

# WG Balancing of 29<sup>th</sup> January 2021

Teleconference

29/01/2021

## For a smooth teleconference with 30+ people ... Some rules apply

- Please put yourself on mute at any time that you are not speaking to avoid background noise.
- If you receive a call, please ensure that you do not put this meeting **on hold**.
  - You can quit and reconnect later on.
  - You will be muted or kicked out of the session, if necessary.
- You will be requested to hold your questions for the end of each presentation.
  - Should you have a question, please notify via Skype or speak out if you are only via phone.
  - Share your question (with slide number) in advance so all participants may follow
  - Before you share your question, please announce yourself.
- If you have a poor internet connection, please dial-in.
- Finally, please be courteous and let people finish their sentences.
  - It is practically impossible to follow when 2 people are speaking at the same time in a teleconference.



# Agenda

1. 14:00 – 14:10 – Introduction and Validation of minutes
2. 14:10 – 14:35 – Incentives: high level presentation of the scope, aim and ambition (part 1)
3. 14:35 – 14:45 – 2020 Year overview: Capacity auction results
4. 14:45 – 15:10 – MOG II SI study: Conclusions and next steps
5. 15:10 – 15:30 – Balancing & Belgian Markets: Roadmap 2021-22 (update)

## AOB

- FCR new volume (core share, demand, export limit)
- Imbalance price on 07/12/2020
- Amendment of T&C BSP aFRR: Status Update

## Minutes of Meeting for approval

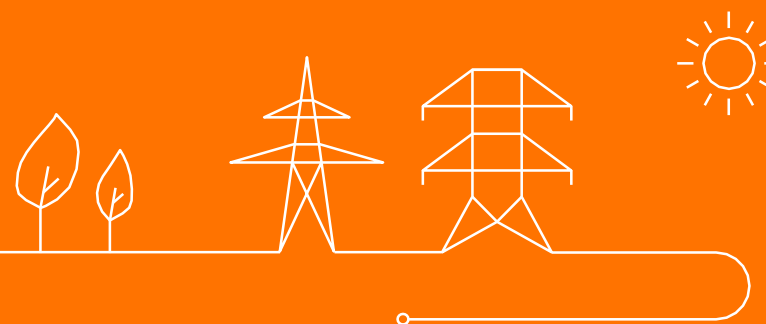
- Minutes of Meeting of 23<sup>th</sup> November 2020 :
  - Minor comments have been received from FEBEG to correct typos.
  - Elia suggests to approve the MoM with the corrections.





# Incentives: high level presentation of the scope, aim and ambition (part 1)

Presented by Anna Tsiokanos/Kristof De Vos





# Incentive: Revision of baseline methodologies

WG balancing 29/01/2021

Contact: Kris Poncelet ([Kris.Poncelet@elia.be](mailto:Kris.Poncelet@elia.be))

## Context

- Since 2013, with the gradual opening of different products to non-CIPU technical units, Elia has developed baseline methodologies for different products
  - mFRR: Last Qh + High X of Y
  - SR: High X of Y
  - ToE DA/ID & CRM: High X of Y\*
- Baseline methodologies are used to calculate the volume of flexibility delivered by non-CIPU technical units, which is needed for two purposes:
  1. Activation and/or availability control
  2. Transfer of energy (perimeter corrections and compensation FSP-Supplier)
- The current baseline methodologies have been chosen based on suggestions of stakeholders and in a pragmatic way (to trade-off accuracy, simplicity, and the risk for gaming) with the knowledge available at that moment, with the idea that a review of the baselines would be performed later.



## The planned study has 4 main objectives

1. Analyze the performance of baseline methodologies
  - mFRR, DA/ID, SR, CRM:
  - Methodologies adopted by Elia as well as alternative BMs
  - Taking into account:
    - Product characteristics (e.g., trigger for activation, time between trigger and start of activation, activation duration and frequency)
    - Possibilities for value stacking (i.e., activation combo's)
2. Propose a preferred baseline methodology for each product
3. Establish the process for monitoring/validating the baseline:
  - Goal: ensure adequate baseline accuracy and avoid gaming opportunities
  - Particularly relevant in case there are multiple BMs that can be chosen or when the FSP defines their own baseline
4. Develop an implementation plan for the proposed changes





# We propose the following 7-step approach

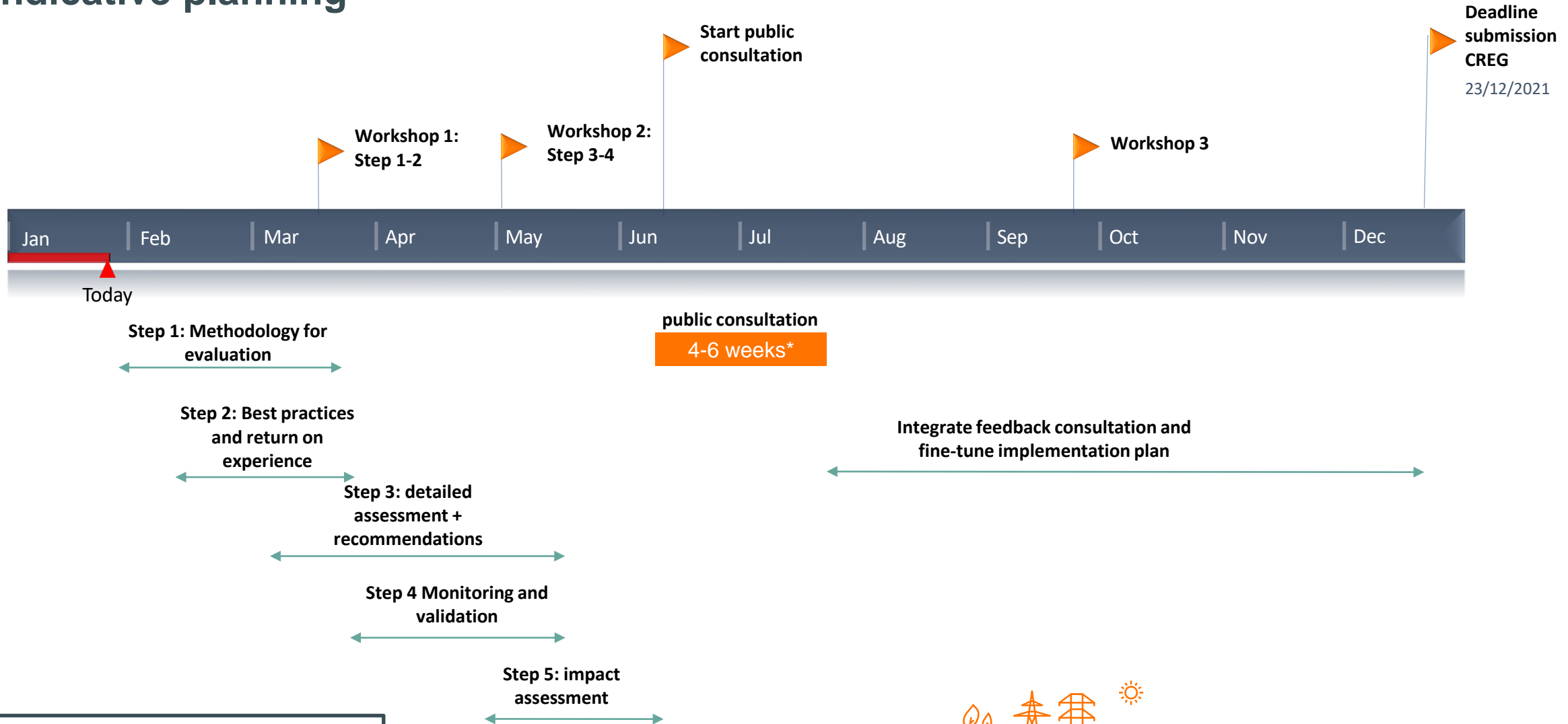
1. Define a **method** to evaluate the performance of baseline methodologies
  - Specify the criteria used for the performance evaluation (e.g., accuracy, complexity and risk for gaming)
2. Obtain an overview of **best practices and return of experience**
  - **Survey with Belgian stakeholders** on current baseline methodologies (REX) and future needs
    - Federations + FSPs will receive questionnaire potentially followed by interview
    - Feedbacks/suggestions already received will be taken into account
  - **Benchmark:**
    - Review of international best practices (incl. US, Australia, Canada, UK, France, Switzerland and Norway)
    - Return of experience on baselines based on nomination of the BSP (UK, France, US, Netherlands)
  - => Output: selection of methodologies to maintain for an in-depth assessment
3. Detailed assessment of the baseline methodologies & recommendations towards evolutions
4. Establish the process for monitoring/validating the baseline
5. Impact assessment & implementation plan

Different workshops or presentations in WG/Bal will be organized in different steps of the study



# Indicative planning

2021



In case of questions/remarks on this incentive, please send an email to Kris Poncelet (Kris.Poncelet@elia.be)





**Incentive: Designation of  
multiple BRP per access point**  
WG balancing 29/01/2021

Contact: Raphaël Dufour (Raphaël.Dufour@elia.be)



## Designation of multiple BRP per access point – Context

- Some possibilities are currently available to share the balance responsibility on a access point by designating several BRP's responsible for this access point
- These possibilities are available via some specific schemes defined in the access contract:

Annex	Description	For what type of Access Point
Annex 3bis	Split load/local production	Industrial site with local production
Annex 3ter	Split net offtake/injection	Industrial site with local production
Annex 9	Shared energy	Injection point (production unit)
Annex 10	Fixed band	Offtake point
Annex 11	Flexible band	Offtake point
Annex 14	CDS	CDS
Annex 14ter	% of repartition of energy volumes of a technical unit within a CDS	Production unit within a CDS

- Considering the **questions received from market parties** and the **evolution of the electricity market**, the existing schemes
  - Show **some limitations: they are “rigid”** as they have been defined for specific situations .
    - ↳ more flexibility in the splitting possibilities could address **all the specific needs** of market parties
  - Those schemes were developed before the Icaros/”splitting of roles era”.
    - ↳ It is the right moment to re-asses them taking into account the evolution of the electricity market design (e.g. the split of the roles of: BRP, Scheduling Agent, BSP, Outage Planning Agent)



## Designation of multiple BRP per access point – Objectives

- The **objectives** of this study are to:
  1. Assess, together with market parties, the relevance and the possible **limitations of the existing schemes** for the designation of multiple BRP's on a same access point considering
    - The need of flexible solutions for market parties
    - The evolution of the electricity market
  2. Propose **improved/ or new scheme(s)** to give more flexibility to market parties for designating multiple BRP's behind an access point
    - E.g. allowing more than 2 BRPs
    - Allowing to define different BRP's per asset/group of assets behind an access point (cf. in CDS)
    - Respecting the applicable legislation (EBGL, FGC)
- These points will be discussed with market parties and this study will be **publicly consulted**
- An **impact analysis** will be made for the recommended evolutions, an **implementation plan** will be defined



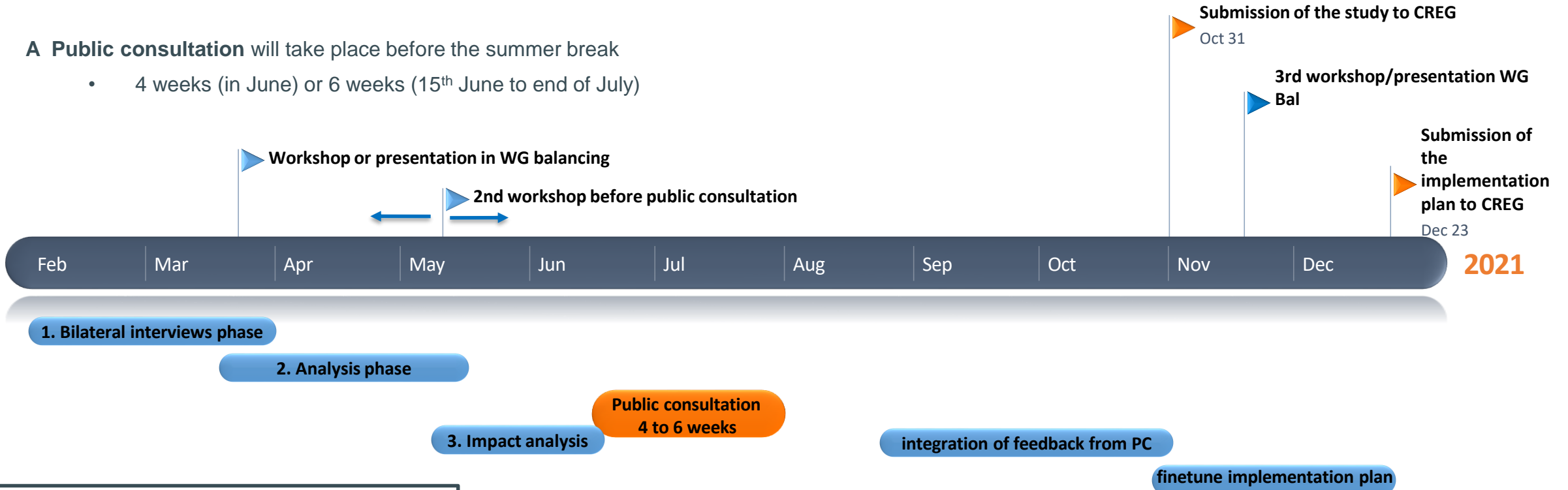
# Designation of multiple BRP per access point – Method and timings

