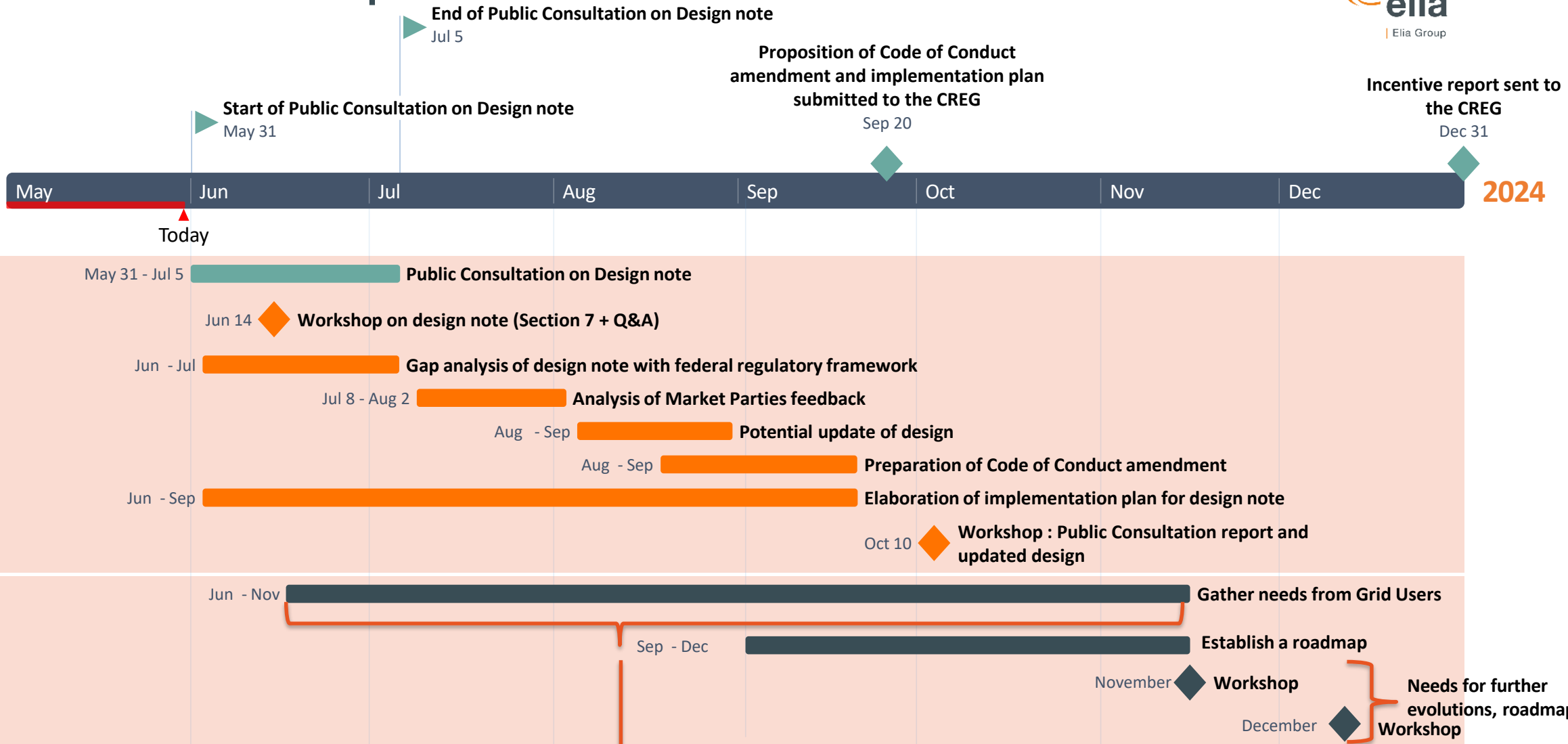
## 10. Next Steps

- **Next steps that will follow the public consultation**

## 3. Next steps



# Timeline for next steps



Mid/short term evolution

Needs for further evolution

Needs for further evolutions, roadmap Workshop

**Use cases** for flexibility welcome – especially for demand  
Please contact us to organize bilateral meetings

**Thank you.**



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# Feedback working groups

1/3/2024 |



# USERS' GROUP

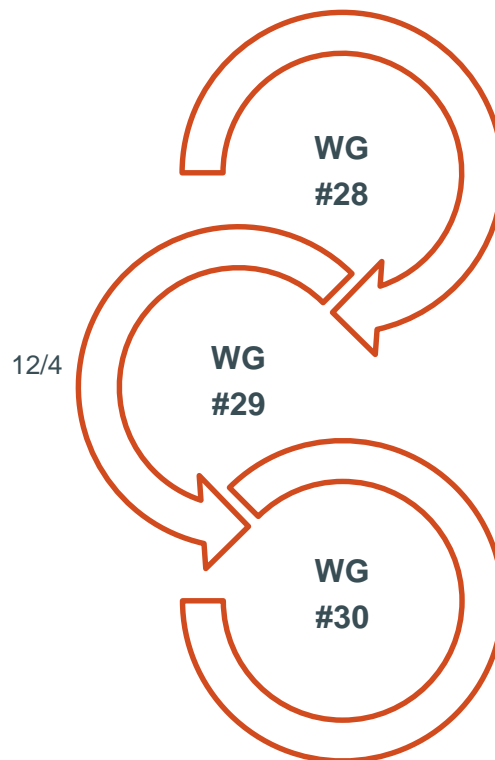


## WG Adequacy



# WG Adequacy – Q2 2024 Meetings

**CRM calibration:** Scenario, data and sensitivities for 2026-2027/Y-1, 2027-2028/Y-2 and 2029-2030/Y-4



29/03/2024

Update on the **public consultation on Capacity Contract**  
Info on **authorization for large-scale batteries**  
Feedback on **regulatory framework**

31/05/2024

Introduction of **design changes**  
**Feedback** public consultation **Capacity Contract**  
Update from Cabinet on **regulatory framework**

*Specific operational workshops are organized to support market parties to implement the complex availability monitoring & payback obligation processes*



