Users' Group

Plenary meeting of the Elia Users' Group Friday, March 1





Agenda

- 1. Approval report 19/12/2023
- 2. Status large infrastructure projects
- 3. Towards Energy & Grid Solutions 2027
- 4. Needs for flexibility participation in market

Proposals for recommendation:

- * Flex readiness E-assets
- * Submetering requirements for flexibility

- 5. Feedback working groups*
 - 5.1. WG Belgian Grid
 - 5.2. WG Balancing
 - **5.3.** WG Adequacy
 - **5.4.** WG EMD-SO (incl. TF PEZ)
- 6. Miscellaneous
 - 6.1. Next meeting:



^{*} no WG CCMD occurred between the Plenary meeting of December and now



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Ventilus & Boucle du Hainaut



Versterking van de ruggengraat 380kV noodzakelijk voor de energietransitie

- Aansluiting en integratie van nieuwe energiebronnen zoals off- en onshore hernieuwbare energie
- Robuust net voor betrouwbare toegang in het kader elektrificatie
- Toegang tot duurzame en betaalbare energie met meer internationale stromen



Ventilus - GRUP





Overzicht Ventilus verbinding

82 km (21 km nieuw bovengronds + 10 km nieuw ondergronds)

- Aanlanding PEI Inlussing Stevin: ± 10 km ondergronds
- Herbenutting bovengronds 150kV tracé: ± 5 km
- Toevoegen 380kV geleiders aan bestaande 150 kV lijn: ± 14 km
- Nieuw ondergrondse kabel (4 circuits): ± 8 km
- Nieuwe bovengrondse lijn langs E403: ± 17 km
- Nieuw ondergrondse kabel (4 circuits): ± 2 km
- Nieuwe bovengrondse lijn naar HS Izegem: ± 3,5 km
- Versterking bestaande 380 kV lijn (HTLS): ± 22,5 km

Nieuwe hoogspanningstations

Gezelle 380 kV- Conversiestation Herdersbrug - Izegem 380 kV

Daarnaast ook vervanging 150kV hoogspanningslijnen Brugge-Slijkens en Brugge-Blauwe Toren door kabelverbindingen



Projectatlas

- Visuele voorstelling van het trace staat op de website van Elia via
- https://www.elia.be/nl/infrastructuur-en-projecten/infrastructuurprojecten/ventilus



Overzicht Procedure

Timing GRUP

- Seslissing voorkeurstracé: VR 31 maart 2023
- Plenaire vergadering: 22 mei 2023
- Ontwerp GRUP: 7 juli 2023
- Openbaar onderzoek: 29 aug 27 okt 2023
- 😽 Principiële goedkeuring: 26 januari 2024
- Advies Raad van State: februari 2024
- Definitieve vaststelling: maart 2024

GRUP - Lead Departement Omgeving



Start- en procesnota

De Vlaamse Regering keurt eind maart 2019 de start- en procesnota goed met de eerste opties voor het plan.



Vergunning - Lead Elia





Publieke raadpleging & adviesronde

van 29 april tot 27 juni 2019 geven het publiek en de adviesinstanties opmerkingen of suggesties op de start- en procesnota.



Scopingnota

Op basis van de inbreng uit de publieke raadpleging en adviesronde wordt de startnota verfijnd tot de scopingnota.



Voorontwerp-GRUP

De alternatieven worden verder onderzocht naar hun ruimtelijke en andere effecten en naar de doelstellingen van het plan.



Ontwerp-GRUP en voorlopige vaststelling

Na een plenaire vergadering met adviesinstanties wordt het ontwerp-GRUP (en de effectbeoordelingen) voorlopig vastgesteld door de Vlaamse Regering





Definitieve vaststelling GRUP

Na verwerking van de opmerkingen uit het openbaar onderzoek en een advies van de Raad van State wordt het GRUP definitief vastgesteld door de Vlaamse Regering.



Project-MEI

Het project-MER wordt opgemaakt en aangemeld bij de dienst MER. Deze beslist over de aanmelding ervan.



Omgevingvergunningsaanvraag

De omgevingsvergunning wordt ingediend bij de Vlaamse Regering. Deze beslist over de ontvankelijkheid en volledigheid van de aanvraag



Openbaar onderzoek en adviesronde

Het publiek en de adviesinstanties kunnen gedurende 60 dagen reageren op het project-MER en de omgevingsvergunningsaanvraag.



Goedkeuring project-MER

Na verwerking van de opmerkingen uit het openbaar onderzoek en een adviesronde keurt de dienst MER het project MER goed of af.