This study will be split **in three phases** and involve market parties through several bilateral discussions and workshops:

1. A period of **bilateral interviews with federations and market parties showing specific interest** to define the needs and analyze the current situation
  - A workshop or presentation in WG balancing will be organized at the end of the phase with a purpose to define the needs, the attention points and possibly discuss the first ideas for solutions
2. A **phase of analysis** to define, compare and analyze possible solutions
  - A workshop will be organized at the end of this phase in order to discuss proposed solutions with market parties
3. An **impact analysis** of the retained solution(s) in order to propose an implementation plan

**A Public consultation** will take place before the summer break

- 4 weeks (in June) or 6 weeks (15<sup>th</sup> June to end of July)



In case of questions/remarks on this incentive, please send an email to Raphaël Dufour (raphael.dufour@elia.be)

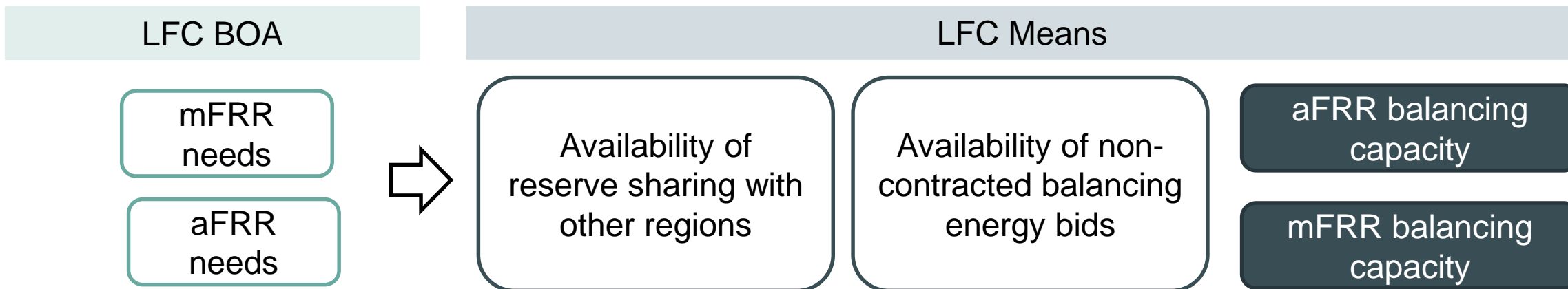
Dynamic

# Daily prediction of non-contracted balancing energy bids

Contact: Kristof De Vos ([Kristof.DeVos@Elia.be](mailto:Kristof.DeVos@Elia.be))



## Context of the study



- In line with Article 157 of the SOGL, Elia determines the FRR / aFRR / mFRR needs following a methodology specified in its LFC block operational agreement.
  - FRR / mFRR needs are already dimensioned on a daily basis based on expected system conditions
  - Elia presented in 2020 an implementation plan for a dynamic dimensioning of aFRR needs.
- In line with Article 32 of the EBGL, Elia determines in its LFC Means the optimal provision of reserve capacity taking into account sharing of reserves, the volumes of non-contracted balancing energy bids and the procurement of balancing capacity. This is currently still based on a 'static' approach.
  - Elia calculates on a periodic basis the availability of non-contracted capacity balancing energy bids and the availability of shared FRR capacity.
  - Potential 'firm' capacity is subtracted from the required mFRR / aFRR needs in order to determine Elia's balancing capacity (to be procured)



## Objective, approach and scope

**Question : can Elia's available non-contracted balancing energy bids for the next day be predicted to impact the required FRR balancing capacity (to be procured)?**



- **Step 1** : collection of data on all relevant system conditions known day-ahead and investigate correlations with non-contracted balancing energy bids.



- **Step 2** : study of several advanced statistical methods (cf. machine learning) and recommend a few methodologies to be tested



- **Step 3** : analysis of a quantitative comparison of the selected methods for the proposed features.



- **Step 4** : put forward recommendations and implementation planning

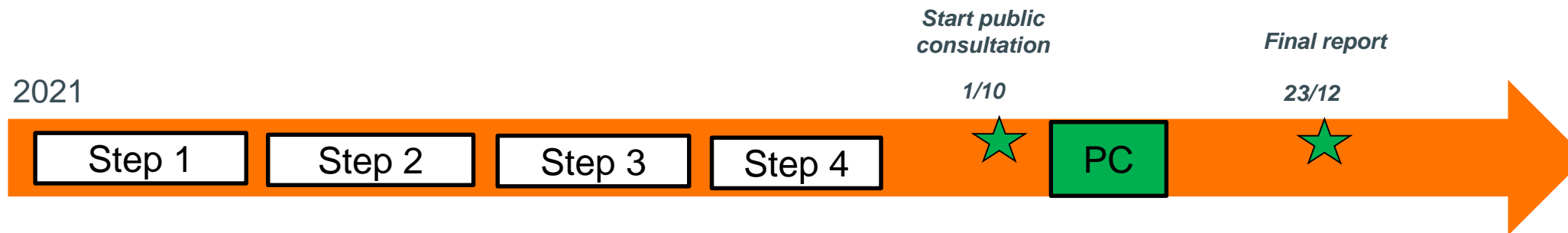
### Scoping

- The balancing energy exchange platforms for aFRR and mFRR will only be implemented in 2022. It will therefore not be possible to determine the quantitative impact on the results in the study
- Recent and foreseen product developments for aFRR & mFRR are not (fully) represented yet in the available observations and results are subject to market evolutions
- No procurement mechanism is currently in place to facilitate a partial procurement. If positive potential, this needs to be investigated and discussed.



Depending on the results of this study, follow-up analyses will further investigate these aspects.

# High level planning



**Kick-off**

- Present objective, scope and planning
- Collect potential feedback / expectations from market parties



**Public Consultation**

- Present a draft of the full study to the stakeholders (report)
- Collect suggestions and remarks and answer via consultation report

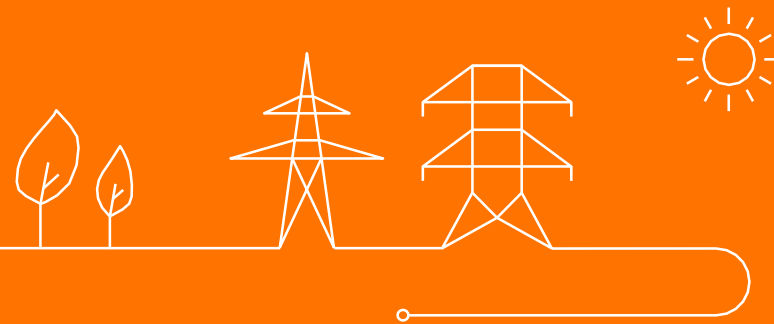


**Final report**

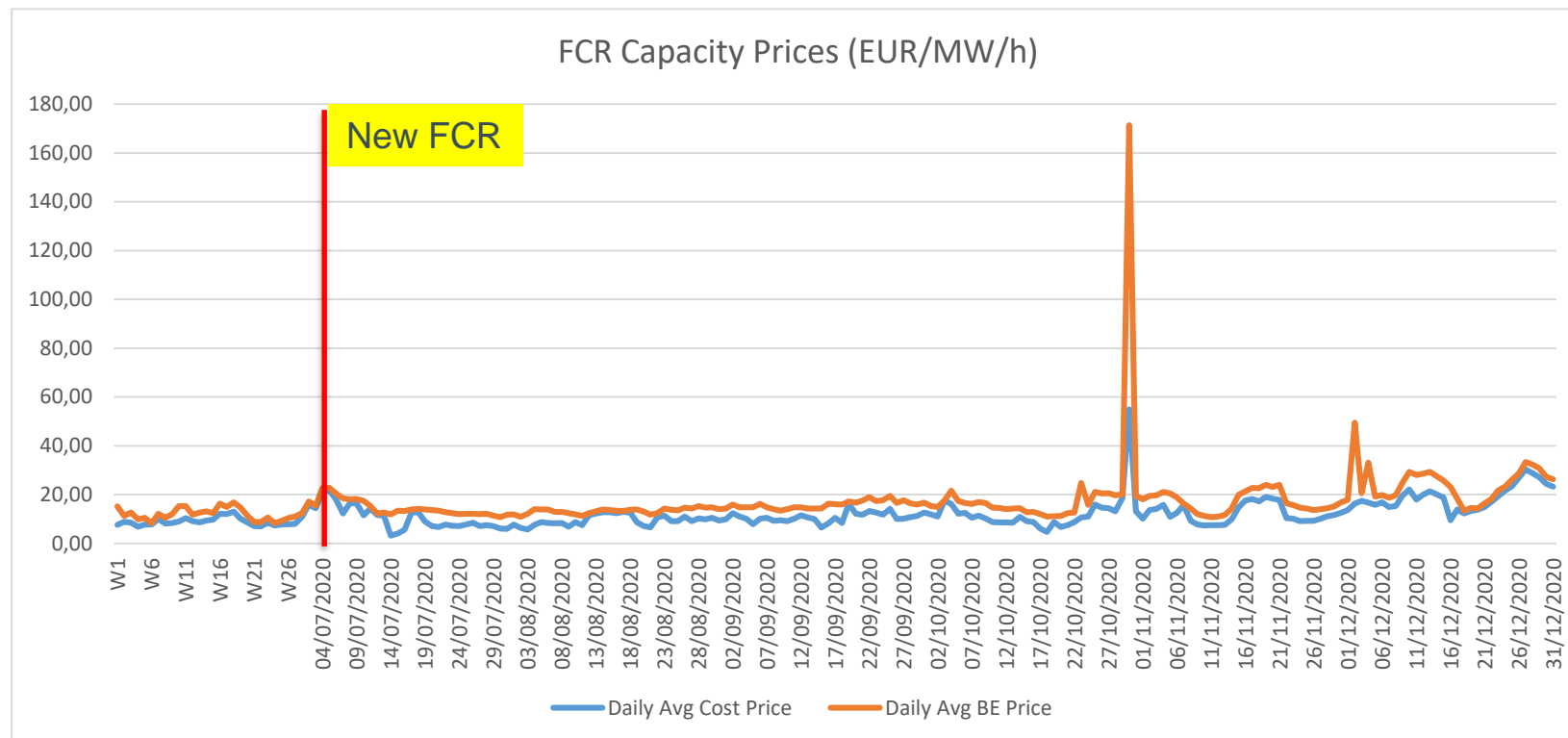
- Publication final report
- Discuss conclusions and consultation report