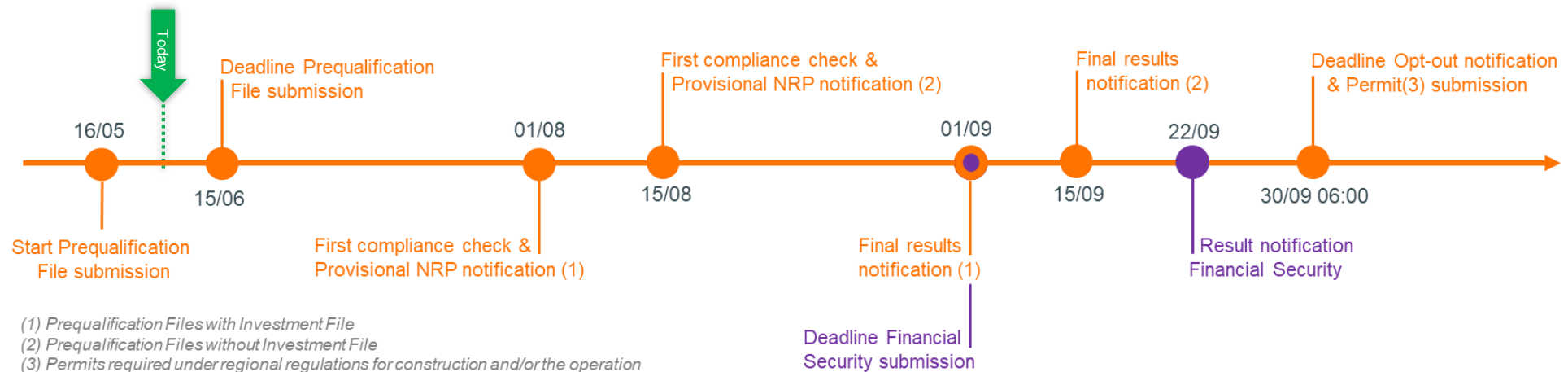
## Main Topics

- **Overview of main scenario's & sensitivities** that are publicly consulted upon for the calibration of 2026-2027/Y-1, 2027-2028/Y-2 and 2029-2030/Y-4 auctions.
- **Public consultation of CRM Capacity Contract V4** (to be approved by CREG before bid submission in the auction) : Limited changes to the Capacity Contract, including simplifications in the settlement process and the introduction of the MTU.
- **Presentation of future design changes** following
  - **Adoption of Functioning Rules V4** (foreign CMUs in multiple CRMs, flexible connections, low voltage, etc.)
  - **Further evolutions to the CRM design**: baseline design updates, corrections for ancillary services in availability monitoring, roadmap to introduce further simplifications & return on experience presented during WG of 14/6.
- Cabinet presented an overview of the **changes to the CRM regulatory framework** (entry into force April 2024)
  - Update of the Electricity Law : protection of data, legal basis for CRM improvements.
  - Modification of the Royal Decree on Investment Thresholds to introduce multi-year contracts for existing capacity.
  - Modification of the Royal Decree Methodology for the Y-2 Auction, to clarify the IPC process/calculation, payback exemption for capacity without daily schedule.
  - Adoption of Cross-border Royal Decree to allow XB capacity to participate.

# Launch of 2024 Y-1 & Y-4 CRM Auction Operations



- **ADEMAR Platform** is ready and **open for 2024 Auction operations** (Application Form, Prequalification & Financial Security): <https://ademar.elia.be/>
- As communicated on Synergrid's website, CRM is **open for low voltage participation** in upcoming Y-1 & Y-4 auction.
- The updated **User Manuals** are available directly in the platform
- Documents and Templates are up-to-date on [Elia website CRM page](#)



- Any Question? You can contact us via: [customer.crm@elia.be](mailto:customer.crm@elia.be)



**USERS' GROUP**



# WG Belgian Grid



## WGBG March 29th (1/2)

### 1. Grid User Flex for Congestion management – status



- 3 workshops previously organized (1 more to go on 14/06)
  - Fundamental principles
  - Methodology for client connection studies, reporting
  - Guarantees given to GU
  - Operational flex activations, Q/A public consultation



- Public Consultation on design note started on 31st may (till 5th of July) (including new process EOS/EDS as per below)

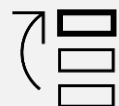


- Elia will submit a proposal of GDC to CREG by Q3 2024, subsequent public consultation will be made by CREG



## WGBG March 29th (2/2)

### 2. Connection - Proces EDS/EOS/Capacity reservation – discussion



- Elia seeks stakeholder's recommendations on new process around EOS/EDS on: subjects priorities, delays, limitations, exchange of information, eventual charge,...

#### Goal of the revision:


- Filling gaps in the regulatory framework
- Harmonise the description of the EOS and EDS process
- Clarify processes/criteria and adjust timing given the large increase in applications and complexity of studies and reference context
- Improve follow-up of studies, including more transparency
- Avoiding 'sleeping' capacity: Limited extension of capacity reservation
- Payment of capacity in case of unused allocation





## WGBG March 29th (2/2)

### 3. Connection Contract

- 
- Feedback Public Consultation
  - Liability clauses
  - Sent for approval to regulators on May 31<sup>st</sup>




## WG Balancing – Go-live PIM



# iCAROS phase 1 & MARI Local go live confirmed & effective

Mail of  
19/04/24

**USERS' GROUP**



Dear Market Party,

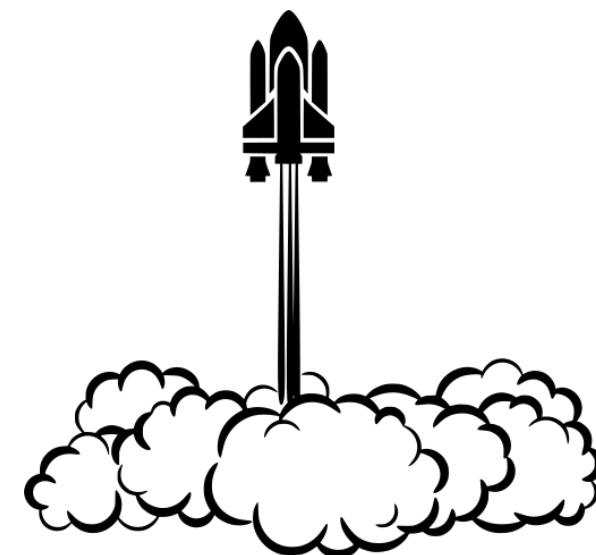
Elia would like to inform you that the Go-Live of iCAROS phase I and the MARI Local Go-Live are confirmed. As a result, the following regulated documents, as approved by the CREG, will enter into force on the **22<sup>nd</sup> of May 2024** (1<sup>st</sup> delivery date):

**Go-Live of iCAROS Phase I:**

- The updated Contract for [Outage Planning Agent](#);
- The updated Contract for [Scheduling Agent](#);
- The updated [Rules for Coordination & Congestion Management](#).