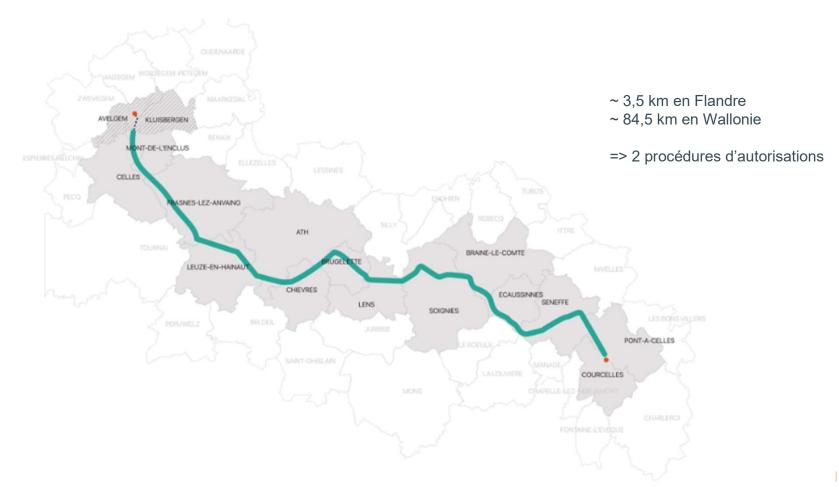
Goedkeuring omgevingsvergunningsaanvraag

De Vlaamse Regering beslist over de omgevingsvergunningsaanvraag.

8



Boucle du Hainaut



Overzicht procedure in Vlaanderen

Timing GRUP

- Start- en procesnota: juli 2023
- Publieke raadpleging: aug okt 2023
- Definitieve vaststelling: Q4 2025?

GRUP - Lead Departement Omgeving



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Vergunning - Lead Elia





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Vandaag



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Goedkeuring omgevingsvergunningsaanvraag

De Vlaamse Regering beslist over de omgevingsvergunningsaanvraag.



Procédure Boucle du Hainaut en Wallonie

Scenario tendering windmolenparken

PHASE 2. PROCÉDURE DE RÉVISION DU PLAN DE SECTEUR

Timing PdS

- Décision GW sur révision PdS: 19 juillet 2023
- RIE: novembre 2023 (phase 1), février 2024 (phase 2)
- Adoption projet de plan: Q4 2024 ?
- Adoption définitive du plan: Q4 2025 ?



- ADOPTION DÉFINITIVE DU PLAN
- AVIS DES
 INSTANCES
 RÉGIONALES
 ET AUTRES
 INSTANCES
 UTILES
- AVIS DES INSTANCES COMMUNALES ET RÉSULTATS DE L'ENQUÊTE PUBLIQUE
- ENQUÊTE PUBLIQUE
- SUR BASE DU
 RIE ET DES
 AVIS : CHOIX DU
 GOUVERNEMENT
 SUR LA SOLUTION
 LA PLUS
 RAISONNABLE
 ET ADOPTION
 EN TANT QUE
 PROJET DE PLAN
- AVIS DES
 INSTANCES
 RÉGIONALES
 ET AUTRES
 INSTANCES
 UTILES
- DÉPÔT DU
 RAPPORT AU
 GOUVERNEMENT
 WALLON
 - RAPPORT SUR
 AU LES INCIDENCES
 EMENT ENVIRONNEMENTALES
 (RIE)





Procédure Boucle du Hainaut en Wallonie

Scenario tendering windmolenparken

PHASE 3. PROCÉDURE DE DEMANDE DE PERMIS D'URBANISME





Community Relations

AVOID



Avoid protected zones



Avoid residential



Upgrade or reuse existing infrastructure

REDUCE



Visual integration of overhead lines and substations with vegetation



Group existing infrastructure





Bird markers, nesting

Reforestation

OFFSET



Community projects

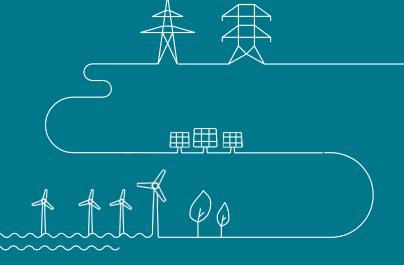


Financial compensation for owners





Thank you.





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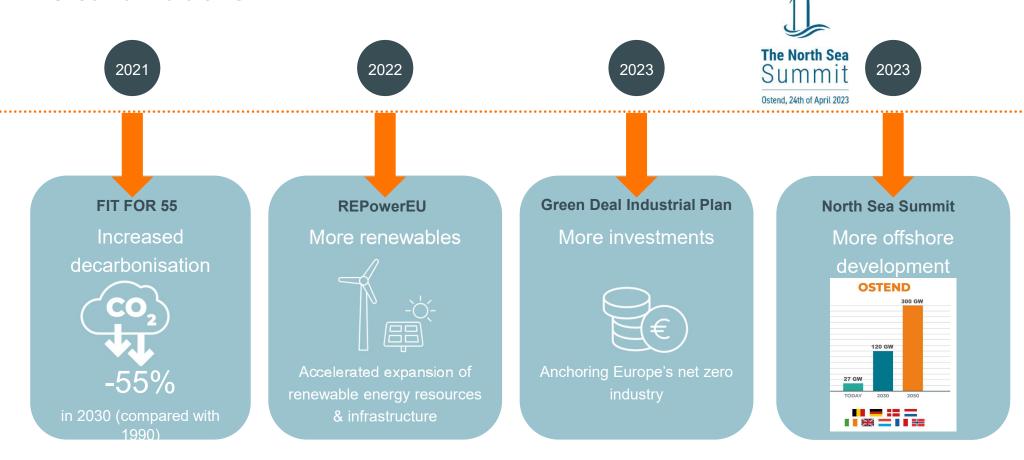


