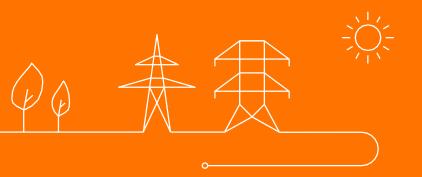


Plenary meeting of the Elia Users' Group Tuesday, 8 March





Agenda

- 1. Approval of the minutes of the Users' Group plenary meeting of 13 December 2021
- 2. Storm Eunice: impact offshore parks and infrastructure
- **3.** WG Belgian Grid
 - 3.1. State of affairs of play of ongoing work
 - 3.2. TF Scenarios: looking back on the first year

- 4. WG Balancing: state of play of ongoing work
- 5. WG Adequacy: state of play of ongoing work
- 6. Miscellaneous
 - 6.1. Public consultation
 - 6.2. Next plenary meeting: 9 June 2 p.m. to 5 p.m.
 - 6.3. Connecting Day (new stakeholders day)



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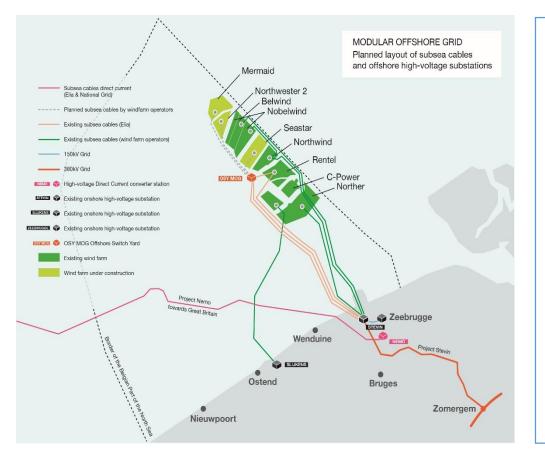
STORM: EUNICE

SECUMAR

Sohertz

elia Elia Group

Context - Storm risk in North Sea



Context

- By 2020, +/- 2300 MW offshore production is installed;
- Windparks are located in same geographical area and therefore subject to weather phenomenon such as storm events at same moment;
- Storm events are characterized by a fast decrease of the wind power production (cut-out phase) followed by a fast return of this production (cut-in phase) after the storm leading to a possible high impact on the balance of the zone;
- Following ELIA and 3E's study on the problematic, the following offshore integration design has been developed:
 - Increase event's predictability by developping a dedicated Storm Forecasting Tool in collaboration with the Royal Meteorological Institute (RMI);
 - Elaborate specific operational processes with responsible market parties to coordinate needed actions to mitigate the identified risk (Storm Management Procedure).



Storm Eunice - Emergency Plan & Incidents

Entre vendredi 14-15h et 18-19h, nous attendons une forte tempête par vent de sud- ouest (10 Bf) et éventuellement très temporairement et localement une très forte tempête (11 Bf) le long de la Mer du Nord belge. Voici les valeurs (en km/ h) des rafales de vent attendues par province. Pour chaque province, la première valeur représente le scénario le plus optimiste et la seconde valeur le scénario le plus pessimiste :

Littoral : 120-150 ; Flandre Occidentale : 100-140 ; Flandre Orientale : 100-130 ; Hainaut : 90-120 ; Anvers : 100-130 ; Brabants Wallon et Flamand : 80-120 ; Namur : 80-120 ; Limbourg : 80-120 ; Liège : 80-120 ; Luxembourg : 80-110.

Il faudra tenir compte du fait que sur certaines régions, les dégâts pourront être étendus et importants. La circulation pourra également être fortement perturbée.

Notons qu'il n'est pas exclu que la région côtière et/ ou la Flandre Occidentale passe en code rouge vendredi matin.

Provinces	17/2									18/2									19/2																
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jaune : Rafales de 80 à 100 km/ h (70 à 90 km/ h quand les arbres ont leurs feuilles) orange : Rafales de 101 à 130 km/ h (91 à 120 km/ h) rouge : Rafales supérieures à 130 km/ h sur une zone étendue (> 120 km/ h)

STORM												
STATUS	DETERMINATING FACTORS	TYPE	I/E	REMARKS / COMMENTS								
NORMAL	 Windsnelheden zijn van dien aard dat geen significante impact kan verwacht worden op ons net. 	NET	E	- N/A								
WAR- NING E1	- Windsneiheid \ge 140 km/hr en < 160 km/hr in Oostende; OF - \ge 120 km/hr en < 140 km/hr in het binnenland.	NET	E	- N/A								
Alarm	- Windsnelheid $\gtrsim 160~km/hr$ in Costende; OF - $\geq 140~km/hr$ in het binnenland.	NET	E	- N/A								