# 2020 Year overview: Capacity auction results

Presented by Arno Motté



# Evolution FCR Capacity Prices

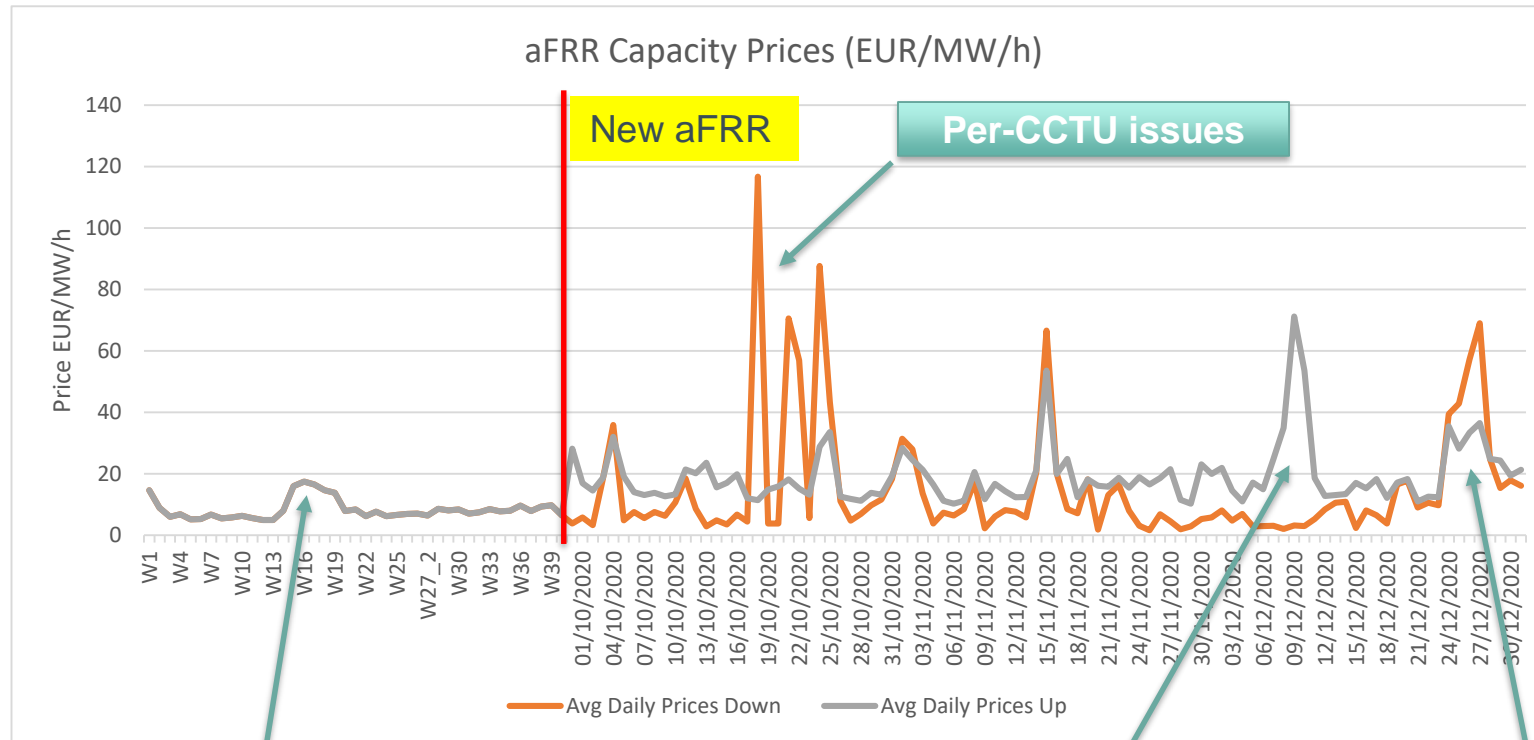


- Average daily FCR prices rather constant → **10-20 €/MW/h**
- **30/10 and 02/12**: peak of price in the Belgian core share
- ➔ reason: unavailability of one of the most important BSP

**FCR prices rather constant, but very sensitive to the unavailability of one the most important BSP**



# Evolution aFRR Capacity Prices



COVID impact

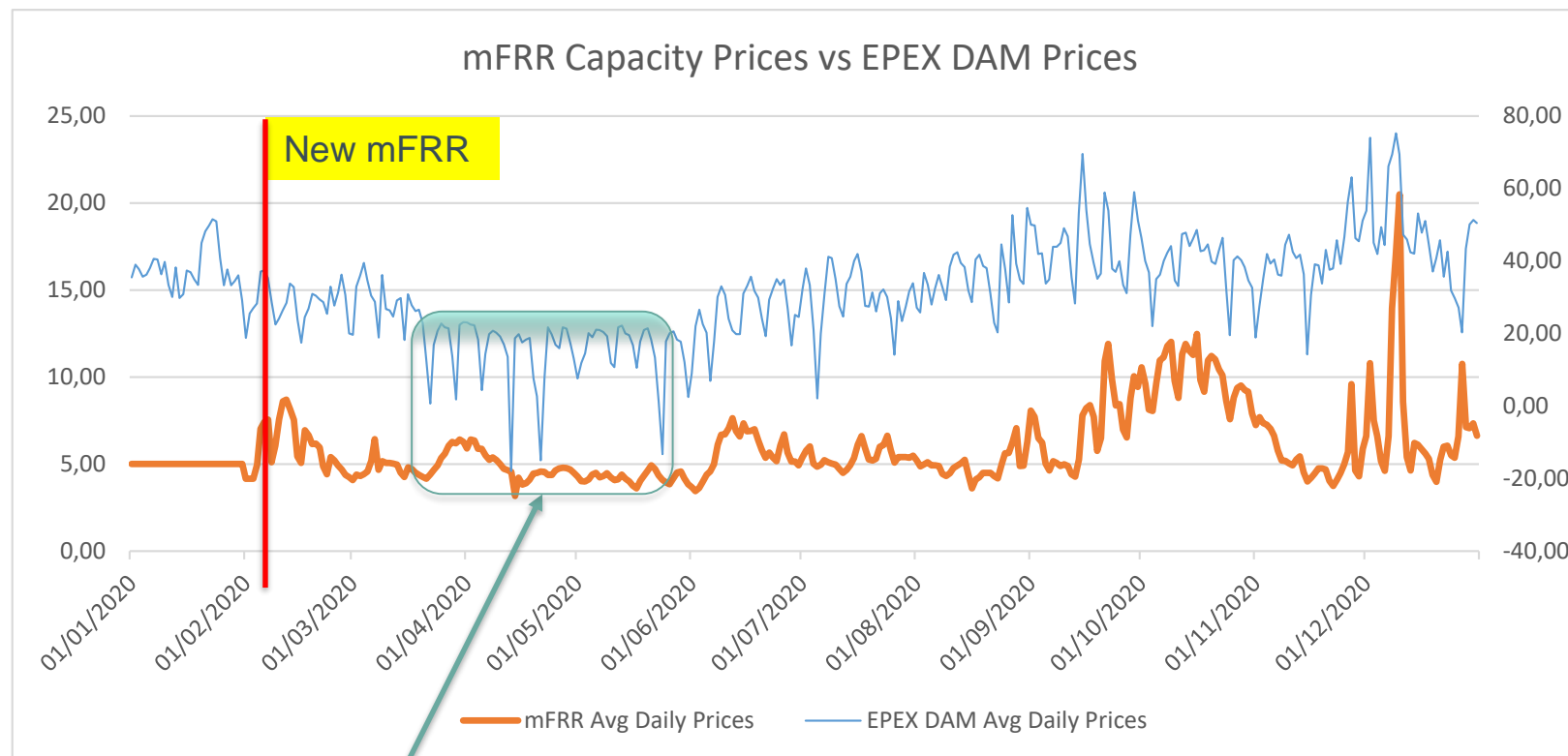
High EPEX prices

High negative CSS

- **18/10 and 24/10:** High spikes of aFRR prices in the per CCTU auctions
  - ➔ protective measure implemented as of 25/10
- **December 2020:** Peak of prices
  - ➔ Reasons:
    1. High EPEX DAM prices for peak hours the week of 07/12
    2. Very negative CSS during Christmas week
- **23/12 (delivery date):** Re-opening of aFRR capacity procured in per-CCTU auction, i.e first DPpg prequalified

After a week with high peaks of prices, aFRR prices stabilized following protective measure on 25/10  
 Peak of aFRR prices in December due to either high electricity prices or high negative CSS

# Evolution mFRR Capacity Prices

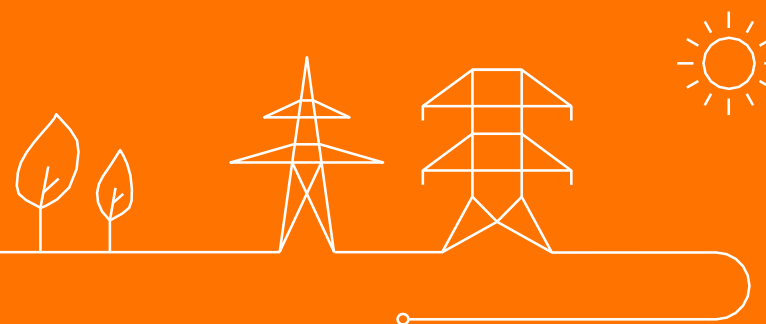


- mFRR prices in December are the highest of this year
- Similar trend of EPEX DAM prices observed on mFRR prices

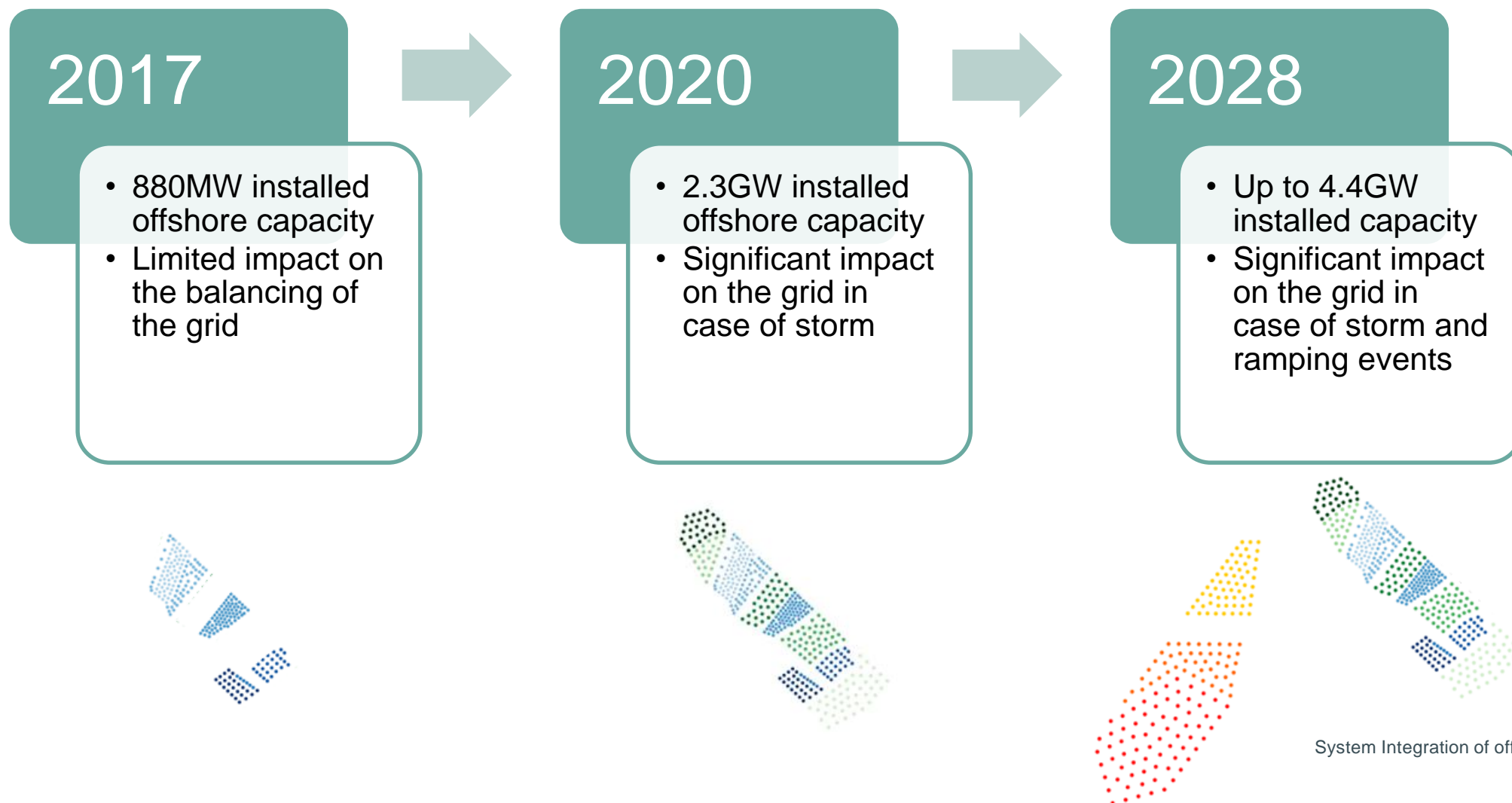
**mFRR prices follow trend of electricity prices, highest prices in December for this year**