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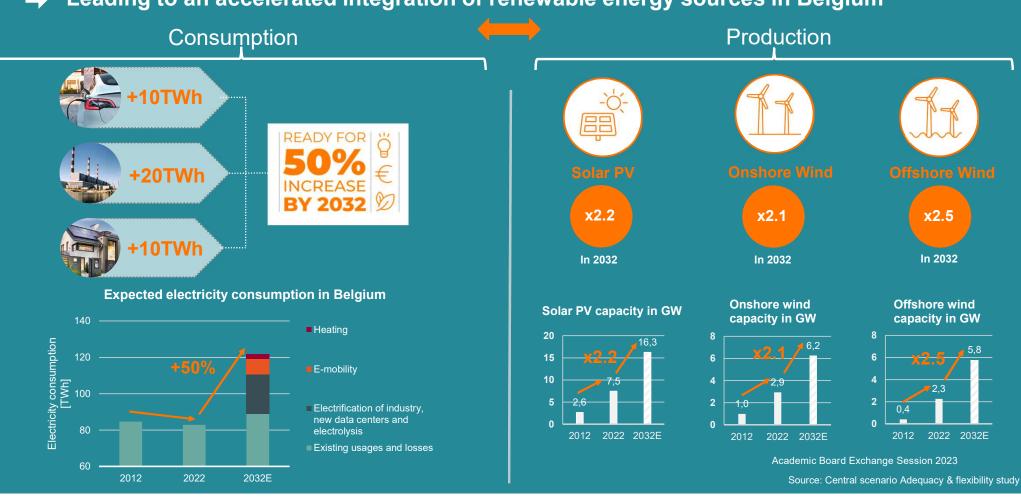
Clear ambitions...



Leading to a significant increase in expected electricity demand driven by electrification in industry, transport and heating



▶ Leading to an accelerated integration of renewable energy sources in Belgium



Our Priorities

1

Grid Infrastructure

For an efficient and orderly energy transition, the grid needs to be ready on time



2

Adequacy

Ensure security of supply during the increase of electricity consumption and intermittent production sources



3

elia

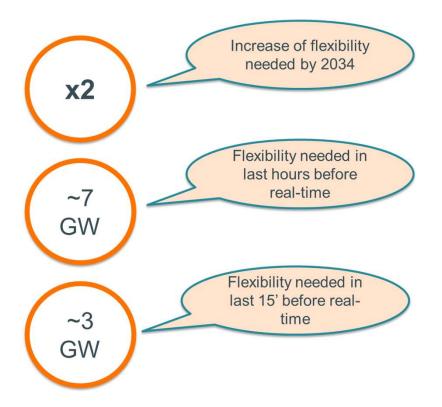
Flexibility

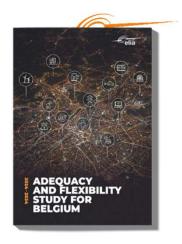
Ensure consumers and industry can valorize their flexibility and benefit from the energy transition



FOCUS TODAY

Flexibility outlook: ADFLEX 2023





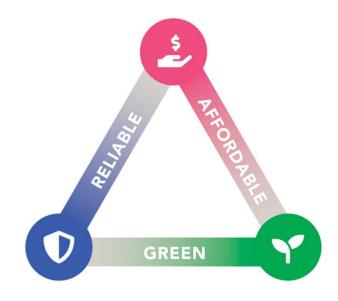
Sufficient flexibility means will be available in the system...

... the **challenge** is to unlock this flexibility (industrial flex, end-user flex such as electric vehicle, heat pumps, home batteries & solar panels,...). Development of downward flexibility will become increasingly important.