- 380.33/34 in maintenance were put in service earlier
- Announced and actual wind gusts > criteria emergency plan
 E1 from 12h to 24h on the 18/02/2022
- N-2 (loss of pylon) was covered at the limit on the 380kV backbone
- # incidents on lower voltages (incl 70kV line on the ground)



Storm Eunice – Wind Forecast & SI

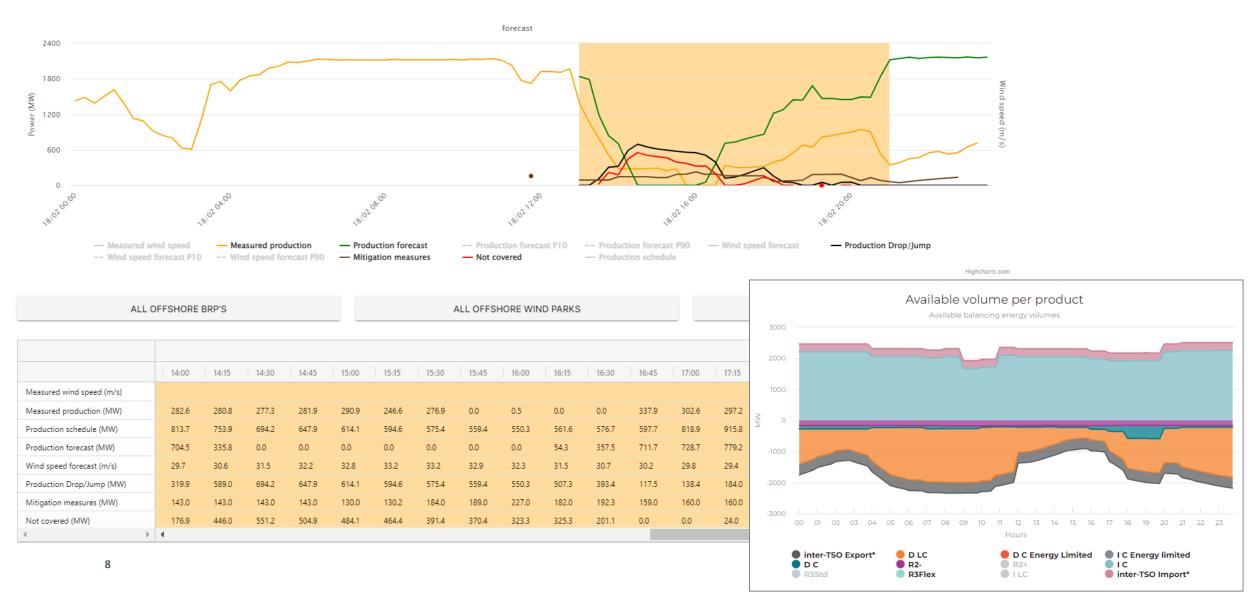
Storm event characteristics:

- A storm event occurred on Friday 18th February 2022 between ~12:00 (cut-out) and 24:00 (cut-in)
- The storm was detected more than 36 hours in advance allowing starting the storm management procedure:
- The offshore wind power production finally drops from 2200MW to 0 MW from 16:00
- The market has efficiently anticipated the storm event and no activation of the fallback process was required (enough balancing means)
- The **impact was limited on the System Imbalance** during the key moments (14-15 & 18-19) with a negative SI around 250-350MW. Then, the largest SI is observed during the ramping-up of the wind production (more than 650MW of imbalance).
- The storm lasts longer than forecasted by Elia and by the BRPs. → To be further investigated





Storm Eunice – Mitigation measure & Available volumes



Return of experience

- The main goal is achieved as the storm impact was well mitigated due to:
 - Efficient prevision and anticipation of the storm;
 - Efficient communication between impacted offshore BRP's and Elia;
 - Some mitigation measures (but not enough!) taken by the BRP's to anticipate the storm (proactively stopping units is part of their mitigation measures & keeping units running to react within 15min).
- The 2020/2021 improvements of the storm process positively contributes on the management of this exceptional/huge Storm:
 - Storm Forecasting Tool: calibration of the model in collaboration with the RMI ;
 - Storm Tool and process: increase of efficiency into the data exchange (IDPCR & B2B exchanges) and user friendliness of the tool in collaboration with the market parties.
- However, a further use of the storm tool and of the process (mainly via the submission of the mitigation measures – IPDCR,...) by the BRPs would improve the storm management (again).





