

WG Balancing of 15th September 2022

Hybrid meeting

15/09//2022

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 Teams 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

09:00 - 09:05: Introduction & minutes

09:05 - 11:05: PICASSO : results of observation round

11:05 - 11:20: Coffee Break

11:20 - 11:40: Update EU balancing program

11:40 - 11:50: Public consultation on the improvement of the quality of input data for congestion management

11:50 - 12:10: Relaxation of DA Balance Obligation : evaluation & recommendation

12:10 - 12:25: Follow up of winter plan

12:25 - 12:40: Launch consultation on the study on dynamic procurement strategies

AOB

- Simplify launch of SI forecasts
- Study evolution BRP Nominations - implementation plan and launch public consultation
- Implementation of CRI computation
- EMS requirements
- Incentive on aFRR activation method

Minutes of Meeting for approval

Minutes of Meeting of WG Balancing on 22nd of June 2022:

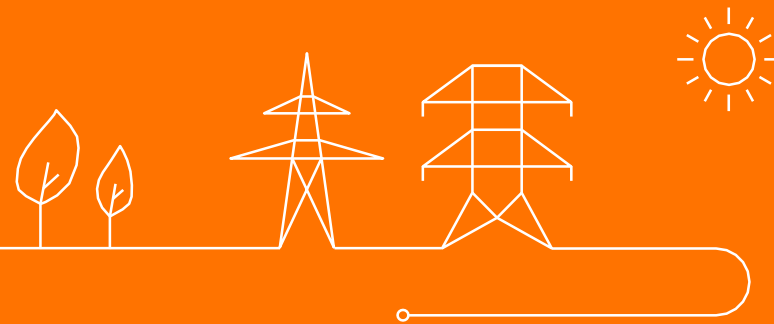
- FEBEG: typo on p7 3rd § as it its written that “Elia indicates that the price of mFRR is usually significantly lower than the price of mFRR”
- Amendment to “Elia indicates that the price of mFRR is usually significantly lower than the price of aFRR”

Suggestion to approve the MoM of WG Balancing of June 22nd 2022 with the amendment.



PICASSO: Observation round

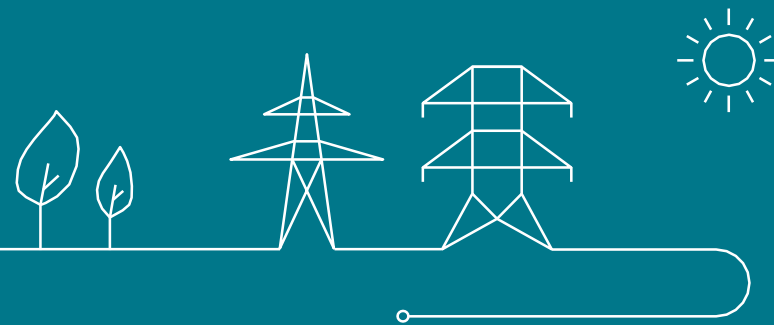
Presented by Philippe Magnant/ Caroline Bosschaerts



Agenda

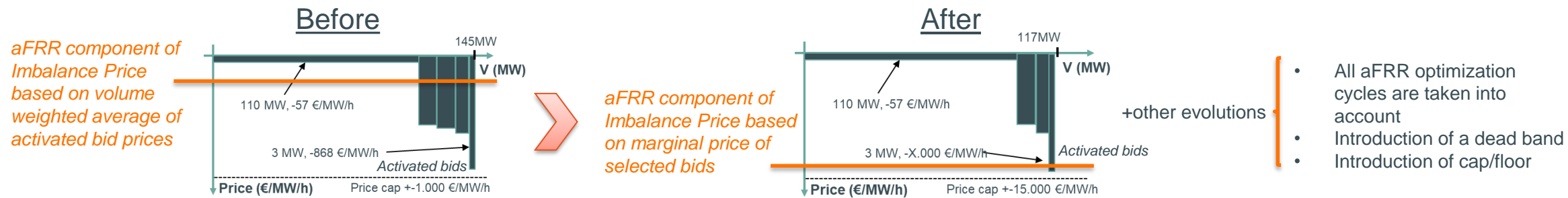
- Reminder of the context
- Analyses
 - Methodology and assumptions
 - Results
- Key messages
- Way forward

Reminder of the context



Reminder of the context

- Important design changes when connecting to PICASSO
 - Paid-as-bid → paid-as-cleared
 - Price cap $\pm 1.000\text{€}/\text{MWh}$ → price cap $\pm 15.000\text{€}/\text{MWh}$
 - New imbalance price calculation

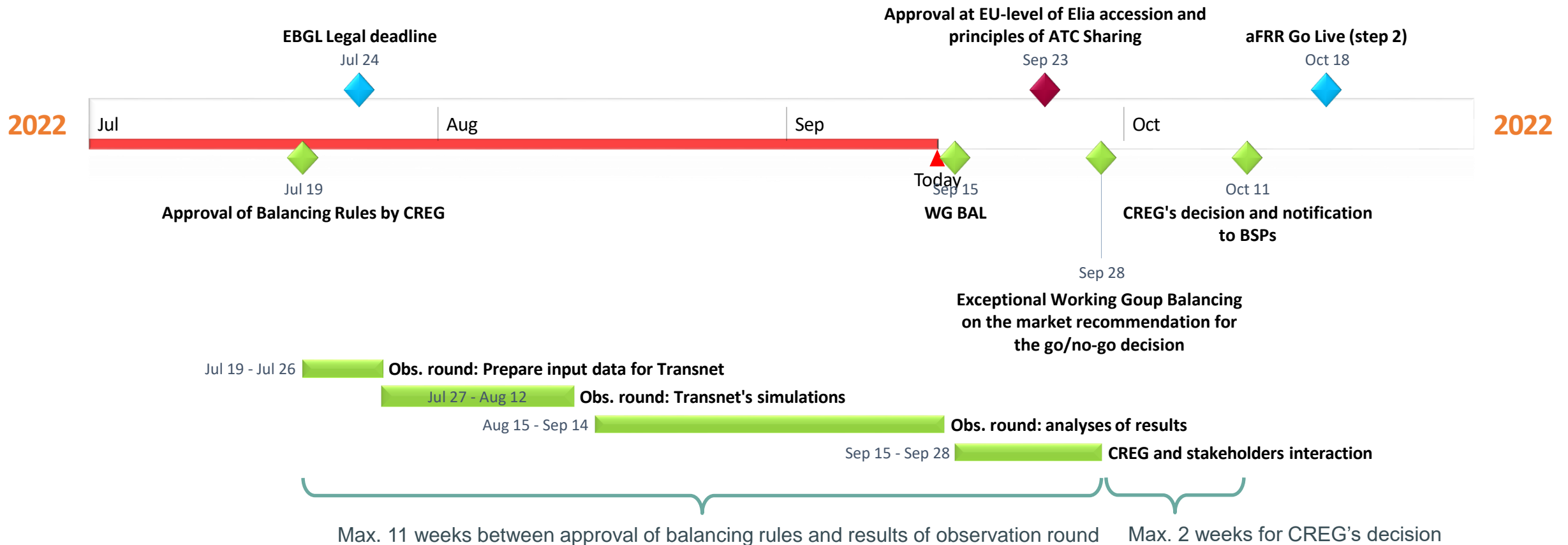


Reminder of the context

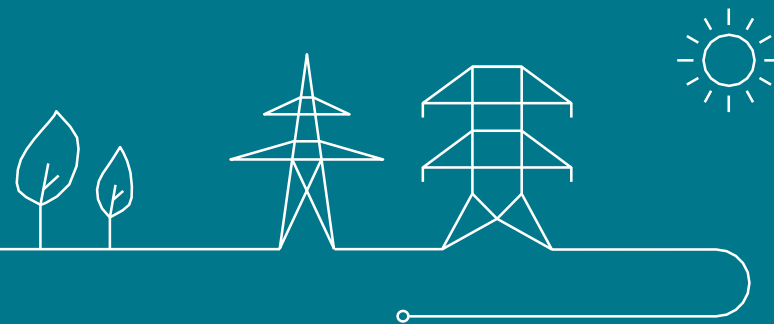
- Initial accession roadmap: RTE planned to connect to PICASSO together with German and Austrian TSOs, Elia was connecting 2 months later
 - RTE's announcement that their connection would be delayed had a significant impact for Elia: when connecting before RTE, we rely only on ALEGrO's ATCs and without the French liquidity
 - ➔ Decision in WG Balancing of 22/11/2021 to perform an evaluation (=observation round) confirming that the connection to PICASSO does not lead to a blocking point for the efficient functioning of the Belgian balancing market
 - ➔ This decision is formalized in the approved T&C BSP aFRR as well as in the derogation granted by the CREG
 - To be analyzed in the observation round: impact of PICASSO on
 - Imbalance price ➔ costs for the BRP
 - Activation costs
 - ~~Welfare~~ ➔ increased remuneration for BSPs
- } ➔ costs for the end consumer

Reminder of the context

Planning – observation round



Methodology and assumptions



Assumptions on merit-orders

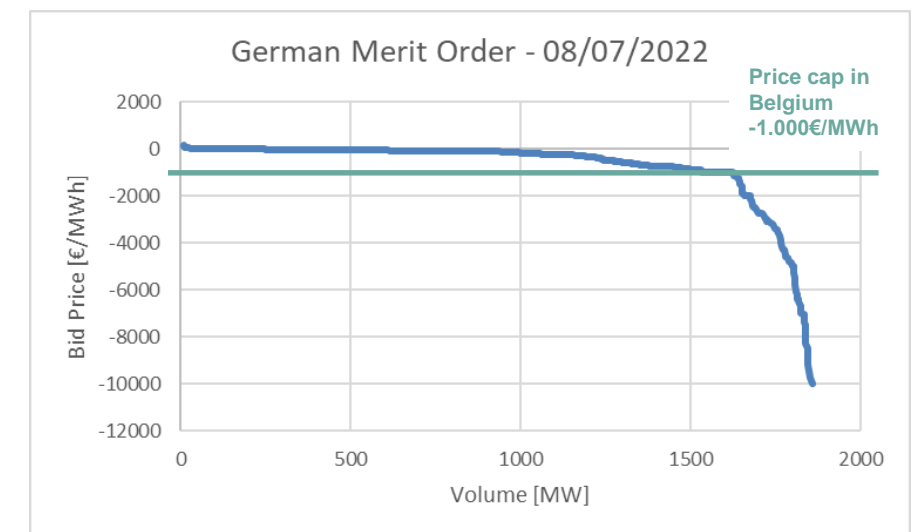
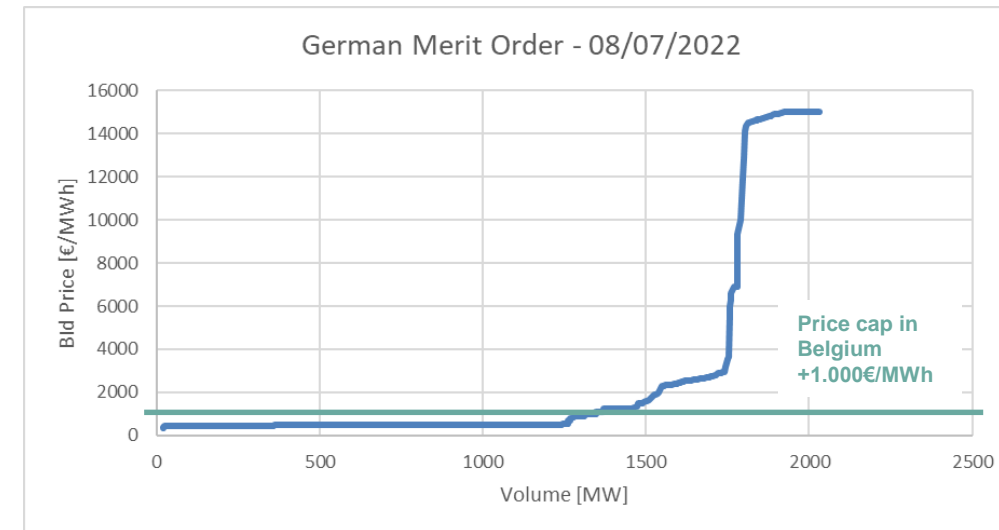
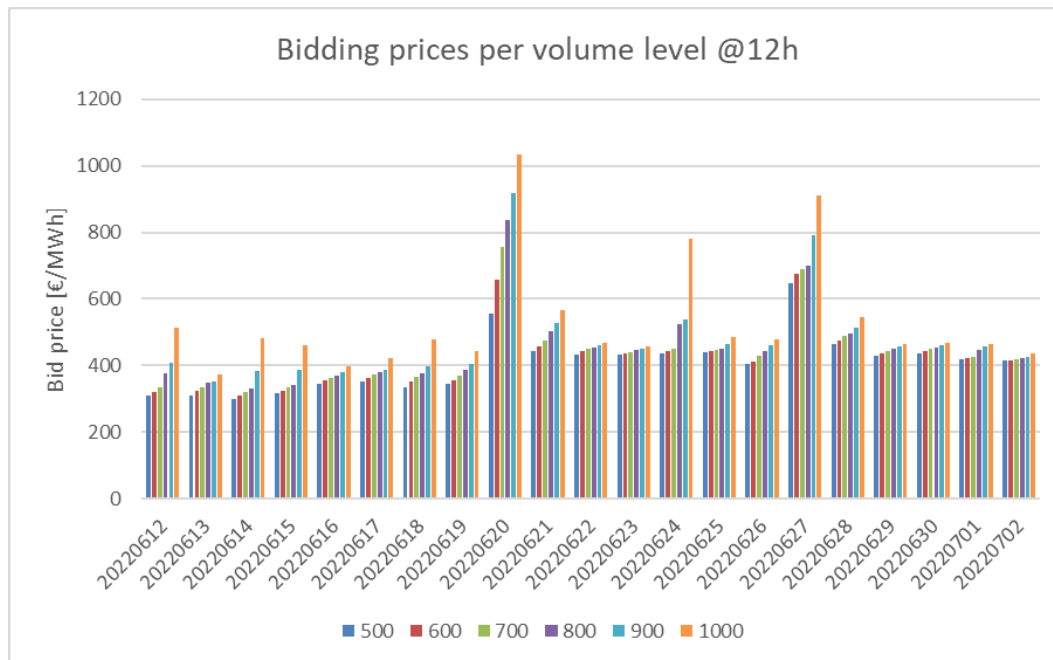
Impact of reduction of contracted aFRR capacity from 145MW to 117MW

- As of the 21st of July 2022, the aFRR contracted capacity has been reduced from 145MW to 117MW
- This volume reduction has an impact on activation costs and on imbalance price
 - End of the merit-order is reached faster → increase of activation prices
 - When the need for aFRR is high (saturation), less volumes are available → decrease of activated volumes
- The reduction of the contracted volume is taken into account by removing from the aFRR energy merit-order the first 28 contracted MWs with low activation price but high reservation costs
 - Assumption is made that only units with high reservation costs lose market share in the capacity auctions
 - For the days simulated, there were quarter hours for which free bids were offered. The reduction of contracted capacity is assumed not to have an impact on the volume of free bids → same volume of free bids is kept
 - Example: for QH 9:00-9:15 of a day in June, the aFRR merit-order in DOWN contained 145MW contracted and 25MW free bids → the simulations consider 117MW in DOWN and 25MW free bids

Assumptions on merit-orders

Impact of switch from paid-as-bid to paid-as-cleared

- The switch to paid-as-cleared is assumed not to have an impact on the prices offered, based on:
 - Experience in mFRR
 - The analysis of the evolution of the German merit-order before and after their connection to PICASSO



Assumptions on merit-orders

Impact of price cap increase

- When connecting to PICASSO, the price cap is increased from $\pm 1.000\text{€}/\text{MWh}$ to $\pm 15.000\text{€}/\text{MWh}$
- This is reflected by replacing an additional 15MW of contracted bids with low activation price but high reservation costs by a 15MW bid at $3.000\text{€}/\text{MWh}$ in UP and a 15MW at $-2.500\text{€}/\text{MWh}$ in DOWN. This assumption is based on
 - New delivery points expected to enter the aFRR market in the following months and the mFRR prices for similar assets
 - Prices observed in neighboring countries connected to PICASSO
- A sensitivity analysis has been performed without the new bids at the end of the merit-orders (keeping the contracted bids with low activation price but high reservation costs instead)

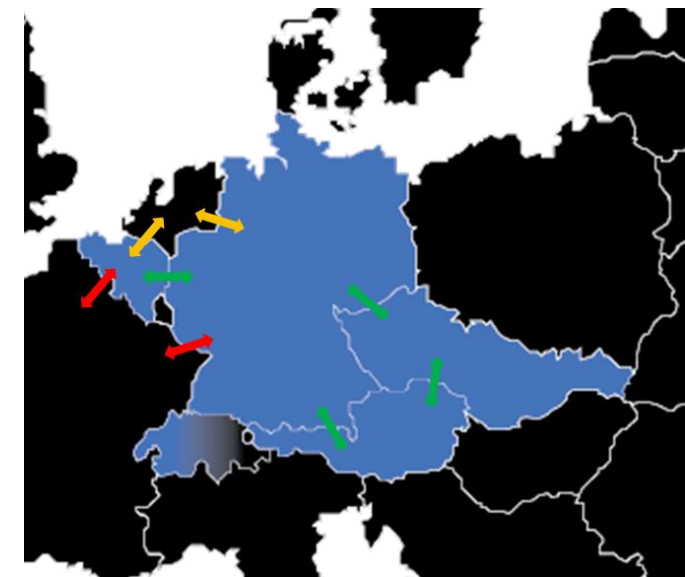
Assumptions on merit-orders

Summary

- The merit-orders from other Participating TSOs in PICASSO are considered as representative after beginning of July, as they were connected to PICASSO
- For the Belgian merit-orders, the base case has been established as follows
 - Analysis of the evolution of the German MO led to the conclusion that the **switch to PAC is assumed not to have an impact on the bid prices** → the actual merit-orders of the considered delivery days, including the free bids, have been used as starting point
 - The reduction of the contracted volume from 145MW to 117MW is taken into account by removing the first 28MW of the merit-order with low activation price but high reservation costs
 - The **increase of price cap** is reflected by replacing an additional 15MW of contracted bids with low activation price but high reservation costs by a **15MW bid at 3.000€/MWh in UP** and a **15MW at -2.500€/MWh in DOWN**
- A sensitivity analysis has been performed without the new bids at the end of the merit-orders
- Disclaimer: the market conditions are evolving very fast. The merit-orders considered do not necessarily cover all historical and future situations

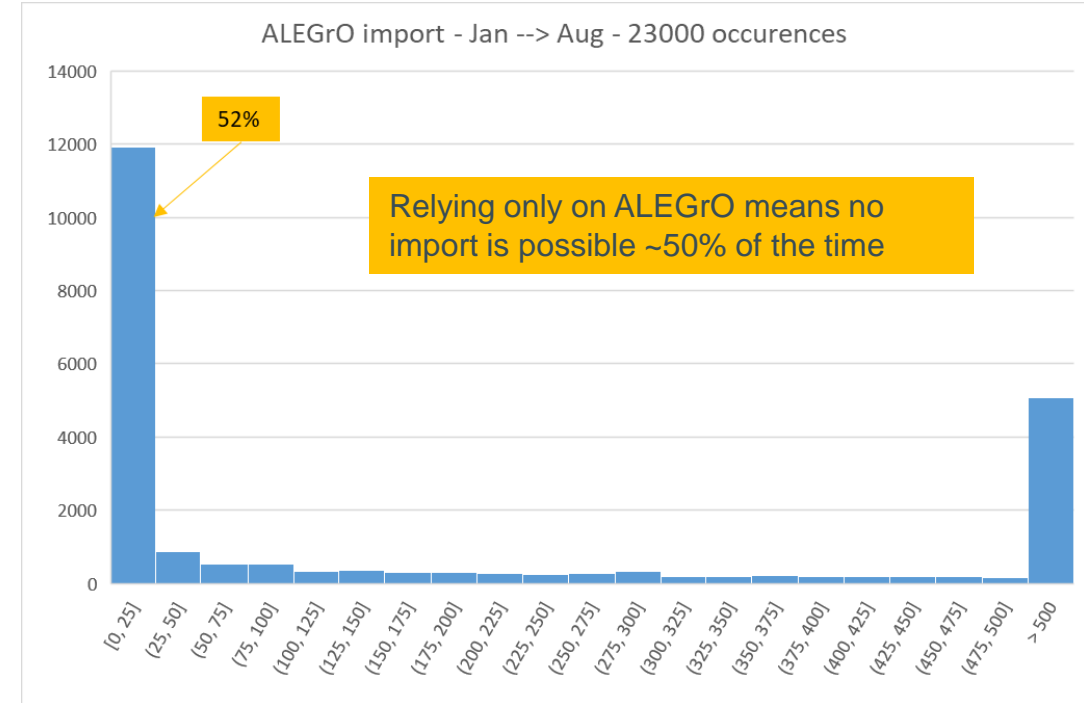
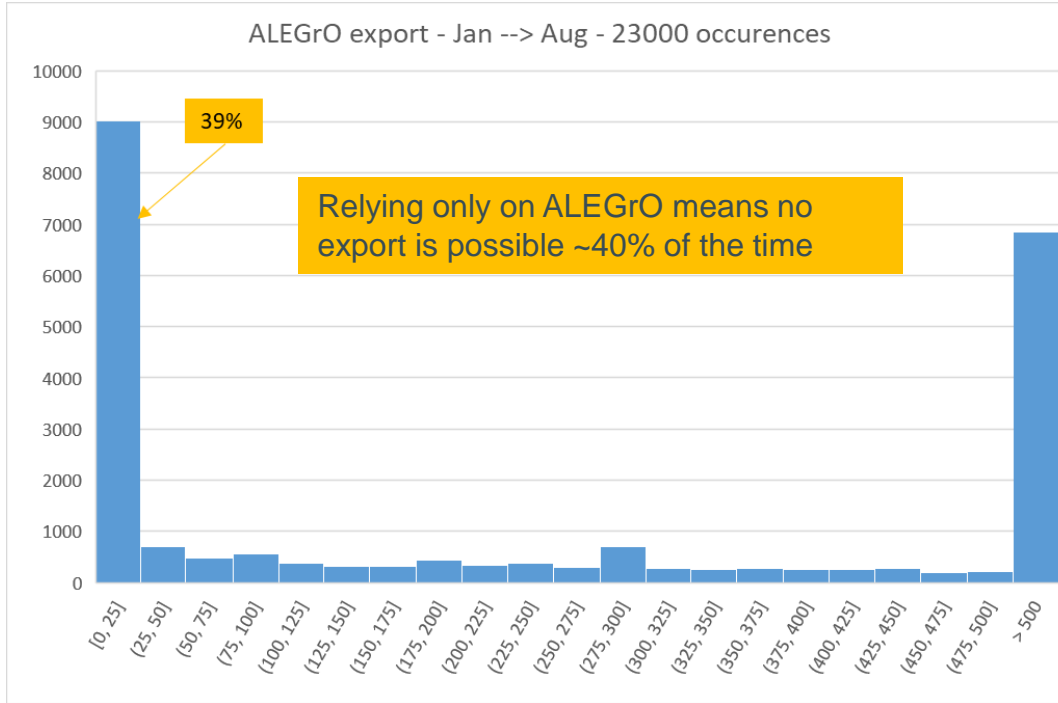
Assumptions on ATCs*

- ATCs affect the results of the PICASSO algorithm. In order to evaluate the impact:
 - ATCs of the simulated days have been used, including moments without ATC
 - An analysis of the impact of PICASSO during 1 complete month without ATCs is performed
- Availability of ATCs of neighboring TSOs
 - Elia has put in a lot of effort to have the possibility to use the ATCs of TenneT NL (which will not be connected to PICASSO) for aFRR exchanges between PICASSO TSOs
 - Approval at European level is expected by the end of the month
 - Subject to this approval and to implementation pre-requisites, TenneT NL is willing to share part of its ATCs with PICASSO
 - As a result, **the simulations consider that TenneT NL's shares part of its ATCs**
 - Note: TenneT NL will keep the priority on its ATCs in IGCC before those are put at disposal of PICASSO

