



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.



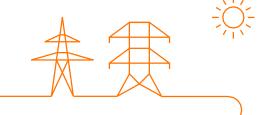
Agenda



- 1. 9:00 9:10 Introduction and Validation of minutes of 08/05/2020
- 2. 9:10 9:20 iCAROS: State of play and next steps
- 3. 9:20 9:30 Change of minimum mFRR Standard Volumes to be contract as of July 1st
- 4. 9:30 10:00 Analysis on the dynamic FRR needs and the available FRR means over the period February 1st, 2019 until January 31st, 2020

Coffee Break (15 min)

- 1. 10:15 10:25 Feedback on Public Consultation on the Balancing Rules
- 2. 10:25 10:35 FCR/aFRR Go-Live
- 3. AOB
 - EU stakeholder workshop MARI/PICASSO 13th July
 - Smart Testing: State of Play
 - MOG II System Integration: Public Consultation
 - Implementation of ToE in DA/ID: next steps





Minutes of Meeting of 8th May 2020

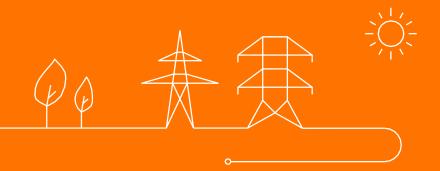
- Minor comments
 - There is a typo in the name of Mr Waignier
 - Mistake in the company of Mr Laleman
- The MoM are approved with the minor amendments and will shortly be available on the Elia website.





iCAROS: State of play and next steps

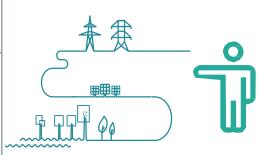
Presented by Viviane Illegems



iCAROS = Integrated Coordination of Assets for Redispatching and Operational Security

Business Scope

Exchange of operational data [from LT to realtime]



1 Outage Planning



DA & ID scheduling





Congestion management



iCAROS phased implementation

→ Phasing reflects operational prioritization and is cocreated with SGUs & DSOs

→ no big bang but safeguarding operational robustness

2020 2021 2022 2023

Today
iCAROS taskforce Start-up Phase 1

phase 1

phase 2

phase 3

Phase 1
Congestion management
ID scheduling
CRI
TSO/SGUs*
COCREATION

Phase 2

Outage planning (TSO/DSOs)

DA scheduling

Congestion management

TSO/SGUs*/DSOs COCREATION

Phase 3

Scheduling (TSO/DSOs)

Congestion management (TSO/DSOs)