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Storm Eunice 18/02/2022 Acties op het terrein

Elia User Group



De kroniek van een aangekondigde storm : D-1

- Afkondiging vooralarm E1 op 17/2 voor de dag nadien van 12u tot 24u
 - Verhoogde paraatheid van de ploegen op het terrein
 - Vraag om auto's vol te tanken en gsm op te laden
 - Verdeling van het management over de service centers in Lendelede, Lochristi, Merksem en Stalen
 - Verwittiging van de urgentieploegen bij lijnaanemer voor noodgevallen





De kroniek van een aangekondigde storm : D-day

- Emergency plan wordt niet verder opgeschaald, maar lokale crisiscellen worden na de middag geïnstalleerd in de verschillende service centers voor coördinatie op het terrein
- 14u: Eerste uitschakeling door geknapte waakdraad op 70 kV luchtlijnen tussen Koksijde en Noordschote → korte onderbreking van een deel van de belasting in Koksijde
- Tussen 14u en 18u volgen er meerdere uitschakelingen van luchtlijnen door het stormweer, zonder onderbrekingen tot gevolg*
- Er komen ook meldingen binnen van schade aan daken van gebouwen en aan omheiningen.
- Ploegen worden uitgestuurd voor eerste vaststellingen en om de situatie veilig te stellen:
 - Vastmaken van geknapte geleiders
 - Snoeiwerken
 - Afsluiting herstellen dmv tijdelijke hekkens
- Om 20u worden de crisiscellen stopgezet en neemt de normale wachtdienst over





De kroniek van een aangekondigde storm : nazorg



Op zaterdag 19/02 worden verschillende ploegen opgeroepen om dringende schade te herstellen:

- stabiliseren van verschillende daken
- herstelling van een losgerukte waakdraad op de 150 kV luchtlijn tussen Eeklo en Aalter om de N-1 te waarborgen

De week nadien nog rondgang op de onderstations voor controle op stormschade

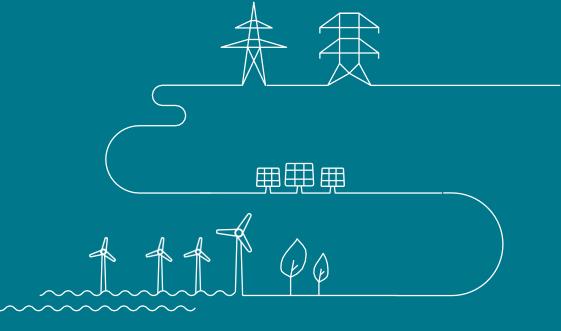








Thank you.





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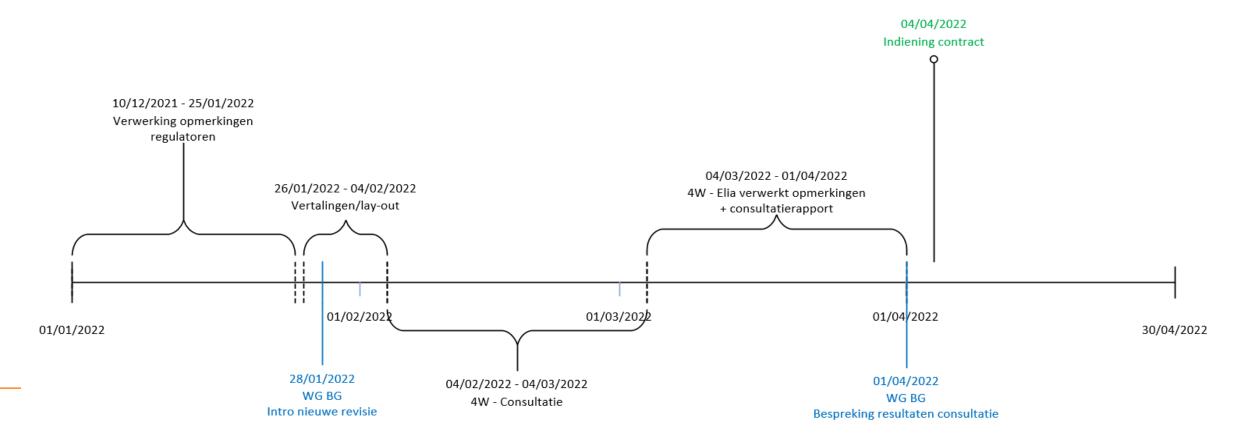