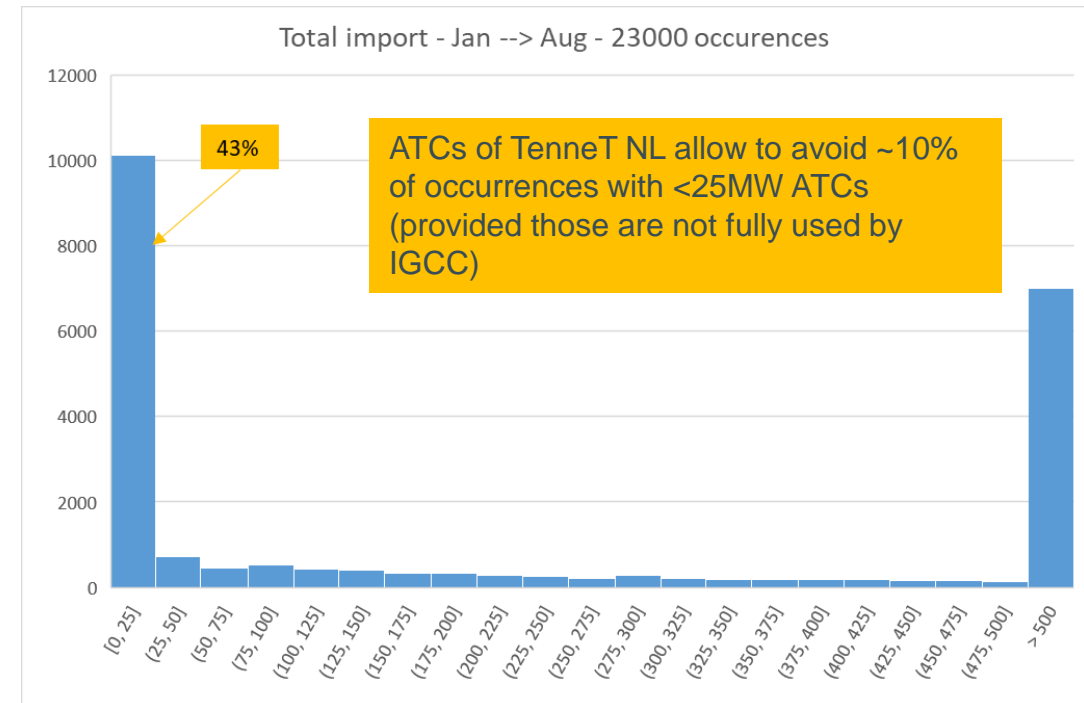
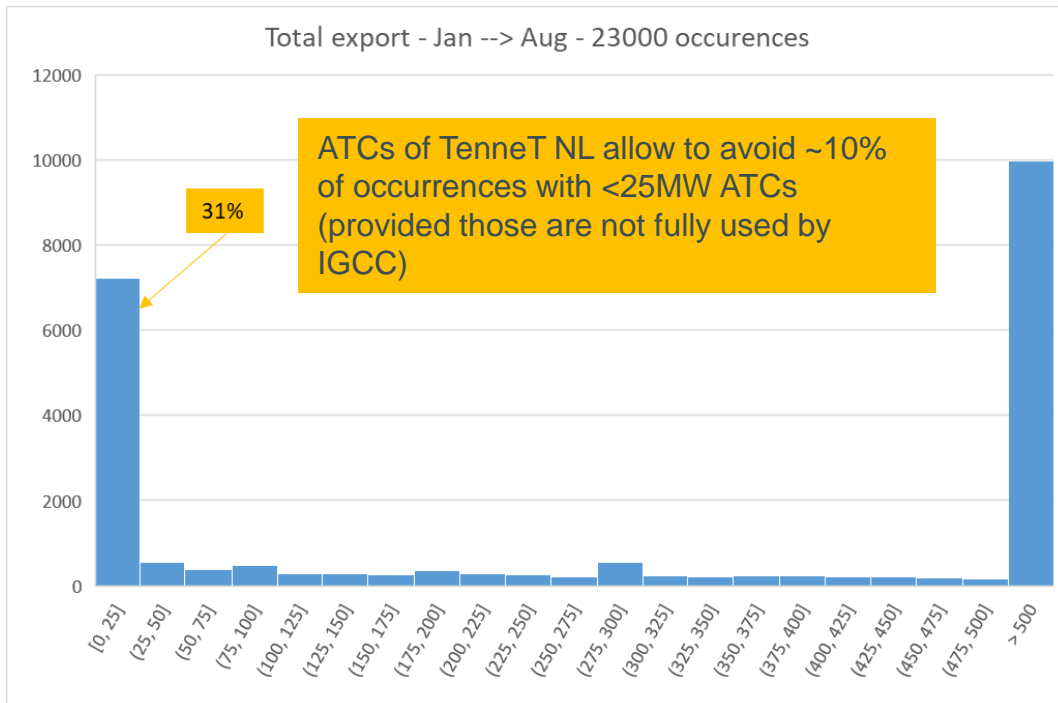


*ATC: Available Transmission Capacity. Except in case of limitations, the leftover ATCs from the ID market are used by the balancing platforms for exchange of balancing energy between TSOs

Only ALEGrO



ALEGrO +
path through
TenneT NL's
borders



Assumptions on limitations for operational security reasons

- Limit on maximum net import / export (“**profile limit**”)
 - When connecting to PICASSO, TSOs have to start with a profile limit, which limits the net imported/exported volume
 - The profile limit only impacts PICASSO, not IGCC (for which we removed the profile limit in 2020)
 - The profile limit doesn’t directly limit the flow on the borders, it’s a limit on the net position
 - The profile limit for Elia has been fixed at the moment of the connection to 200MW
- Limit on **ALEGrO’s ATC**
 - Integrating an HVDC cable in a balancing platform implies the result of the platform impacts the setpoint of the cable
 - When integrating ALEGrO in IGCC, we have gradually increased the maximum ATC to 150MW. Unexpected behavior in the HVDC setpoint signal has been observed and the ATC has not been further increased
 - Before any further increase of the ATC, Elia, Amprion and Transnet need to have all guarantees that this will not occur again when connecting to PICASSO
- Assumptions in the simulations : **200MW profile limit** and **150MW cap on ALEGrO’s ATC**
- Sensitivity analysis realized without those limits

Methodology for PICASSO simulations

General approach and selection of days

- The algorithm of the aFRR-Platform is very complex and involves optimization cycles every 4 seconds, based on a very high amount of input data. Defining a proxy would lead to high uncertainties
 - ➔ simulations realized by TransnetBW, TSO hosting the aFRR-Platform, using their “prototype AOF”. The full data set of all IGCC and PICASSO TSOs are used in these simulations, resulting precisely in what would have happened if Elia was connected to PICASSO during these days
- 2 full days (corresponding to more than 40.000 cycles + sensitivities) were selected, based on following criteria:
 - Days after the connection of DE and AT (merit-orders representative of market conditions)
 - Occurrence of extreme situations at the platform level and generally tense situation in the Belgian market, as well as more “usual” quarter-hours
 - Occurrences of significant ATCs as well as occurrences with limited or no ATC
- ➔ 27th of June and 8th of July answer these criteria in the best way
- ➔ Days are not necessarily representative of a complete year, but allow to capture as much situations as possible to be able to evaluate whether the benefits outweigh the risks

Methodology for PICASSO simulations

Calculations performed

- The Platform calculates a.o. the following values:
 - The CBMP (Cross-Border Marginal Price)
 - The correction signal from PICASSO
 - The correction signal from IGCC
 - The TSO-TSO settlement amounts for PICASSO exchanges
 - The congestion rents
- Based on that, Elia calculated:
 - The activated volumes (simulating the controller's reaction to the correction signals)
 - The activation costs
 - The adapted IGCC settlement (assuming an average IGCC settlement price during the day)
 - The imbalance price (alpha is unaffected and hence not taken into account)
 - The balancing margin

Methodology for PICASSO simulations

Definition of the reference

- The reduction of the aFRR contracted capacity impacts the activation costs and the imbalance price
- In order to be able to compare the results of PICASSO with the correct reference, Elia has simulated what would have been the activation costs and the imbalance price with a merit-order reduced by 28MW (145MW-117MW, free bids are included)

Methodology for PICASSO simulations

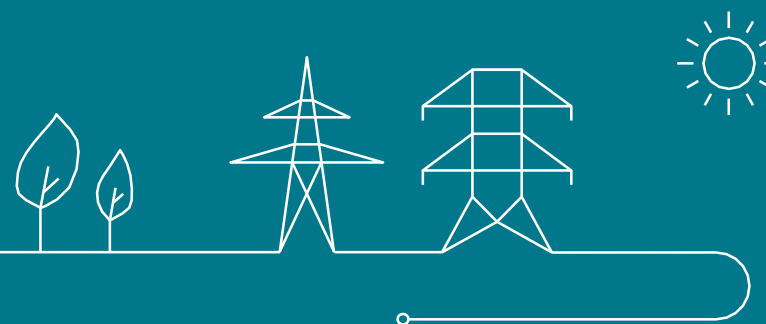
Cases studied – summary

- Reference: situation where we are not connected to PICASSO, with 117MW contracted aFRR capacity
- PICASSO base case: Elia is connected to PICASSO with the assumptions mentioned above
- PICASSO – BE bids < 1.000€/MWh: compared to the PICASSO base case, there are no bids at +3.000€/MWh and at -2.500€/MWh
- PICASSO – operational limits removed: compared to the PICASSO base case, both limitations for operational security are removed
- These different cases have been simulated for the 2 days: 27th of June and 8th of July (except for the last sensitivity, done only on 8/7)

Methodology for simulations without ATCs

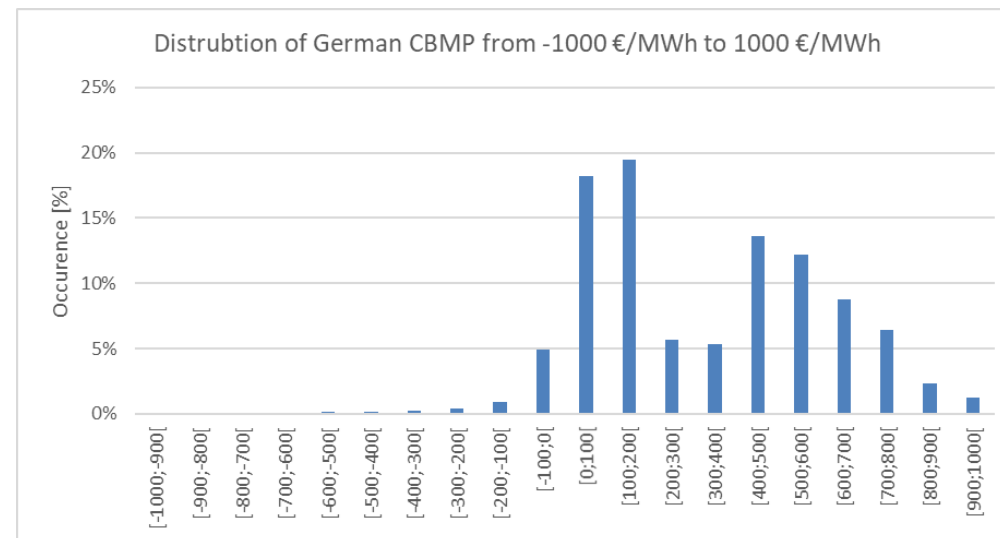
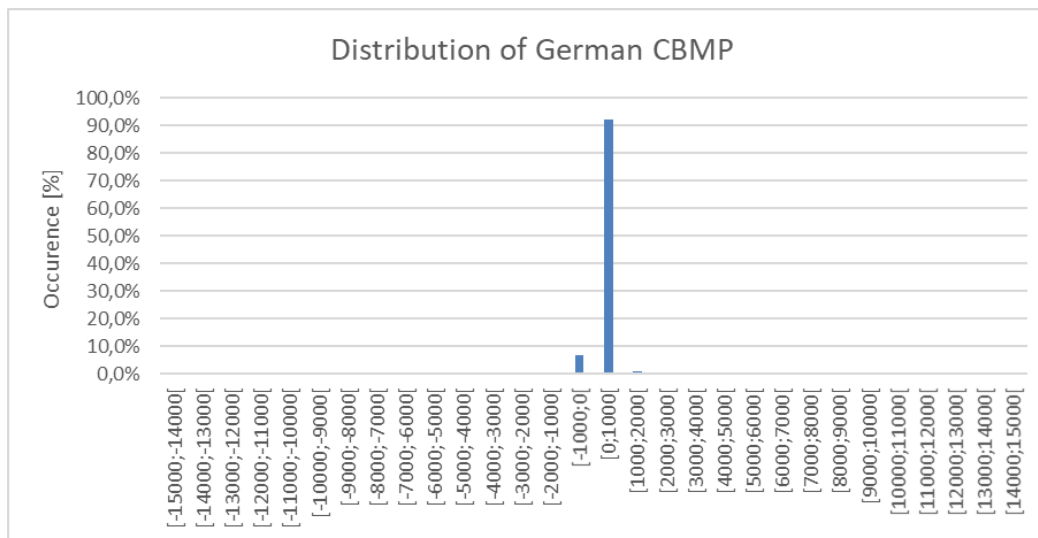
- Analyses have been performed by Elia of the impact of PICASSO when no ATCs are available for PICASSO (Note: assumption is that the ATC is available for IGCC and that those exchanges remain unchanged)
- Objective is to
 - Isolate the impact of some design changes related to PICASSO on a longer period
 - Quantify the impact of ATC availability in PICASSO
- The same approach has been used for the merit-orders: starting from the merit-orders of the simulated days, decrease from 145MW to 117MW (+ free bids), new bids at 3.000€/MWh and -2.500€/MWh and sensitivity without those new bids
- Determination of Imbalance Price
 - The CBMP is determined based on the Belgian merit-order and the aFRR demand
 - When the CBMP is determined, the imbalance price is calculated based on the formula described in the balancing rules

Results



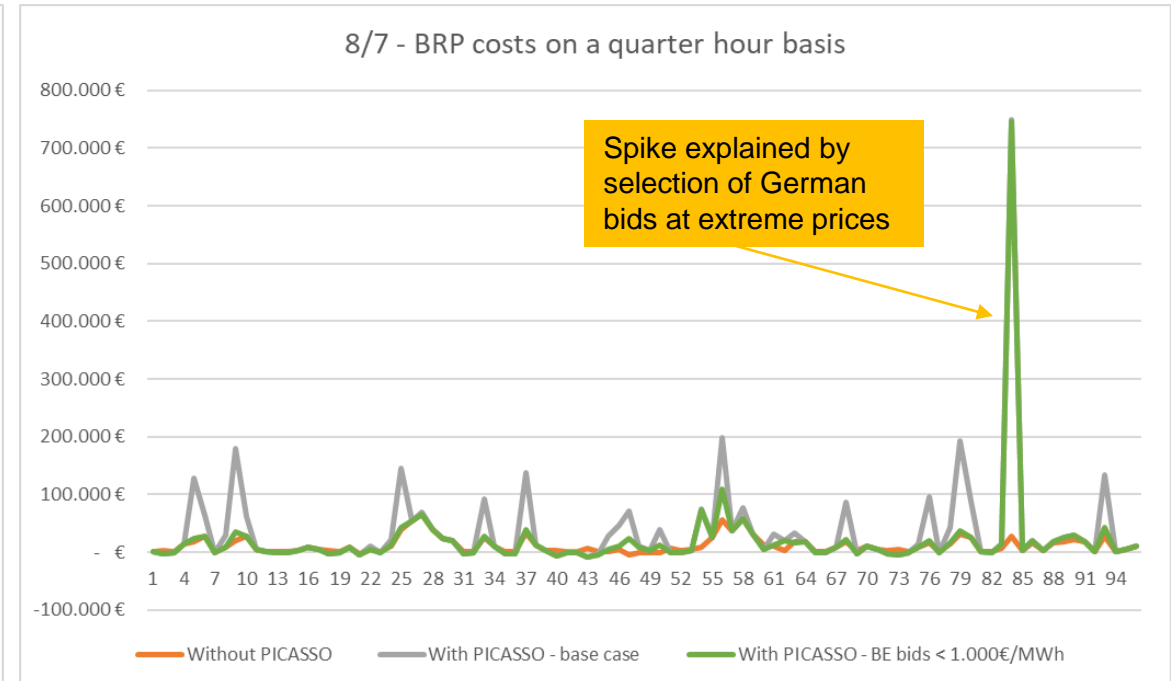
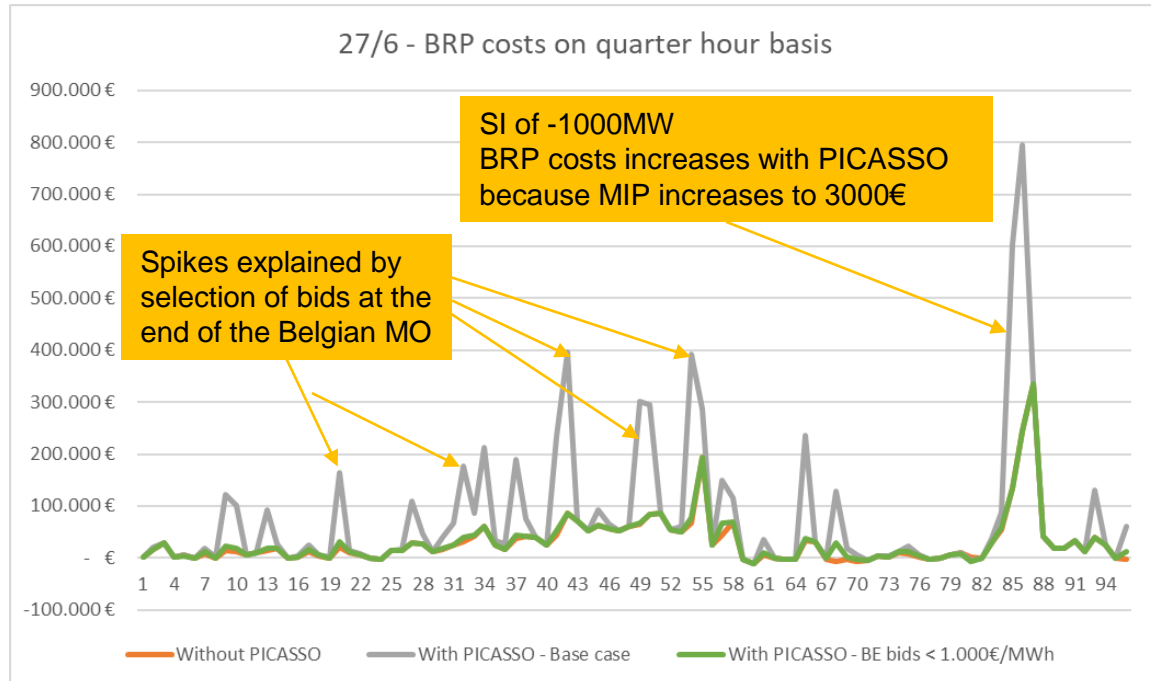
Evolution of CBMP in Germany

Classification of all the German CBMPs for the period from 22/06 to 28/08



- Main observation: on ~1.500.000 optimization cycles:
 - 92,3 % CBMP is within [0;1000[€/MWh
 - 6,7 % CBMP is within [-1000;0[€/MWh
 - 0,9 % of the time within [1000;2000] €/MWh
 - 603 occurrences of CBMP < -3000 €/MWh (0,041%), representing a cumulated duration of 40 minutes
 - 960 occurrences of CBMP > 3000 €/MWh (0,065%), representing a cumulated duration of 64 minutes
 - 322 occurrences of price within [14000;15000] €/MWh -> 94 of these occurrences happened on 08/07/2022

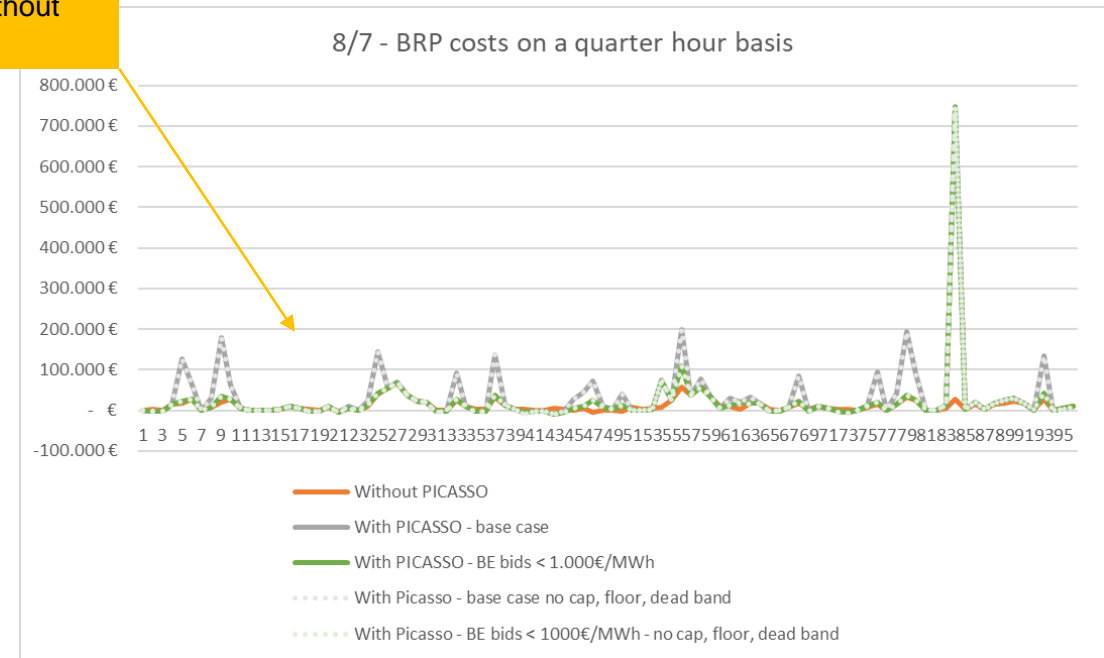
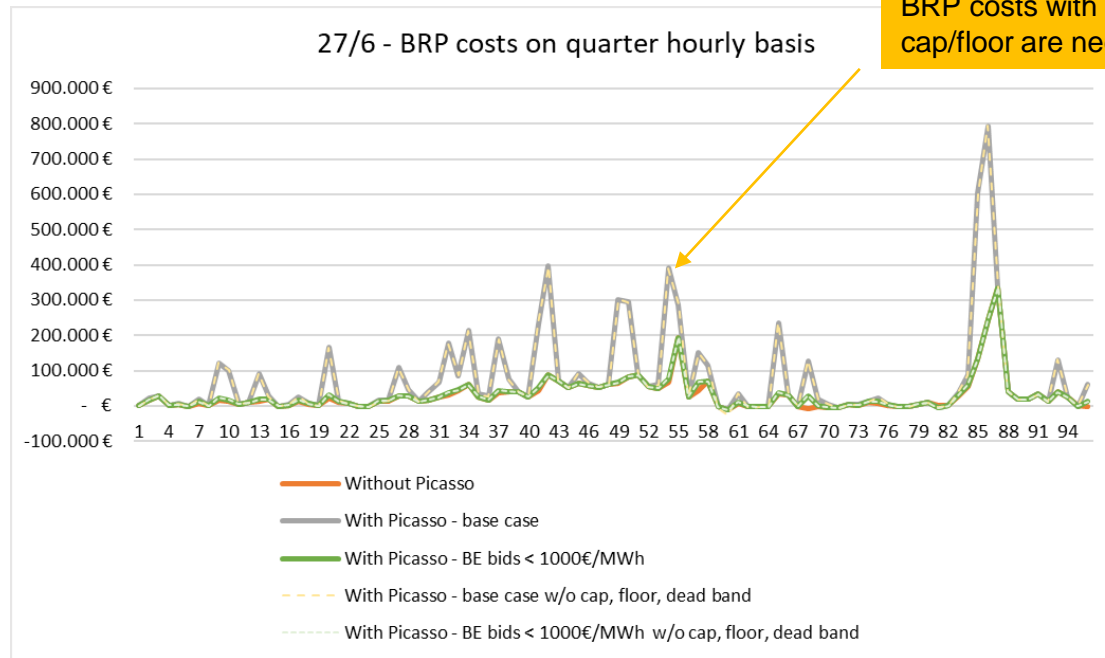
Impact of PICASSO on BRP costs



- In the base case, PICASSO leads to a significant increase of BRP costs
- In the vast majority of the cases, this is explained by activation of bids at the end of the Belgian merit-order
- Exception: end of day 8/7, with the longest occurrence of extreme price observed in Germany since their connection to PICASSO

The large increase of BRP costs is not due to the cap and floor that Elia added in the imbalance price formula to safeguard grid security

The differences between the BRP costs with and without cap/floor are negligible



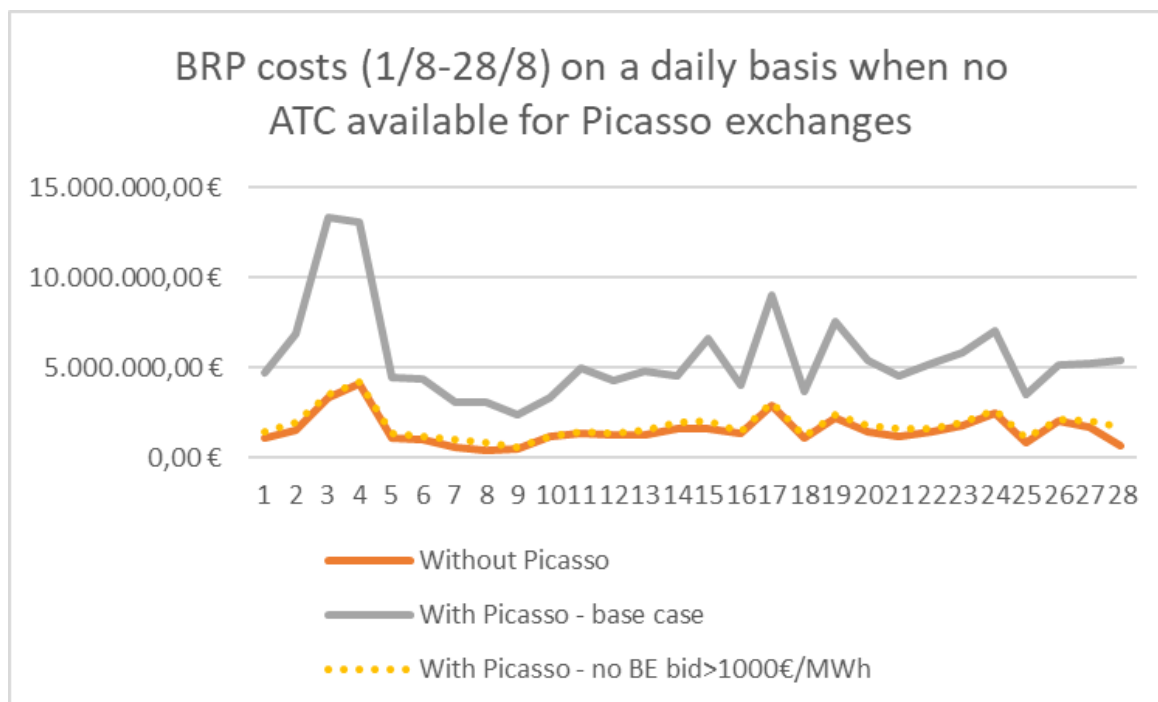
	With PICASSO - Base Case	With PICASSO – no bids > 1000€/MWh
BRP invoice with ELIA formula	7.303.598,81 €	3.102.001,31 €
VRP invoice without cap/floor/dead band	7.255.053,33 €	3.101.269,09 €
Delta absolute value	48.545,48 €	732,22 €
Delta relative value	0,66%	0,02%