# MOG II SI study: Conclusions and next steps

Presented by Philippe Magnant



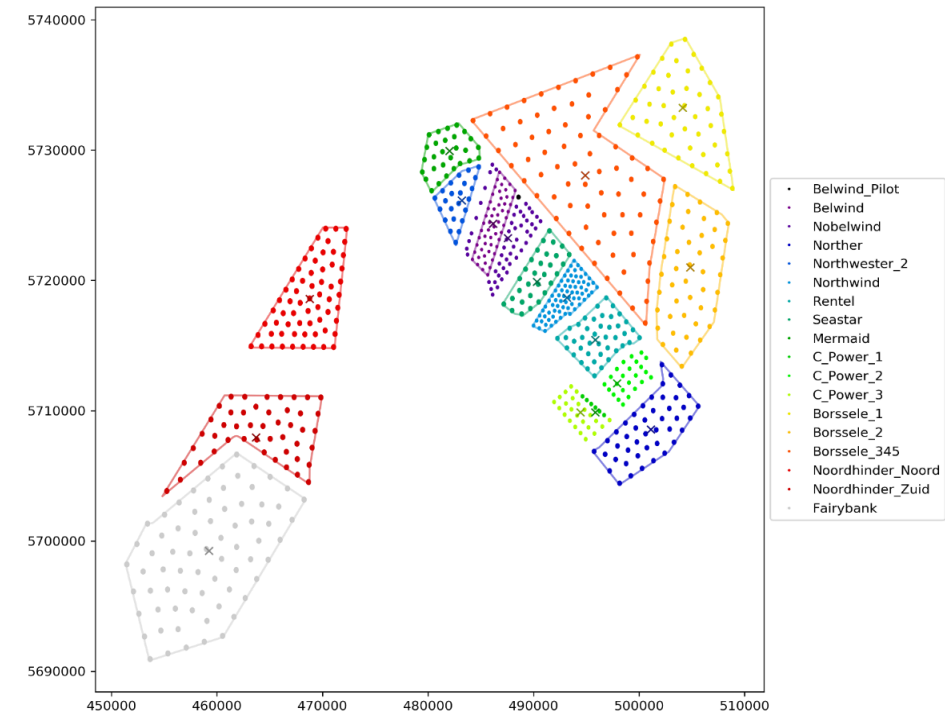
## Evolution of offshore capacity in Belgium and impact on the grid





## Why is offshore of particular interest for balancing ?

- Compared to other TSOs
  - ✓ Density within and between the wind parks is much higher
  - ✓ Size of the Belgian LFC block
- Compared to other technologies
  - ✓ Forecast errors are higher for offshore (partly because of the density), compared to onshore and PV → more challenging for the BRP to keep its portfolio balanced
  - ✓ Thermal units or NEMO can trip, leading to a sudden loss (faster than offshore variations), but this is limited to ~1GW

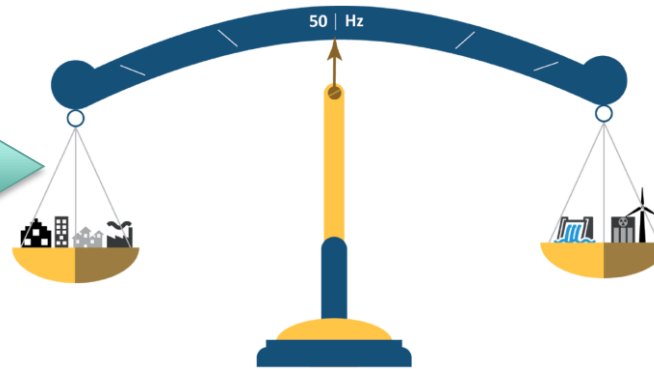
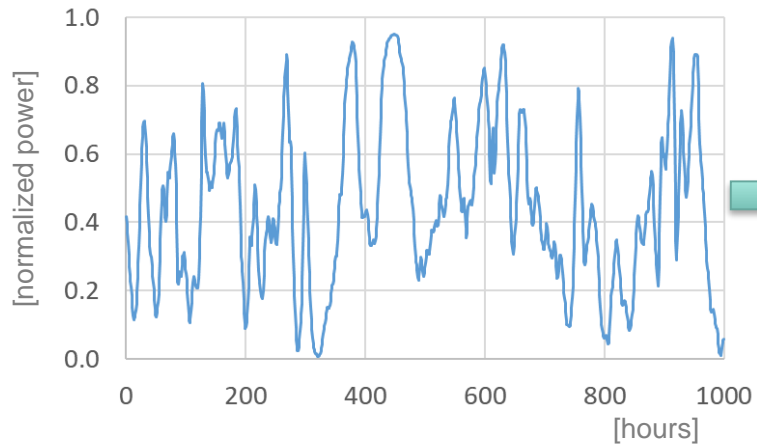


## Objective of the study

- Ongoing study aims at analyzing the impact of additional installed offshore capacity on the system. Focus is on the **impact of production variability on balancing**
  - ✓ Fast production variations and forecast errors are likely to exceed the available volume of reserves
  - ✓ Grid dimensioning, access, congestions, etc. are evaluated outside of the scope of this study
- The study is expected to result in **recommendations for a smooth integration** of the future wind parks in the grid
- Those recommendations could include operational or technical constraints for the wind parks or concerned BRPs → they must be defined **before the tendering process** of the new concessions, which is planned in 2023



## Approach of the study



### 1. Offshore production profiles to be expected, taking into account:

- ✓ The geographical smoothing
- ✓ The wake effects



### 2. Impact on balancing:

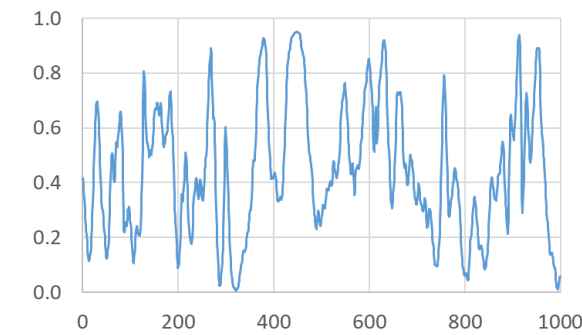
- ✓ Impact on reserve and flexibility needs
- ✓ Ability to keep System Imbalance at an acceptable level during extreme conditions

### 3. Mitigation measures:

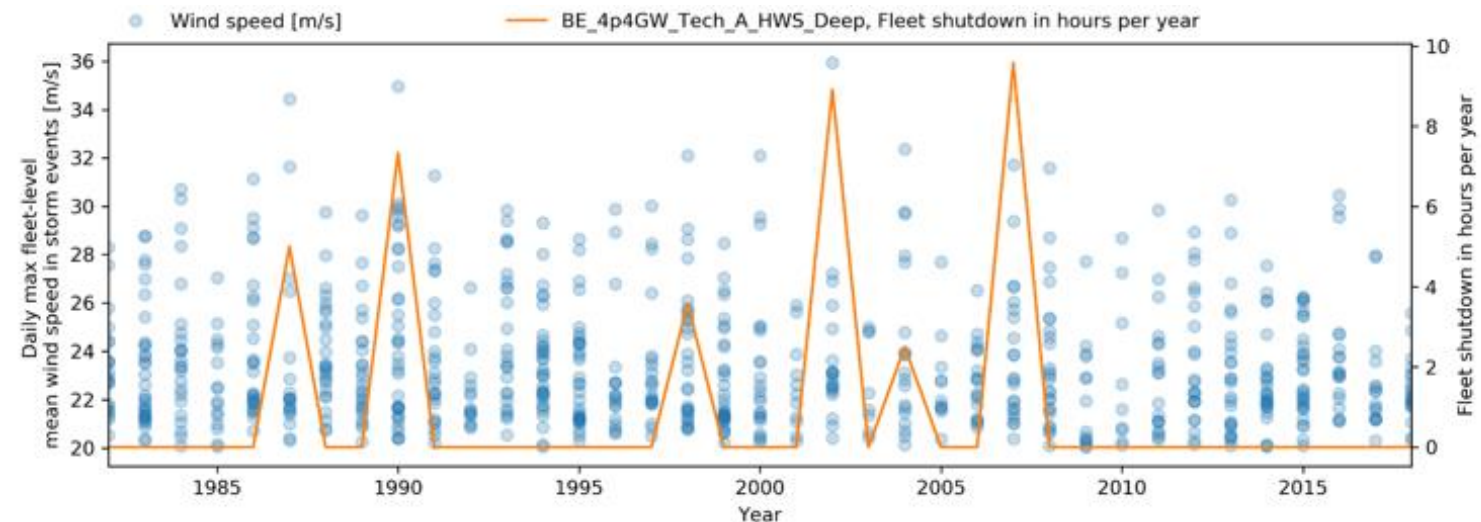
- ✓ Market design & incentives
- ✓ Technical & operational constraints for the wind parks

# Major findings

## Expected offshore profiles

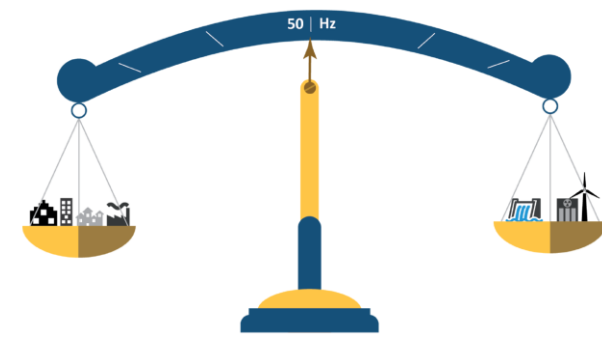


- “Ramping events” due to wind variation will be challenging for the Balance Responsible Parties (BRPs) and for the grid
  - ✓ Ramps of more than 2.5GW in an hour time are expected to occur 1 or 2 times a year, on average. Ramps of more than 3.0 GW are expected once every 3 years.
  - ✓ Some extreme ramping events appear not to be forecasted at all
- Storm events can potentially lead to a shutdown of the full 4.4GW fleet, even when high wind shutdown technologies are installed → a storm event might impact also wind parks of other TSOs at the same moment



Measures wind speeds and full fleet 4.4GW shutdown in hours per year

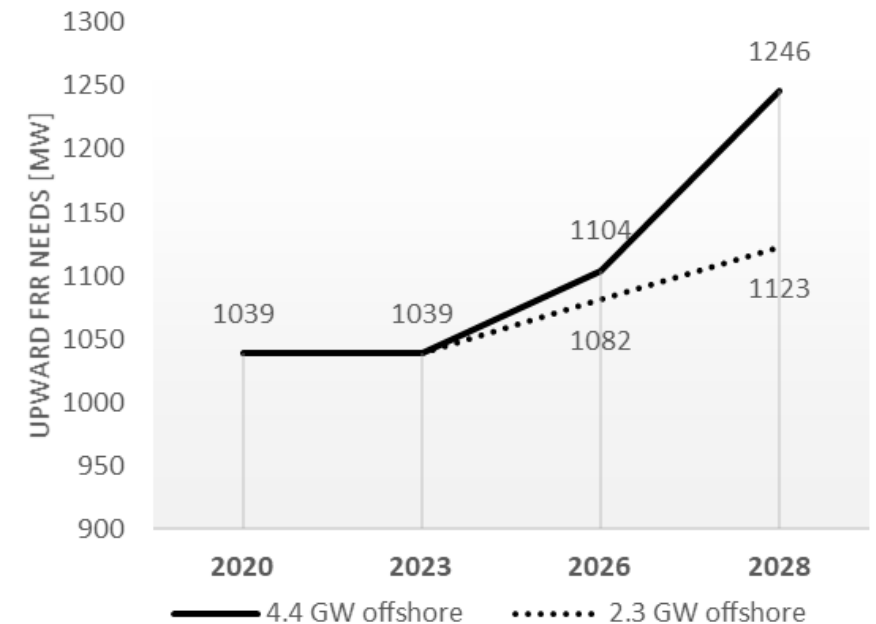
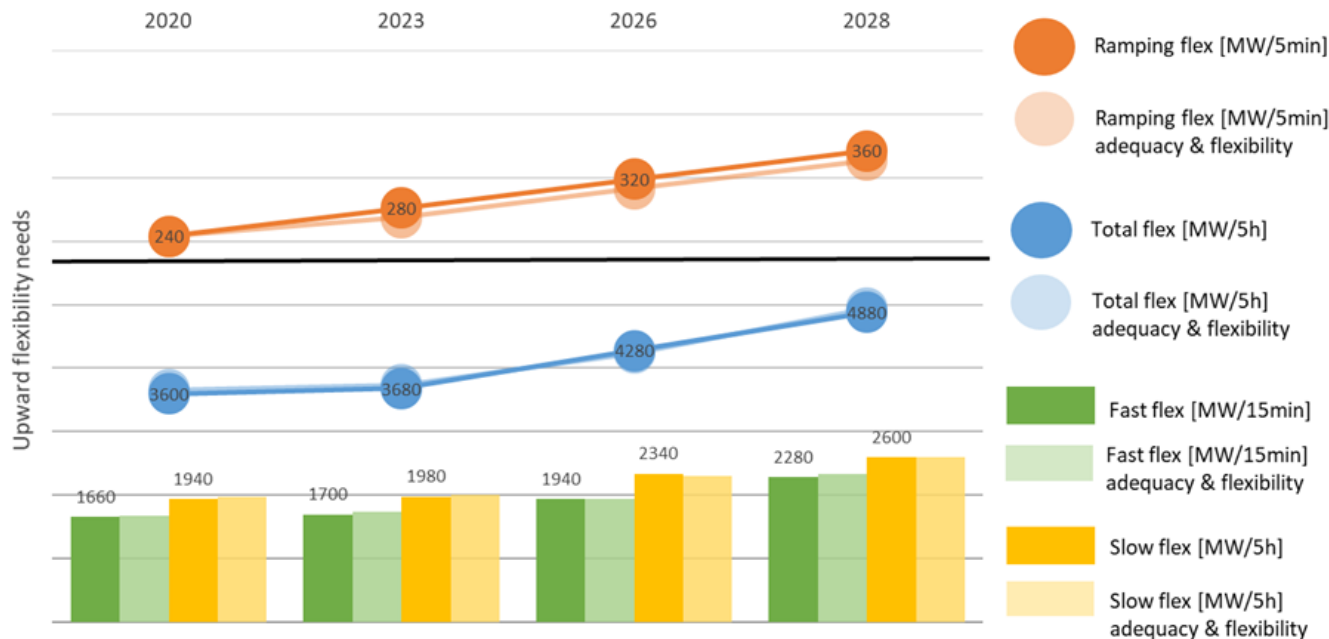