TSO/SGUs*/DSOs
COCREATION









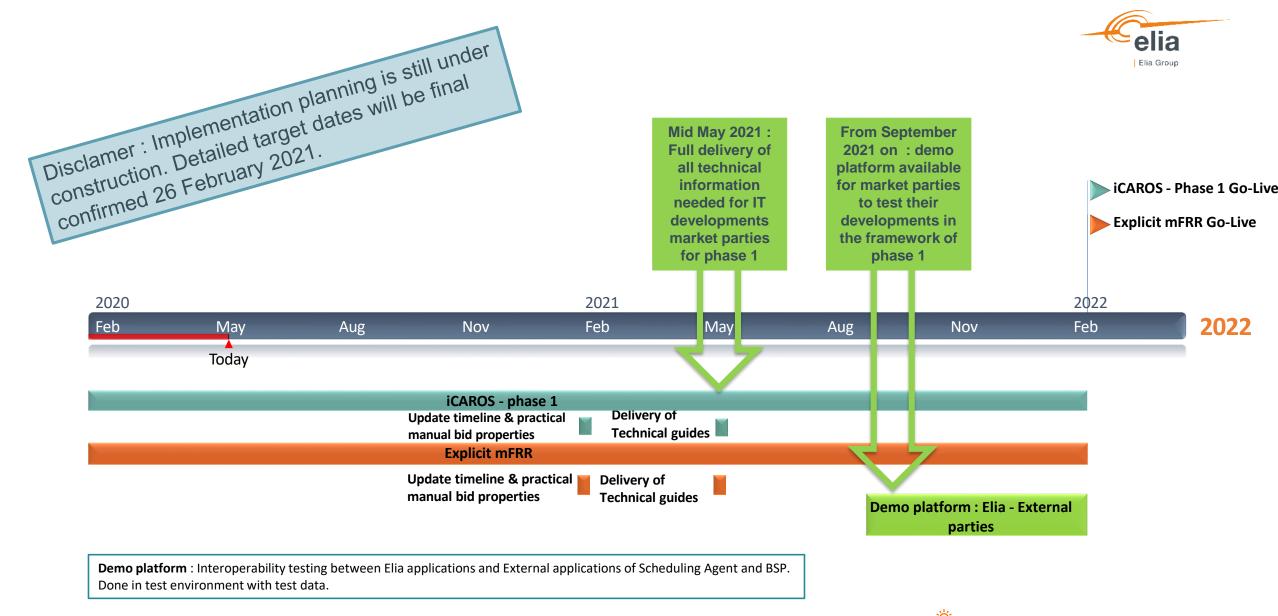




Fine-tuning workshop iCAROS: 16 June 2020 – Follow-up Phase 1



- ❖ Agenda:
 - 1. Design fine tuning: focus on phase 1 of the implementation trajectory
 - a. Part I Scheduling : Schedule control
 - b. Part II Redispatching : Congestion activation
 - a. Definitions
 - b. BRP perimeter correction in case of congestion activation
 - c. Congestion activation remuneration:
 - d. Control of cost-reflective prices
 - e. Activation annulments
 - f. Congestion activation control
 - 2. Initial high-level proposal for implementation & testing timeline for Go-Live Phase 1 iCAROS





Next steps



- 16/06/'20 : Fine-tuning workshop iCAROS Initial presentation of timeline to MP's request for feedback
- <u>Summer period 2020</u>: Review of comments made during Fine-Tuning workshop iCAROS on planning and testing => updated implementation & testing timeline
- <u>07/10/'20</u>: Fine-tuning workshop iCAROS Second presentation of timeline to MP's request for feedback
- 26/02/'21: Presentation of timeline to MP's & manual 'bidding properties'
- Full delivery of Technical guides <u>Mid May 2021</u>
- <u>September 2021 February 2022</u> [~5 months before Go-Live] period in which demo environment will be available for MP and test sessions will be organized

Disclaimer: Implementation

construction. Detailed target

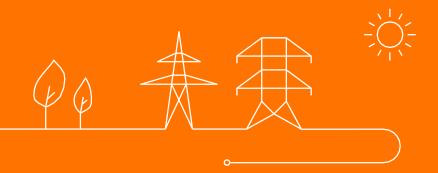
February 2021.





Change of minimum mFRR Standard Volumes to be contracted as of July 1st, 2020

Presented by Kristof De Vos





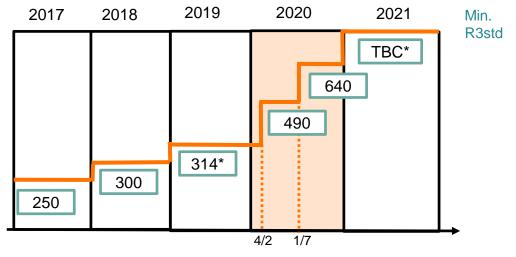
Change of minimum mFRR Standard Volumes to be contracted as of July 1st, 2020

Article 6 of the LFC Means (*link*)

"4. Elia will cover the required positive reserve capacity for mFRR with a capacity of mFRR Standard determined by the minimum of a threshold determined at 490 MW and the required mFRR balancing capacity. The remaining required positive reserve capacity, if positive, is procured by means of the products mFRR Standard and mFRR Flex.

5. [...]