Flexibility challenges: affordability



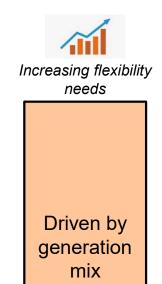
- The energy transition should not endanger the reliability of the system but also be affordable for consumers
- Elia will therefore strive for an efficient system management, with regards to both energy solutions and grid solutions

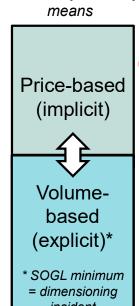


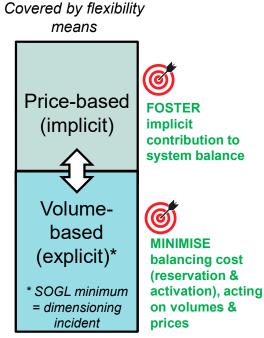




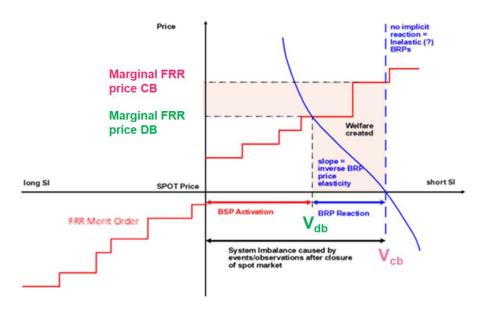
Efficient balancing model combines Implicit and explicit flexibility













Energy Solutions 2024-2027: Initiatives to minimize balancing costs *Flexibility Needs and Means: efficient reserves dimensioning*



2024

2025

2026

2027



Deepen the understanding on the market: FLEX TRACK & TRACE



Dimension precisely: aFRR DYNAMIC DIMENSIONING (Oct 2024)



Procure efficiently:
PARTIAL PROCUREMENT FRR
(Robustness check)







Energy Solutions 2024-2027: Initiatives to minimize balancing costs Increase liquidity and competition in Balancing Products



2025 2026 2027 2024



XB liquidity & competition: MARI (Jun 2024) PICASSO (Oct 2024)



aFRR evolutions: AUCTION IN D-1, RT BASELINE, ACTIVATION METHOD, OPENING TO LV

Value stacking: Further facilitate COMBOS



Continuously improve design: CRI FILTERING, FRR ACTIVATION TRIGGERS, ASSESS











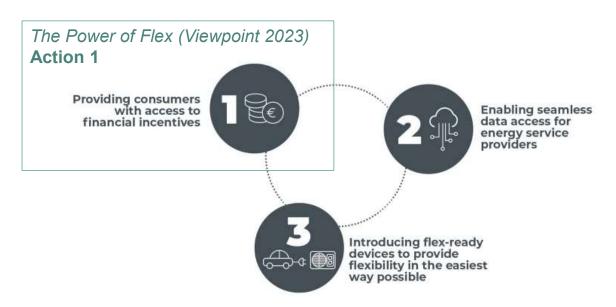
Energy Solutions 2024-2027: Initiatives to minimize costs *Increase competition*



Customers want to be in control of their energy costs



We develop **energy services** to increase participation of flexible assets driven by **financial incentives** (day-ahead, intraday and real-time balancing)



Who is directly incentivized by financial incentives?

The Balance Responsible Party

We want to foster innovative solutions proposed by BRPs to their customers

- ✓ Decrease barriers to access to the role of BRP
- ✓ Increase competition
- √ Facilitate & Digitalize the BRP
- ✓ Evolve to Real-Time Price

STEP 1 - Digitalize and facilitate BRP of tomorrow







STEP 2 - Evolve to a Real-Time Price



Smart
Balancing
Controller

Simplify

Game changer for Real-Time Price : large scale batteries!

Second design note (formula)