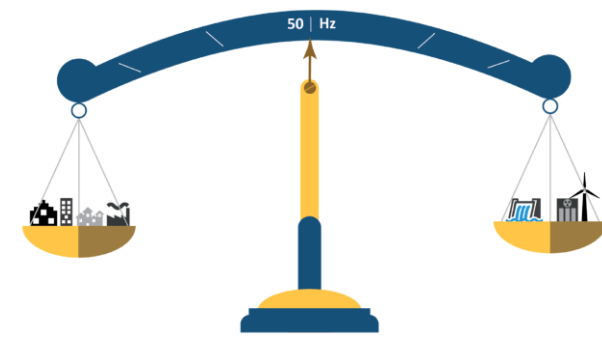


# Major findings

## Impact on balancing – normal conditions

- Impact on **flexibility needs**: results from Adeflex confirmed → If the system is adequate, sufficient flexibility will be installed in the system, but not always operationally available when needed
- Increasing reserve needs** following the integration of additional offshore wind power capacity, as well as the increasing capacity of other renewables

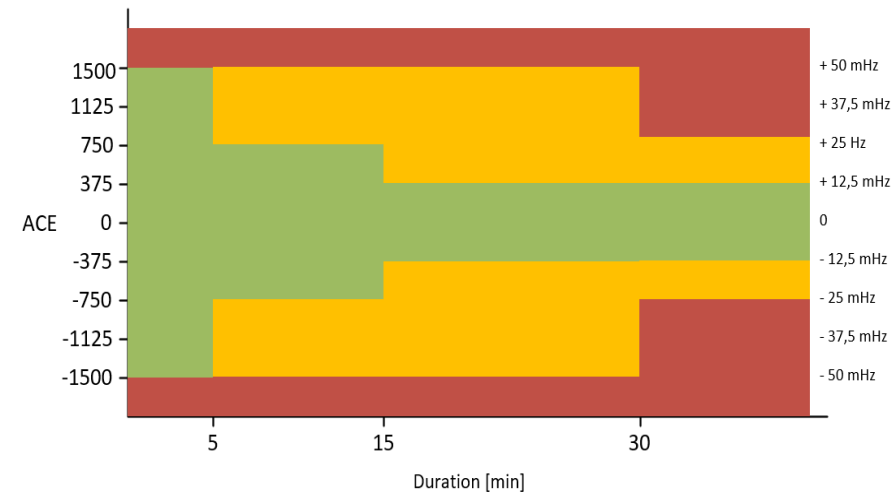
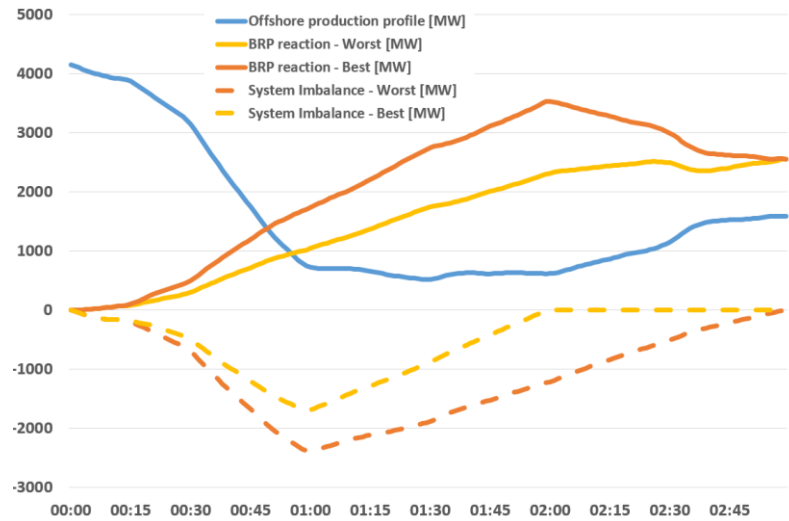




# Major findings

## Impact on balancing – extreme conditions

- The power variations in extreme conditions can lead to **unacceptable ACE values**



- The results are however **sensitive to the assumptions**
  - ✓ Technologies installed (power density, high wind speed technologies)
  - ✓ Reserves available (including on EU balancing platforms)
  - ✓ Ability of BRPs to react to offshore power variations
- To address the challenges identified, **mitigation measures appear to be necessary**

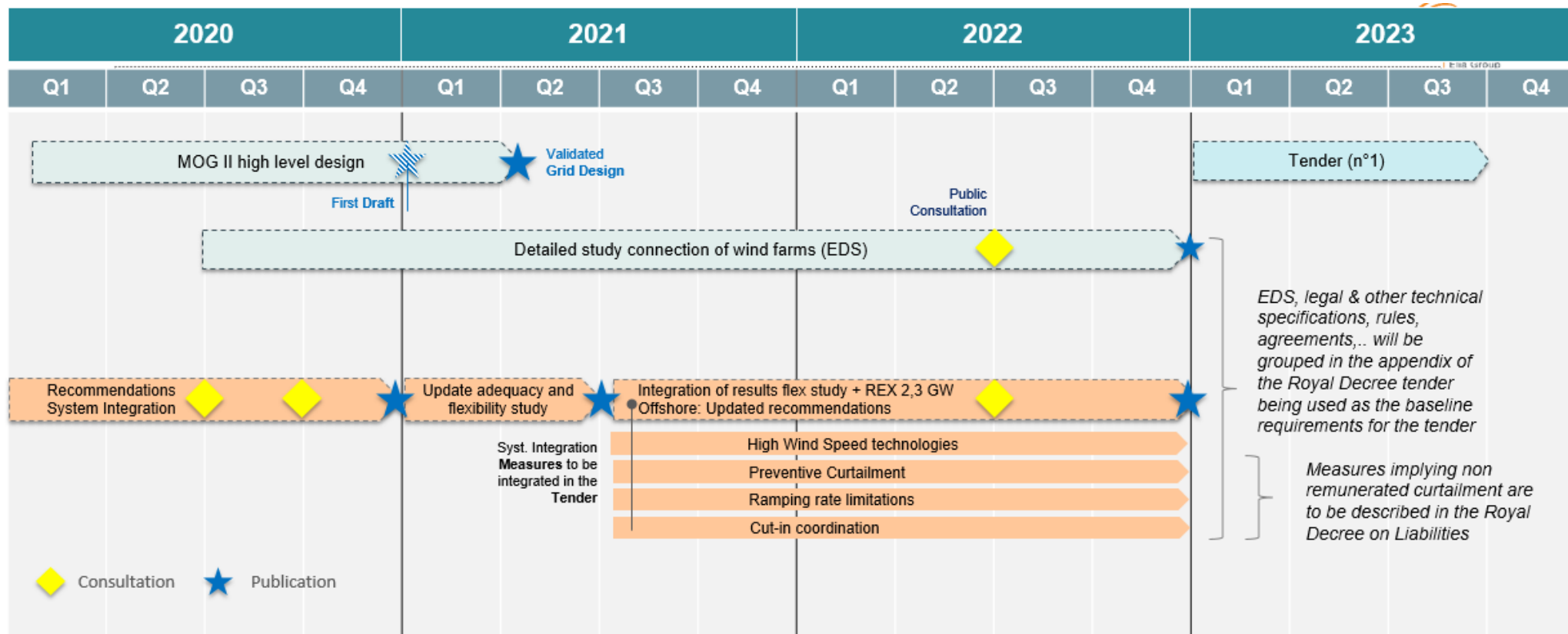


## Major findings

### Mitigation measures – important principles

- It remains the **responsibility of the BRP** to keep the balance of its portfolio, Elia only covers residual imbalances
- **Market design evolutions** must deliver the major part of the needed improvements to be able to safely accommodate the additional offshore capacity.
- When mitigation measures implying constraints for wind parks / BRPs need to be defined to fill the possible gaps, they have been designed to:
  - ✓ Be **applied only when necessary** for grid security
  - ✓ Limit the **financial impact**
  - ✓ Ensure that the **cost allocation** reflects the origin of the risk and provides appropriate signals to the market

## Next steps

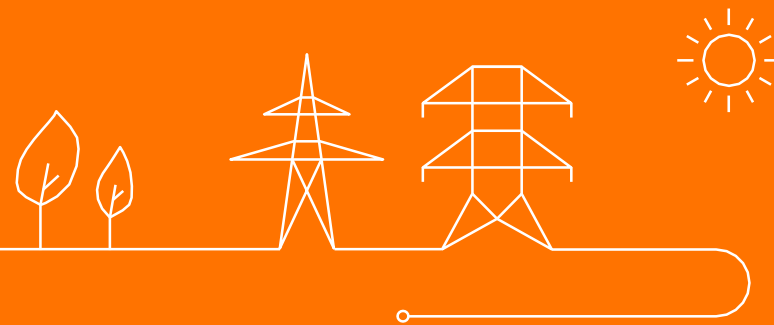


- Update of the study will start in Q3 this year. The 1<sup>st</sup> stakeholder workshop will be dedicated to the scope definition of the study update