**MARI Local Go-Live:**

- The updated [BSP Contract mFRR](#);
- The updated [BRP Contract](#);
- The updated [Balancing Rules](#).



- As of **May 8, 2024**, the BSP were able to submit mFRR Capacity Bids for a delivery date on May 22, 2024
- As of **May 10, 2024**, the OPA were able to submit an Outage Plan for a delivery date on May 22, 2024
- As of **May 15, 2024**, the SA were able to:
  - Submit a Daily Schedule for a delivery date on May 22, 2024
  - Submit Redispatching Energy Bids for a delivery date on May 22, 2024
- As of **May 15, 2024**, the BSP were able to submit mFRR Energy Bids for a delivery date on May 22, 2024.
- As of **May 22, 2024**, first possible requests of redispatching activations and return to schedule governed by the updated SA Contract & first possible mFRR activations governed by the updated BSP Contract mFRR

# iCAROS phase 1 & MARI Local go live

This go live is the materialization of a long trajectory and intense work & interactions with the Market Parties in each step of the projects including:

- Design updates of the different products & processes
  - Outage planning
  - Scheduling
  - Redispatching
  - mFRR
  - Imbalance price formula



# iCAROS phase 1 & MARI Local go live

- Consultation on the updated regulated documents
  - T&C OPA
  - T&C SA
  - Coordination Rules
  - T&C mFRR
  - T&C BRP
  - Balancing Rules
- Intense implementation trajects on ELIA and Market parties side
- Business testing protocols with Market parties

**ELIA wants to take the opportunity to thank all Market parties involved in the discussions, consultations & implementation**



THANK  
YOU

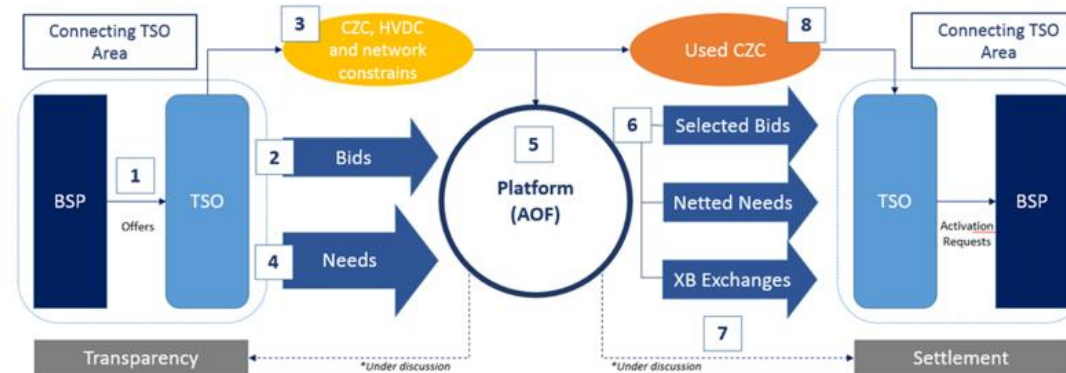
# What is next ?

The PIM Roadmap includes the following major milestones (\*)

- Local aFRR Go live ✓
- iCAROS phase 1 Go live ✓
- Local mFRR Go live ✓
- Connection to MARI
- Connection to PICASSO (together with some further aFRR Design evolutions)



High-level design of the EU platforms: TSO-TSO model

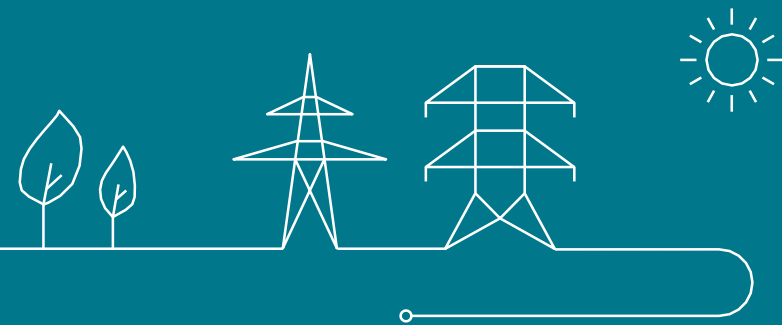


(\*) ICAROS phase 2 is part of a separate roadmap given its independence towards balancing product go lives

## MARI Connection

- In December 2023, the consolidated planning for MARI, iCAROS Phase 1 and PICASSO was updated for the go live dates of MARI & ICAROS as follows :
  - Local go live of the new mFRR bidding and iCAROS phase 1 Mid May 2024
  - Connection to EU mFRR balancing energy platform June 2024
  - Connection to EU aFRR Balancing energy platform October 2024
- iCAROS phase 1 & MARI Local go live was confirmed for the 22<sup>nd</sup> of May 2024 (Delivery date)
- **Due to an insufficient progress of the Interoperability Tests (IOP Tests) with the MARI European Platform, ELIA's connection in June 2024 will unfortunately not be possible and ELIA will have to delay its accession for after the summer**
- **A detailed assessment is ongoing to be able to provide the updated Roadmap at the latest by the end of June**

# Appendix








# Grid Solutions 2024-2027: iCaros - *Develop a grid that can host the increase of RES and demand in time while rationalizing the (investment) costs for society*

2020- 2023

2024


2025

> 2026



**Icaros phase I**  
Go live in Q2 2024

- ✓ Focus on PGMs & storage ≥ 25MW
- ✓ Modern data exchange as of W-1
- ✓ Explicit RD bidding
- ✓ CRI filtering



**Go Live**

**Important note:** timings phase II are provisional

- Delayed effective go-live of Icaros phase 1 → consulted timings phase II is delayed
- The focus put in 2024 on addressing flexible connection design might raise impacts on design for iCAROS phase II

**Reminder WG BAL**  
**27/03/2024 –**  
**Flexibility Roadmap**

**Icaros phase II**

**Step 1:** Extend OPA to all timeframes

- ✓ focus on tools and operational facilitation for units ≥ 25MW

**Step 2:** Studies to prepare next evolutions  
 (ex. compliancy with ROSC, design demand, design small PGM...)

**Step 3:** Extend OPA, SA and RD

- ✓ to PGM and storage < 25 MW
- ✓ to demand facilities

**Preparatory discussions with DSOs for Icaros phase III**

- ✓ Bid filtering principles
- ✓ Common outage planning platform (JOPA)



# USERS' GROUP



## WG Balancing



# WG Balancing 27/03/2023 & 21/05/2024

## Overview of 2023 balancing volumes and costs

- General market evolution: 2023 return to pre-crisis (2021) level for electricity and gas prices.
- AS Balancing costs have evolved accordingly. This results in a cost decrease, but with nuances per product.
- Overall, balancing capacity costs dropped in comparison to 2022 (- 40%).
- Total balancing energy activated remains similar to previous year.
- Limits of SOGL requirement for FRCE levels 1 and 2 respected in 2023.