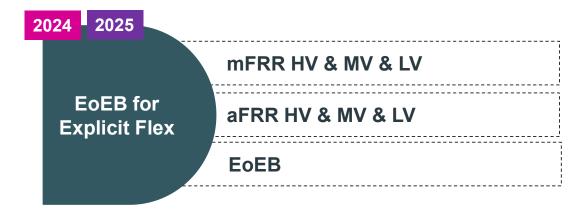
2024
Parallel run

2024
Campaign European TSOs

2024
Hackathon 2024 & RTP Event

STEP 3 - Remove all "non-related obligations" from the BRP role







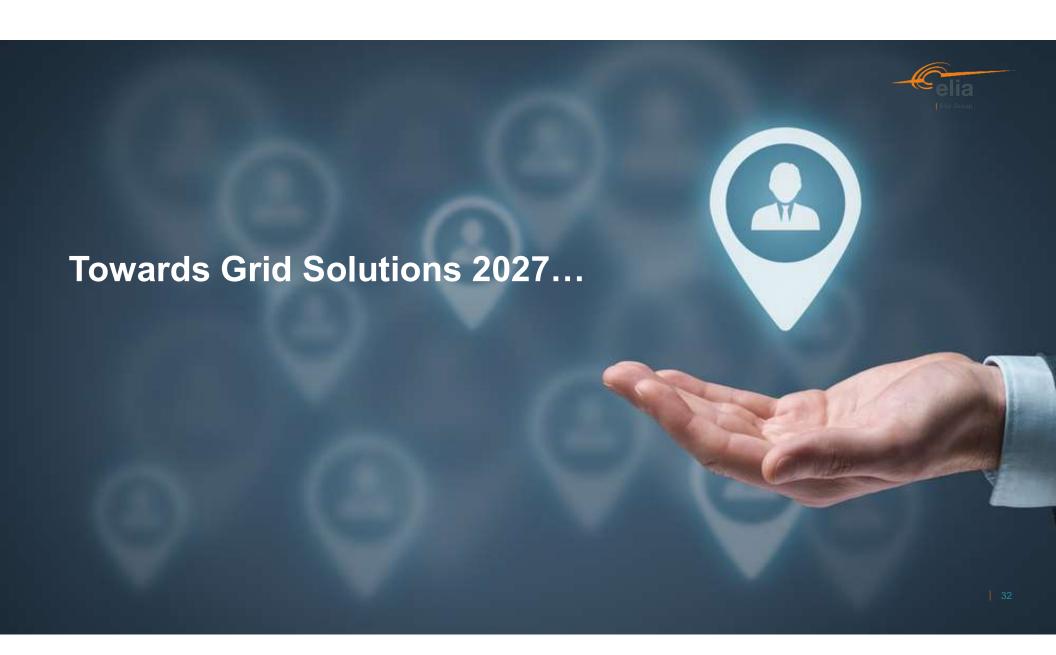
STEP 4 - Energy Community (on request only)





2024

Prospection on possible POC for Cross-voltage



Grid Solutions RoadMap (1/2)





in line with EU

Improve information and bidding process with all relevant resources and redispatch them in a reliable way in order to optimize usage of existing grid

Icaros: deep review of the process of coordination of assets and congestion management

Open up outage planning, scheduling and redispatching to



- all technologies production-storage and demand as of 1MW
- all parties, by splitting up the roles of BSP/SA /OPA & BRP and hence providing more choices/empowering the grid user
- 2) Modernize and facilitate data exchange related to outage planning, scheduling and redispatch







legislation SOGL/EBGL

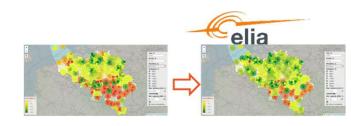
B) Provide more opportunities to market parties in ID while keeping the costs for society under control

Evolutions and implementations are foreseen to be developed gradually, into 3 main phases



Grid Solutions RoadMap (2/2)

Develop a grid that can host the increase of RES and demand <u>in time</u> while rationalizing the (investment) costs for society



Flexibility will allow to:

- connect grid users ahead of realisation of grid investments;
- rationalise grid investments (CAPEX) in particular cases.

G-Flex product (as is): win-win for grid user (early connection) and society (efficient incentives, costs borne by GU...)

Framework for flexible access must be further elaborated given strong increase of EOS/EDS (RES, storage, electrification,...)

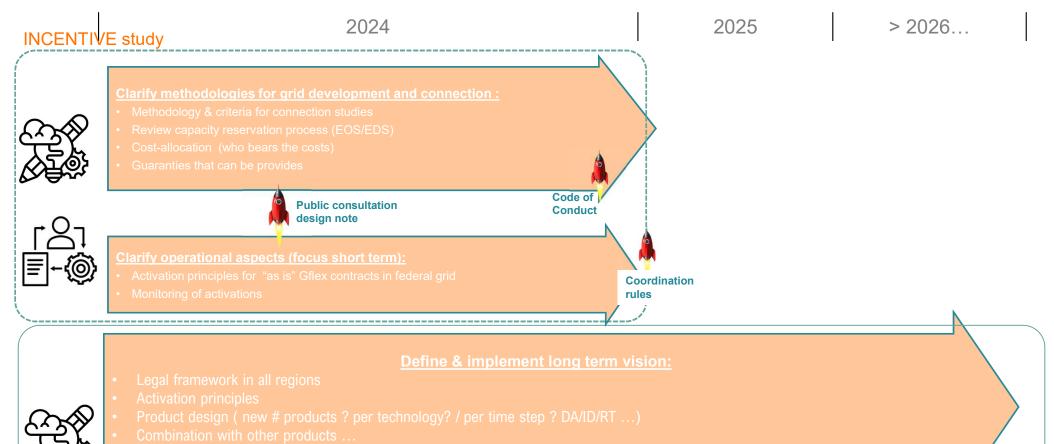
- Grid planning: methodology, applied criteria to propose flexibel access, capacity reservation process,...
- Operational aspects: activation principles,...
- **Product design:** integration with balancing, ROSC,...