# Roadmap 2021-2022: Update

Presented by Cécile Pellegrin



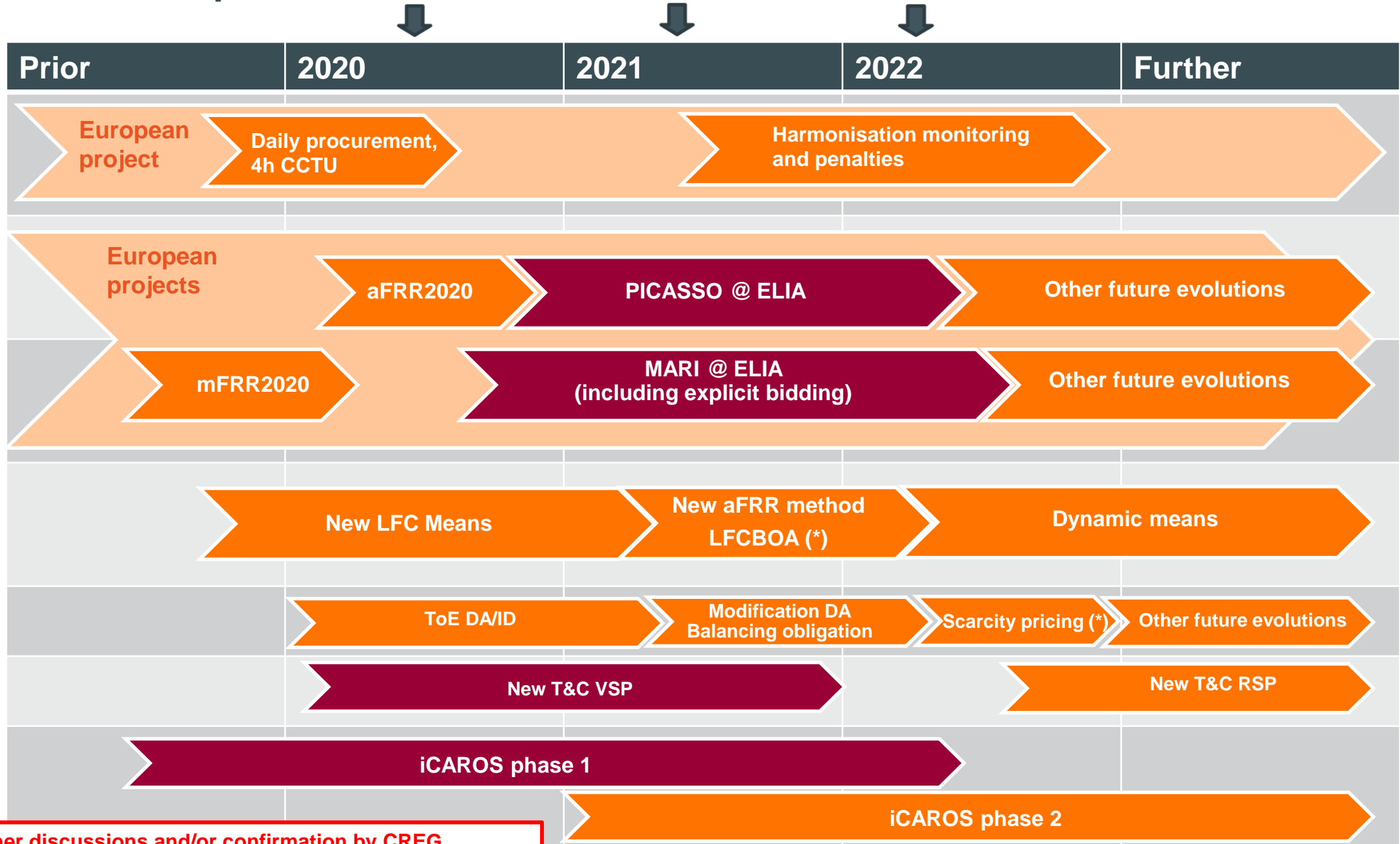
# Introduction

- Consolidated roadmap 2021-22 presented and discussed during the WG BAL of 28/10
- Appreciation and importance of having such a roadmap as priorities were confirmed: PICASSO, MARI and iCAROS phase 1 are the highest priorities
- Based on the received feedbacks, adjustments were done and presented during the WG BAL of 23/11
- Consolidation presented and confirmed in UG
- Some complementary adjustments aiming at providing more time for market parties were defined in order to address the remaining concerns



# Consolidated Roadmap 2021-22

Analyses and incentives results



(\*) subject to further discussions and/or confirmation by CREG

# Modifications for MARI, PICASSO & iCAROS implementation

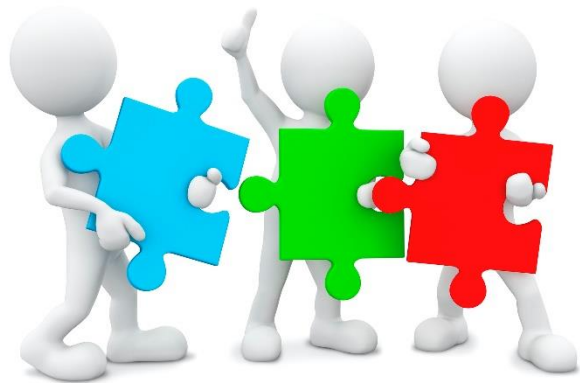
- Go live dates will be postponed with ~2 months when keeping the present deadline for the technical guides
- Interactions with market stakeholders and support will be facilitated
- Check for readiness will be organized in Q4 2021
- “Flexibility” for consultations period (assessment of the organization of a flexible 8 weeks consultation window) will be further defined when updating the consolidated view of all consultations for next UG





# Local implementation (BSP-ELIA)

MARI



## Go live

- Explicit bidding : **Early Q2** 2022
- Connection to EU mFRR balancing energy platform : **Late** Q2 2022

## EU mFRR balancing energy platform impacts

- Bidding
- Selection & activation (via EU platform + local as fallback)
- Settlement TSO-TSO and TSO-BSP
- Indirect impacts due to the new product definition
- ...

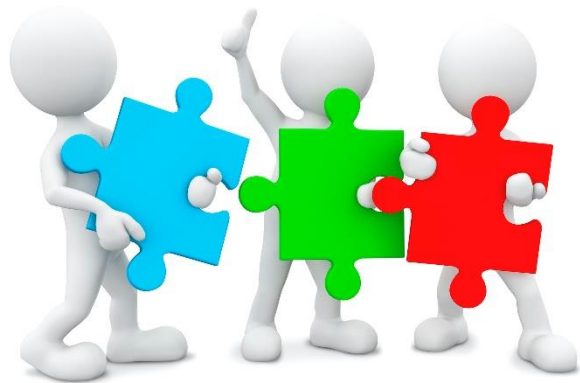
## EU Balancing Transversal impacts

- Bids filtering for congestion
- Imbalance related topics
- Transparency
- Invoicing
- ..



# Local implementation PICASSO (BSP-ELIA)

## PICASSO



### Go live

- Connection to EU aFRR balancing energy platform : **Q2- 2022**



### EU aFRR balancing energy platform impacts

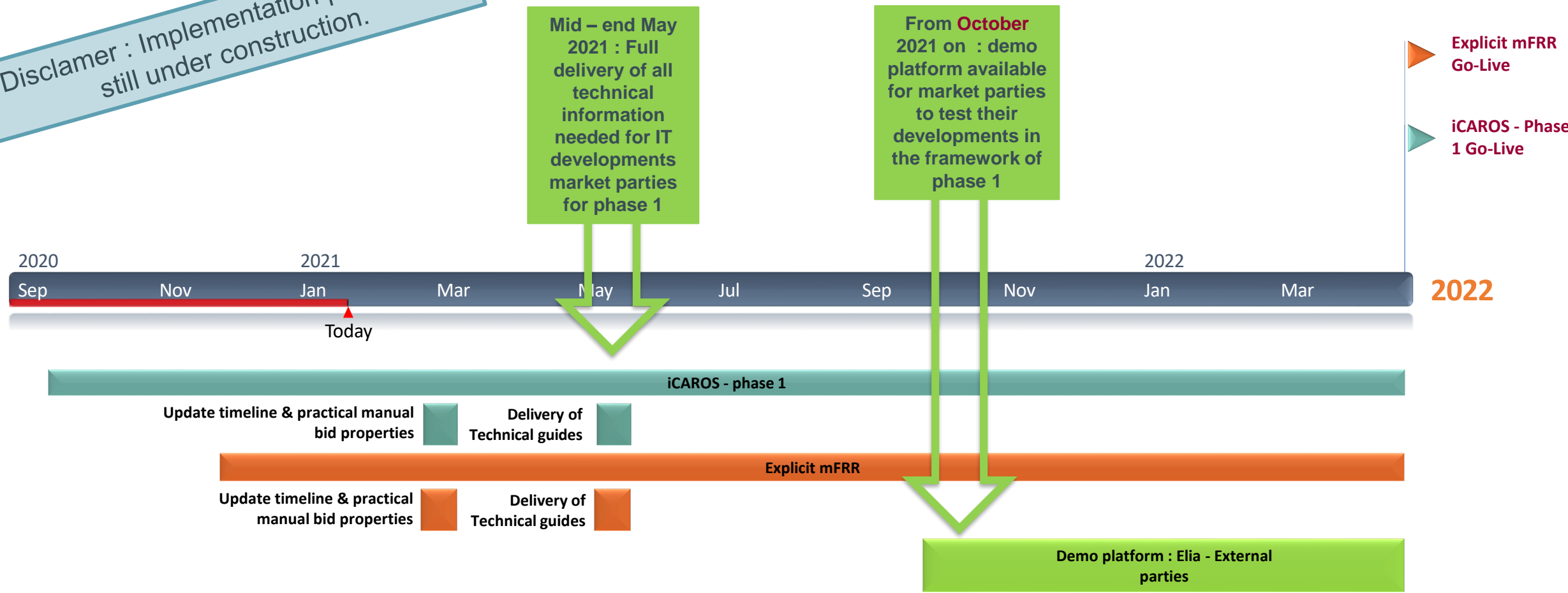
- Marginal price on energy
- Local Merit order list management and interactions with AOF
- Settlement TSO-TSO and TSO-BSP
- ...

### EU Balancing Transversal impacts

- Bids filtering for congestion
- Imbalance related topics
- Transparency
- Invoicing
- ..



Disclaimer : Implementation planning is still under construction.



**Demo platform** : Interoperability testing between Elia applications and External applications of Scheduling Agent and BSP. Done in test environment with test data.

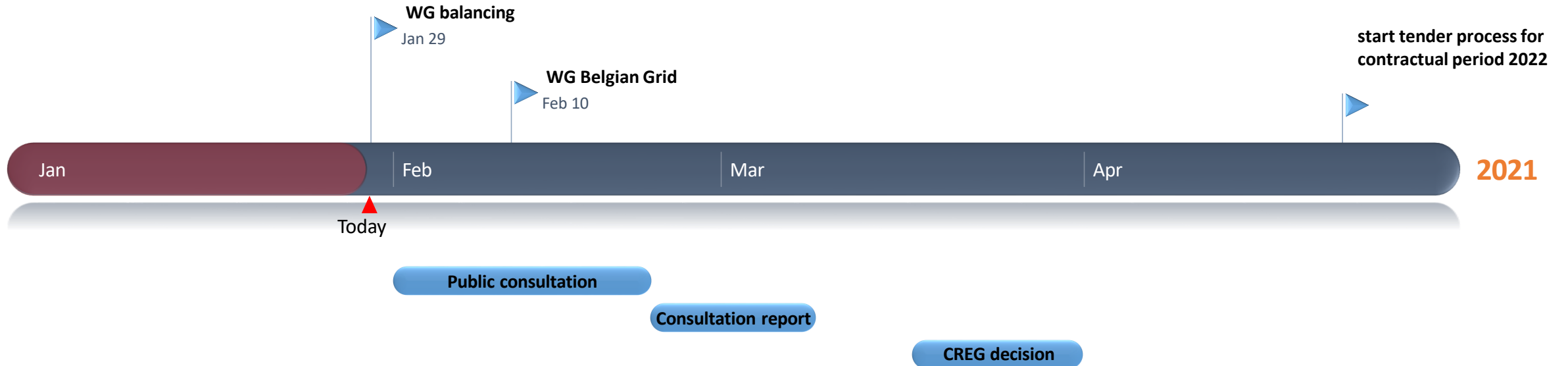


# T&C VSP – update for 2021



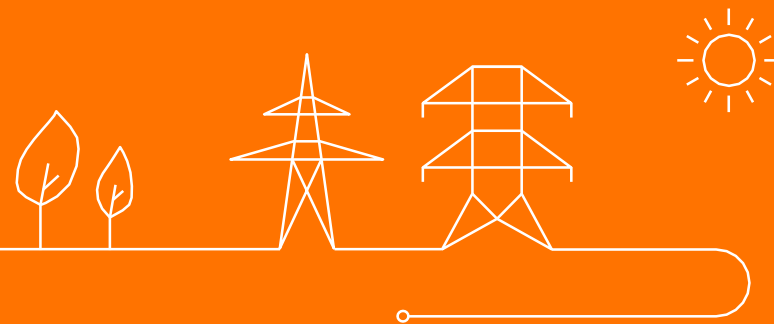
- **Context:**
  - The current T&C is based on the design study of 2018 and was approved by the CREG in 2020 (decision [B2080](#) ).
  - To finalize the design proposed in 2018, a change of legal framework related to procurement process (art. 12 quinquies) is necessary.
- The current T&C VSP is valid for one year (2021).
- As explained during last WG Bal, next evolutions of the T&C VSP should ideally be regrouped with changes linked to a new legal framework.
- Besides, some return of experience would be advisable before proposing and implementing other improvements in the T&C VSP.
- Considering the above elements and the high number of design evolutions and associated public consultations for Market parties in 2021, **Elia proposes to:**
  - Extend the validity of the current T&C VSP also for the contractual period **2022**.
  - This would allow to regroup the different evolutions of the T&C VSP in one unique new version for 2023 (expected change of legal framework, CREG requests, return of experience of the new design in 2021)
  - Re-evaluate the status of the evolution of legal framework and the return of experience at the end of 2021 in order to decide evolutions to foresee for 2023
- As CREG approval decision [B2080](#) on the first T&C VSP is only valid for one year, postponing the evolution of the T&C VSP requires a public consultation to respect CREG's internal rules of procedure
- After concertation with the CREG, **Elia proposes to organize a simplified public consultation on the proposal to extend the validity of the T&C VSP approved in 2020**
  - 2,5 to 3 weeks public consultation starting begin February
  - The consultation will only concern the proposal to extend the validity of the current version of the T&C VSP