WG Belgian Grid

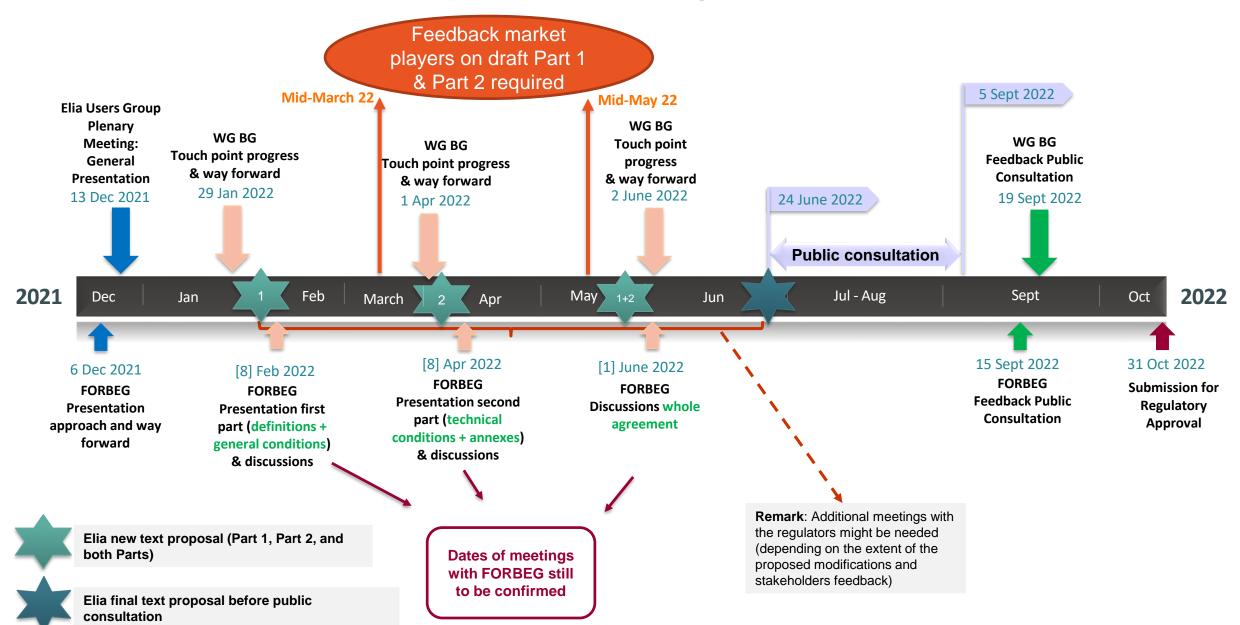
08/03/2022

Toegangscontract

Begin 09/2021:einde consultatie toegangscontract11/2021:consultatierapport beschikbaar en besproken op BGMidden 12/2021:opmerkingen regulatoren ontvangen (inclusief vraag CREG versnelde DROP)Midden 01/2022:opmerkingen regulatoren verwerkt



Connection Contract Proposed timeline – general





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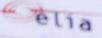
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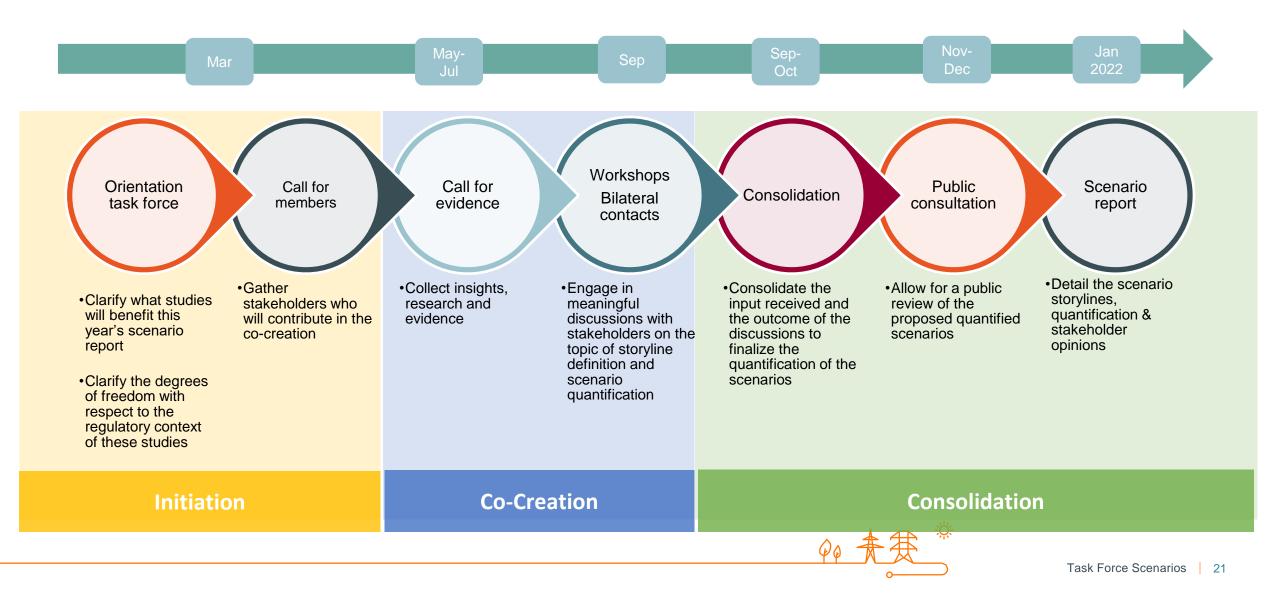
Task Force Scenarios Lookback on the first year