Grid Solutions 2024-2027: GUFlex4CM - Develop a grid that can host the increase of RES and demand in time while rationalizing the (investment) costs for society





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 2027



Icaros phase

Go live in Q2 2024

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

L

Go Live

Important note: timings phase II are provisional

- Delayed effective go-live of Icaros phase 1 → consulted timings phase II is delayed
- Priority will be given for addressing flexible connection design

ep 1: Extend OPA to all timeframes lcaros phase

√ focus on tools and operationa facilitation for units ≥ 25MW

Step 2: Studies to prepare next evolutions

(ex. compliancy with ROSC, design demand, design smal 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)



Grid Solutions 2024-2027: Non-frequency Ancillary Services Ensure liquidity, foster competition and ensure cost effectiveness



2024

2025

2026

2027



Foster competition by allowing more time to plan investments: INTRODUCTION OF COMPETITIVE DIALOGUE in T&C RSP







Consider all technologies: IMPLEMENT INCENTIVE 2023
IN T&C VSP & IT TOOLS

Improve communications with MVAr service providers: UPDATE IT COMMUNICATION TOOLS

Optimize MVAr activation, to better regulate and lower the costs: VOLT CONTROL





Agenda

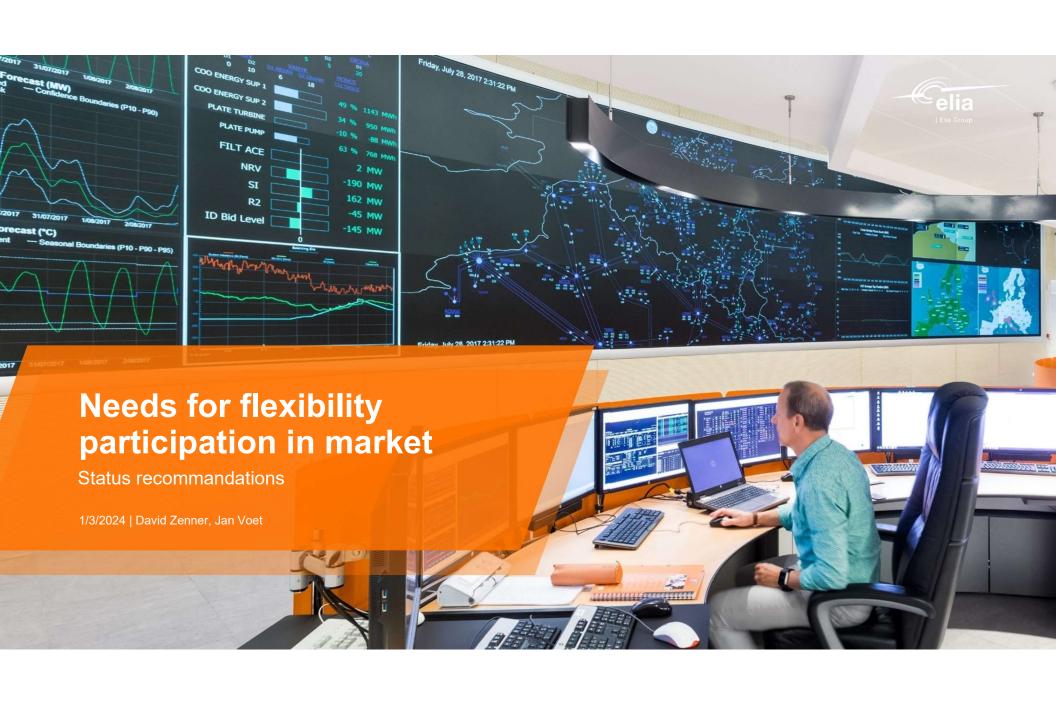
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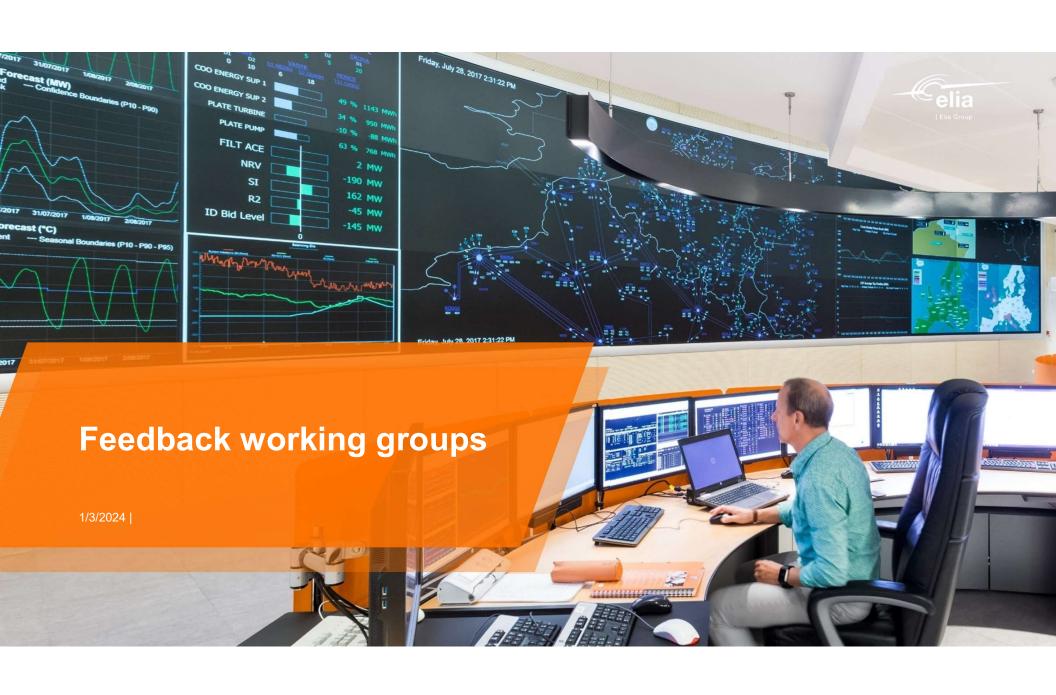
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WG Belgian Grid