Without PICASSO
2.928.619,05 €

	With Picasso - Base Case	With Picasso - no BE bid > 1000€/MWh
BRP invoice with ELIA formula	3.423.185,59 €	2.026.615,85 €
BRP invoice without cap/floor/dead band	3.400.310,60 €	2.001.361,32 €
Delta (absolute value)	22.874,98 €	25.254,54 €
Delta (relative value)	0,67%	1,25%

Without Picasso
1.136.662,55 €

The large increase of the BRP costs is rather due to the presence of expensive aFRR bids at the end of the BE MOL during situation with no (or limited) ATCs available for Picasso exchanges



Daily average BRP costs

5.550.998 €

1.795.054 €

1.539.861 €



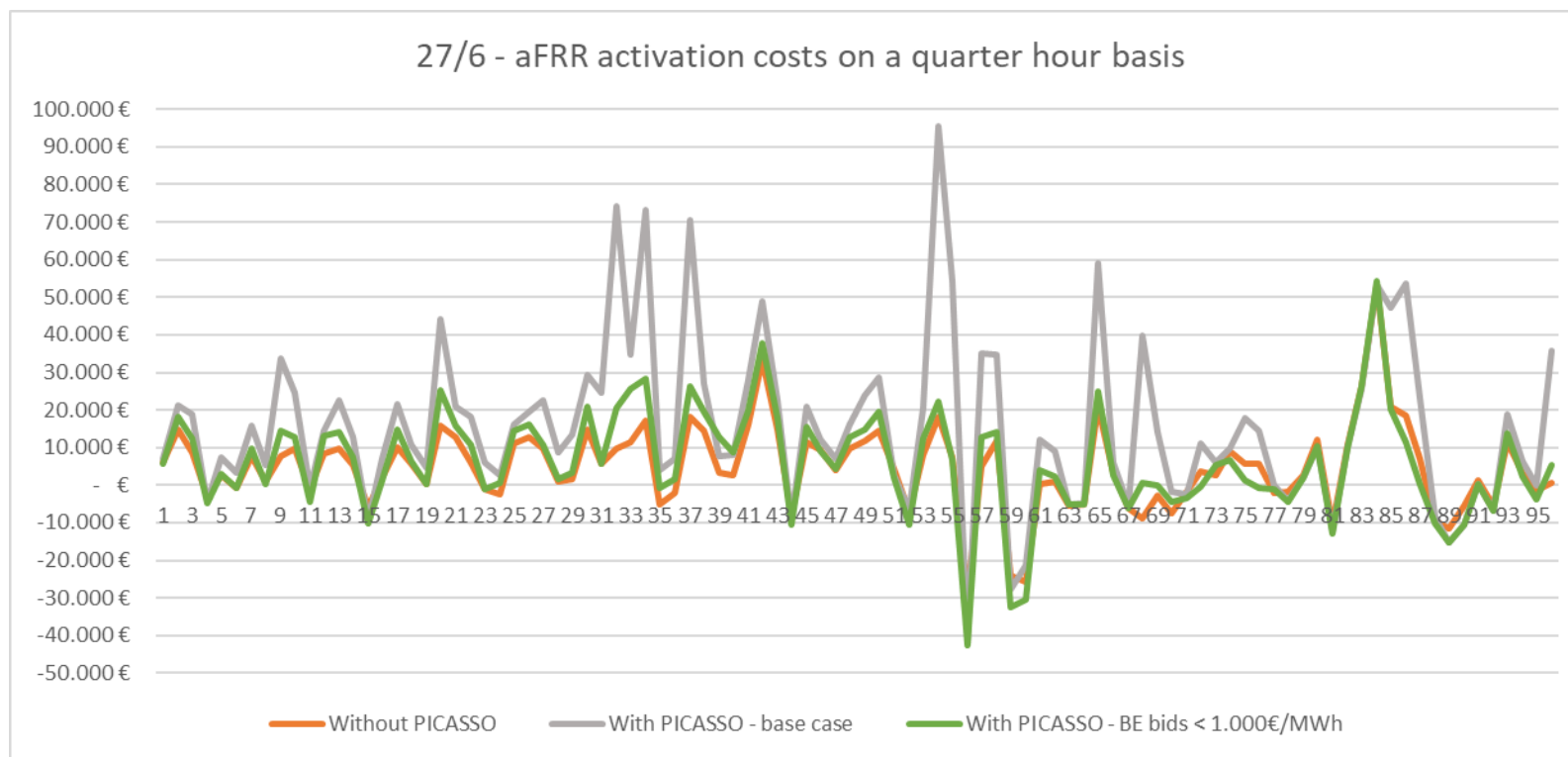
1

X 1,17 due to evolution of aFRR component in Imbalance Price formula (from volume weighted average to marginal price)

2

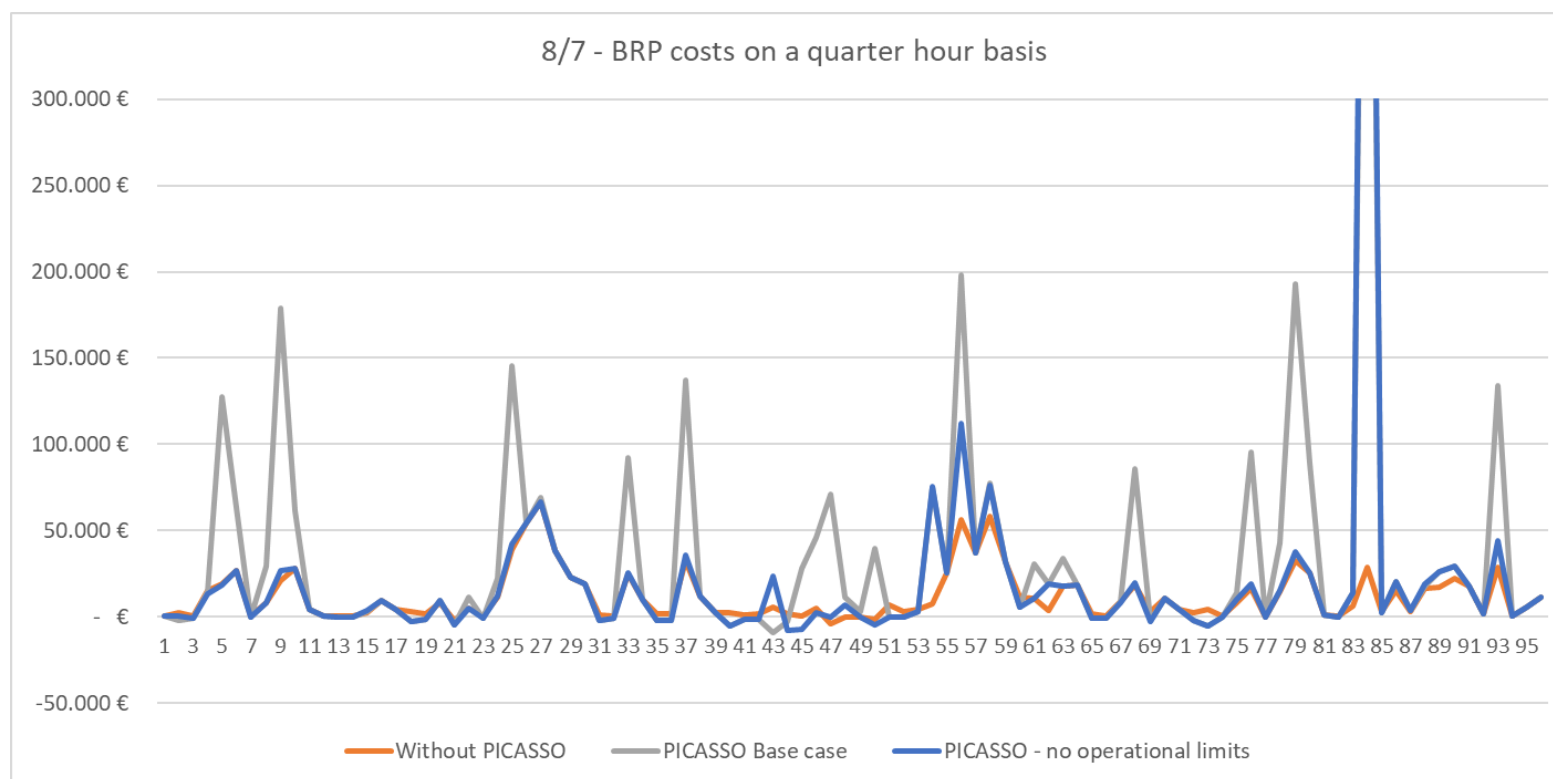
X 3,1 due to the presence of expensive aFRR bids at the end of the BE MOL

Impact of PICASSO on activation costs



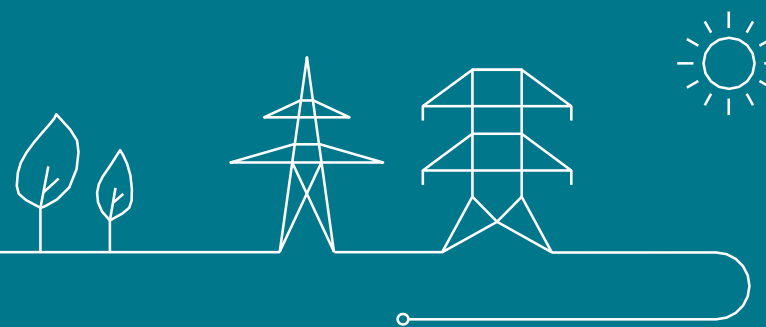
- In the base case, PICASSO leads to a significant increase of activation costs
- Here also, it is mainly explained by activation of bids at the end of the Belgian merit-order

Impact of operational security limits



- On 8/7, a lot of ATCs are available and the Belgian demand is high → the removal of the operational limits leads to a significant improvement
- The conclusions can however not be extended to moments with limited ATCs

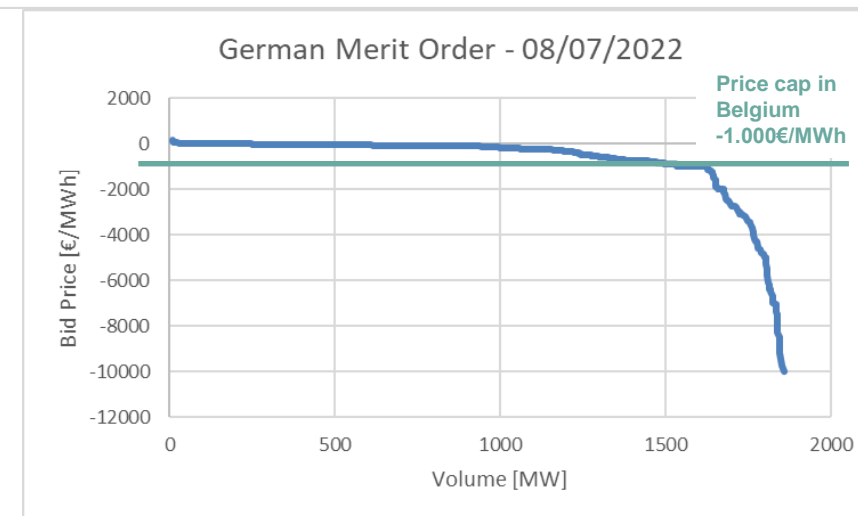
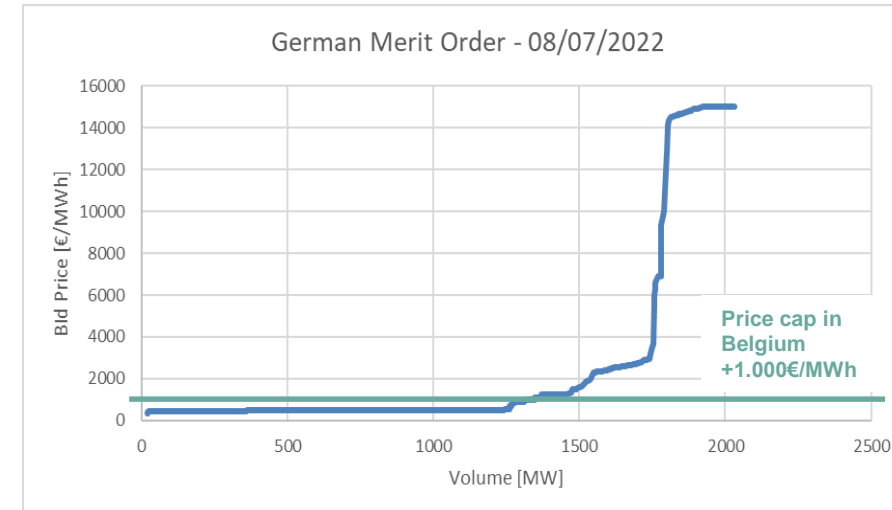
Key messages



Key messages

The German merit-order

- The German aFRR merit-order reaches prices of 15.000€/MWh in the upward direction and prices of -10.000€/MWh in the downward direction.
- When those bids are activated, that there is ATC available and that our demand is in the same direction, there is a significant impact on the activation costs and on the imbalance price.
- However, the German merit-order reaches 2GW and the prices only increase (strongly) at the end. This explains that extreme prices, while reached quite often, occur most of the time for very short durations.
- As a result, while those extreme prices could be questioned, the analyses show that the concrete financial impact on the activation costs and imbalance price is not as high as one could expect.



The German aFRR merit-order is impressive, but does not represent the main risk of increase of activation costs and of BRP costs

Key messages

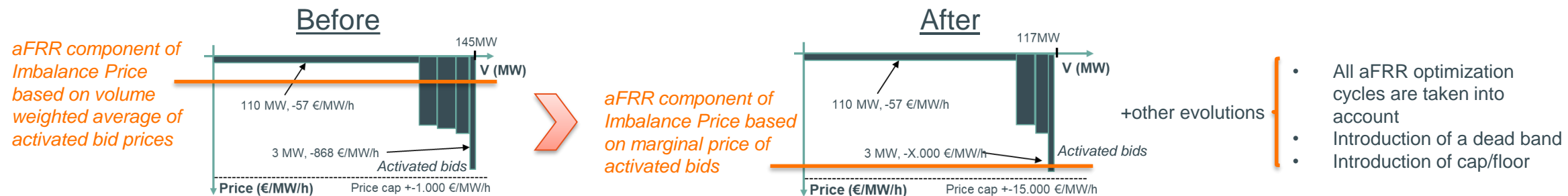
The Belgian merit-order

- The Belgian aFRR merit-order is significantly smaller than in other EU countries. Even though imbalances are lower for a country of the size of Belgium compared to a country of the size of Germany, unless there are a lot of ATCs in both directions, the end of the merit-order is reached several times a day with 117MW in Belgium (+ some free bids), which is not the case with 2GW in Germany
 - While this is already the case today, the simulations clearly demonstrate that the design changes implied by the connection to PICASSO increase the impact of the saturation of the merit-order **on activation costs** when no (sufficient) ATCs are available
 - **Increase of the price cap** could lead to activation of more expensive bids
 - **Switching from PAB to PAC** implies to remunerate all activated volumes at this more expensive price
- } → increase of activation costs

Key messages

The Belgian merit-order

- Besides, the design changes implied by the connection to PICASSO also increase the impact of the saturation of the BE merit-order on **costs for BRPs** when no (sufficient) ATCs are available :
 - As a consequence of switching from PAB to PAC**, calculating the aFRR component of the imbalance price **exclusively based on the marginal bid price** (which can be more expensive than today due to the increase of the price cap) instead of **based on the volume weighted average of the activated bid prices (such as it is the case today)** lead to more extreme imbalance prices → increase of imbalance costs



- This explains that the results of the observation round are very sensitive to the assumptions on evolution of the Belgian merit-order when joining PICASSO

Depending on bidding behavior and on new volumes prequalified, the Belgian aFRR merit-order could on the contrary lead to very significant increases of activation costs and costs for BRPs

Key messages

Importance of ATCs

- Having limited ATCs can in some cases protect the Belgian market from high prices in Germany. However, as in the majority of the cases it's preferable to have sufficient ATCs in order to avoid saturating the Belgian merit-order, availability of ATCs is key to ensure a successful European integration
- Availability of a part of TenneT NL's ATCs is an important step in the right direction
- The Core methodology significantly improves the ID ATCs, however
 - The ID market uses a part of those ATCs
 - This improvement is not equally distributed among borders. In the balancing timeframe, we currently (for the 2 months after Core go-live in unusual conditions) only notice a clear improvement on the borders with France

- **Given the high occurrences of 0MW ATC on ALEGrO, it should at least be confirmed that TenneT NL's ATCs are available for aFRR exchanges between PICASSO TSOs before Elia connects.**
- **We will still have 0MW ATC occurrences, even when we will have full access to all borders.**

Key messages

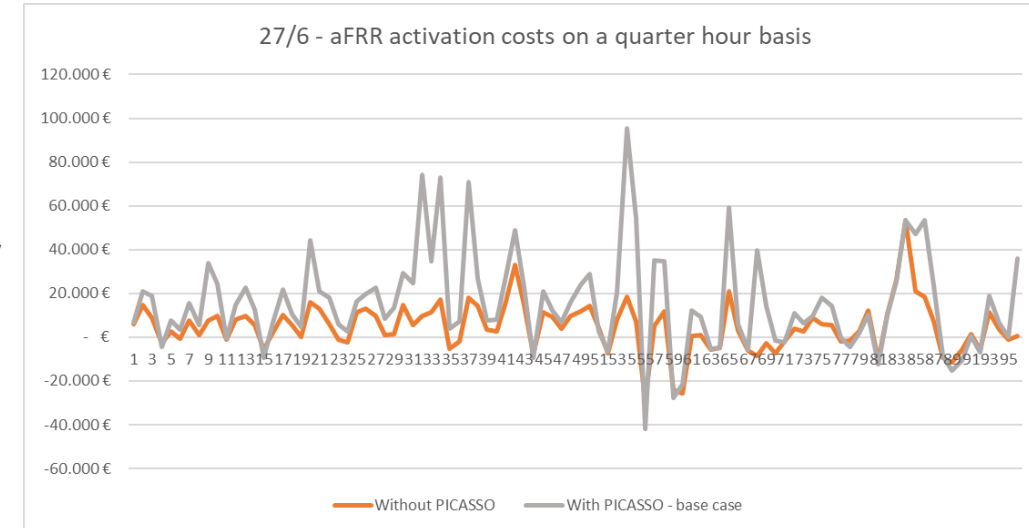
Unefficient mitigations for high prices

- aFRR is an automatic product. In addition, high prices appear to have in most cases partly disappeared in the next quarter hour

Activating mFRR based on a common a/mFRR merit-order would not be effective to reduce activation costs (and hence BRP costs)

- High imbalance prices mostly appear when there is no (sufficient) ATC and hence when the BE CBMP is a local marginal price.

A modification of the imbalance price design consisting in removing the cap and floor proposed by Elia (and hence jeopardizing grid security) would not be effective to reduce BRP costs.



8/7 – base case:

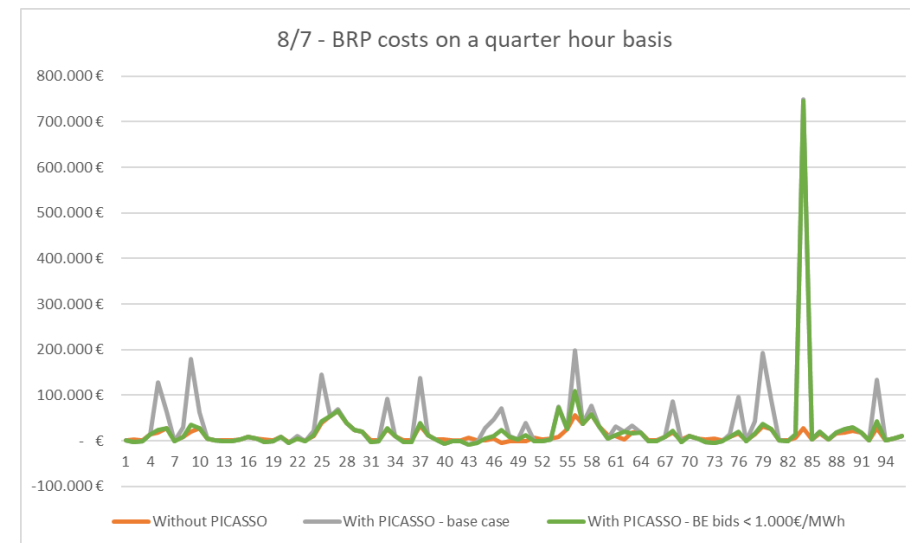
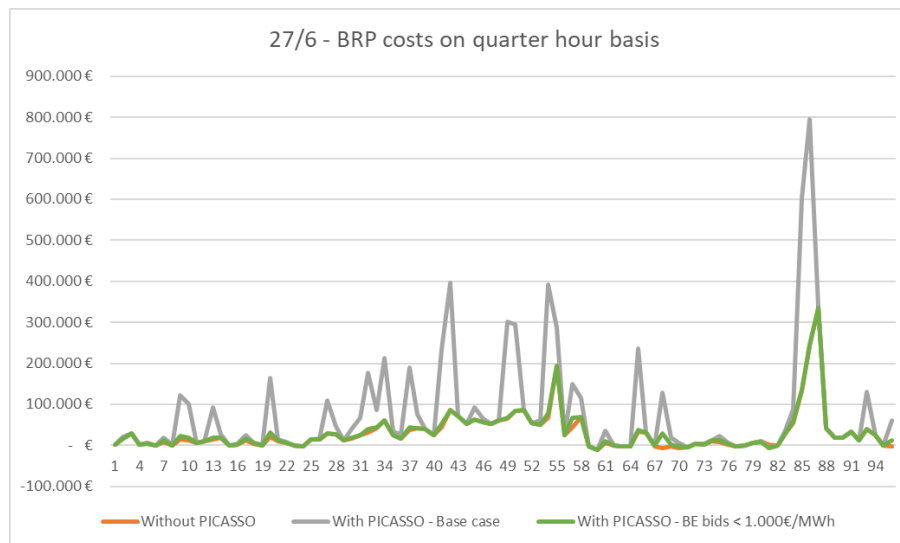
Elia current proposal	w/o any cap/floor/dead band
3.423.185,59 €	3.400.310,60 €


-0,67%

Key messages

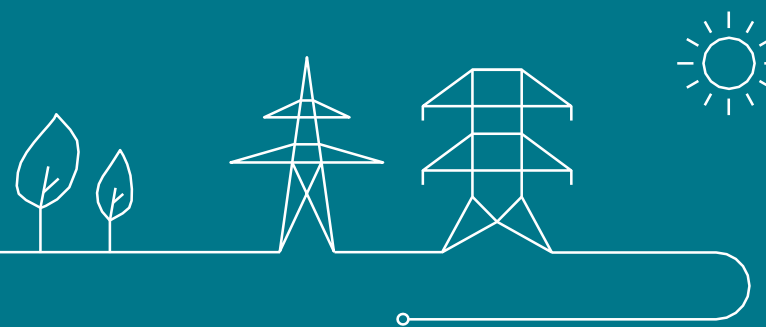
Possible mitigations for high prices

- An effective mitigation measure would be apply a temporary price cap when connecting to PICASSO. When assuming the extension of the existing price cap of +/-1.000€/MWh, simulations show that the impact of the connection to PICASSO on activation costs and on BRP costs is limited, except when the end of the German merit-order is reached, ATCs are available and our demand is in the same direction as the German demand.