08/03/2022



Summary of 2021





Where can you find the documents?

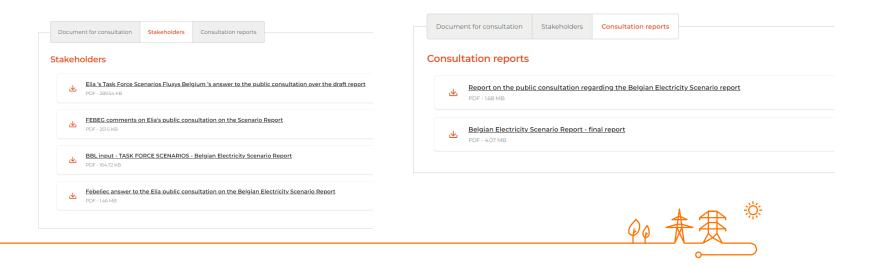


Meeting minutes, presentations, call for evidence feedback, workshop material, ... can be found on the **scenario task** force page on the elia website: <u>https://www.elia.be/nl/users-group/task-force-scenarios</u>





Stakeholder feedback, Elia's consultation report & final scenario report can all be found on the **consultation page** on the Elia website <u>https://www.elia.be/en/public-consultation/20211115_public-consultation-on-the-scenario-report</u>



Publieke consultatie

Final Scenario Report

Looking forward

The original idea for the TF Scenarios was to create a bi-annual process: every odd year a long term scenario report is drafted, every even year a short term scenario is discussed.

However, short term studies are subject to **strict legal requirements** in terms of consultations, stakeholder interactions, roles & responsibilities, deadlines, ...

For 2022 CRM calibration reports & AdeqFlex 2023 consultations are required by law. These discussions cannot be held jointly. Therefore, Elia deems it best that each project continues with its own task force.

Task force scenario members are asked to join these project-specific task forces to facilitate those discussions.

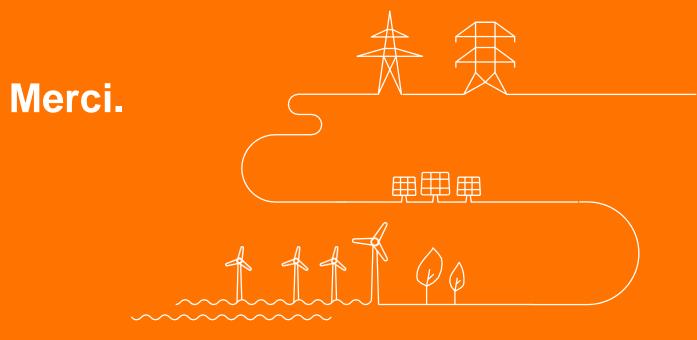
The task force scenarios can pick up again, in preparation of the new long term report which will be due end of 2023. Elia is interested in **hearing from stakeholders which types of discussions** they want to engage in with Elia in preparation of that new report.













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Update on balancing products and ancillary services



BRPs DA Balance Obligation

• On 1st December 2021, Elia started relaxing the Day-ahead Balance Obligation of the BRPs. As expected, BRPs cautiously adapted their behavior to this evolution of their obligation. The global Day-ahead Imbalance most of the time remained limited (<200 MW).

Imbalance Price & Alpha Component

- Workshop on α parameter and its proposed recalibration on 13th of December, following the urgent request of stakeholders.
 - Proposal to implement a relation between α parameter and the imbalance price: phase out α at high imbalance prices
 - Rationale: above a certain value of the imbalance price, alpha does not trigger additional reactions
- Modification of the α parameter in the tariff for maintaining and restoring the residual balance of individual access responsible parties as of 14th of February.