**Total capacity costs in 2022 & 2023**

Costs in M€	FCR	aFRR*	mFRR
<b>2022</b>	20,1	174,7	78,0
<b>2023</b>	16,4	74,2	70,9

## Reserve Dimensioning

### Upward Compliance

Reporting Period	2021	2022	2023
FRR means > FRR needs	99,93%	99,80%	99,99%
FRR means > SI	100,00%	99,99%	100%
FRR needs > SI	99,99%	99,99%	99,99%

### Downward Compliance

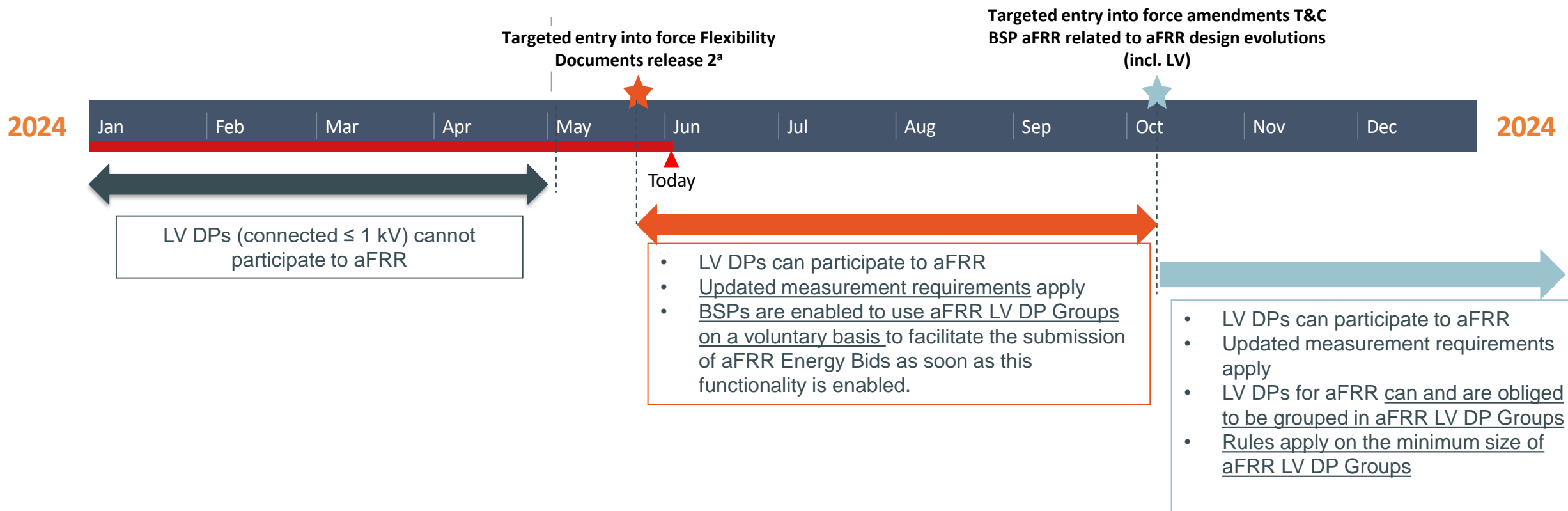
Reporting Period	2021	2022	2023
FRR means > FRR needs	97,70%	98,83%	99,46%
FRR means > SI	100,00%	99,99%	99,99%
FRR needs > SI	99,93%	99,42%	99,87%



(\* ) Note: In 2023, the volume to procure for aFRR was 117 MW during the entire year, while 145 MW were contracted until 20th of Jul'22 before being reduced to 117MW. The volume difference (145-117=28 MW) has been procured as mFRR instead.

# WG Balancing 27/03/2023 & 21/05/2024


## T&C BSP aFRR and Balancing Rules



# WG Balancing 27/03/2023 & 21/05/2024 – Incentives follow-up

## Smart Testing

Smart testing uses **two scoring systems** to select the bids for an availability test:

- A scoring system to **select the CCTU** for an availability test
- A scoring system to **select a bid** within that CCTU for an availability test 

The scoring is based on activation control, availability tests and margin control

By better targeting the tests, Elia should be able to reduce the maximum number of tests while maintaining an equivalent level of system security

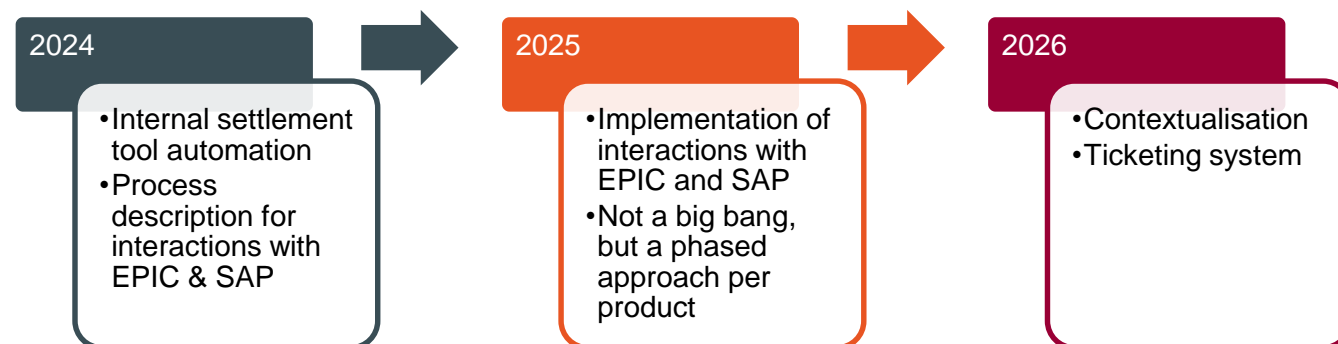
## Calibration to be done

Features	Weight	Bid 1	Bid 2	Bid 3
Volume		60 MW	30 MW	10 MW
Activation Control	33%	39	12	34
Availability test	33%	89	86	50
Margin Analysis	33%	30	18	9
<b>Final Score</b>	<b>100%</b>	<b>52</b>	<b>39</b>	<b>31</b>