A temporary price cap on the Belgian aFRR energy bids would prevent a strong increase of the activation costs and BRP costs

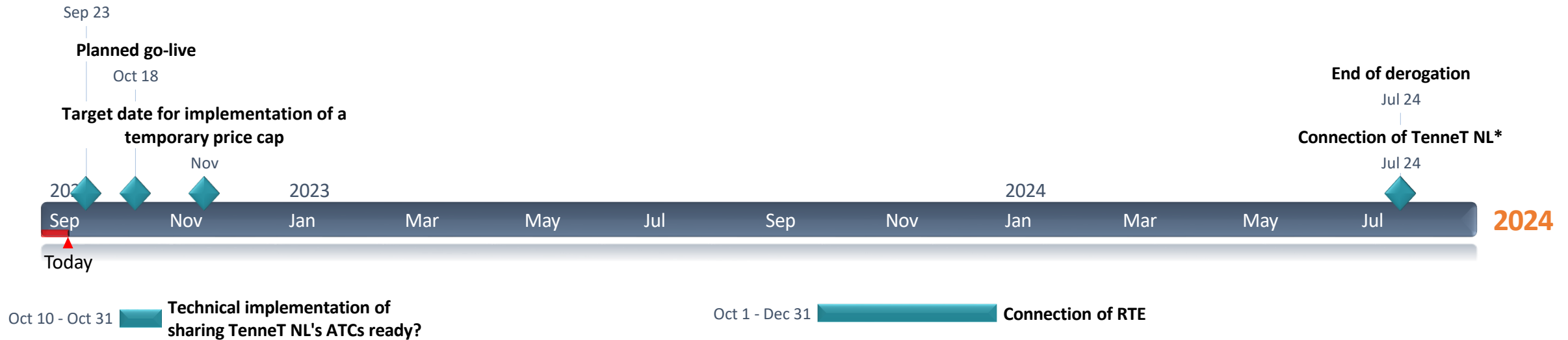
Way forward



Way forward

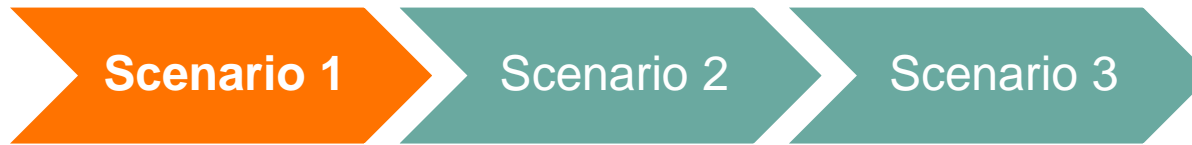
Dates influencing the impact of PICASSO

Approval at EU-level of Elia accession and principles of ATC Sharing



=> Based on this, Elia has considered 3 possible connection scenarios

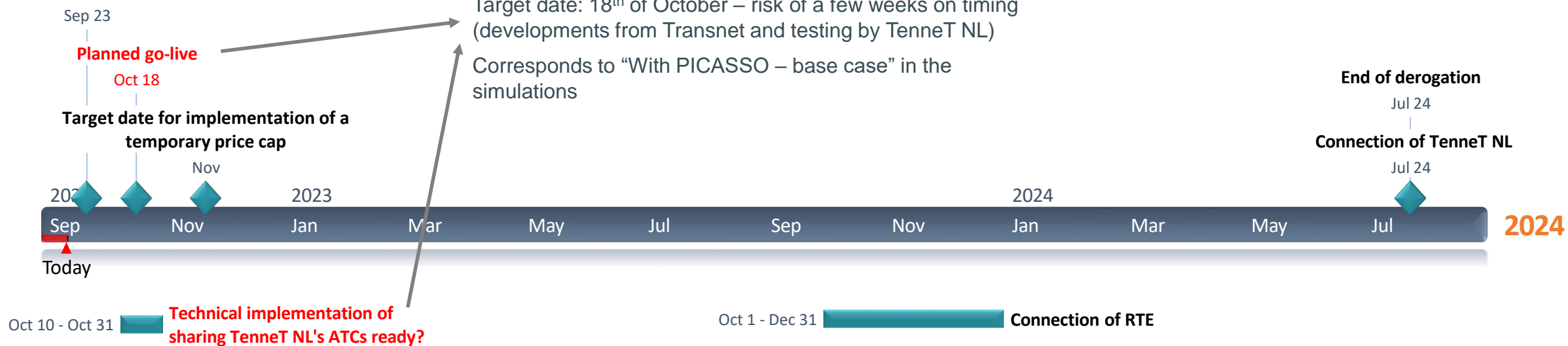
* TenneT NL announced a risk that they might not be ready by 07/2024



Way forward

Connection as soon as TenneT NL's ATCs are shared with PICASSO

Approval at EU-level of Elia accession and principles of ATC Sharing



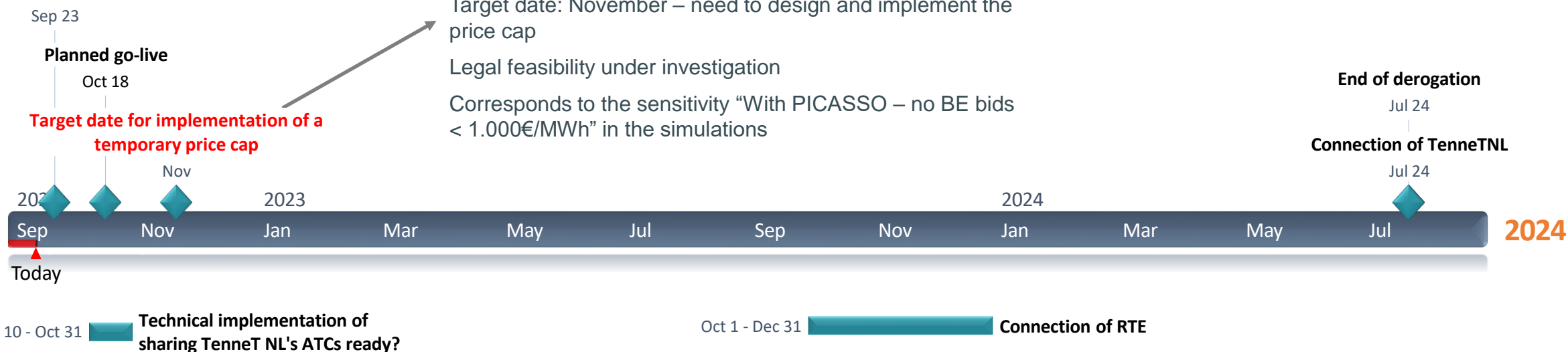
Impact for BSPs	Impact for BRPs	Impact for end consumer
Developments done by BSPs to connect to PICASSO bring expected benefits of market integration in the short term	Increase of costs for BRPs	Increase of costs for end consumer



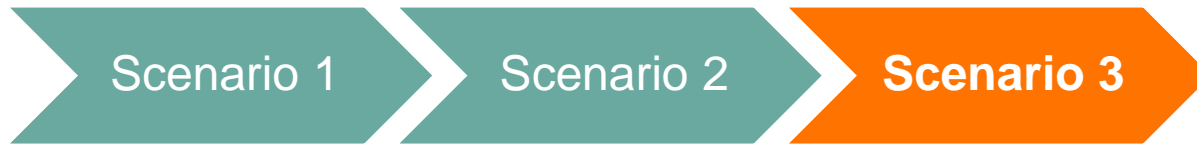
Way forward

Connection after implementation of a temporary price cap

Approval at EU-level of Elia accession and principles of ATC Sharing



Impact for BSPs	Impact for BRPs	Impact for end consumer
Developments done by BSPs to connect to PICASSO bring the expected benefits of market integration in the short term, however with a limitation on the bid price	Increase of costs for BRPs kept under control	Increase of costs for end consumer kept under control

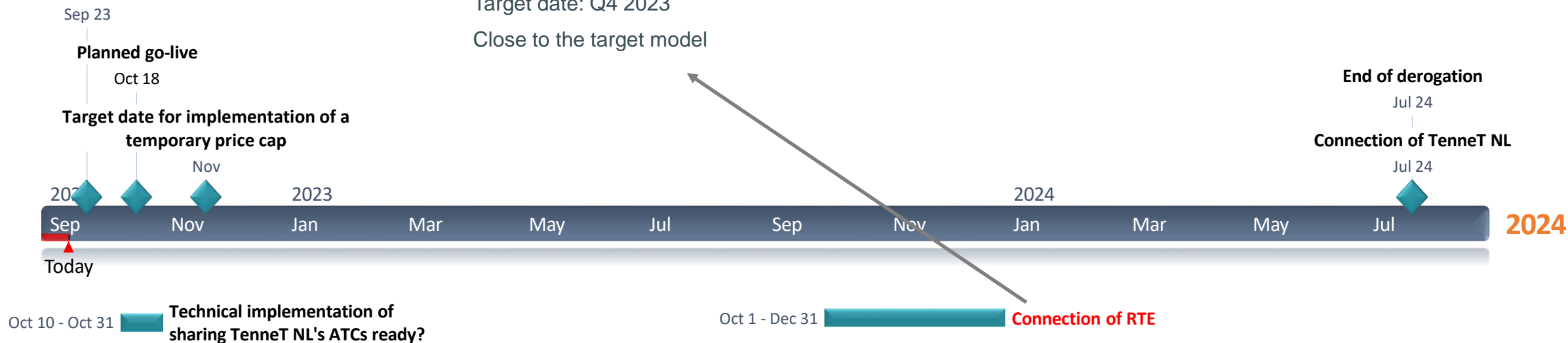


Way forward

Connection together with RTE

Approval at EU-level of Elia accession and principles of ATC Sharing

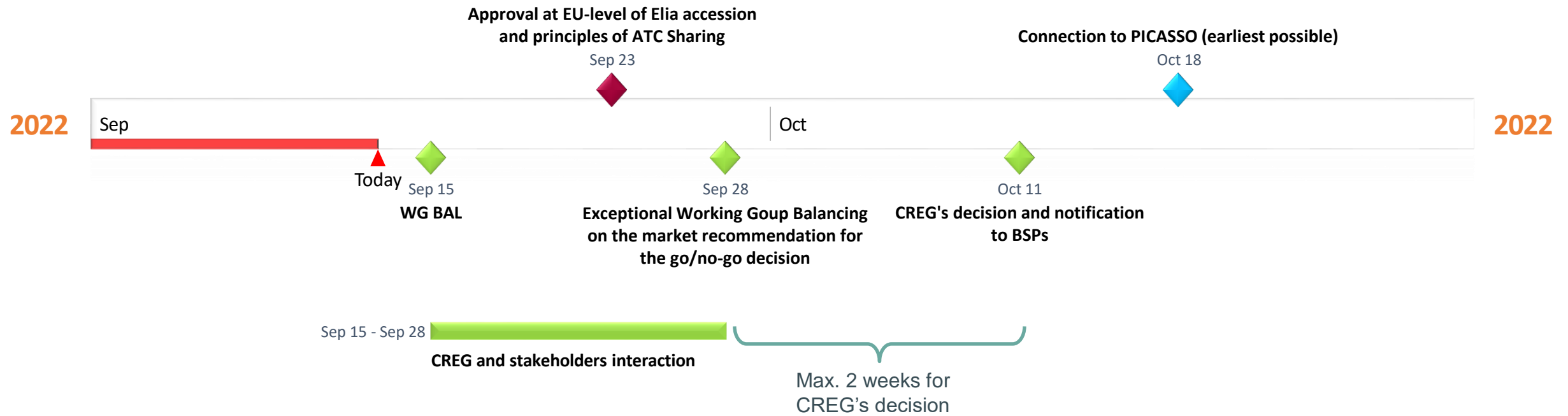
Target date: Q4 2023
Close to the target model



Impact for BSPs	Impact for BRPs	Impact for end consumer
Developments done by BSPs to connect to PICASSO don't bring any benefit in the short term	More ATCs and more liquidity lead to less frequent activation of the last bid of the Belgian MO, reducing occurrences of quarter hours with cost increases. The risk of an increase of the BRP cost is however not entirely mitigated.	More ATCs and more liquidity lead to less frequent activation of the last bid of the Belgian MO, reducing occurrences of quarter hours with cost increases. The risk of an increase of costs for the end consumer is however not entirely mitigated.

Way forward

Next steps



Thank you.



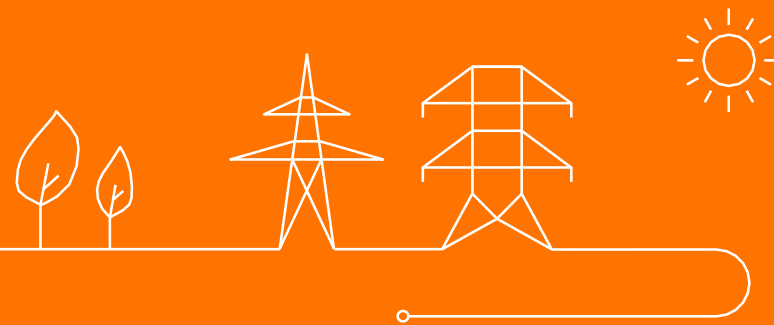
Until 11:20



Coffee break

EU Balancing Program update

Presented by Cécile Pellegrin



New information since November 2021

- aFRR Go live
 - Efforts needed (for ELIA and the market parties)
 - Delay of aFRR Go live step 2
 - Return of experience
- Feedbacks of Market participants and CREG
- Language rules for consultations – good qualitative translation in both national languages simultaneously and available during the legal period of the public consultation



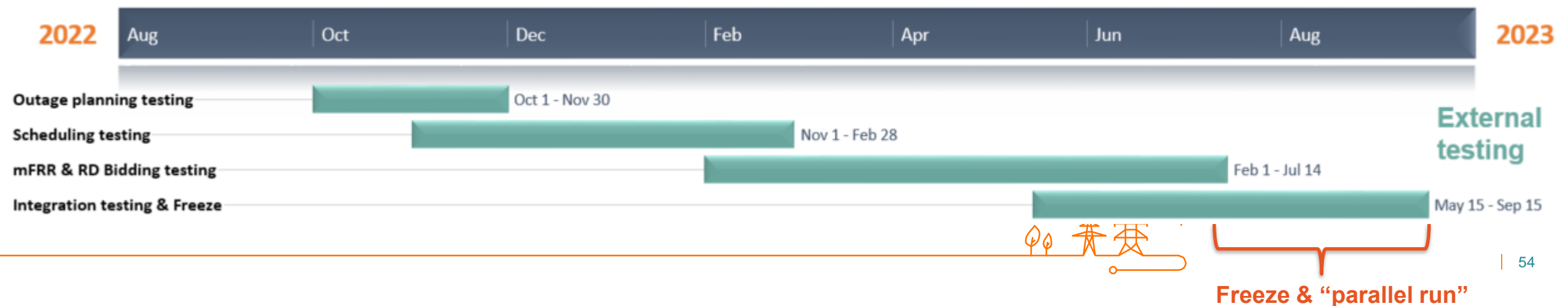
Update of the Roadmap

- BSP/OPA/SA Testing environment for mFRR and iCAROS phase 1 deployed **from Late Q3 2022 on**
- **Local go live** of the new mFRR bidding and iCAROS phase 1 **Late Q3 2023**
- Connection to EU mFRR balancing energy platform **Q4 2023**



External testing with market parties

- In order to be able to deliver the needed support to market parties, it's recommended not to have to discuss the different subjects in parallel. Therefore, ELIA proposes the introduction of a phased testing.
- It's therefore proposed:
 - To foresee a period of sequential testing of the different processes and not all at once. Starting with outage planning, then Scheduling tool, then RD & mFRR Bidding overlapping each with one month
 - To foresee, in addition, at the end, some time for the integrated testing and a freeze period
 - To organize a training session with the market parties (design reminders and deep-dives in implementation) at the beginning of the start of each testing period of a specific process
 - To support market parties with fixed slots of Q&A sessions (booking to be done via your KAM Energy)
- Following this phasing will allow ELIA to support market parties in the best way (ELIA will not be able to support actively each topic out of the concerned period)



Others stakeholder management interactions



- *Demo environment*
 - *Deployment of demo environment for all applications foreseen in October*
 - *More specifically for outage planning*
 - *Training session will be organized on the 3rd of October (14h-16h)*
 - *Overview of the principles*
 - *Technical presentation of new outage tool & demo*
 - *Launch of the outage planning testing from that moment on*
- *PICASSO Derogation approved*
- *Public Consultations*
 - *Balancing rules -> See here after*
- *Next interactions to be planned based on the updated roadmap*
 - *Feedback on the processing of the last comments received on the mFRR design note*
 - *BSP Facilitations*

Contact persons



KAM Energy

Amandine Leroux / Arno Motté

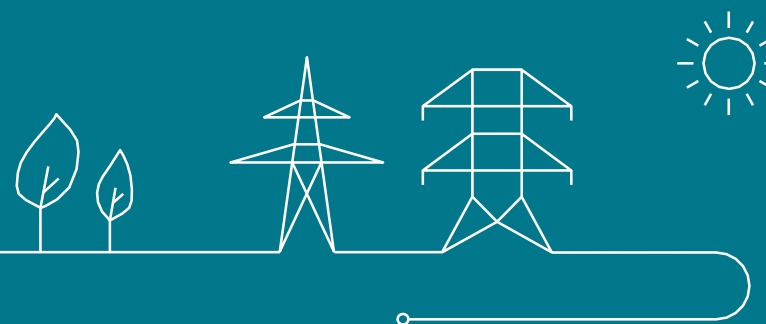
IT questions

IT-ECL@elia.be with your KAM Energy in CC



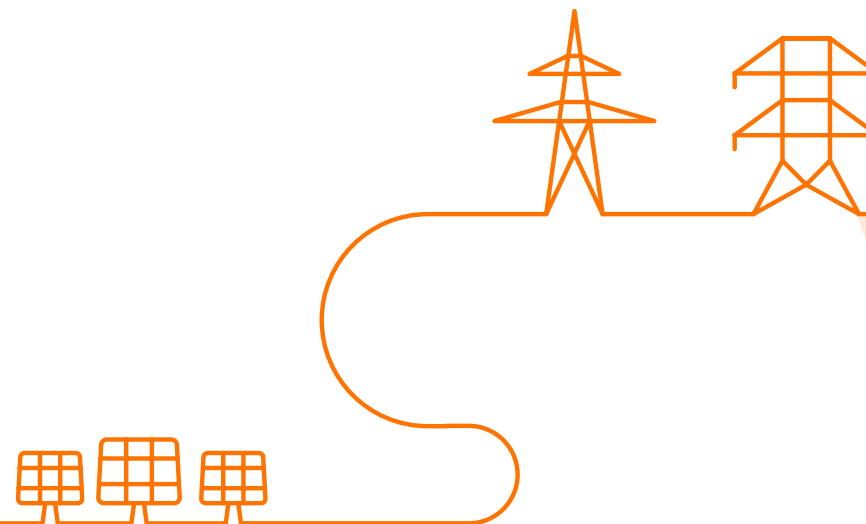
Decision CREG on balancing rules

Elia position and impact on Picasso - Presented by Caroline Bosschaerts






Agenda

1. Content of the decision
2. Elia's position on the CREG's additional requests
3. Possible consequences on the connection to Picasso



Content of the decision

DÉCISION

Approval	{	Conformément à l'article 200 de l'arrêté royal du 22 avril 2019 établissant un règlement technique pour la gestion du réseau de transport de l'électricité et l'accès à celui-ci, la CREG approuve la proposition d'ELIA TRANSMISSION BELGIUM portant modification des règles d'équilibrage pour la compensation des déséquilibres quart-horaires, telle que communiquée par e-mail du 13 mai 2022.		
Pre-condition for entry into force	{	Les règles d'équilibrage approuvées pour la compensation des déséquilibres quart-horaires n'entreront en vigueur qu'après qu'ELIA TRANSMISSION BELGIUM aura d'abord donné suite aux remarques formulées aux paragraphes 52, , 60 et 80 de la présente décision et qu'elle aura notifié ces adaptations et améliorations à la CREG ou après qu'ELIA TRANSMISSION BELGIUM aura démontré à la CREG pourquoi il n'est pas nécessaire de donner suite aux remarques formulées par la CREG.		(not considered as an issue)
Additional requests	{	S'agissant des articles 16 et 17 des règles d'équilibrage pour la compensation des déséquilibres quart-horaires, Elia doit soumettre à la CREG une proposition de modification des T&C BRP, après consultation publique, pour le 7 octobre 2022 au plus tard, compte tenu des paragraphes 71 et 74 de la présente décision.		

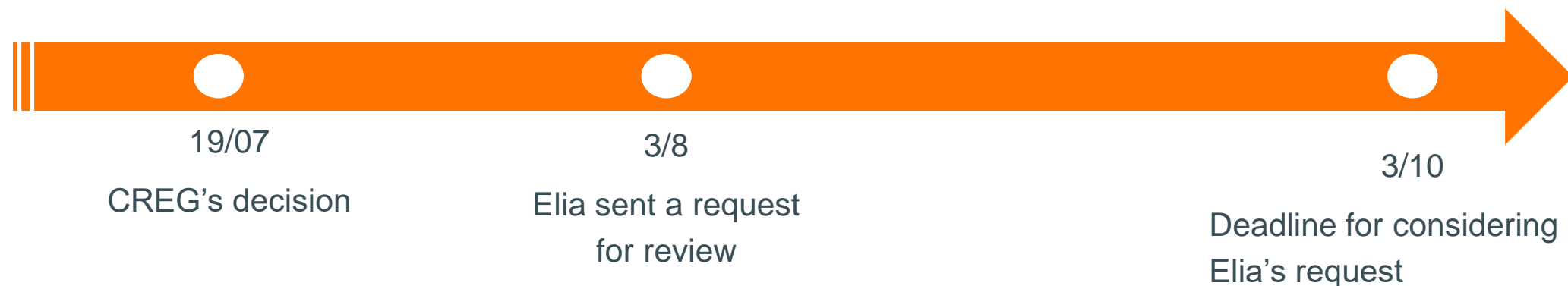
Articles describing the methodology for the determination of the imbalance tariff

Paragraphs requiring the removal of the cap/floor (aiming at guaranteeing grid security) and dead band from Elia's proposal



Elia's reaction to CREG's decision & resulting process

- Elia has profound fears and objections regarding CREG's request for amendment of the T&C BRP (see justification in next slides).
- Consequently, Elia asked CREG to review its decision and remove the additional requests related to the amendment of the T&C BRP.
- CREG's reaction on Elia's request is expected for 3rd October at the latest.



Rationale behind Elia's request for review

1. The legally required procedure for the approval of the balancing rules was not followed since CREG's decision has not been subject to prior consultation by Elia, as required by E-law art. 23
2. The amendment to the T&C BRP requested by CREG violates the E-law and the Tariff Methodology 2020-2023, that require that the features of the imbalance tariff are included in the Tariff Proposal
3. The timeline imposed by CREG for the introduction of a PfA to the T&C BRP is not realistic. It would have required Elia to draft a PfA to the T&C BRP and align its proposal with CREG and market parties between 19th July and 15th August... and this while the approved proposal is the culmination of more than a year of intense discussions with market parties and CREG.
4. The decision introduces an inconsistency in the actions to be taken by Elia to implement the decision
Example :
 - It requires Elia to incur costs for the implementation of the balancing rules (as approved), while a large part of these costs would be lost a few weeks later at the entry into force of the T&C BRP amended as requested by CREG
 - It creates a lack of stability that might be confusing both for market parties and for Elia teams
5. CREG's request involves a risk for grid security and induces a risk of increasing cost for balancing capacity reservation (see next slides)



CREG's request involves a risk for grid security

- To mitigate the risk of real-time congestions (acknowledged by CREG in its decision), CREG suggest to require the operators of Elia control center to activate (local) mFRR energy bids when the borders are close to saturation.
- This proposal ignores the operational reality inherent in operating a grid in real-time and is besides questionable, since it requires Elia to activate, on purpose, local and possibly much more expensive flexibility to solve an issue created by an inadequate design of the imbalance tariff.



CREG's request induces a risk of increasing cost for balancing capacity reservation

Elia is convinced that the volume of balancing capacity to be contracted by Elia may increase if CREG's request was to be implemented:

- If a major imbalance occurs in a country with which Belgium has a lot of ATCs, CREG's proposal will very likely encourage the Belgian BRPs to create a major imbalance in Belgium, in the opposite direction to that of the neighboring country.
- As long as the imbalance generated in Belgium is fully 'netted', it should not impact the dimensioning of the reserves in Belgium.
- However, the situation in the European zone can change every 4 seconds and the fact that the Belgian imbalance is fully 'netted' at a given instant does not provide any guarantee as to the possibility of netting at the next instant. At any time, Elia could therefore lose this possibility of netting (because the country in imbalance has taken the decision to activate another means of balancing, such as mFRR, to resolve its structural imbalance; because a third-party TSO has carried out a direct activation on the MARI platform, thus modifying the ATCs available between the two countries involved in the aFRR netting; etc.) and end up with a System Imbalance that cannot be fully resolved by the activation of local reserves.
- In doing so, Belgium will inevitably temporarily have large System Imbalance and ACE and, in the long term, this will increase the needs of FRR in Belgium.



Elia remains convinced that the proposal approved in the balancing rules constitutes the best way of working considering the current context*

However, Elia also reiterates its desire to make the imbalance tariff evolve towards a price signal whose objective is to balance the Belgian area at the lowest costs, while guaranteeing network security.

Elia is therefore open to continue the investigations as to how, in certain situations, the imbalance price may lead to giving incentives to Belgian BRPs to aggravate the local system imbalance, provided that this incentive is in line with the capacities available at the borders (which is not the case in the CREG's proposal which consists of using the same price signal, whether the residual capacity at the borders is extremely low or whether it is abundant) and with the reserves locally available in Belgium.



* Current legislation, available tools, etc.

Consequences for the connection to Picasso?

The connection to Picasso was conditioned by the validation of the balancing rules → Will CREG's RfA to T&C BRP and Elia's request that CREG reconsiders its decision prevent Belgian connection to Picasso?

In its current status (and even if CREG does not accede to Elia's request to remove its RfA to the T&C BRP), CREG's decision does **not constitute a blocking point** for the connection to Picasso :

- The submission, by Elia, of a PfA to the T&C BRP is **not a pre-condition** for the entry into force of the rules

Décision relative à la proposition d'ELIA TRANSMISSION BELGIUM portant modification des règles d'équilibrage pour la compensation des déséquilibres quart-horaires

Résumé

Dans sa décision, la CREG développe les inefficacités d'équilibrage dans un contexte européen que la proposition entraîne. **La CREG approuve néanmoins la proposition afin de ne pas retarder la participation potentielle à la plate-forme européenne aFRR**, étant entendu qu'elle entamera en même temps le processus d'intégration du calcul du prix de déséquilibre dans le T&C BRP, de sorte que le calcul du prix de déséquilibre puisse être mis en conformité avec les remarques formulées par la CREG dans cette décision et dans les décisions précédentes.