# T&C VSP – short-term planning





# EU Balancing : design workshops - update



## Local implementation PICASSO (BSP-ELIA)

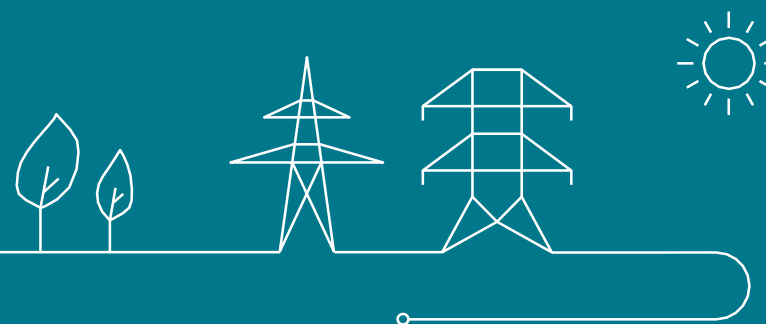
- Local design results from EU design (see also the organized EU workshop(s))
- Local design will be discussed with market parties during workshops
- Workshops will be organized in parallel with the informal consultation of the design note
- Complete process will be organized early 2021 (February)



- *1st workshop (presentation of PICASSO and aFRR design evolutions): Friday 12/02/2021 (AM)*
- *2nd workshop (Q&A on aFRR design evolutions): Tuesday 02/03/2021 (AM)*
- *In parallel: informal consultation of the design note from mid February to Mid March*

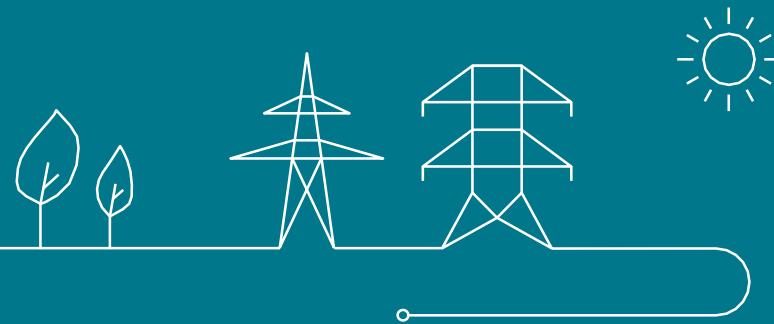


# AOB



# FCR new volume: core share, demand, export limit

Presented by Didier Chim



## FCR Volume for 2021

Every year, the FCR volume to be procured by country is updated.

	2020	2021
Total FCR	78 MW	87 MW
Core Share	24 MW	27 MW
Import Limit	54 MW	60 MW
Export Limit	100 MW	100 MW

Methodology to compute the FCR contribution is based on generation and consumption data of 2 years before

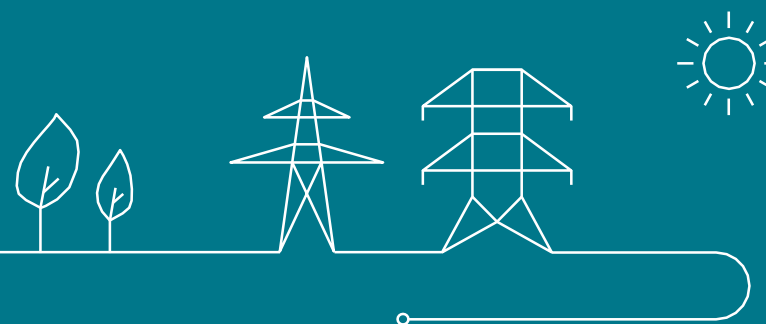
- The FCR volume in 2020 are particularly low due to unavailability of nuclear plants in 2018

Additionally, since the 19<sup>th</sup> January, Slovenia and Denmark West are participating to the joint procurement of the FCR Cooperation.



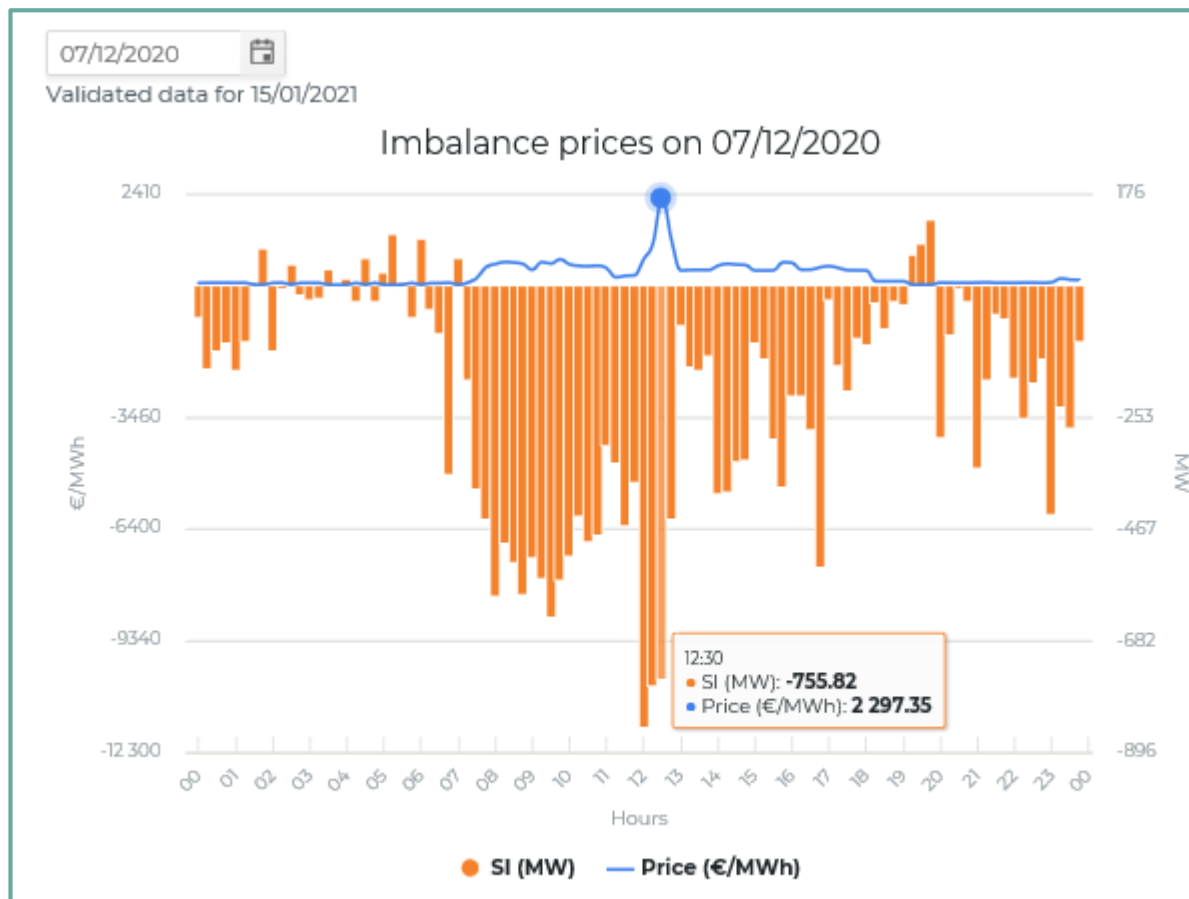
# Imbalance price on 07/12/2020

Presented by Arnaud Attanasi





# Events : 07/12/2020, 12h30-45 Imbalance price at 2297,35€/MWh

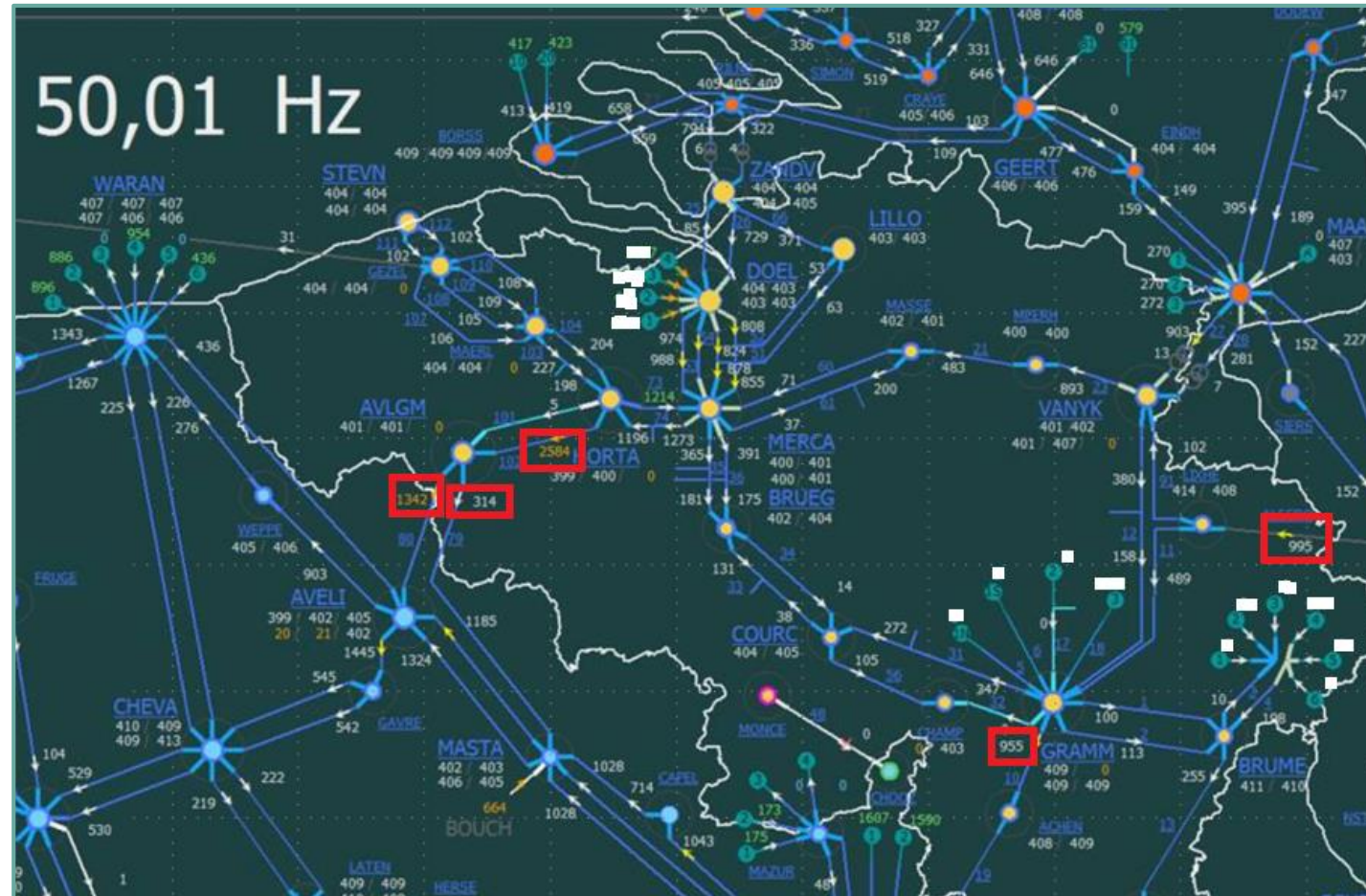


- High System Imbalance: -755,82MW
- High Imbalance Price: 2297,35€/MWh

Licence Open Data d'Elia

Quarter	Quality status	NRV (MW)	SI (MW)	α (€/MWh)	MIP (€/MWh)	MDP (€/MWh)	SR (€/MWh)	SI < -I C (MW)	Price (€/MWh)
13:15 > 13:30	Validated	99,388	-156,192	1,77	<b>398,00</b>	12,61			399,77
13:00 > 13:15	Validated	154,223	-76,401	0,00	<b>386,08</b>	12,23			386,08
12:45 > 13:00	Validated	456,448	-447,683	182,34	<b>1.000,00</b>	12,98			1.182,34
12:30 > 12:45	Validated	744,622	-755,819	198,36	<b>2.098,99</b>	13,00			2.297,35
12:15 > 12:30	Validated	539,200	-767,628	199,19	<b>904,80</b>	13,00			1.103,99
12:00 > 12:15	Validated	394,789	-847,646	184,94	<b>493,41</b>	13,00			684,35