## Faster Settlement for Ancillary Services

5 Working areas:

1. Settlement Tool
2. Connection to EPIC
3. Self-billing
4. Contextualization
5. Ticketing system



# USERS' GROUP



## WG CCMD



## WG CCMD 18/03/2024 & 21/05/2024

### DiMaX

- The historical analysis of the financial guarantees shows that **at times, the guarantees were too low, and at other times, the guarantees were too high.**
- Elia proposes to:
  - Investigate how to **reduce the contractual invoice lead time** - cfr . DiMaX
  - **Determine desired coverage**, taking into account balance between coverage & overcoverage
  - Investigate **adapting the financial guarantee formulas** to allow for **more adaptability** to the risk
  - As described in DiMaX , the **threshold of 50MW will be removed** from the formula. The upper threshold of 1.500 MW will be evaluated



# Real-Time Price design note - feedback of public consultation

## Overall trend in the reactions

- **Supporting the decentral balancing model** (co-existence of explicit and implicit balancing)
- **Welcoming the initiative** to work on a clear and robust real-time price signal
- But **requesting for more clarity** on detailed design, implementation plan and timeline
- And highlighting **some attention points** to consider in the detailed design



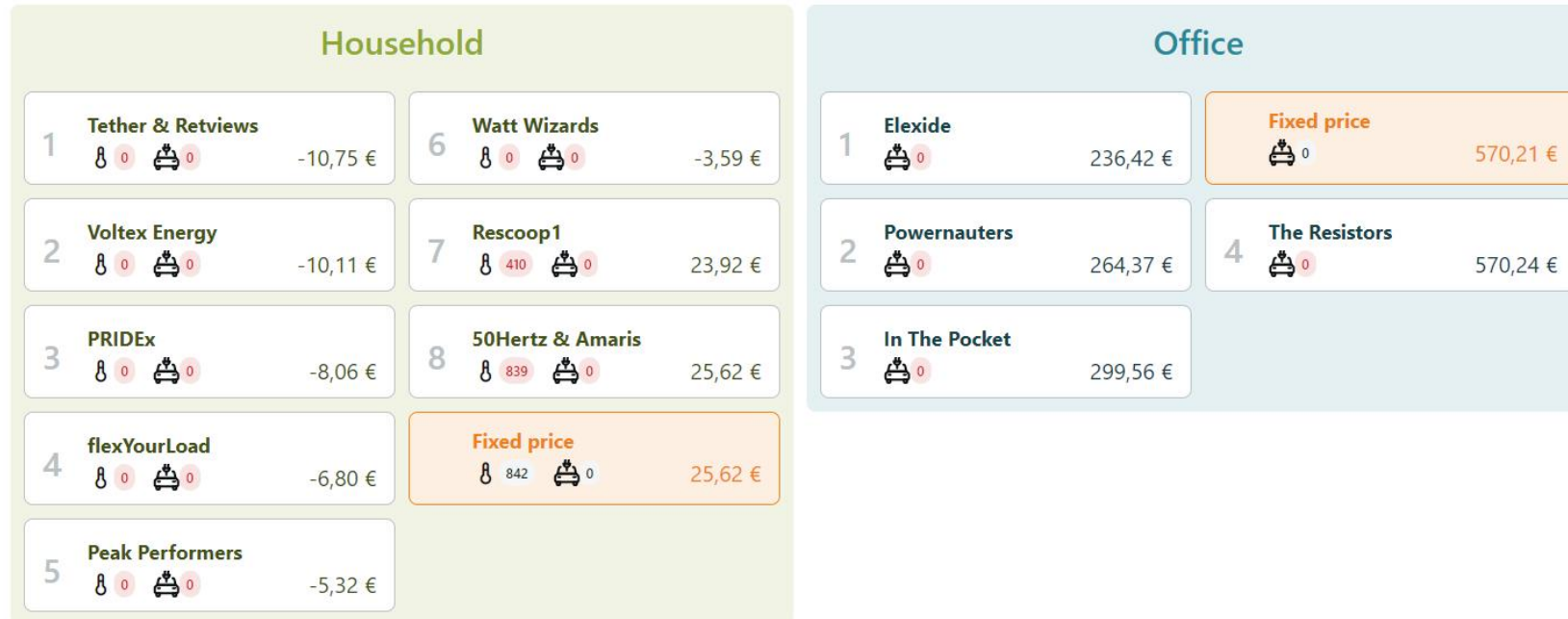


# Elia Group Hackathon 2024 - Results



18/02/2024 00:00 - 22/02/2024 00:00

Hackathon Time  
Saturday 24/02/2024 14:57:30

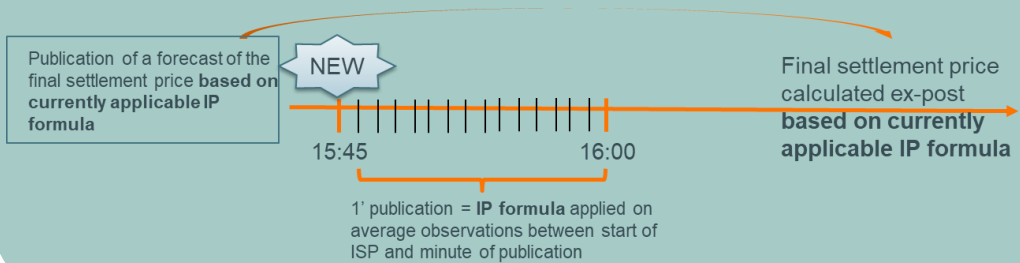


- On the proposed use-cases, the Real-Time Price leads to a reduction of commodity costs
- TraXes succeeded the crash-test: no bug or delay.