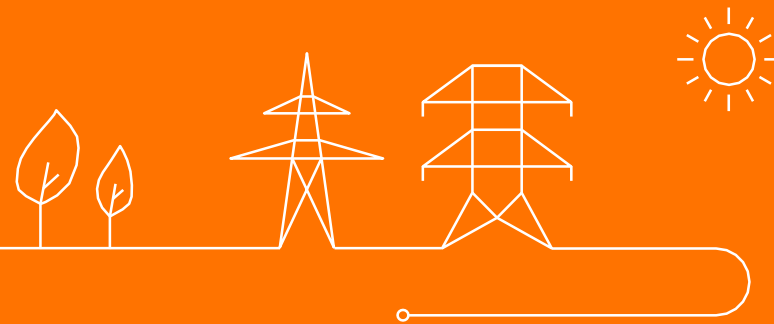
- The request for review introduced by Elia is **not suspensive**

The new version of the balancing rules can enter into force without waiting for the end of the procedure and discussions between CREG and Elia regarding CREG's RfA to T&C BRP




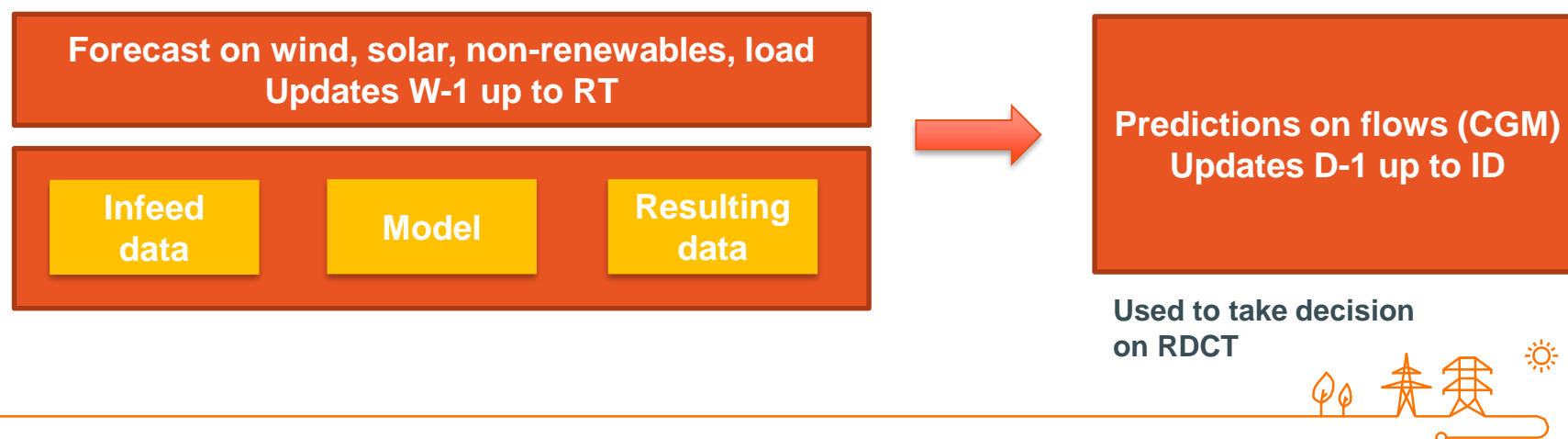
Public consultation on the improvement of the quality of input data for congestion management

Presented by Victor Le Maire



Public consultation from 10/06



- ✓ Transparency on current IGM and CGM modelling practices
- ✓ Transparency on forecast quality of input and output data
- ✓ Root-cause analysis on deviations in forecast compared to Real Time
-  Look into solutions to improve the forecasts
 - Short-term implementation
 - Long-term roadmap



Attention points from public consultation

- Market participants located in congested area bear a share of the associated costs
→ any improvement in the congestion forecast should be set with high priority
- **Offshore** wind forecast bias should be corrected in uttermost priority
→ caught Elia's attention since many months, structural solution should be in place by end of 2022.
- **Offshore** wind forecast seems to leave some room for improvement w.r.t. neighboring countries
→ we are working with another supplier which has many weather data (notably Arpege model from météo France which seem promising for offshore).
- **iCAROS** related remarks will be included in upcoming public consultation for T&C OPA, SA and Coordination Rules
- Suggestion to study forecast quality at **electrical zone level** + focusing on the frequently congested ones
→ will be envisaged for short term solutions but Elia prefers to invest efforts in structural and robust solutions (congested zones are changing through time and grid investments)

Proposed approach of Elia remains unchanged

<p>Infeed data</p>	<p>PISA database completeness and increase update frequency in operational tools</p>
<p>Model</p>	<p>Extended use of AI/ML Align model EMS/Power Factory</p>
<p>Resulting data</p>	<p>Combine output of suppliers Continuous monitoring and benchmarking of performance of suppliers</p>
<p>Top-down</p>	<p>Flow forecast  Collaboration with external consultant</p>
<p>Future</p>	<p>Reflect on needs to take into account increase of RES, new type of loads and new behavior</p>
<p>Bottom-up</p>	<p>Nodal forecast of load  Collaboration with external consultant</p>



Timing and next steps

January – June: work on presentation/report for workshop/consultation

- 30/5: workshop: as is description, root-cause analysis and proposal of solutions
- 10/6: launch of public consultation

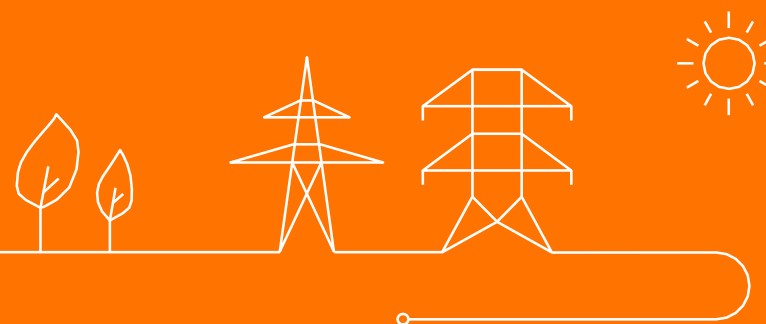
September - December: integrate input from public consultation in the report and start implementation/build roadmap

December: final report



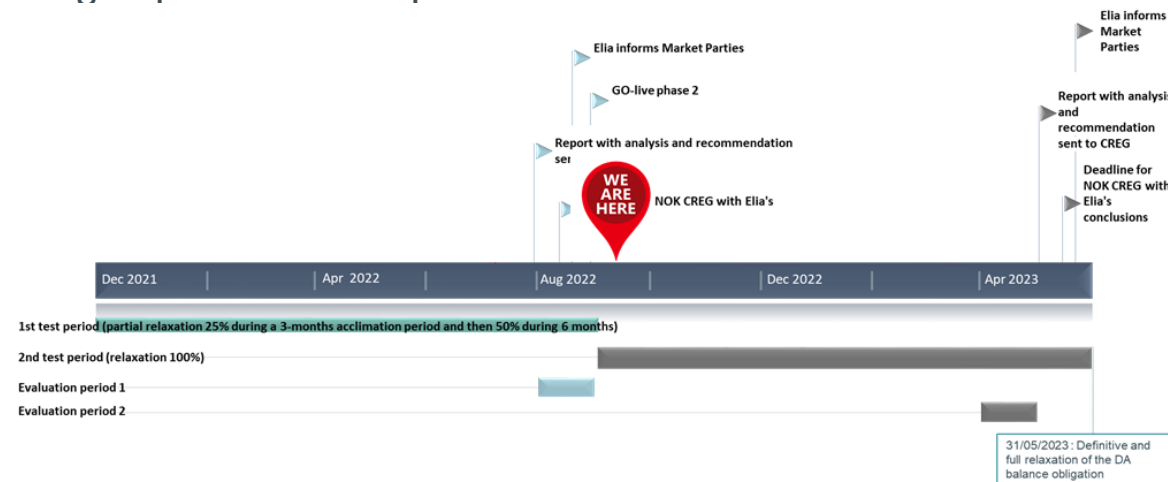
Relaxation of DA Balance Obligation : evaluation & recommendation

Presented by Caroline Bosschaerts



Context

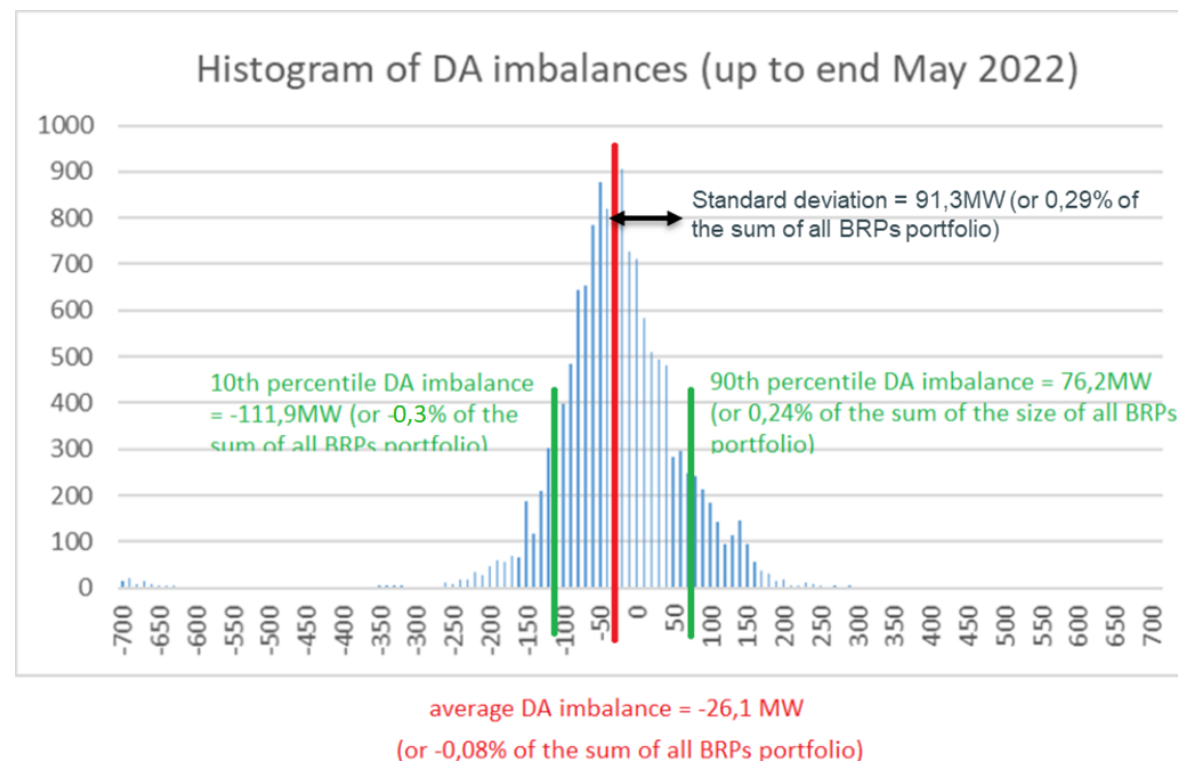
- In December 2021, Elia started progressively relaxing the Day-ahead Balance Obligation of the BRPs according to the following implementation plan :



- This implementation plan foresees:
 - an 18-months test period, during which the maximum imbalance allowed for a BRP in DA is gradually increased from 0 to 25% (during 3 months), 50% (during 6 months) and then 100% (during 9 months) of the size of its portfolio. At the moment we are in the 2nd step of the relaxation, during which BRPs are allowed to have a Day-ahead Imbalances up to 50% of the size of their portfolio.
 - that Elia performs a formal evaluation at the end of the first 9 months of the test period and at the end of the 18 months test period. The objective of this methodology is to **assess the evolution of the most negative values of the System Imbalance in Belgium** and to **verify that there is no deterioration of these values caused by the relaxation of the DA balance obligation**.
- The purpose of this presentation is to **explain and discuss the results of this formal evaluation**.

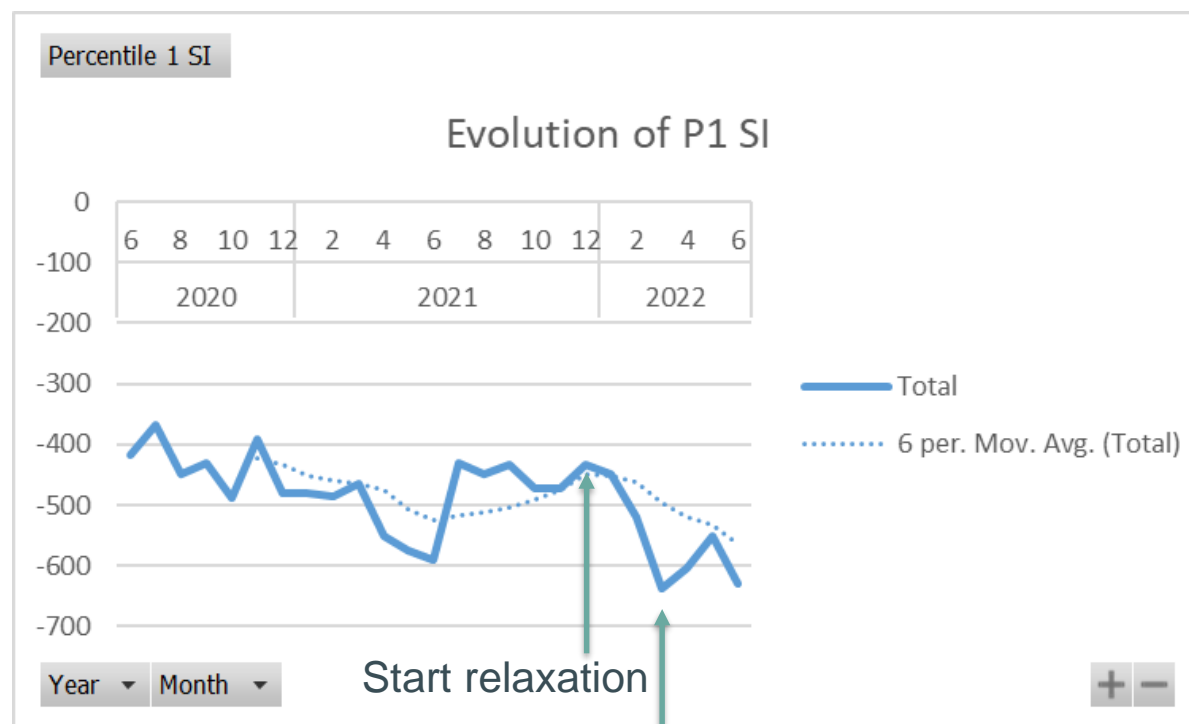
Relaxation of DA balance obligation - Key facts and figures

- The possibility to have DA imbalances was:
 - extensively used by a **limited number of BRPs** (mostly traders)
 - occasionally used by other BRPs, probably mostly when they encounter f.i. IT issues that prevent them from submitting balanced nominations in Day-ahead
- The global DA imbalances remained **very limited** (compared to the sum of all BRPs portfolio):
 - Average global DA imbalance is **-26,1MW**, with a standard deviation of **91,3MW**
 - The 10th and 90th percentiles of the global DA imbalance are **-111,9MW** and **76,2MW**
 - The highest global DA imbalance is **654,8MW**
 - The lowest global DA imbalance is **-761,6MW**
- **Trader BRPs** who took open position in DA always managed to close their position before RT



Evolution of 1st percentile of SI over the last two years

A decrease of 1st percentile of SI has been observed over the last months:

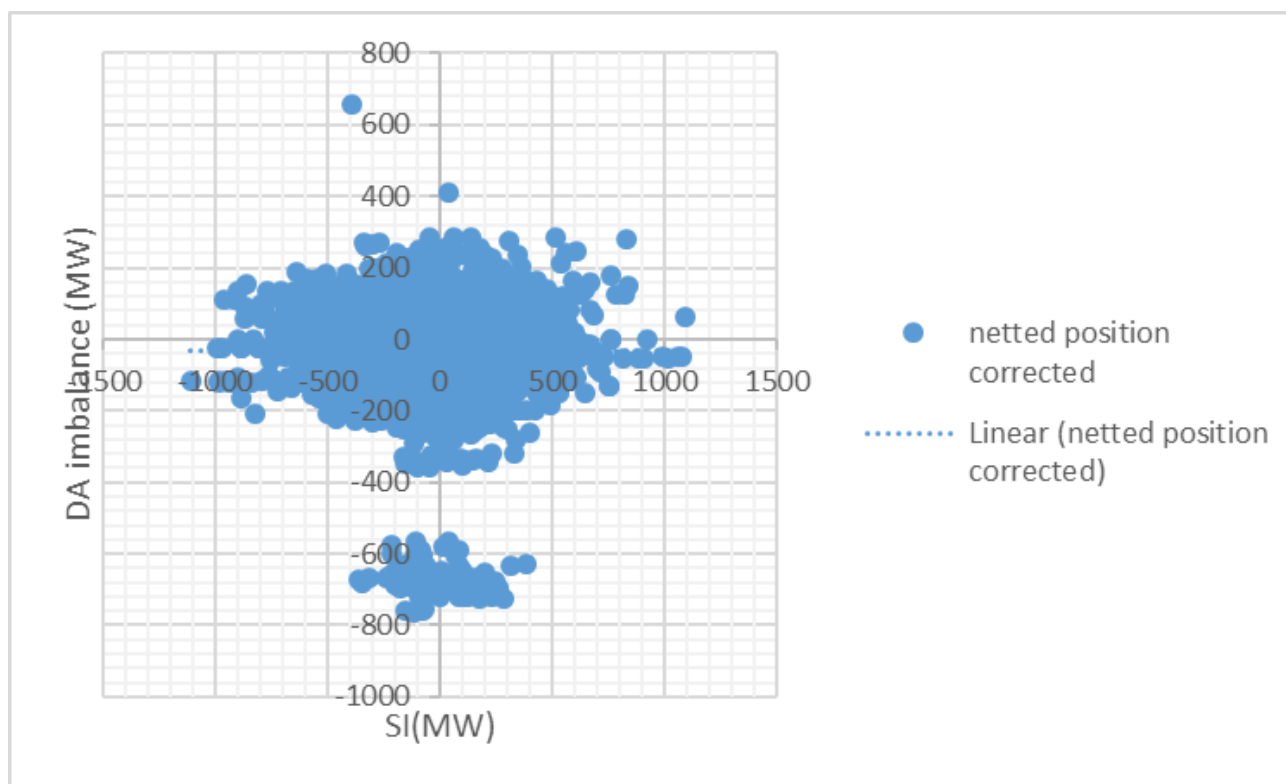


This decrease of the 1st percentile of SI does not seem to be caused by the open positions taken by BRPs in DA

- **No correlation** between SI and global DA imbalance can be observed (slide 6-7)
- For the largest negative SI observed in 2022, **the sum of the RT imbalances** of all the BRPs that had taken an open position in DA **is most of the time positive (i.e. helping the system)** and even when negative, it is in any case very limited compared to the size of the SI → the large SI observed cannot be explained by the open positions taken in DA (slide 8)
- A similar (or even more important) decrease of the 1st percentile of the SI can be **observed in The Netherlands** that had already relaxed the DA balance obligation a few years ago (slide 9)

→ The decrease of the 1st percentile of the SI over the last few months **cannot be explained by the relaxation of the DA balance obligation.**

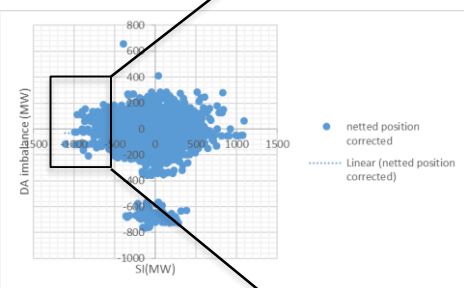
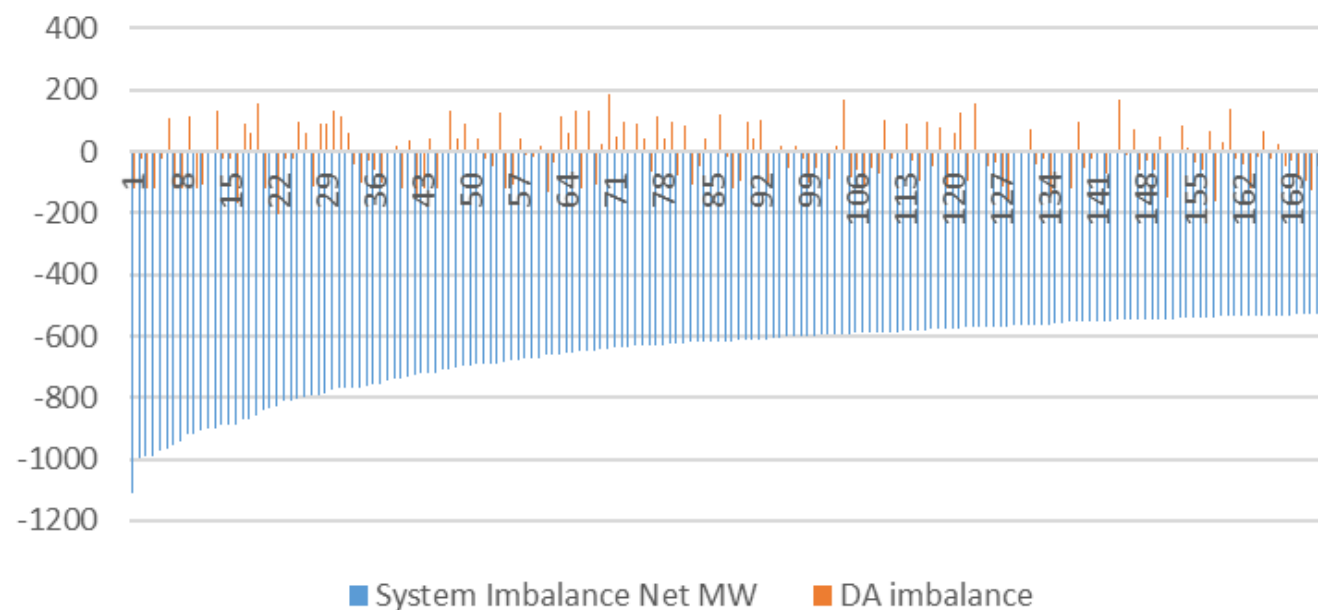
No correlation between SI and global DA imbalance can be observed



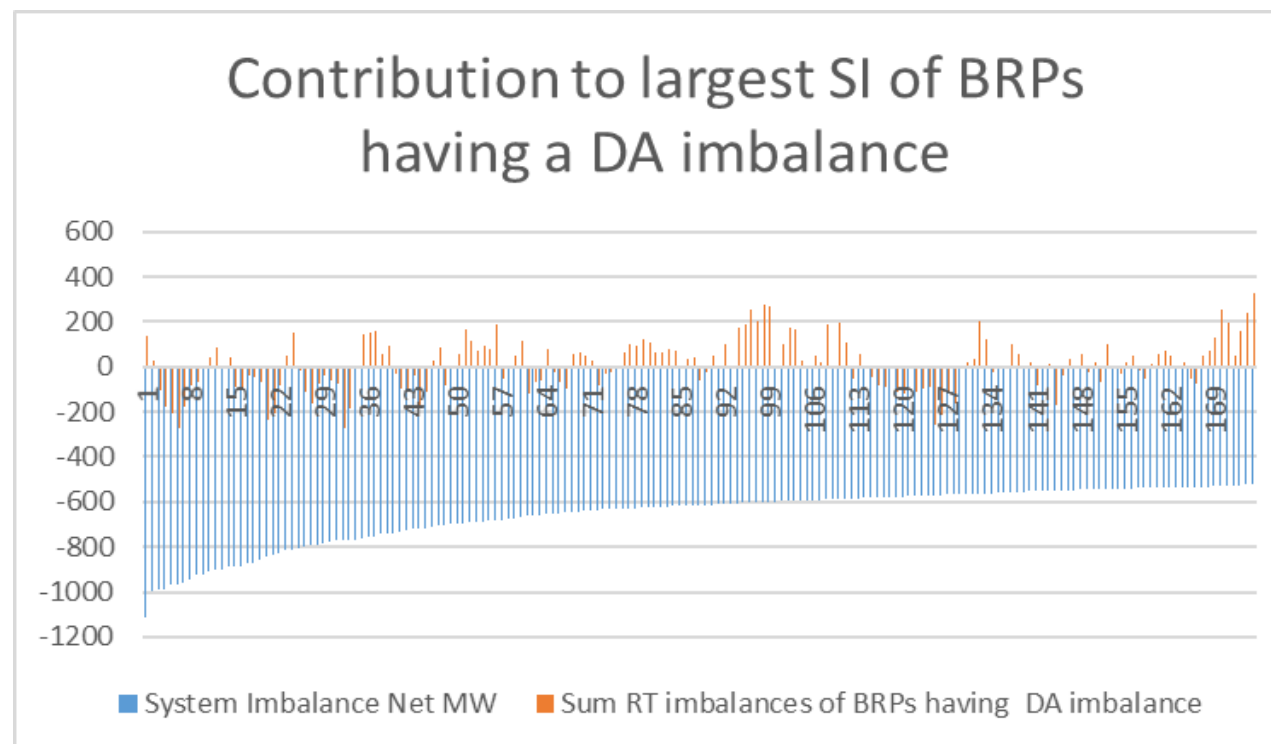
Correlation = 0,002045
(statistically non representative)

DA imbalances corresponding to the largest negative SI observed in 2022* are limited (and even often positive)

Most negative SI (that contributed to P1 SI) and their corresponding DA imbalance