System Balance Philosophy

- 2 workshops on the System Balance Philosophy (13/12/21 & 20/01/22)
 - Presentation of Elia's system balance philosophy based on a mix of implicit and explicit balancing, and a clever dimensioning of reserves
 - Challenges and opportunities ahead, with increasing RES but also (decentral) flexibility and digitalization
 - Role of CCMD to lower entry barriers and capture needed additional flexibility



Elia data initiative, Capacity Auctions



- Public Data exposure
- Grid data section of Elia.be (92%) and ENTSOE TP (75%) are the most used platforms
- Open Data is already used by 50% of participants 6 months after its launch
- **Relatively good satisfaction on data quality** (67%-92%) on completeness, accuracy and timeliness.
 - Point of improvement on timeliness will be taken into account in Elia's roadmap and future improvements regarding data quality.
- ***** Year overview: Capacity Auction Results
- 2021 is the first complete year under fully regulated contractual framework (including updated design) for all balancing services
- Electricity, gas, CO2 prices and CSS all reached levels and volatility never seen before, balancing capacity costs that more than doubled in 2021. Costs could have been higher without:
 - efforts to diversify technologies participating to balancing capacities in the last years (in particular for FCR)
 - decrease of 200MW volume to procure in mFRR
- FCR Capacity Prices: FCR capacity prices remain under control. As of January 2021, some BSPs optimize their capacity bids between FCR & aFRR. This has led to an increase of procurement cost at the end of the year.
- **aFRR Capacity Prices:** Strong correlation between CSS and aFRR costs in the all CCTU auctions
- **mFRR Capacity prices:** impact of high electricity prices during peak hours (mFRR units are in-the-money and pricing their opportunity cost)



Update on new aFRR, mFRR design implementation, iCAROS and cross project planning and design



aFRR design – energy

- **aFRR T&C**: Finalization of public consultation (08/12/21 18/01/22)
- Balancing rules (amendment needed for PICASSO): Launch of public consultation (23/12/21 02/02/22).
- Stakeholder workshop (24/02/2022) on aFRR Energy Management Strategy (EMS) Requirement.

MFRR Flex product phase-out

• The amendment of the LFC means has been submitted to CREG on 17/11/2021, pending approval

mFRR design & iCAROS

- Market parties / BSP Facilitations: Elia proposes to organize an ad-hoc meeting in the period [Mid of March Mid of May] in order to present and discuss the more detailed design of the proposed optional "Bidding Assistance Services" pre-processes;
 - The goal is to establish and share an ad-hoc technical guide before the summer
- Updated mFRR design note shared on 26/01/2022, with an invitation to provide feedback for end of April at the latest.
- Presentation of impact of iCAROS on stakeholders and Elia's tooling on WG Bal of 27/01 on request of stakeholders.

Update of roadmap 2021-2022 - MARI & iCAROS:

- The Request for derogation to the connection to MARI was consulted (23/11-10/12/21) and sent for approval to CREG on 18/01/2022.
- The market parties support the request for derogation

Presentation of Incentives 2022



aFRR 5 min FAT: impact analysis and recommendations

- Analyze the **impacts** of an activation based on the **"control target"** for Elia and for the BSPs
- Define the conditions under which this modification could be carried out (remuneration, control & penalties)
- In case of positive conclusions, propose an implementation plan
 - Kick off on 27/01 with 2 workshops in May and September
- Study on procurement strategies for a dynamic calculation of FRR means: Follow-up study on the daily prediction of non-contracted balancing energy bids
 - Investigation of different procurement strategies, including 'partial procurement' and 'intermittent procurement'
 - Analysis on **potential interactions with reserve sharing** and implementation of the EU balancing energy platforms
 - Evolution of **offered non-contracted balancing energy volumes** and impact of new market evolutions to the extent possible (including 'go live' Picasso in June 2022)
 - An update of the implementation roadmap based on the presented conclusions
 - Kick off on 27/01 with 2 workshops in April and May



Update on Incentives 2022

- Analysis of possibilities for combined offers (Combo) of FCR/aFRR/mFRR and ToE DA/ID at DP pg delivery points
- Transversal study to assess the opportunity and technical feasibility of offering a combo on DP pg and assessment of impact on liquidity
- Benchmarking with other European TSOs
- Implementation plan or explanations if changes are not desirable
- Comparison of the Belgian concepts "DPsu" and "DPpg" (defined in the T&C BSP) with the European concepts of "reserve providing unit" and "reserve providing group" (defined in the SOGL).
 - Kick off on 27/01, survey in March, workshop in May