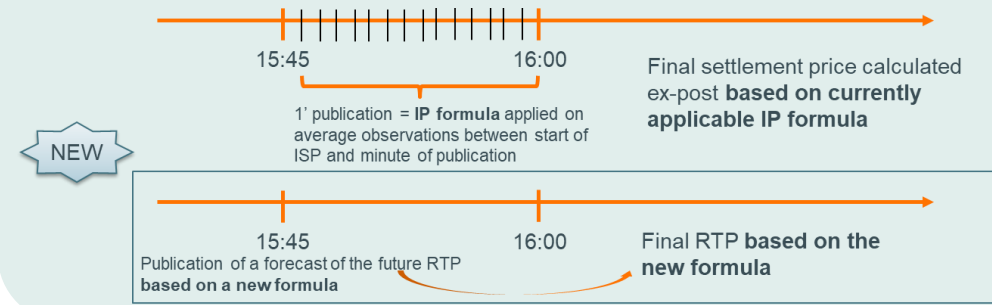
# RTP parallel run : a 3-step approach from theory to practice

## Imbalance price forecast\* :



\* Subject to quality check

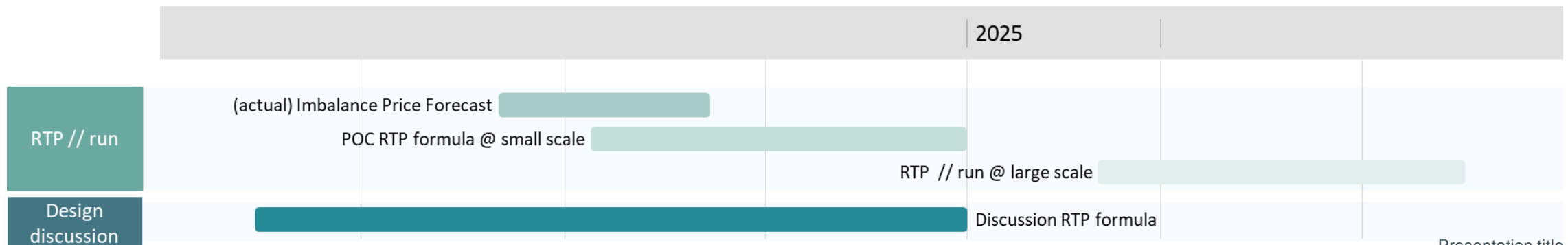
## RTP // run @ large scale:



## POC RTP formula @ small scale:



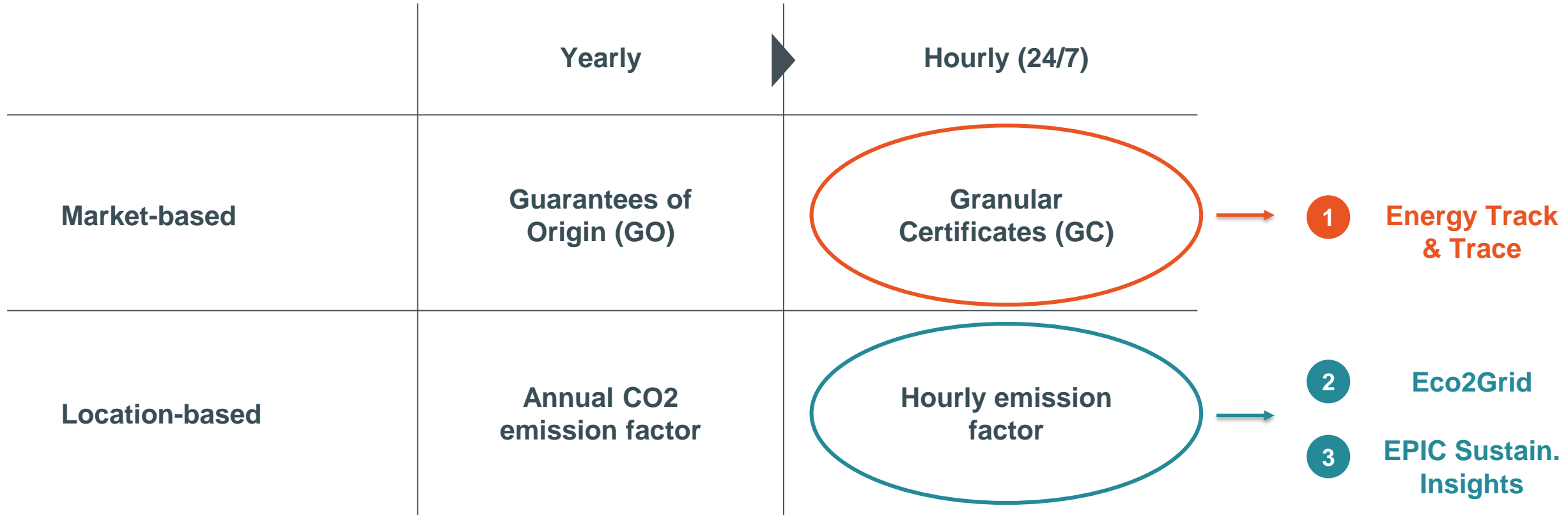
Today



# Sustainability solutions: Elia's current initiatives focus on the hourly timeframe.



As Elia we want to support and engage with industry in their sustainability challenges, and foster new innovation



## WHY THESE INITIATIVES?



Better integrate renewables



More transparency on sustainability



In anticipation of upcoming legislation



To facilitate new innovations



Legal requirement as a TSO (Eco2Grid)