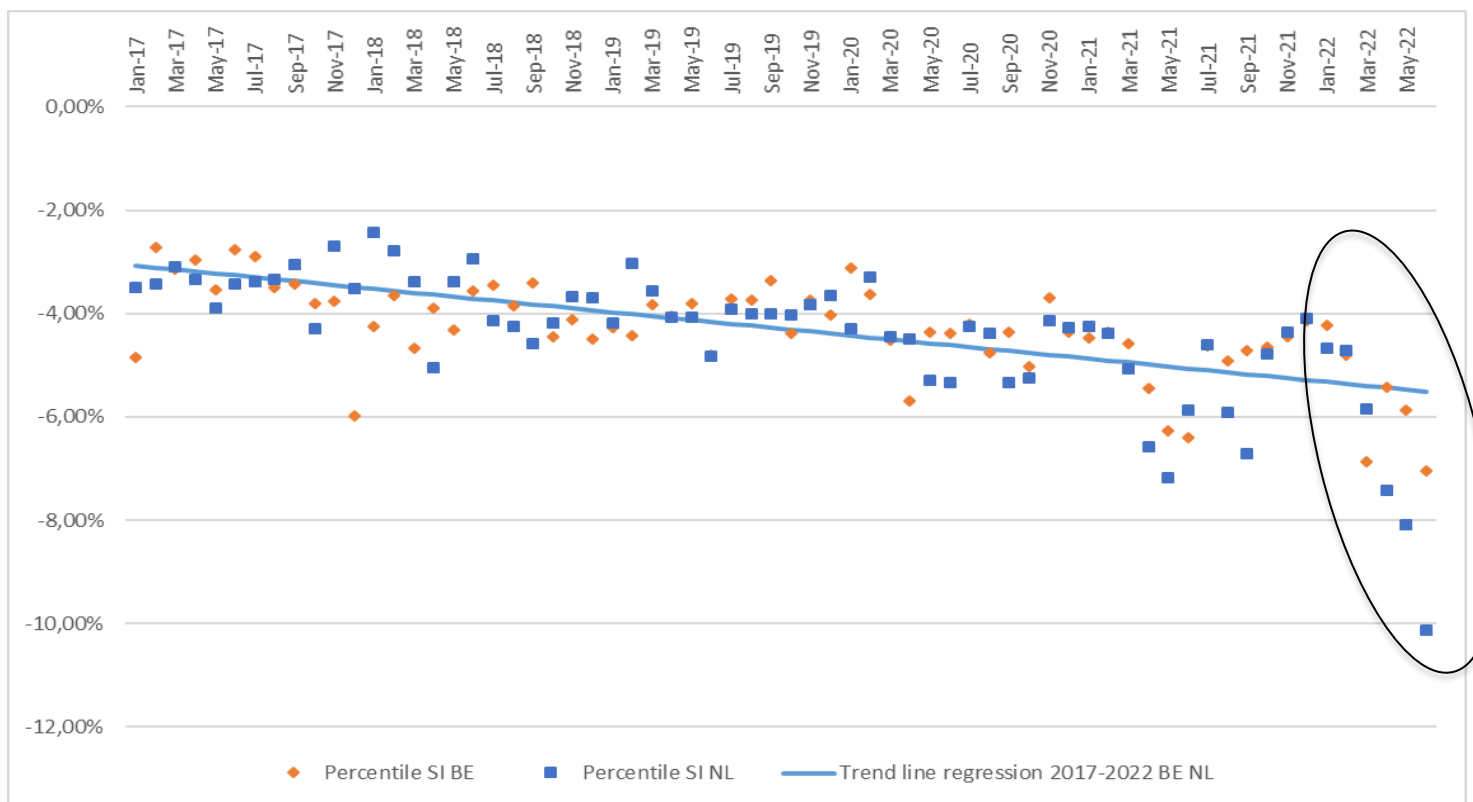
For the largest negative SI observed in 2022, the BRPs that had an imbalance in DA, and that did not close their position during the Intraday timeframe*, were most of the time helping the system in real-time



In these situations of extremely negative SI, the average sum of RT imbalances of BRPs with a DA open position was positive (= 11,58MW)

* As a reminder, the trader BRPs who had Day-ahead imbalances closed their position during the Intraday timeframe, in accordance with their BRP contract

The evolution of the 1st percentile of the System Imbalance is quite similar in Belgium and in the Netherlands, while both countries did not relax their DA balance obligation at the same moment*

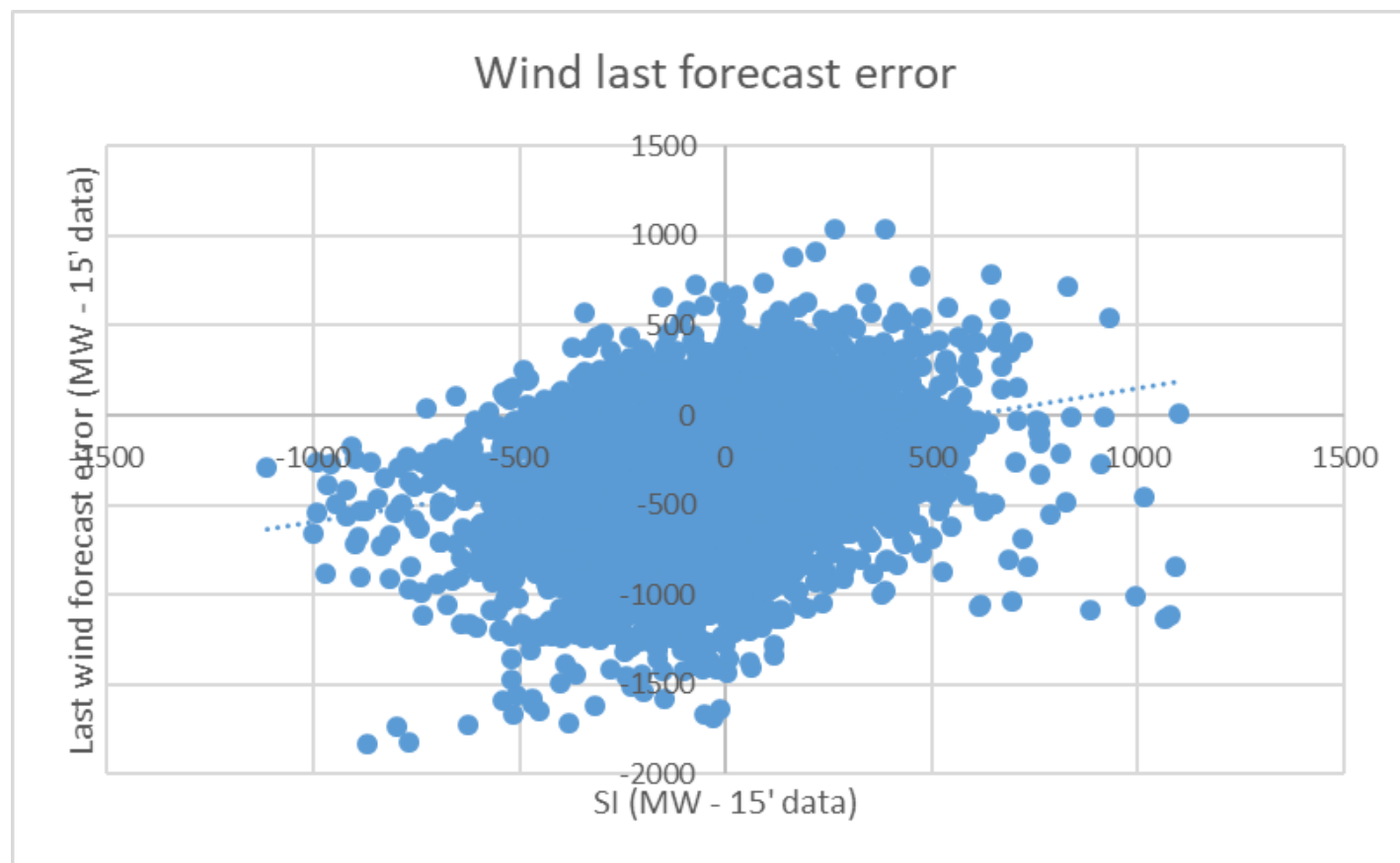


* The Netherlands relaxed its DA balance obligation in Feb 2019

If not caused by the relaxation of the DA balance obligation, what could be the origin of this decrease of the 1st percentile of the SI?

- Several factors that might explain a degradation of the System Imbalance were considered and correlations were calculated to assess whether these factors effectively contributed to the decrease of the 1st percentile of the SI observed in Belgium over the last few months.
- These analyses showed that the recent decrease of the 1st percentile of the SI is most likely caused (at least partially) by **a higher volatility/ lower predictability of RES production** :
 - A correlation between SI and last wind forecast error is observed, while, at the same time, we have been facing more extreme wind forecast errors over the last few months (slides 11-14)
 - The most negative SI observed each month are mostly related to exceptional meteorological events (i.e. storm, Saharan dust, etc.), and are always related to high RES forecast errors (slides 15-19)

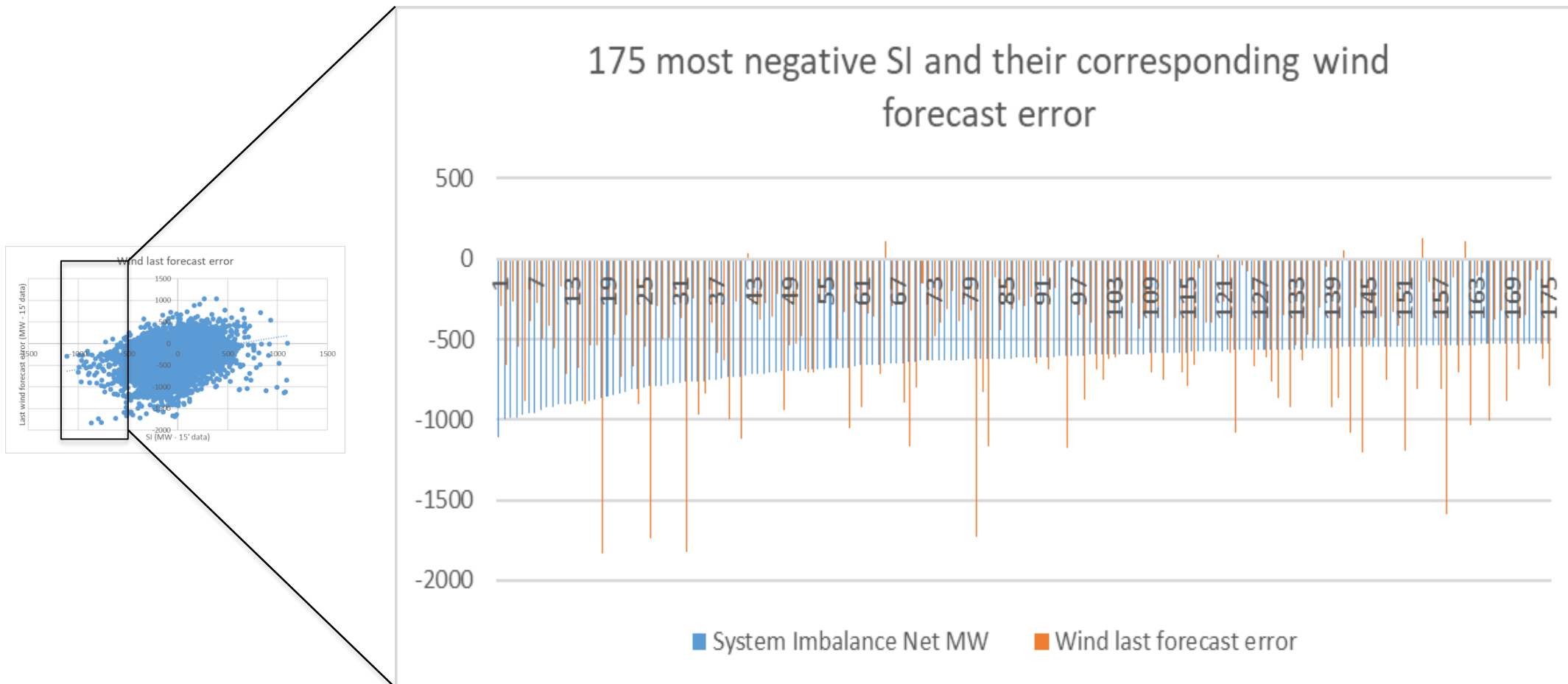
Existing correlation between SI and last wind forecast error in 2022*



Correlation = 24%

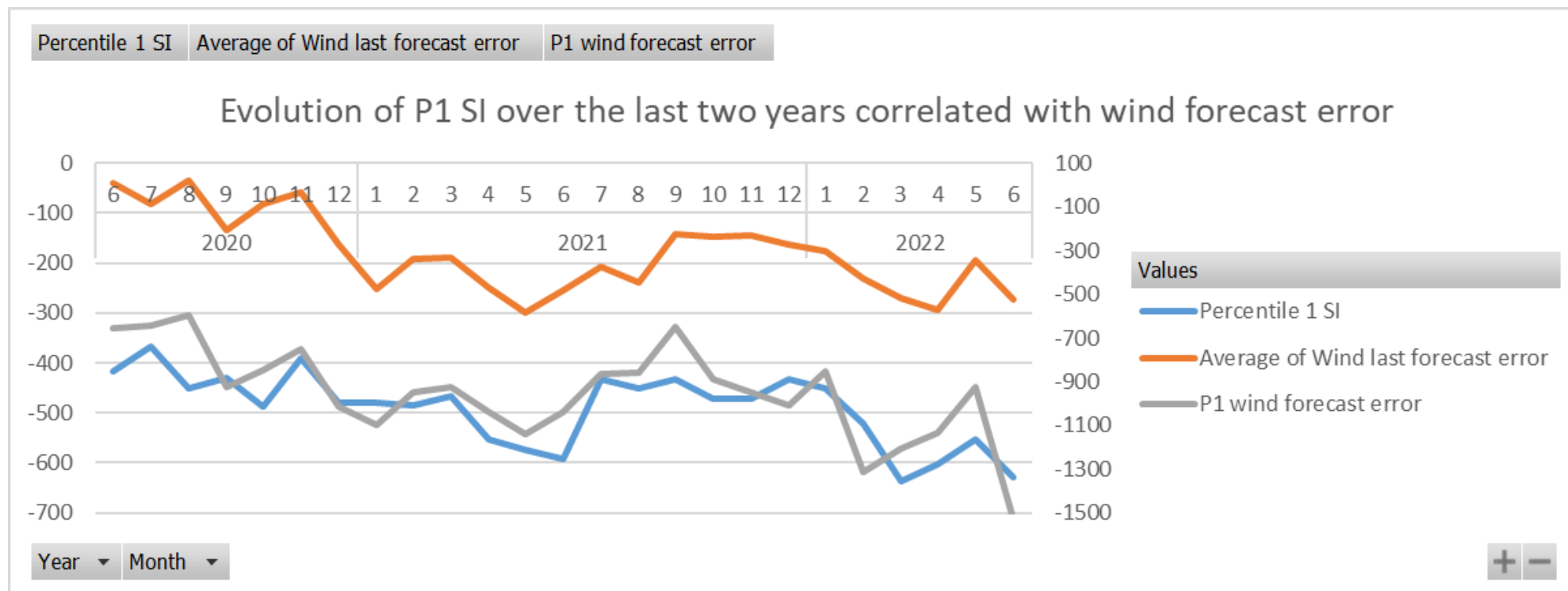
* Up to end May

The wind last forecast errors corresponding to the largest negative SI of 2022* are most of the time (very) negative



* Up to end May

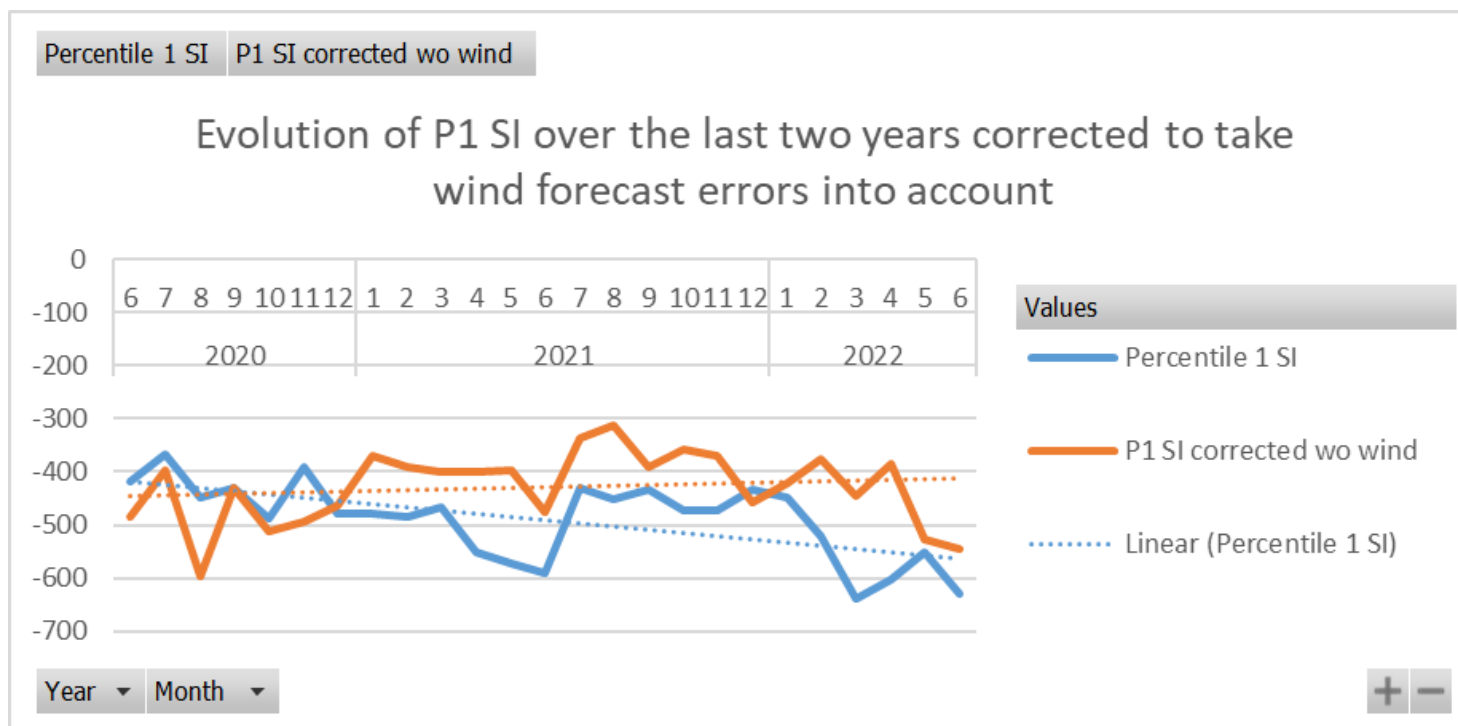
The evolutions of monthly extreme SI and monthly extreme wind forecast errors over time are strongly correlated (correlation >75%)



When more extreme wind forecast errors occur during one month, this tends to deteriorate the 1st percentile of the SI during the corresponding month.

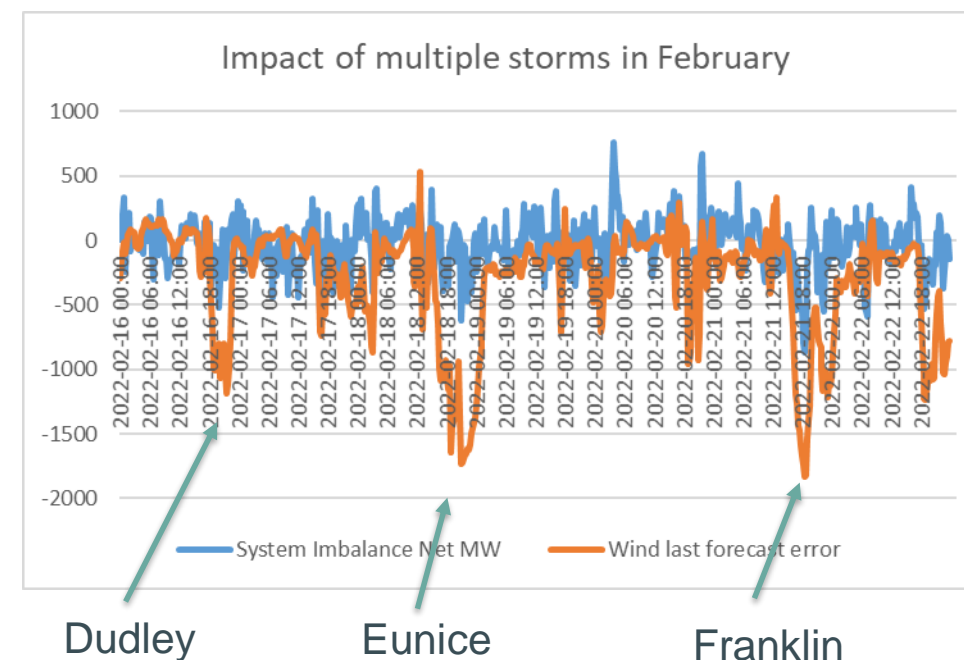
Wind forecast error seems to be an important factor of the observed decrease of the 1st percentile of SI

When the last wind forecast error (i.e. difference between wind production measured in RT and the last Elia wind forecast) is removed from the SI, the 1st percentile of SI remains quite stable (or even slightly increases) over the last years:



February 2022 – the largest negative SI are observed during the exceptional multiple storm episodes (during which large wind forecast errors were observed)

Après Dudley et Eunice, voici Franklin, la nouvelle tempête

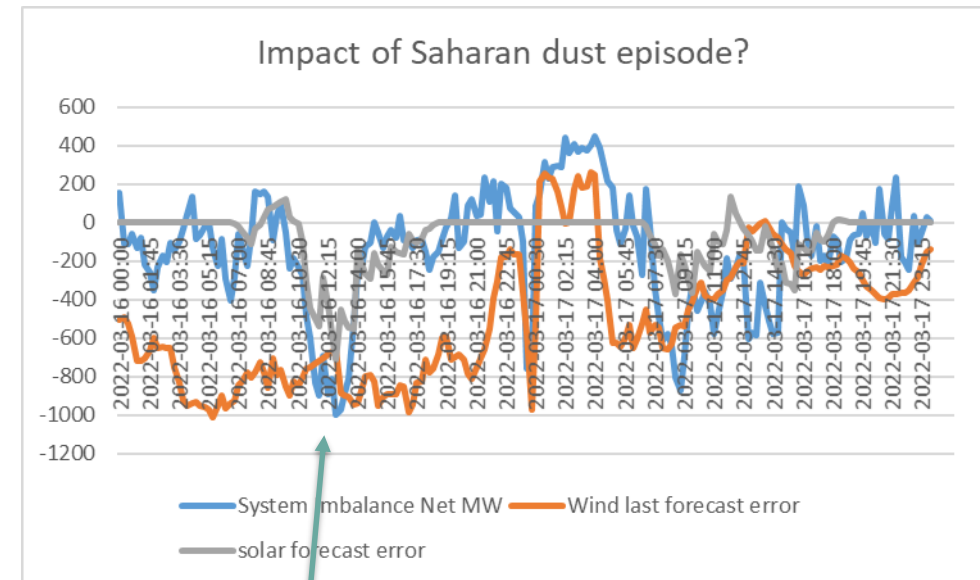


On retiendra de ce mois de février 2022 un mois très doux et particulièrement perturbé et venteux dans sa seconde partie. Particulièrement le 18 février avec le [passage de la tempête Eunice](#), puis le 20 février avec la tempête Franklin. Lors de ces épisodes, le vent à la Côte a atteint 133 km/h à Ostende le 18 et 130 km/h le 20, vitesses plus atteintes par une rafale de vent depuis 2002 en Belgique.

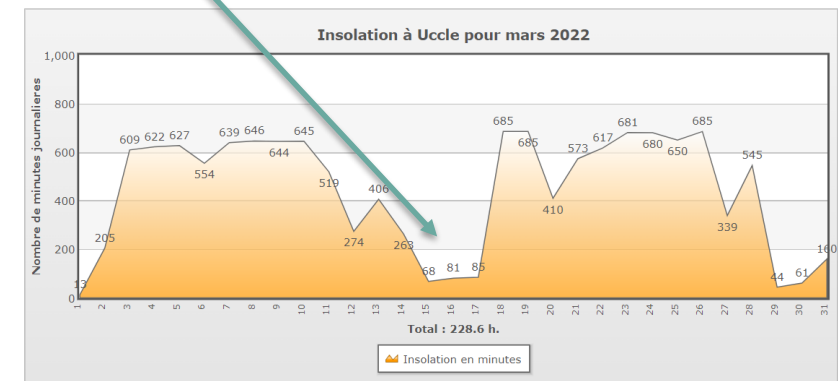
March 2022 – the largest negative SI are observed during the historic Saharan dust episode (during which large solar forecast errors are observed)



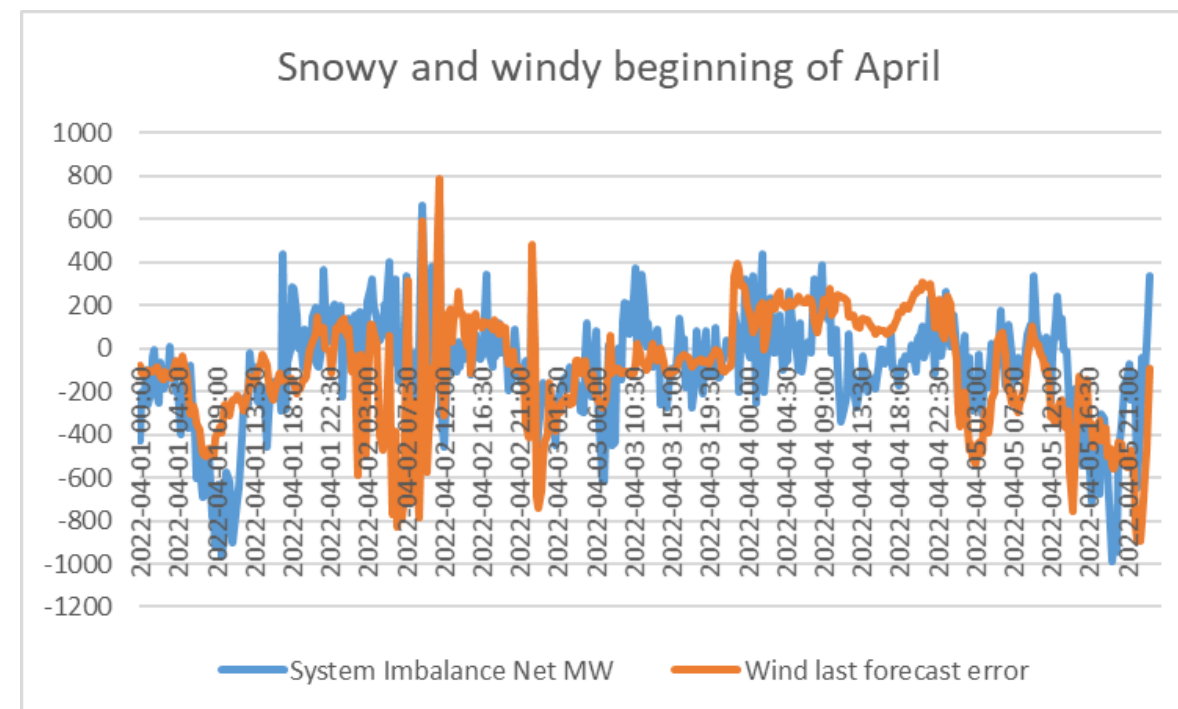
On retiendra aussi, en milieu de mois, le passage sur nos régions de masses d'air chargées de sable saharien, qui en plus d'opacifier le ciel, se déposera sur les voitures et les vitres.