WG Belgian Grid – vergadering 26/01



Gepresenteerde onderwerpen

- Aansluitingscontract: consultatie afgelopen 16/02
- Hosting capacity maps: oproep voor feedback deadline 01/03, nieuwe versie: Q4 2024
- <u>Aansluitingsproces</u> (EDS/EOS/capaciteitsreservatie)
 - Oefening wordt gecombineerd met Grid User Flex for congestion management
- <u>CREG Gedragscode</u> stand van zaken ontwerpbeslissing aansluiting met flexibele toegang
 - Ontwerpbeslissing CREG zal de aanpassing niet doorzetten
- Grid User Flex for congestion management zie volgende slide

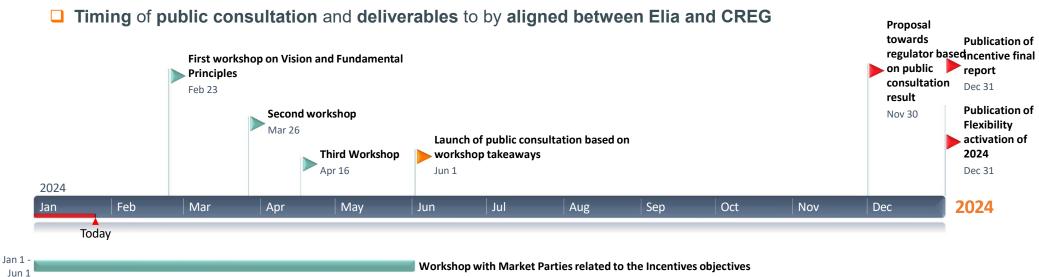


Grid User Flex for congestion management

- ☐ First workshop planned on the 23/02/2024
 - Clarification on the planning and milestones of the ongoing initiatives related to flexible access and connection process
 - Vision on Fundamental principles on connection with flexible access

Jun 1 - Sep 15

- □ Second and third workshops planned on 26/03/2024 and 16/04/2023
 - Content to be defined depending on takeaways of first workshop



Public Consultations



WG Balancing







WG Balancing 18/12/2023 & 07/02/2024

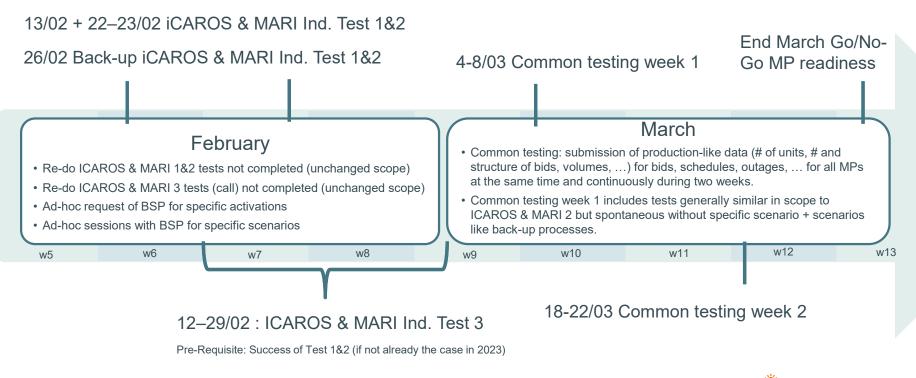
T&C BRP

- CREG requested an amendment of submitted T&C BRP by 30/1. Elia timely submitted a PfA addressing all demands of CREG but two: BRP balance obligation and Imbalance price formula were not adapted but ELIA committed to make them evolve in the context of the evaluation plan.
- ELIA presented an initial version of the **evaluation plan** to WG BAL on 18/12 and the final version, taking into account feedback from the market and CREG, on 7/2. The evaluation plan shall assess whether some elements used in the calculation of the Imbalance price (e.g. cap/floor, alpha, dead band) are useless or can be improved.
 - The evaluation plan was approved by WG BAL provided that Elia adds a metric to assess the impact of the dead band on portfolios with significant volumes of RES (done)
- CREG's decision on T&C BRP is due on March 30th