# USERS' GROUP



## WG SO&EMD (incl TF PEZ)



# Task Force Princess Elisabeth Zone

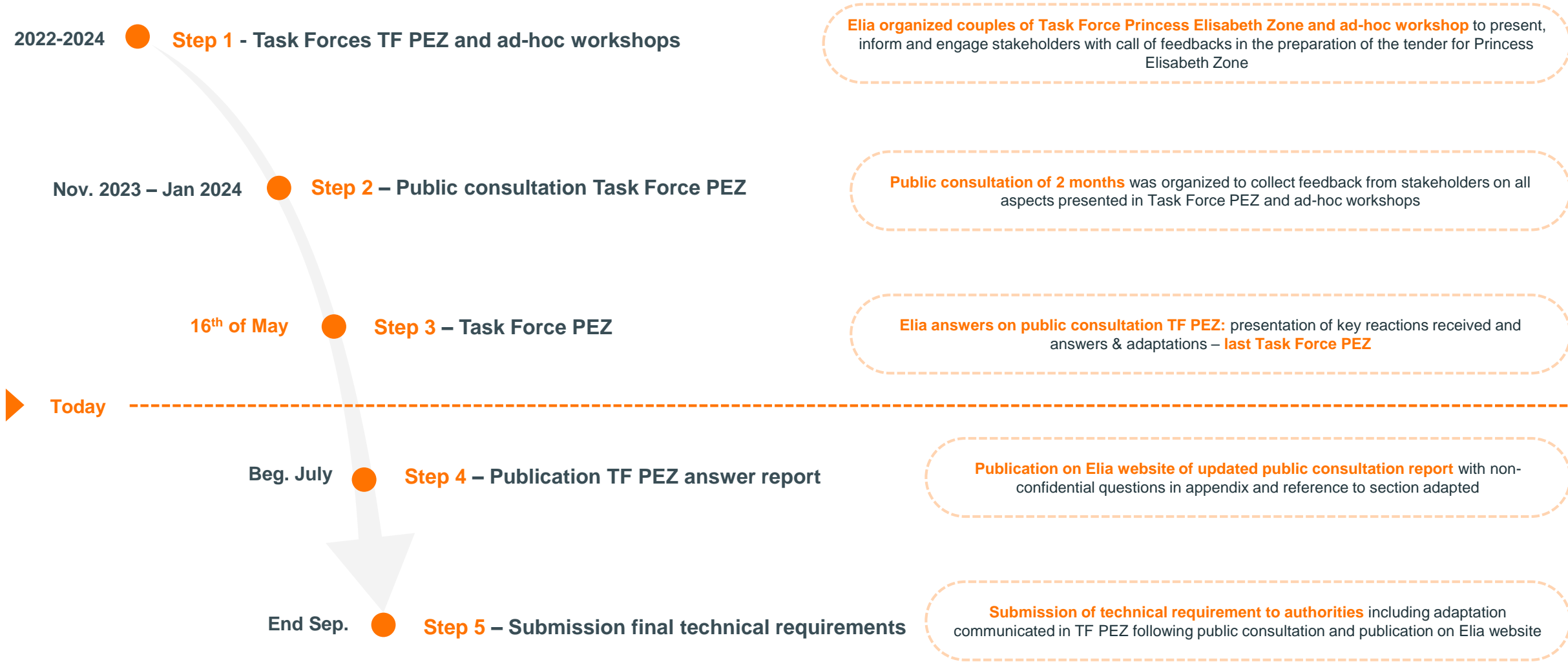
Status June 2024



# Overview of key milestones of the Task Force Princess Elisabeth Zone



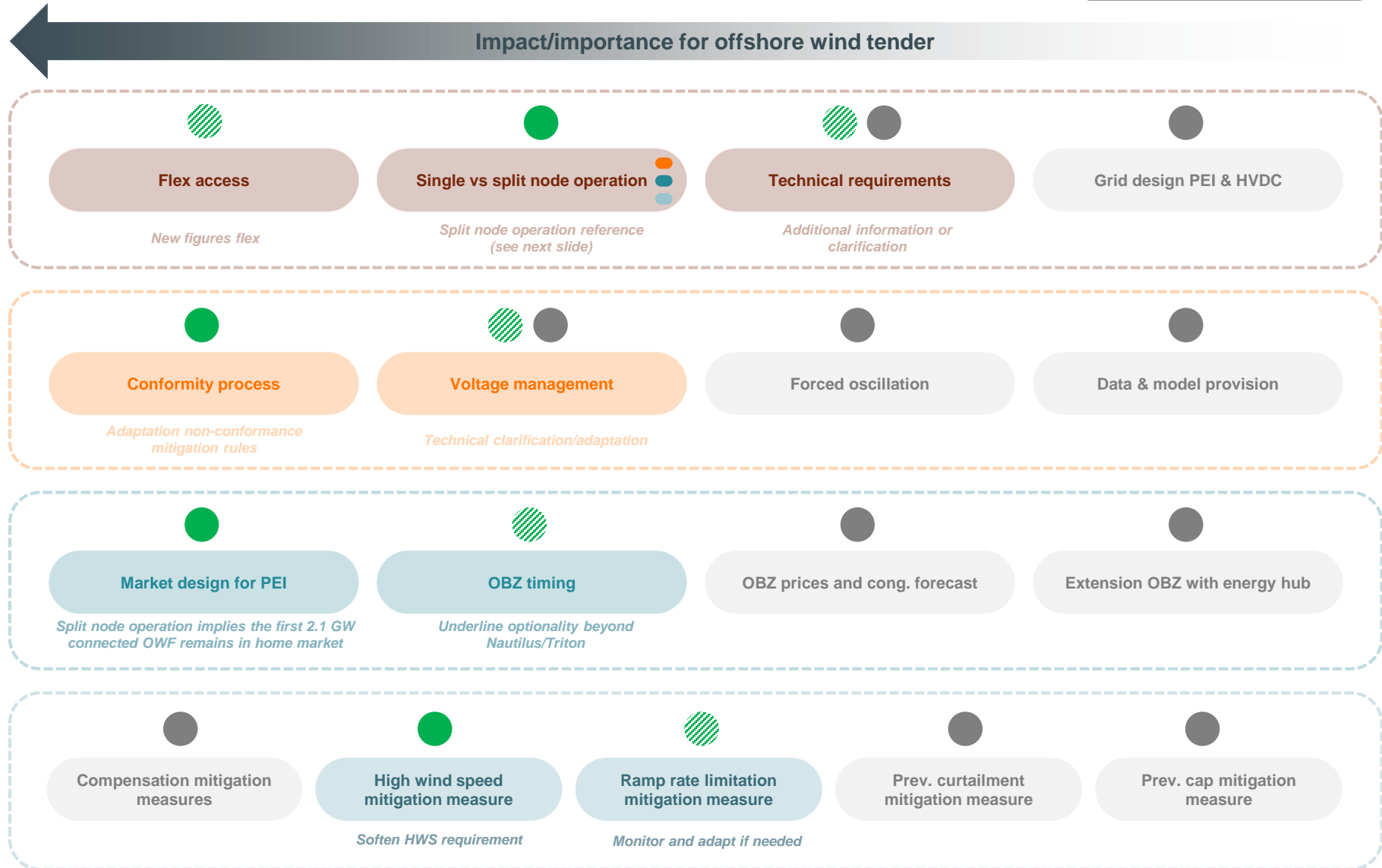
## Elia communication process





# Overview of adaptations on key reactions received following public consultation Task Force Princess Elisabeth Zone

- Adaptation
- Clarification/additional info
- No change/additional justification