Saharan dust episode



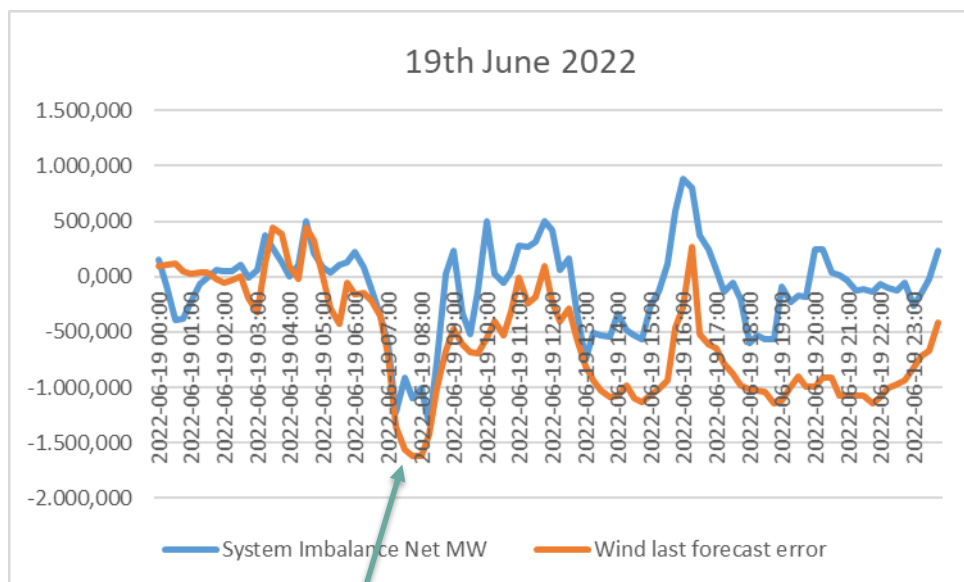
April 2022 – exceptionally cold and snowy beginning of the month with irregular wind



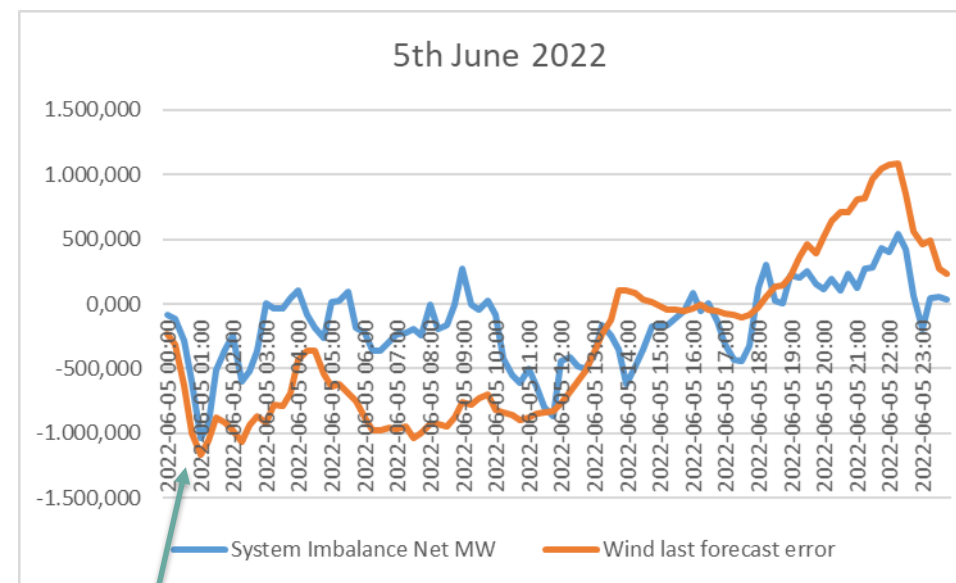
On retiendra de ce mois d'avril 2022 un début de mois aux relents hivernaux avec de la neige le 1er avril jusqu'en plaine.

More generally, the most negative SI are most of the time related to high RES forecast errors

Example of correlation between very negative SI and **wind** forecast errors :



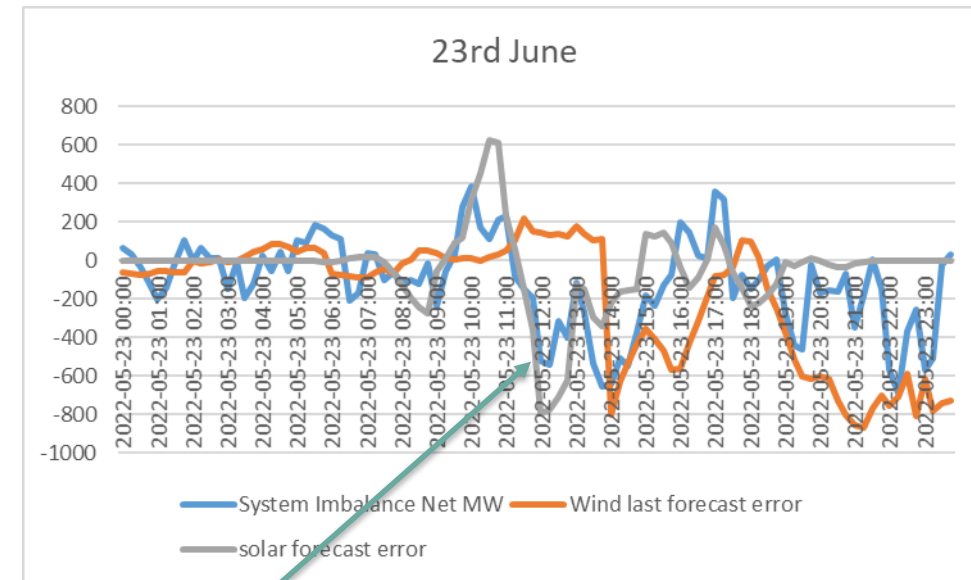
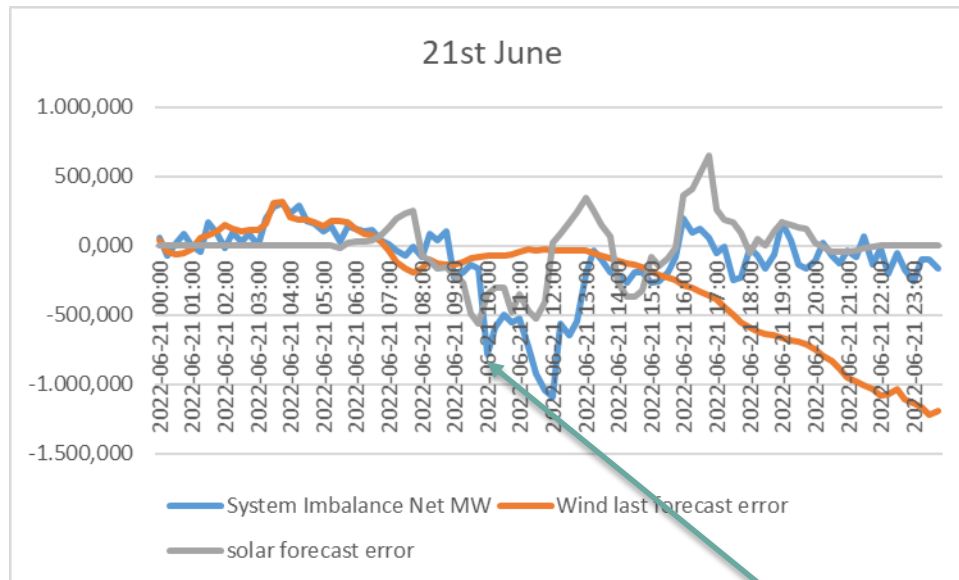
Extreme wind forecast errors (<-1500MW) creates extreme SI (<-1000MW)



Sudden degradation of wind forecast leads to very similar degradation of SI

More generally, the most negative SI are most of the time related to high RES forecast errors

Example of correlation between very negative SI and **solar** forecast errors :

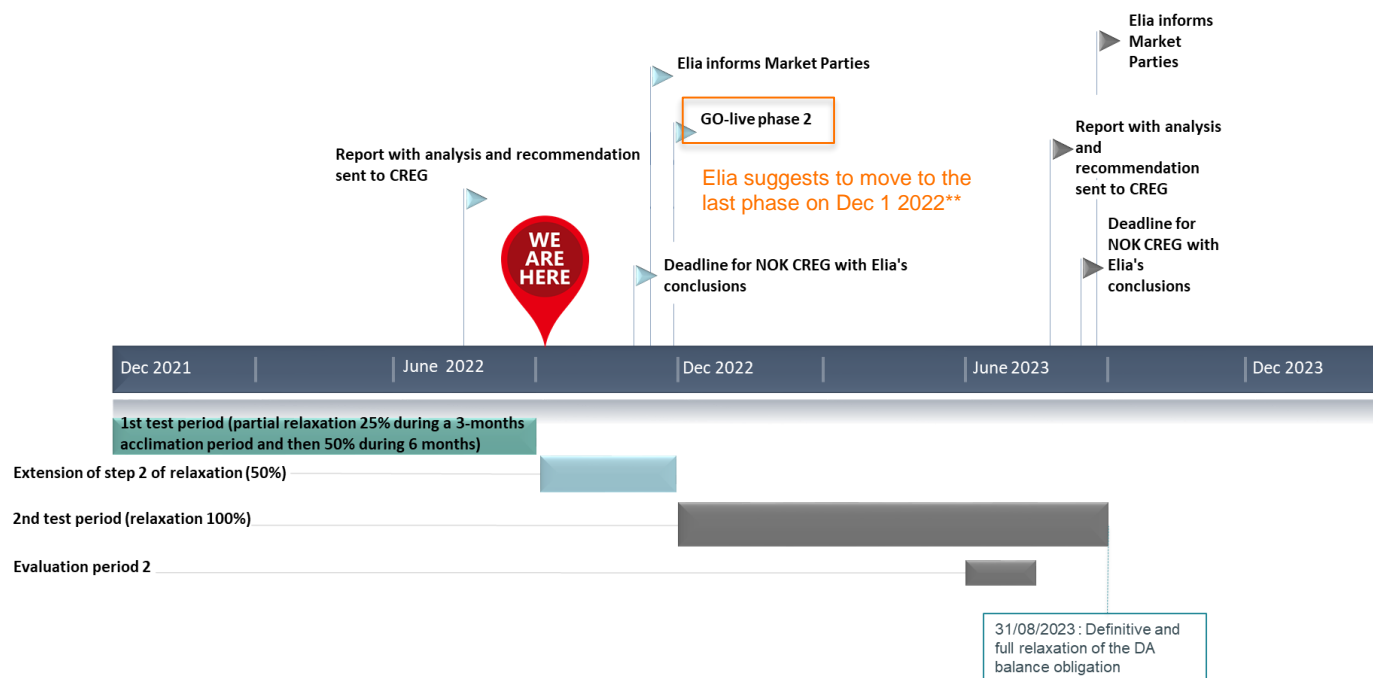


SI degradation follows large degradation of solar forecast error

Conclusion & next steps

At this stage, **no link** is identified between the **decrease of the 1st percentile of the System Imbalance** and the possibility for the BRPs to have **DA imbalances**. Elia therefore **recommends to move to the next and last phase of the relaxation** of the DA balance obligation.

Proposed timeline towards a further relaxation :



Why not moving to the next phase earlier?

Because it seems better to avoid two GO-lives potentially impacting the performance of the BE balancing system during the same period → priority is given to Picasso GO-live

Why not moving to the next phase later?

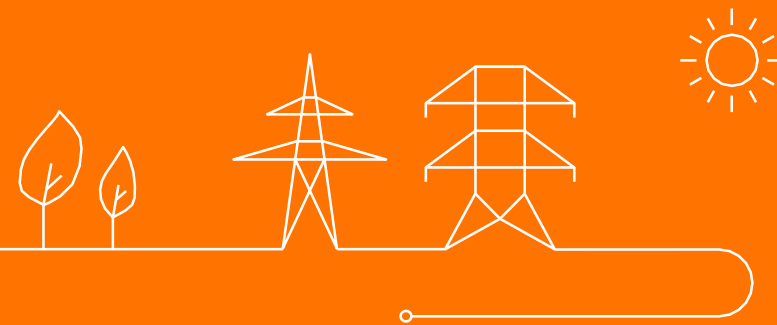
Because in order to be as representative as possible, we would like the 2nd test period to include winter months*

* Note that the T&Cs BRP foresee the possibility to reduce the max DA imbalance allowed at any moment if significant negative effects on grid reliability, security or efficiency are detected, so the move to the next phase before the winter is not a threat for the winter to come

** This GO-live date might be adjusted according to the planning of other GO-lives

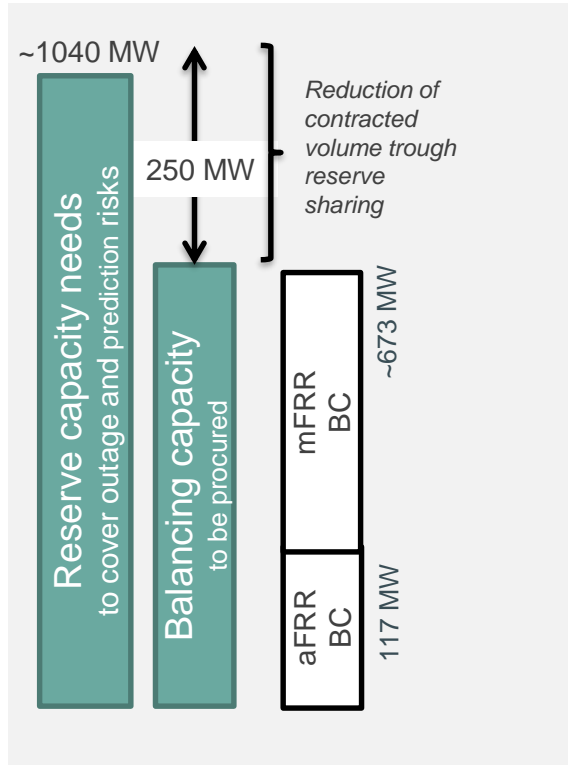
Follow-up of winter plan

Presented by Kristof De Vos



Availability of balancing reserves during Winter 2022/23

FRR up dimensioning today*



*Reserves for managing situations of an excess of energy in the system are not considered in the proposed measures

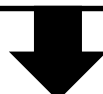
- Elia dimensions its FRR reserves needs in line with European legislation (Art. 157 of the system operation guidelines). **Part of these upward* reserves are not contracted today, as Elia can usually rely on the reserves of neighboring TSOs through reserve sharing agreements:**
 - As these reserves are made available by the foreign TSOs on a voluntary basis and subject to local activation requirements, it can be expected that these neighboring reserves would not be available to Elia in case of tight market conditions in Western Europe.
 - The contribution of these reserve sharing agreement in the dimensioning is determined via a statistical method, taking into account the availability of transmission capacity, while assuming full availability of the energy.
- To mitigate this risk and ensure that our reserves needs remain covered in exceptional circumstances, Elia could temporary increase balancing capacity requirements through a **reduction of the reserve sharing contribution (250 MW), and procure all its reserves locally**

Problem : without the contribution of the reserve sharing agreements during tight market conditions in Western Europe , Elia cannot guarantee to have the balancing means available to cover its dimensioning incident

Elia proposes a temporary reduction of the current reserve sharing contribution during Winter 2022/23

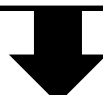
Solution 1. Cover full reserve capacity needs during expected unavailability of reserve sharing

- **Dynamically increase of the mFRR balancing capacity to be procured with 250 MW** (following the reduction of the sharing contribution to 0 MW). This is triggered only after indications of tight market situations in one or more of the neighboring countries with which Elia has a sharing agreement.



Solution 2. Ensure availability of sufficient market liquidity to cover additional balancing capacity requirements

- The indication of tight market situations shall **be complemented with a bidding obligation** for large coordinable units to offer mFRR during the first gate of the day-ahead balancing capacity tender.



Solution 3. Manage additional procurement costs

- Elia will continue to **encourage new technologies on low, medium and high voltage levels such as demand response, storage and emergency generators to participate in the mFRR balancing capacity auction.**

• The dynamic nature of the mechanism ensure to increase balancing capacity requirements only during periods at risk

• It should be noted that there is a risk of insufficient mFRR volumes if the market is not sufficiently prepared to the increase in volumes to be procured. In addition, Elia observes that high energy prices (i.e. the period when the unavailability of reserve sharing is most likely) negatively impact the participation of DR in mFRR (if industrial processes are shut down), which is difficult to anticipate and quantify

• The bidding obligations ensures that after the trigger to increase the mFRR balancing capacity with 250 MW, Belgium disposes of the necessary mFRR volumes (and henceforth avoid being sold to the day-ahead market) to ensure safe grid operations during tight market conditions.

• It should be noted that offered balancing capacity prices during these moments are expected to be high resulting in elevated procurement costs

• The participation of additional capacity in the balancing capacity auctions, including during periods in which the increase of mFRR balancing capacity with 250 MW is triggered, will reduce the additional costs following the procurement of additional mFRR balancing capacity

Implementation of the recommended solutions

1

The increase of balancing capacity requirements will be triggered via CGS (Critical Grid Situation) process as a trigger for reducing the contribution of sharing and increasing the balancing capacity to be procured* :

- Based on regional adequacy assessment processes conducted by the regional coordination centers
- Includes an assessment of remedial actions
- Insufficient remedial actions will result in a communication on a CGS to TSOs
- The communication specifies which country is impacted by potential shortages

Elia will propose an amendment of the LFC Means, subject to public consultation and CREG approval.

2

The trigger to increase of balancing capacity requirements will be complemented with a bidding obligation for coordinable units larger than 25 MW :

- Limited to units larger than 25 MW (possible to monitor availability)
- Limited to coordinable units (excluding units with technical limits : CHPs, Wind,...)
- Applicable for pre-qualified volumes on mFRR
- Only for the first balancing capacity tender gate (gate 1)
- Only applicable after a trigger to increase the balancing capacity requirements

Elia proposes implementation of the bidding obligation via legal basis (e.g. Article 32 of the Electricity Law)

3

Elia will continue to encourage new technologies such as demand response, storage and emergency generators to participate in the balancing capacity auctions

- Focus on units falling outside the scope of the proposed bidding obligation
- Make ToE framework evolve to a local correction of the metering (EoEB)

Elia already opened balancing capacity products for all technologies on all voltage levels and will continue to encourage BSPs to bid their capacity in the mFRR balancing capacity auctions

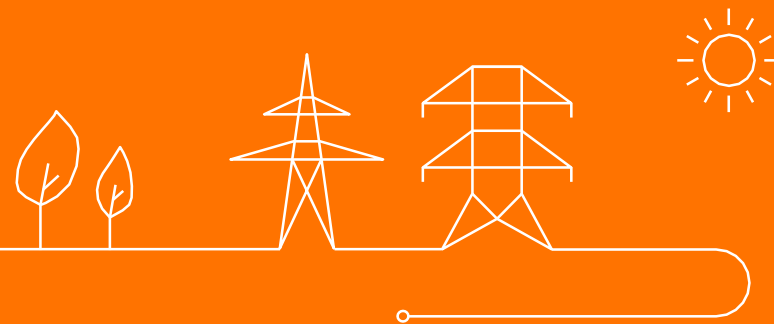
Next steps

In order to approve and implement the proposal on November 1, 2022, Elia proposes to :

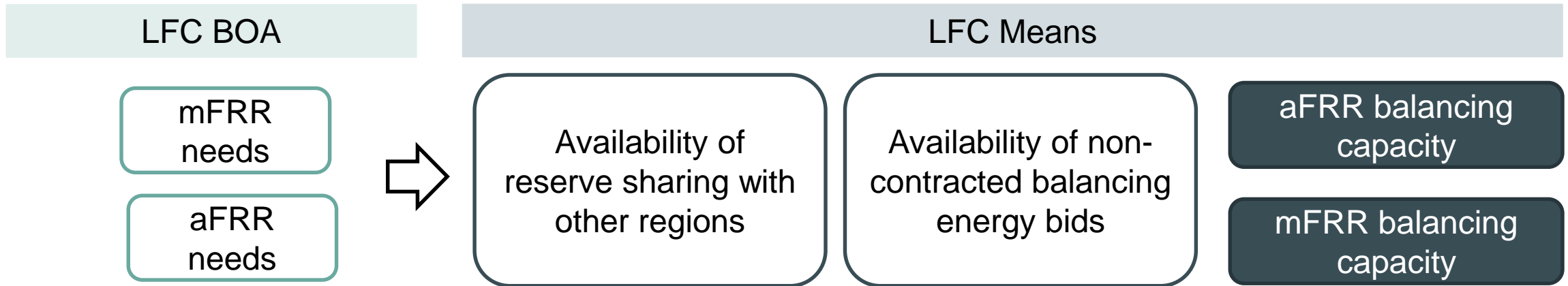
- Launch the public consultation of the LFC Means on September 20, 2022 until October 11 (three weeks)
- Submit proposal to CREG on October 18, 2022
- Elia will discuss with CREG and Government on the implementation of the bidding obligation

Launch of consultation on the study on dynamic procurement strategies

Presented by Kristof De Vos



Context : general reserve dimensioning framework



- 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 dynamically, i.e. on a daily basis based on expected system conditions
 - Elia presented in 2020 an implementation plan for a dynamic dimensioning of aFRR needs, still under discussion with CREG
- 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)

Conclusion on Elia's study on the daily prediction of non-contracted balancing energy bids (2021)



2021 : predictability

2022 : value generation

2023-24 : robustness

Scope

Investigate if available non-contracted FRR means can be predicted before the capacity tender (in view of balancing capacity reductions)

Investigate the procurement aspects of replacing (part of) the upward mFRR balancing capacity with non-contracted balancing energy bids

Confirm the robustness after implementation of EU balancing platforms, explicit bidding, shorter full activation time for mFRR)

Re-calibrate machine learning for implementation

(Expected) results

1. The available data and current state of the aFRR market does not allow to confirm the potential at this moment
2. Results confirm that available downward continue to almost always cover the FRR needs
3. Results demonstrate availability upward equals 500 MW on average (including up to 312 MW of reserve sharing).

Disclaimer - results were subject to uncertainty following expected market evolutions : explicit bidding, full activation time reductions for mFRR and EU balancing energy platforms !



- Potential procurement solutions for accounting non-contracted in the allocation of balancing means
- Identify risks and potential risk mitigation for market stability
- Update (where possible) the results and conclusions based on additional data).

Update – Considering the implementation planning of the EU balancing platforms, updates will be limited to the explicit bids on aFRR (as from October 2020)

- Confirm the potential value of accounting non-contracted balancing energy bids
- Propose a planning for implementation.

Update - This study needs to be postponed to at least 2025, following availability of sufficient representative data based on explicit bidding (foreseen in second semester or 2023).