6. The minimum capacity specified in paragraph 4 will be increased to 640 MW as from July 1, 2020."



*TBC - To Be Confirmed

A clear and gradual phase-out calendar is desirable in order to take into account the risks stated by some stakeholders during the consultation of the LFC Means.

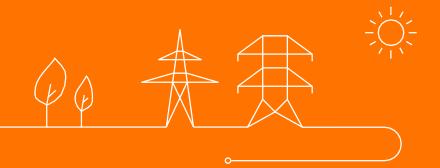
As foreseen, Elia will conduct an analysis on market liquidity in Q1 2021 before proposing the full product phase out (by means of a modification of the LFC Means)

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Analysis on the dynamic FRR needs and the available FRR means over the period February 1st, 2019 until January 31st, 2020

Presented by Kristof De Vos





RECAP - Dynamic dimensioning methodology

 FRR reserve capacity is determined based on a probabilistic methodology in line with Article 157(2)b of the SOGL covering 99.0% of the LFC block imbalance risks

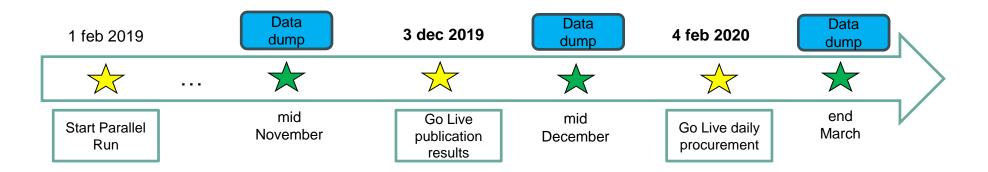
- It takes into account two deterministic thresholds :
 - Always larger than the dimensioning incident in line with Article 157(2)e and Article 157(2)f
 - Always covering 99.0% of historic LFC block imbalances in line with Article 157(2)h and Article 157(2)i



 The methodology is specified in the LFC block operational agreement and its explanatory note (<u>link</u>) The required positive and negative reserve capacity on FRR is calculated by Elia each day before 7 AM for every period of 4 hours of the next day



RECAP – Implementation of dynamic FRR dimensioning



- On February 1, 2019 Elia launched the parallel run of its up- and downward dynamic FRR dimensioning based on machine learning algorithms. At the same time, a simplified dynamic dimensioning methodology was implemented to assess the downward FRR needs
- Elia published several data dumps of the parallel run (PROB99, DET N-1, HIST99) for up- and downward FRR
 - In order to make a consistent database, the parallel run is re-simulated ex post to take into account new parameters proposed in the LFC BOA (e.g. outage probabilities), as well as including corrections and improvements during the parallel run (https://www.elia.be/en/electricity-market-and-system/system-services/keeping-the-balance)
- Elia started publishing day-to-day balancing capacity on the website of Elia as from December 3, 2019 (volumes to be contracted under a dynamic dimensioning approach): https://www.elia.be/en/grid-data/balancing/capacity-volumes-needs
- Elia implemented its daily procurement of mFRR balancing capacity based on the dynamic dimensioning on February 4, 2020
 - After, February 4, 2020, Elia continued to publish the results of the operational calculations on trimestral basis.