# Events : 07/12/2020, 12h30-45 Imbalance price at 2297,35€/MWh

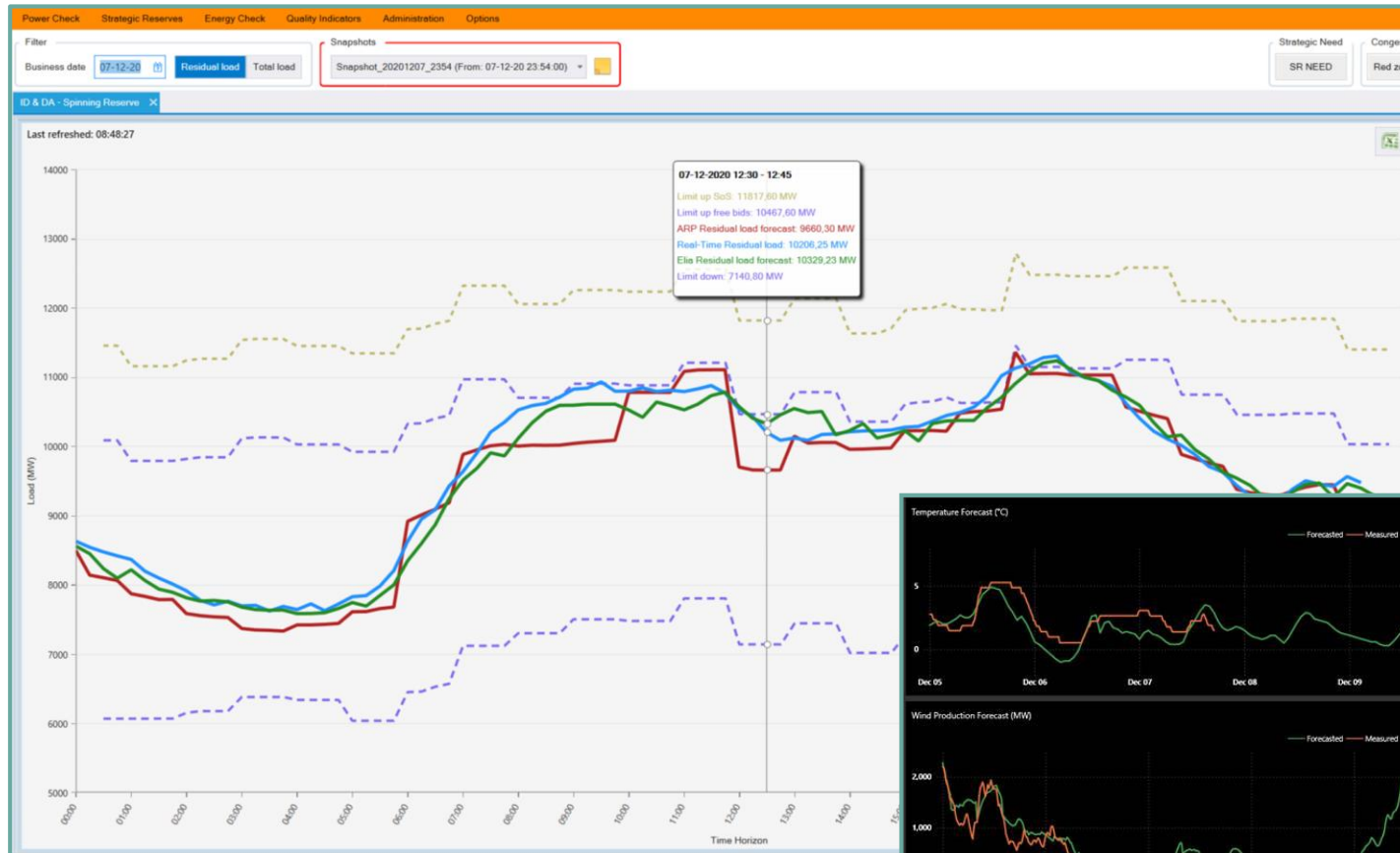


- High flow from N to S & from ALEGrO
- France was importing from 5 to 10000MW in day-ahead market coupling
- Full Optimization in DA ends up with no ATC in both directions for the French, Dutch & UK
- N-1 would have lead to high load on Achene-Lonny
- **Real-time grid was highly loaded**

- 2584MVA on Horta-Avelgem (HTLS is 3000MW)



# Events : 07/12/2020, 12h30-45 Imbalance price at 2297,35€/MWh



- Forecast Error: 600MW difference between BRP forecast & Real-Time.



# Events : 07/12/2020, 12h30-45 Imbalance price at 2297,35€/MWh

## Conclusion

### GRID SITUATION

- All of the production units were running & France was highly importing (high flow N->S). **Network was highly loaded/constrained.**
- Unfortunately, there was a **forecasting error** from the DA.
- After the DA Market Coupling, **forecasting errors are highly penalized. Everything is offered and optimized (no production margin) by the Market Coupling.** Moreover, after DA Market Coupling, **we can reach a solution where there is no ATC in both directions (no intraday capacity).**

### BALANCING

- Elia still had **aFRR available (50MW), mFRR flex (215MW) and 3 reserve sharing contracts (350MW – ALEGrO was already importing) requiring coordination to go beyond ATC!**
  - RTE had more than 500MW of margin (coordination was anticipated).

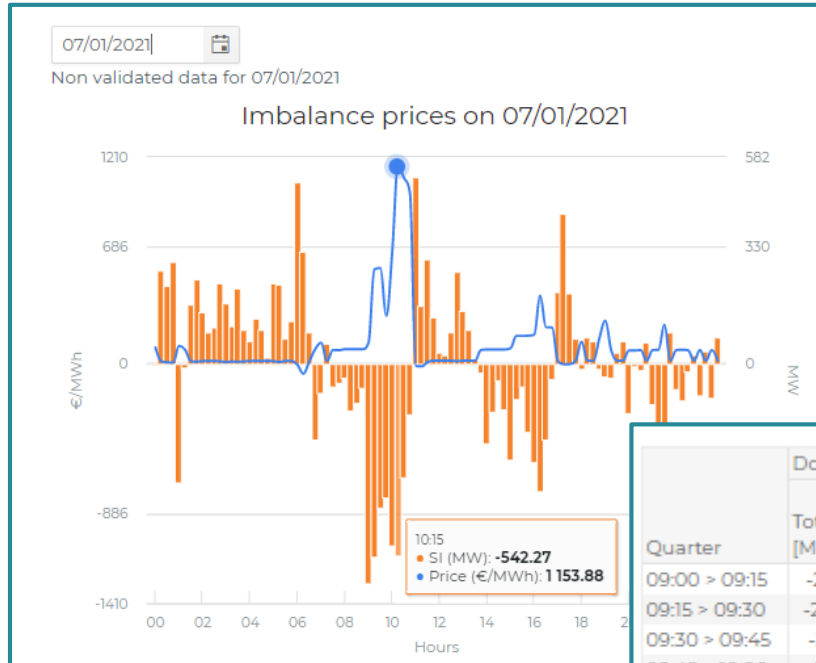
### EMERGENCY - ADEQUACY

- **There was no adequacy/shortage issue.** So, there was **no risk of load-shedding.**
  - Load-shedding plan would require a large System Imbalance for a certain duration and a frequency drop.



# Events : 07/01/2021, 10h15-30 Imbalance price at 1153,98€/MWh

## NOT VALIDATED DATA



- Few I C available: 62,9MW
- High System Imbalance
- Force Outage on production unit earlier in the day
- Use of mFRR by the owner of the unit: 240MW
- Bid rejection at 10.15-30: 75MW
- So, Imbalance Price is reaching higher price quicker.

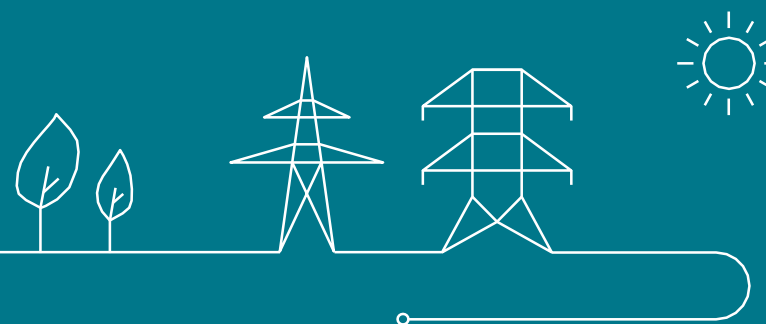
Quarter	Downward regulation					Upward regulation				
	Total [MW]	inter-TSO Export* [MW]	D LC [MW]	D C Energy Limited [MW]	D C [MW]	R2- [MW]	R2+ [MW]	I C [MW]	I C Energy Limited [MW]	R3Std [MW]
09:00 > 09:15	-2.407,6	-350,0	-846,4	0,0	-1.063,2	-148,0	145,0	167,5	0,0	640,0 ▲
09:15 > 09:30	-2.408,9	-350,0	-847,7	0,0	-1.063,2	-148,0	145,0	167,5	0,0	640,0
09:30 > 09:45	-2.575,6	-350,0	-849,2	0,0	-1.228,4	-148,0	145,0	167,5	0,0	640,0
09:45 > 10:00	-2.576,8	-350,0	-850,4	0,0	-1.228,4	-148,0	145,0	167,5	0,0	640,0
10:00 > 10:15	-2.693,4	-350,0	-923,7	0,0	-1.271,7	-148,0	142,0	62,5	0,0	640,0
10:15 > 10:30	-2.697,6	-350,0	-927,9	0,0	-1.271,7	-148,0	142,0	62,9	0,0	640,0
10:30 > 10:45	-2.401,9	-350,0	-632,2	0,0	-1.271,7	-148,0	142,0	62,9	0,0	640,0

Quarter	SI (MW)	NRV (MW)	Strategic Reserve (MW)	Upward regulation Volume						
				GUV (MW)	IGCC+ (MW)	R2+ (MW)	Bids+ (MW)	R3 Std (MW)	R3 Flex (MW)	Inter-TSO Import (MW)
10:30 > 10:45	-323,709	340,274	0,000	343,322	0,000	51,322	39,000	253,000	0,000	0,000
10:15 > 10:30	-542,266	422,500	0,000	422,500	0,000	142,000	39,000	241,500	0,000	0,000
10:00 > 10:15	-514,362	313,700	0,000	313,700	0,000	142,000	39,000	132,700	0,000	0,000
09:45 > 10:00	-377,416	251,471	0,000	251,471	0,000	141,471	14,000	96,000	0,000	0,000
09:30 > 09:45	-405,790	279,984	0,000	279,984	0,000	144,984	39,000	96,000	0,000	0,000
09:15 > 09:30	-546,092	260,000	0,000	260,000	0,000	145,000	39,000	76,000	0,000	0,000
09:00 > 09:15	-620,678	126,144	0,000	126,144	0,000	126,144	0,000	0,000	0,000	0,000



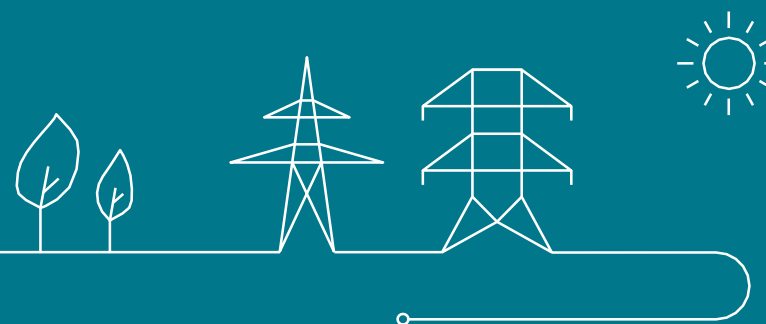
# Amendment of T&C BSP aFRR: Status Update

Presented by Nicolas Pierreux





# Next WG Bal



## Next WG Balancing

- 17/03/2021 – 09:00 – 12:00
- 6/05/2021 – 13:00 – 16:00
- 5/07/2021 – 13:00 – 16:00
  
- The dates will be added to the calendar of usergroups.