Business Testing Protocols with Market Parties







WG Balancing 18/12/2023 & 07/02/2024

Elia presented an updated Roadmap 2024:

Roadmap WG BAL PICASSO - iCAROS – MARI (PIM)

A go/no go check will be done end of March 2024

Conditional to implementation of elastic demand at EU level and to local implementation of mitigation measures 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

Roadmap WG BAL Other initiatives

aFRR Design Evolutions - Q4 2024

FCR Design Evolutions - Q4 2024/Q1 2025

aFRR Dimensioning - Q4 2024

iCAROS #2

Incentives 2024

Amélioration de la mise à disposition de données par Elia

Vision et roadmap sur la flexibilité pour la gestion des congestions et communication transparente sur l'activation de la flexibilité dans le cadre des contrats avec accès flexible

Etablissement des exigences en termes de stratégie de gestion de la charge pour les points de fourniture disposant d'un réservoir d'énergie limité et offrant plusieurs services d'équilibrage simultanément

Processus de facturation des BRP

Implémentation de tests intelligents de la disponibilité des réserves



WG Adequacy



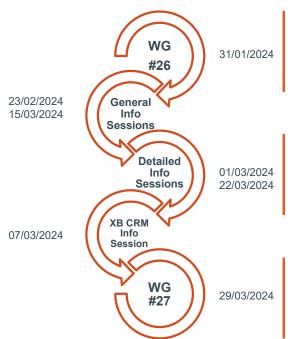




WG Adequacy – Q1 2024 Meetings

Introduction to the CRM
Fundamental principles
Key features of the CRM
Regulatory requirements to participate to the mechanism

Introduction to Cross-Border participation to the CRM Principles of Cross-Border CRM Additional processes for the cross-border capacities



Update on Availability Monitoring & Payback Obligation implementation Workshops
Reactions to the formal Public Consultation of the

Functioning Rules

Update of the regulatory framework

Examples of complex modalities

Detailed overview of Prequalification, Auction & Capacity Contract Signature

Deep dives on **Pre-Delivery & Delivery processes**

Agenda to be determined





Main Topics

- Elia organises implementation workshops on availability monitoring and payback obligation to support market parties
 - General and detailed info sessions that focus on design are also organized (1Q2024)
 - Specific operational workshops to support market parties to implement these complex processes (2Q 4Q2024).
- Feedback on the public consultation of CRM Functioning Rules v4 (to be approved by CREG by 15 May 2024)
 - Elia presented feedback, including e.g. clarification on the PQ process (incl. low voltage and CO2 requirements), the auction volumes (e.g. impact of Y-2 auction on volumes) and the monitoring modalities (pre-delivery & availability monitoring).
- Cabinet presented an overview of the foreseen changes to the CRM regulatory framework (entry into force April 2024)
 - <u>Update of the Electricity Law (LDD v3</u>, including introduction of Y-2 auction, dynamic 200h rule, update article 4 bis and formalisation of the CO2 competences).
 - Modification of the Royal Decree on Investment Thresholds to introduce multi-year contracts for existing capacity.
 - Update of the Royal Decree Methodology for the Y-2 Auction and to clarify the IPC process/calculation.



CRM auction - key dates in 2024





Overview of Public Consultations in 2024 WG Adequacy

01/12/2023 to 12/01/2024



Q2 2024

 Public consultation on the CRM Scenarios for Auctions Y-1/2026-27, Y-2/2027-28 & Y-4/2029-30









Q1-Q2 2024

 Public consultation on the CRM Capacity Contract

Q4 2024

 Public consultation on the Adequacy & Flexibility 2026-2036





WG SO&EMD







WG SO&EMD

| Domain | Agenda topic |
|--------|---|
| SO | NCC Yearly report 2023 |
| so | Emergency & Restoration: LFDD |
| so | Tendering Black Start Q2 2024 |
| EMD | Core Intraday Capacity Calculation project: status |
| EMD | IDA Go live planning + attention points from BE perspective |
| EMD | Long Term evolutions: insights on the LT FB implementation & Elia's view |
| EMD | 15' MTU SDAC project plan to go live Q1 2025 & relevant aspects on BE level |
| | · ★ ◆ · · |



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- * Submetering requirements for flexibility

- 5. Feedback working groups*
 - 5.1. WG Belgian Grid
 - 5.2. WG Balancing
 - **5.3.** WG Adequacy
 - **5.4.** WG EMD-SO (incl. TF PEZ)
- 6. Miscellaneous
 - 6.1. Next meeting: June 10



^{*} no WG CCMD occurred between the Plenary meeting of December and now



Thank you.