# EMD-SO WG

Status June 2024



## EMD-SO WG 04/06

### System Operations

1. Summer outlook & incompressibility risks
2. Status black-out phones

### European Market Design

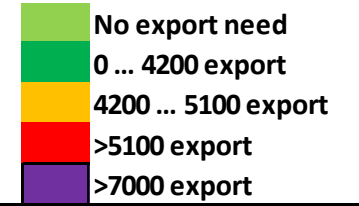
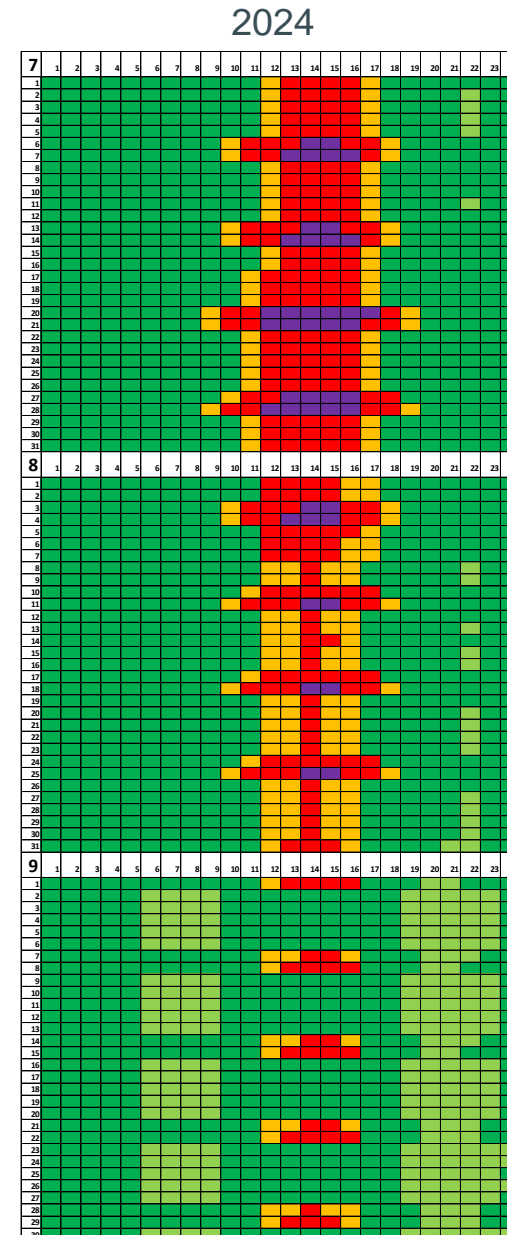
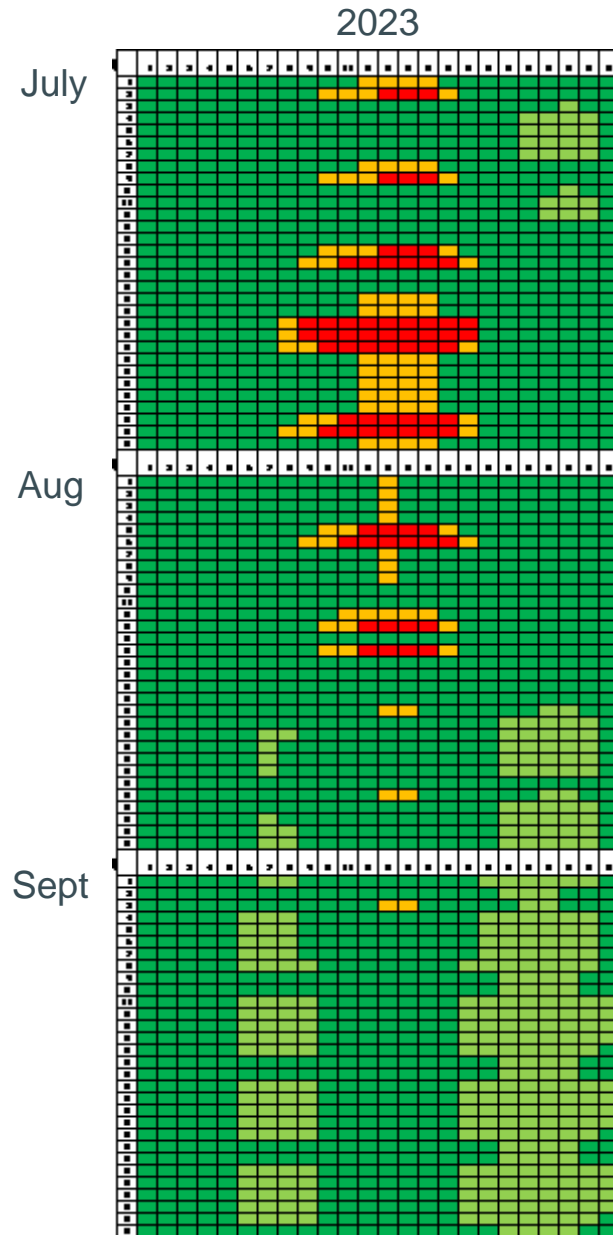
3. Core IDCC go-live
4. Forward market: focus FR-BE border and the way forward
5. CACM 2.0 status (Structural congestion, TAG)

### **AoB:**

- Plan a workshop on CEP70.



# P75 2023 vs 2024



hour →

day ↓

Doel  
4  
stop

# Core IDCC\_B Go-Live on 28th of May – Debrief & First results

## Go-Live Successful

- After an External Parallel run of 540 Days, the Core IDCC(b) process, from a process point of view, went live successfully on 28/05/2024.
- The process runs smooth, however minor delays in publication are observed (publication often just before or on 21:45).
  - There are under investigation by IT vendors, for which mitigations will be put in place still prior to IDA go-live, when timely publication becomes more crucial.



## First results

	Min of BE Import	Average of BE Import	Max of BE Import	Min of BE Export	Average of BE Export	Max of BE Export
<b>2024</b>	<b>637</b>	<b>3272</b>	<b>6561</b>	<b>0</b>	<b>1530</b>	<b>6652</b>
<b>5</b>	<b>756</b>	<b>3251</b>	<b>6561</b>	<b>0</b>	<b>1271</b>	<b>2678</b>
29	756	3120	6561	267	1368	2566
30	1475	2920	4379	0	1132	2263
31	1480	3713	5828	831	1311	2678
<b>6</b>	<b>637</b>	<b>3292</b>	<b>6483</b>	<b>0</b>	<b>1789</b>	<b>6652</b>
1	1374	2540	4800	806	1701	3924
2	2089	3527	5837	0	2540	6652
3	637	3809	6483	27	1125	1864
<b>Grand Total</b>	<b>637</b>	<b>3272</b>	<b>6561</b>	<b>0</b>	<b>1530</b>	<b>6652</b>

## HL Summary

- For the first 6 BDs, no BE Core BZ isolation could be observed.
- Import via other Core borders was always possible.
- During only 3 hours, no Export at all was possible.
- Negative ATCs on at least 1 BE border happened 71% of the time



Thank you.