Analysis and implementation of FCR evolutions pursuant art. 154(2) of SOGL

- Analyze and propose designs deviating from the proposed standard solution in order to remove entry barriers for BSP as long as the minimum needs of Elia are satisfied, given the specific context of Elia's LFC Block. The proposal of design shall not necessarily be limited by choices made by other TSOs of the FCR Cooperation
- The proposal of design shall analyze the impact of those evolutions on the development of a competitive national FCR market, on the participation of end-consumers on low voltage, Demand Side Response (DSM) and storage.
 - Kick off on 27/01 and workshop in mid April







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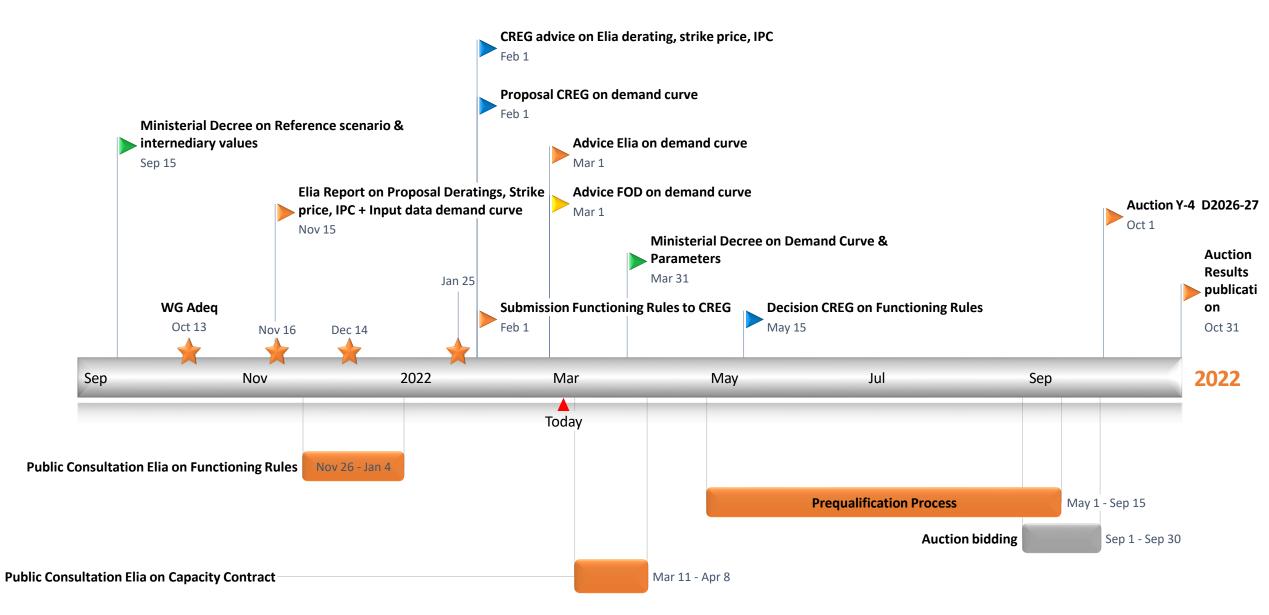


Status WG adequacy since last meeting

- Updated Functioning Rules
 - Public Consultation between 26 November 2021 and 4 January 2022
 - Presentation on received feedback during WG adequacy 25 January 2022
 - Submitted to CREG on 1 February 2022
 - Finalisation at the latest by 15 May 2022 (publication by Elia and CREG) + publication through Royal Decree afterwards
- Capacity Contract modifications
 - Public consultation planned from 11 March 2022 till 8 April 2022
- Law modification in order to foresee the possibility to organise a re-run of the 2021 Y-4 auction
 - Participation to the re run is only open to non selected CMUs in the Oct'21 auction
 - Participation is voluntary
 - Participation is subject to providing financial security and the relevant permitting info
 - The bids in the Oct'21 auction (volume, price, opt-out,...) remain unchanged.