Planning of the study

-  Working group balancing
-  Milestone or deliverable



Kick off

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

Workshops

- Workshop 1 to discuss possible solutions for a dynamic procurement and market impact
- Workshop 2 for in depth discussion of feedback of the market parties

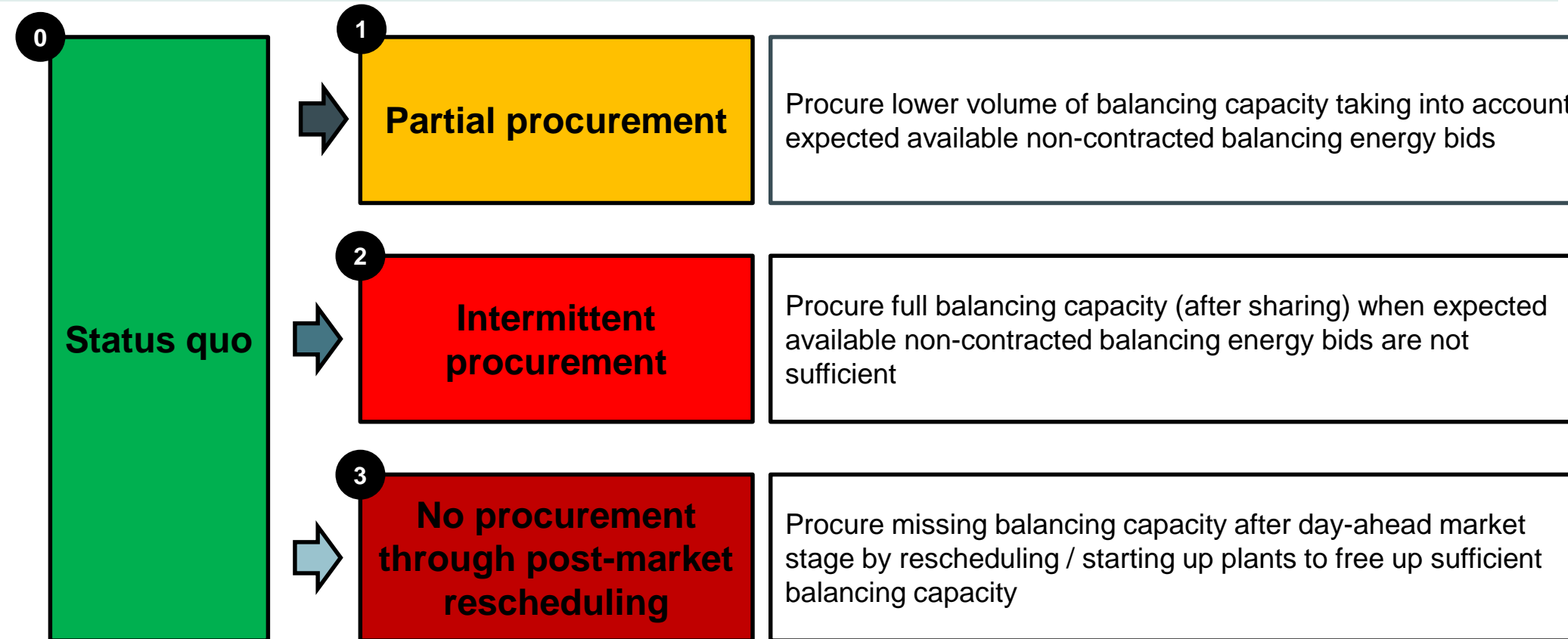
Preliminary report and public consultation

- Analysis of the consequences for the procurement strategy and recommendations
- Analysis of the evolution of local and cross-border volumes (to the extent possible)

Final report

- Update of the study
- Update of the implementation roadmap (if needed)
- Consultation report

Conclusions (1) : FTI identified and investigated three main procurement strategies



- As long that there is insufficient flexibility to cover the reserve capacity needs on a regular basis, a 'no procurement' option would result in unacceptable operational risks
 - By recognizing the technical possibility of partial procurement in this study, an intermittent procurement brings no advantages anymore over a partial procurement strategy
- Main question to be tackled is if a partial procurement is a feasible procurement strategy ...

Elia's reminds that its ambition is to limit procurement as much as possible following the integration of sufficient decentral flexibility in the system through a CCMD)

Results (2) Main issues on legal compliance, operational risk and market stability

Legal compliancy

- Article 32(2) of the EBGL allows Elia to optimize balancing capacity procurement while accounting non-contracted balancing energy bids ...
- As long as maintaining compliancy with Article 157(4) requiring the TSOs to cover reserve capacity needs to be ensured

Market stability

- Variability and unpredictability of balancing capacity requirements will discourage investment and participation of units (capacity shortages increases operational risk and economic efficiency)
- Reduced liquidity in the balancing capacity market (on long term) and the balancing energy market (on short term) may increase the risk for market power

Operational risk

- Dispatch risks
 - Non-contracted balancing energy bids expected to be available can be withdrawn in absence of balancing capacity procurement (observed availability is a result of the procurement of part of the capacity on the reserve providing unit)
 - Risks can be managed my means of excluding these volumes from the observations on which the Machine Learning is trained
- Forecast risk
 - Balancing shortages following low forecast accuracy (beneath 100%)
 - Forecast accuracy disruptions following sudden market evolutions
 - Risks can be managed by means of
 - setting higher reliability margins (reducing potential volumes)
 - availability exceptional balancing measure (not guaranteed)

Partial procurement : economic efficiency and grid user cost

Economic efficiency

- Reduction of wholesale energy prices should not be overestimated (limited BE volumes in a large EU market, while talking typically about units with limited running hours)
- Reduction of the mFRR balancing capacity procurement cost should not be overestimated
 - Lower balancing capacity prices when facing high flexibility
 - Lower expected revenues attract lower investments
- Prediction issues will result in re-dispatch costs resulting in economic inefficiencies (as part of the initially available capacity becomes unavailable)
- Risk of increasing balancing energy prices due to lower volumes available due to reduced volumes (and risk of market power)
- Part of the cost reductions will be transferred to the capacity remuneration mechanism following increased missing money of units bidding in the CRM

Grid user cost

- A partial procurement strategy would impact the cost allocation of security to grid users



- A quantitative approach would require complex simulation techniques

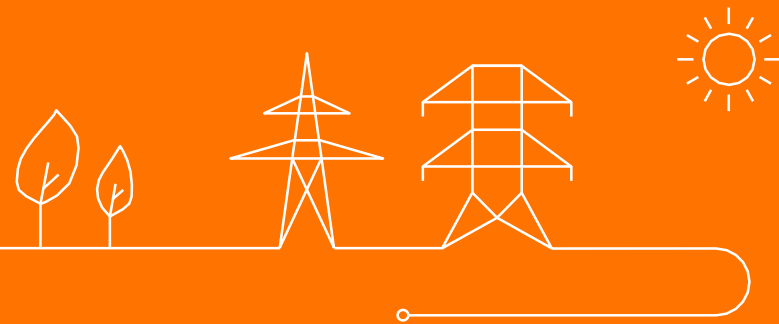
Recommendations

- **Elia's ambition remains to limit procurement to the extent possible as soon as there is sufficient flexibility in the system following the integration of sufficient decentral flexibility in the system (need for CCMD)**
- **Until that time, it is confirmed that a partial procurement strategies can be considered to reduce balancing capacity requirements although such strategy requires a good management of operational and market stability risks. Elia proposes to :**
 - Confirm and continue implementation roadmap as foreseen to capture impact of system evolution on volumes in 2025 when disposing of sufficient reliable data based on explicit bidding (after the implementation of MARI in 2023)
 - Sufficient reliability and volumes could justify to implement a partial procurement strategy (as from 2027, the soonest)
- **Meanwhile, Elia continues to focus on :**
 - Facilitating market access for all technologies
 - Managing expected system imbalance increase
 - Maintaining contribution of cross-border flexibility (following implementation MARI)

Launch of the consultation

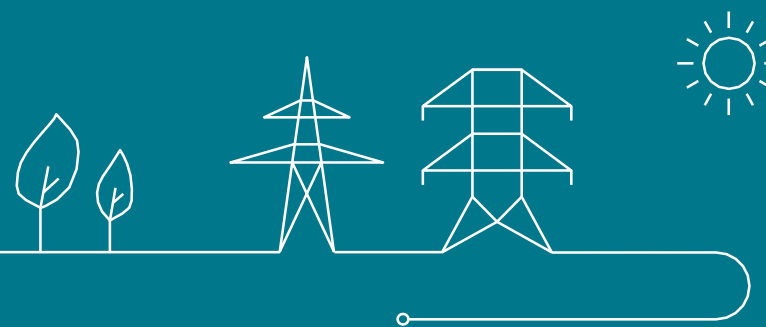
- **Elia will launch the consultation of the study today, on October 15, 2022. The stakeholders are invited to send their questions or remarks until October 13, 2022.**
- **The scope of the consultation document concerns Elia's report including :**
 - **The context of the study**
 - **A summary of the analyses of the analyzed procurement strategies**
 - **Elia's conclusions and recommendation**
- **The consultation document will be complemented with the full report of Compass Lexecon in Annex, including the detailed analyses of the procurement strategies, as well as the results of the stakeholder's workshop.**
 - **The report of Compass Lexecon is published for information and not subject of the public consultation**

AOB



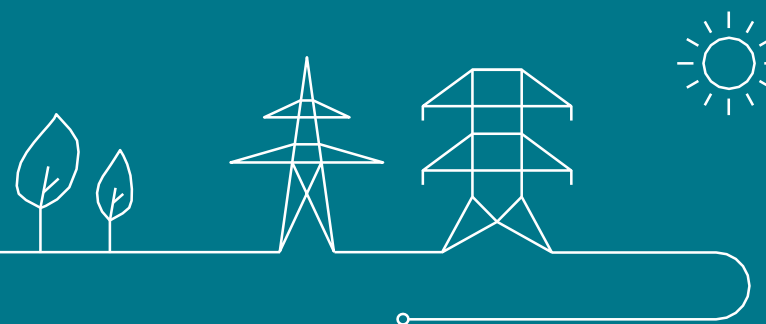
AOB – Simplify launch of System Imbalance forecast

Presented by Kris Poncelet

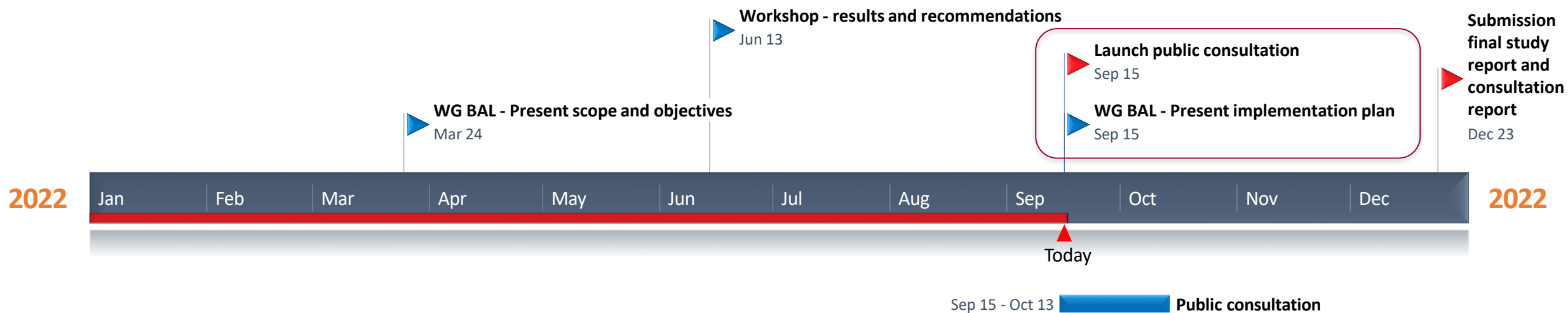


AOB – Study on evolution of BRP Nominations – implementation plan and launch of public consultation

Presented by Kris Poncelet



Study on the evolution of the BRP Nominations - timeline

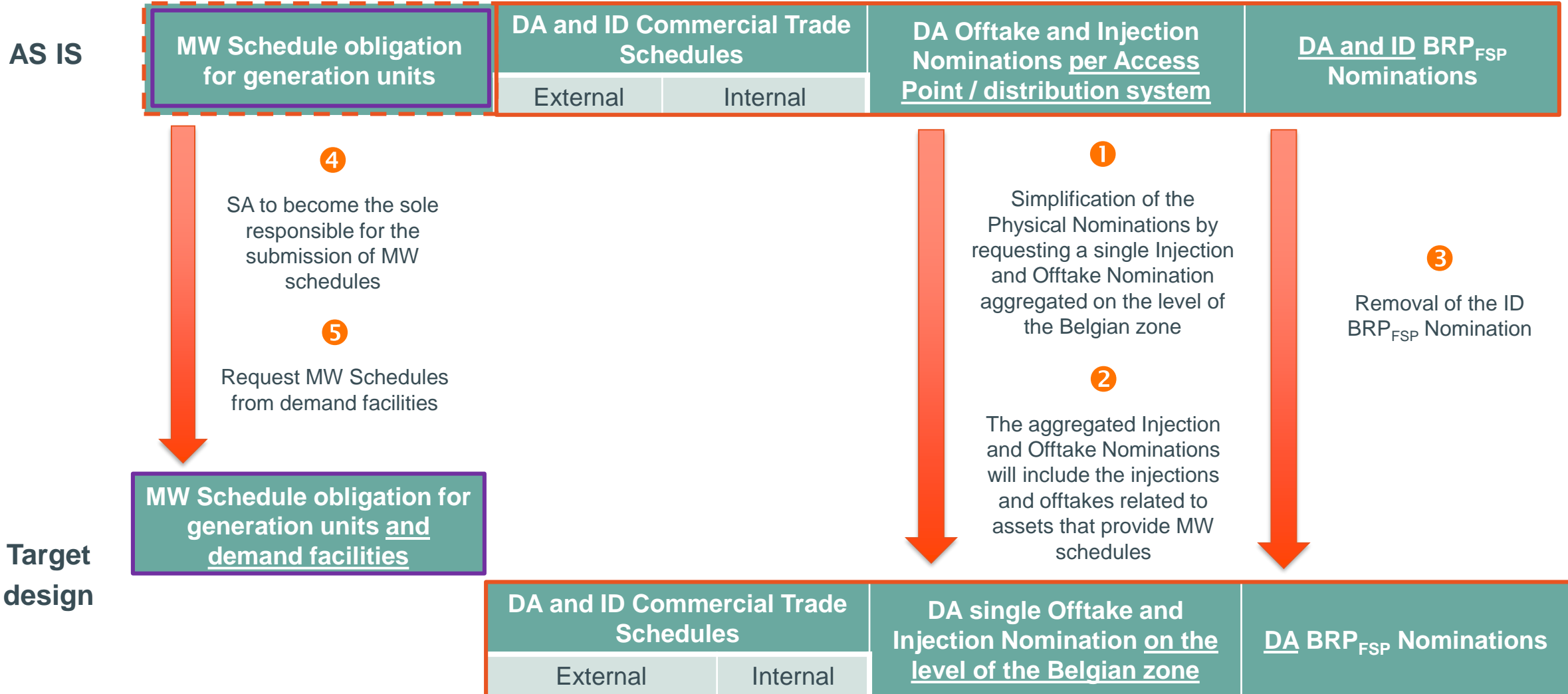


Recall- recommended target design BRP Nominations

Presented in workshop 13/6

SA MW Schedules

BRP Nominations



Implementation plan

The **proposed target design for the BRP Nominations cannot be immediately implemented** as two boundary conditions need to be met first:

1. Positive final evaluation relaxation DA balance obligation ⇒ planned Q3/Q4 2023
2. For demand facilities: MW Schedules via the SA instead of BRP Nominations er Access Point ⇒ part of iCAROS phase 2



To enable a split between the roles of SA and BRP, adaptations to the BRP nomination process are needed:

- The references to the MW Schedules should be removed from the BRP Contract (SA is the role responsible for the MW Schedules)
- Calculation day-ahead imbalance of BRP dependent on MW Schedules or not?



After discussions with the CREG, Elia investigated the possibilities for adapting the nomination process to enable SA ≠ BRP before the proposed target design for the BRP Nominations can be implemented.



Elia proposes an implementation of the target design for the BRP Nominations in two steps:

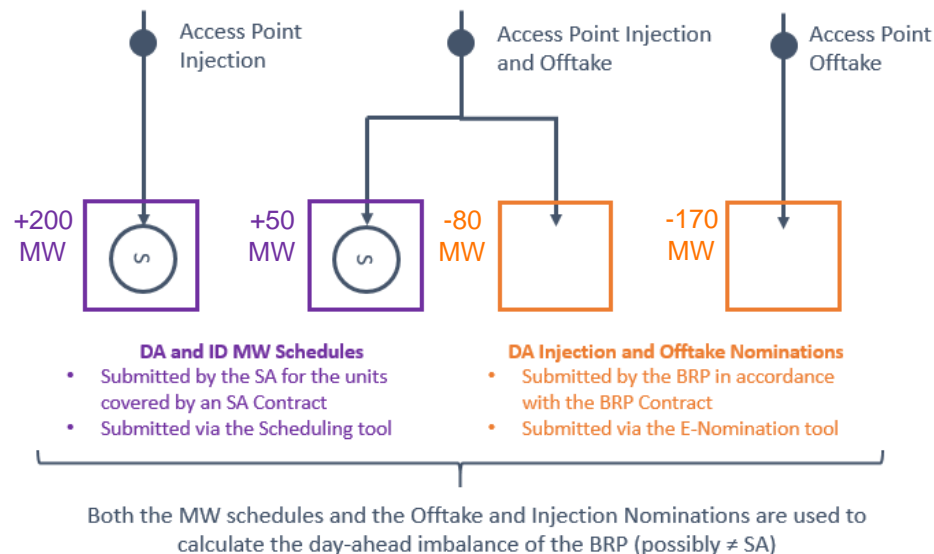
- **Step 1:** Necessary amendments nomination process to enable a split between the roles of SA and BRP* (with next revision of the T&C BRP)
- **Step 2:** Implementation full target design BRP Nominations (with aggregated Offtake/Injection Nominations) (together with iCAROS phase 2)

Two options for adapting the nomination process in Step 1

Proposed option for Step 1

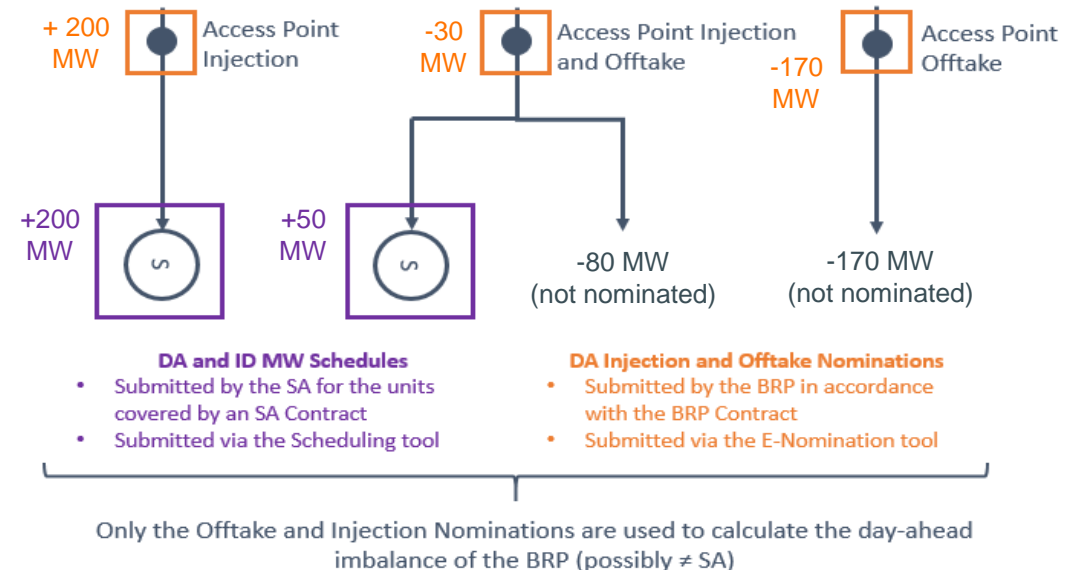
Option 1: Offtake and Injection (non-CIPU) Nominations are unchanged

- + No transitory implementation efforts for BRPs and Elia
- Calculation of the **day-ahead imbalance is dependent on the MW Schedules** submitted by the SA



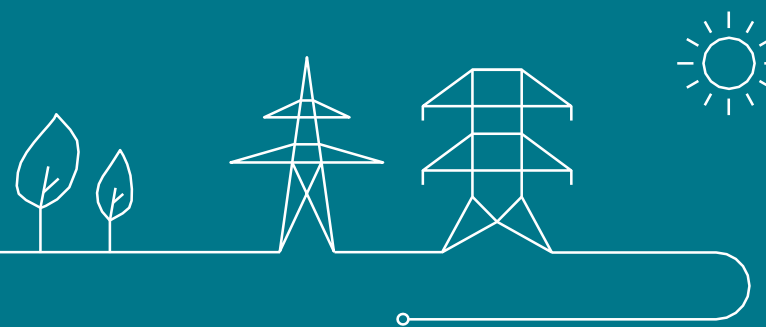
Option 2: From gross to net Offtake and Injection Nominations

- + Requires transitory implementation efforts for both BRPs and Elia (that would only serve until Step 2 of the implementation plan)
- + Creates additional workload due to // information flows BRP/SA
- Calculation of the **day-ahead imbalance is independent of the MW Schedules** submitted by the SA



AOB – Implementation of CRI Computation

Presented by Cécile Pellegrin



Implementation of CRI computation

- The new CRI computation has been validated by a parallel run from 27/11 to 28/02 as communicated during WG Balancing of 5 May 2022
- **The new CRI computation will be used on daily basis as from delivery date Tuesday 27/09/2022 to define the current Red Zones.**

Determination of indicator

AS IS situation

- Once in D-1, ad-hoc in ID

Post CRI computation go-live from delivery date Tuesday 27/09/2022

- Level determined at 10pm in D-1 & updated 3 times in ID
- Based on a structural methodology and quantitative yearly process

Post mFRR & iCAROS go-live – end Q3 2023

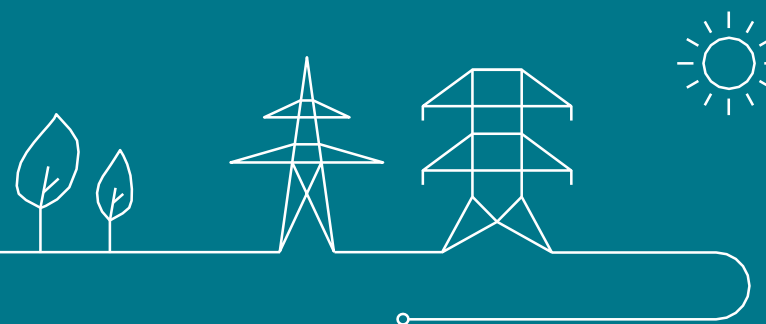
Impact of the indicator

- Use to:
- Prevent change of schedules
 - Set a limit on bids activation (BFU strong filter – mFRR/aFRR operator decisions – Risk Manangement)

- Use to:
- Set a limit on aFRR/mFRR bids & Limit impl. balancing activations
 - Freedom of dispatch: No impact on schedules

AOB – EMS requirements

Presented by Philippe Magnant



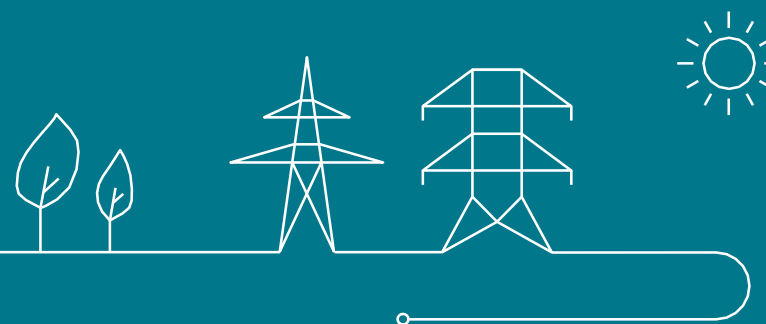
EMS requirements

- Elia has received written feedback on the draft EMS (Energy Management Strategy) requirements
- A clarification will be added to the document: sufficient liquidity of the ID market is assumed for 1h-blocks. The EMS of the BSP should therefore only consider the guaranteed availability of 1h-blocks
- BSPs can send their EMS to Elia for review on this basis
- Other questions, requests for clarification and possibilities for further evolutions will be discussed bilaterally with the market parties and communicated to the market in case it has an impact on the EMS requirements

Reminder: documents are available on Elia's website via [this link](#)

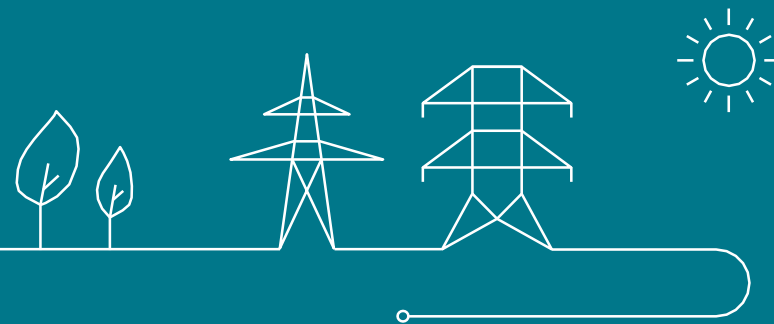
AOB – incentive on aFRR activation method

Presented by Philippe Magnant



AOB – Next WG Balancing

Presented by Didier Chim



Next WG Balancing

- Exceptional WG Balancing 28/09/2022 13:00 – 15:00
- WG Balancing 27/10/2022 9:00 – 13:00
- WG Balancing 09/12/2022 9:00 – 13:00



Overview of WGs and related workshops



January							February							March						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
					1	2		1	2	3	4	5	6		1	2	3	4	5	6
3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28							28	29	30	31			
31																				

April							May							June						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
				1	2	3						1			1	2	3	4	5	
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11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30			
							30	31												

July							August							September						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
				1	2	3	1	2	3	4	5	6	7				1	2	3	4
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11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18
18	19	20	21	22	23	24	22	23	24	25	26	27	28	19	20	21	22	23	24	25
25	26	27	28	29	30	31	29	30	31					26	27	28	29	30		

October							November							December						
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10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	
31																				

	WG Balancing	WG CCMD	WG SO EMD	Usersgroup	WG Belgian Grid	WG Adequacy
Sep	15/09/2022 28/09/2022	15/09/2022				
Oct	27/10/2022	28/10/2022	14/10/2022	04/10/2022		13/10/2022 28/10/2022
Nov					23/11/2022	17/11/2022
Dec	09/12/2022	09/12/2022		06/12/2022		16/12/2022

Workshops

- ✓ MOG II
 - ✓ Analysis and implementation of FCR evolutions conform art. 154(2) of SI
 - ✓ study on the procurement strategies for a dynamic calculation of FRR m
 - ✓ study on the procurement strategies for a dynamic calculation of FRR m
 - ✓ Evolutions of BRP nominations
 - ✓ Optimisation of input data for congestion management purposes
 - ✓ aFRR 5 min FAT - impact analysis and recommendations
 - ! Possibilities for combo (simultaneous activation) of DPs for FCR/aFRR
- Flexibility workshop
Workshop on the optimisation of the forecast and compensation of grid

- 01/04/2022
- 20/04/2022
- 21/04/2022
- 10/05/2022
- 20/05/2022
- 30/05/2022
- 22/06/2022
- 22/09/2022
- 29/09/2022
- 17/11/2022

=> website will be updated