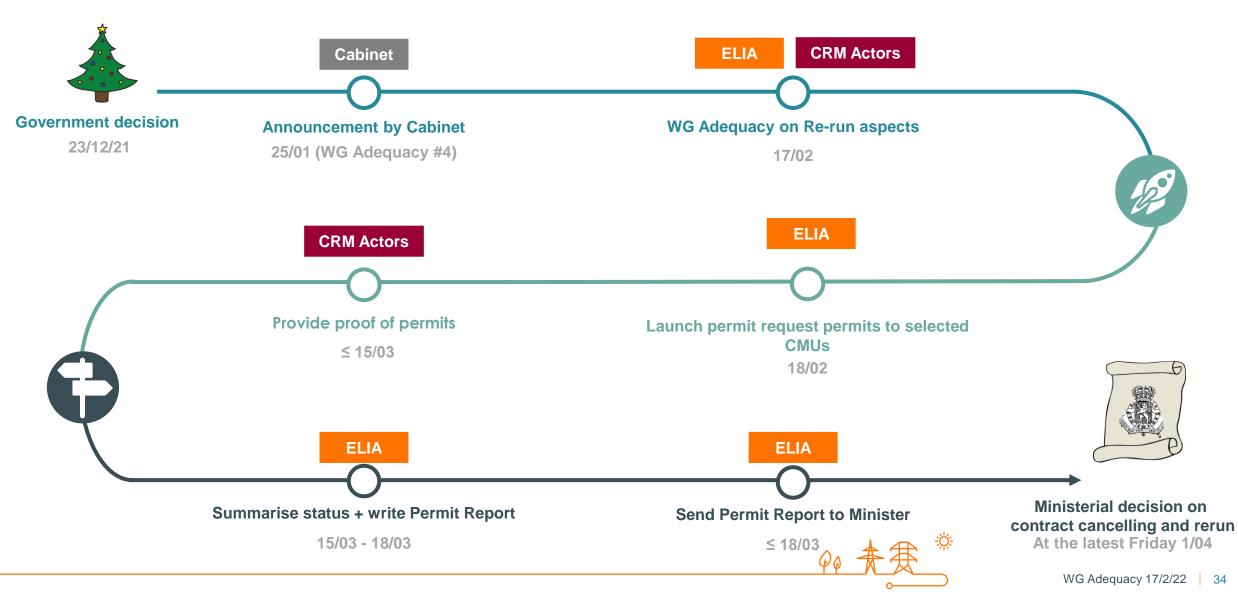


High-level planning Y-4 Auction 2022 for delivery period 2026-27



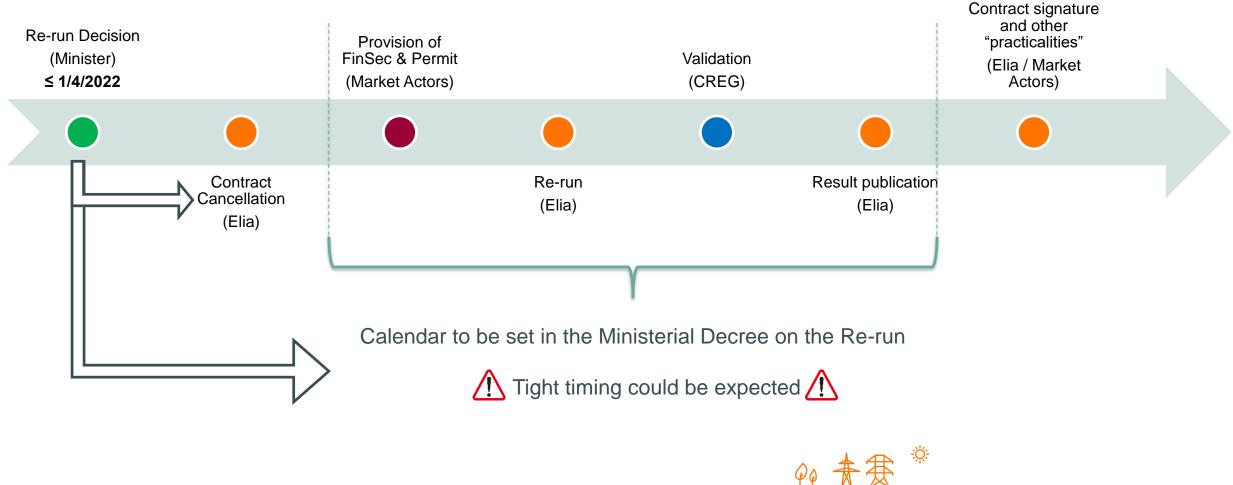
STEP 1: Selected CMUs in the Oct'21 Y-4 Auction to provide the relevant information on the (status) of their permit







STEP 2: if decided on a re-run, non-selected CMUs from the Oct'21 Y-4 Auction can participate





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Miscellaneous



Public consultations

- 11/02 13/03 Access Contract
- 11/03 18/04 CRM Capacity Contract

Next plenary meeting

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