Available information

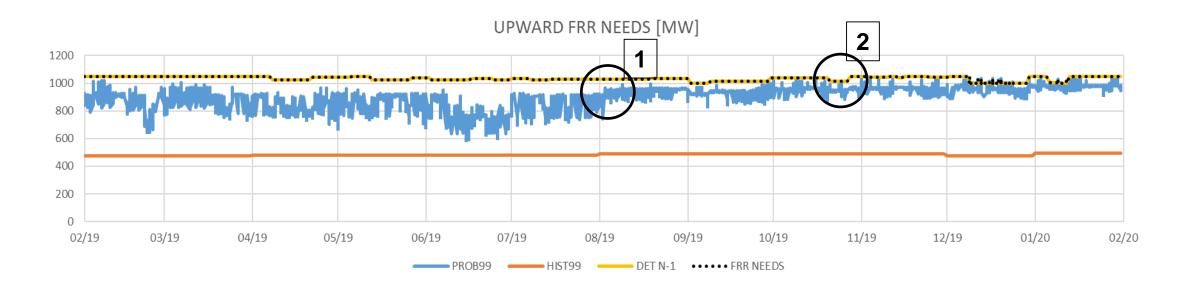
- > Daily <u>publication</u> of the results (before 7 AM D-1): final FRR needs and mFRR balancing capacity (to be procured)
- > Trimestral publication of the full results: results of the PROB99 / DET N-1 / HIST99 methods
 - Final FRR needs = MAX(PROB99; DET N-1; HIST99) in block t = 1,2,..., 6
 - Objective: inform market parties on results of the dynamic dimensioning (request market)
- Yearly analysis of the FRR needs and means: assess whether the positive and negative FRR needs have been sufficiently covered by the resources available.
 - In line with regulatory framework: Article 6 of the LFC Means (link)
 - First version: 1-2-2019 31-01-2020 (based on the results of the parallel run)
 - Results of the analysis presented in the Working Group Balancing (cfr. next slides)

Article 6 of the LFC Means "Elia will carry out a yearly ex-post analysis in the first quarter of each year based on historical data from the precedent year on and assess whether the positive and negative FRR needs have been sufficiently covered by the resources available. For the purposes of this analysis, Elia will compare the results of the positive and negative FRR needs based on the methodology in the LFCBOA and compare this with the available resources of aFRR (contracted aFRR balancing capacity) and mFRR (non-contracted balancing energy offers and sharing of FRR reserves)."



FRR needs 1-2-2019 – 31-01-2020 (parallel run)

Results for upward dimensioning continue to be set by the dimensioning incident. However, it is not excluded that during moments with high upward imbalance risks and reduced Pmax of the dimensioning incident results can be set by probabilistic method.



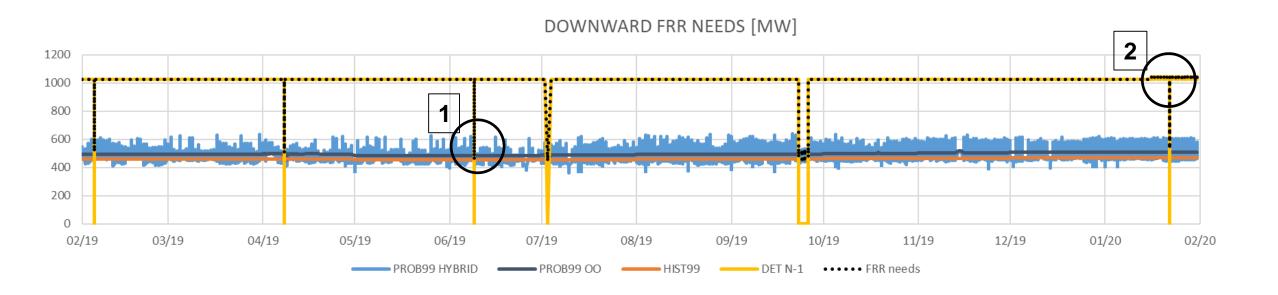
Additional observations:

- 1. It is observed that probabilistic FRR needs increases and face a reduced volatility
- 2. It is observed that dimensioning incident varies over time due to thermal sensitivity Pmax



FRR needs 1-2-2019 – 31-01-2020 (parallel run)

Although results for downward dimensioning (outage only and parallel run) are most of the time set by the dimensioning incident (Nemo Link), FRR needs are reduced during moments where Nemo Link is foreseen to be in import.



Additional observations

- 1. 4h product resolution limits the impact of Nemo Link import predictions on the downward FRR needs
- 2. In January, the Pmax export for Nemo Link is increased to 1046 MW between 17 20 h.



Nemo Link forecast: 1-2-2019 – 31-01-2020 (parallel run)

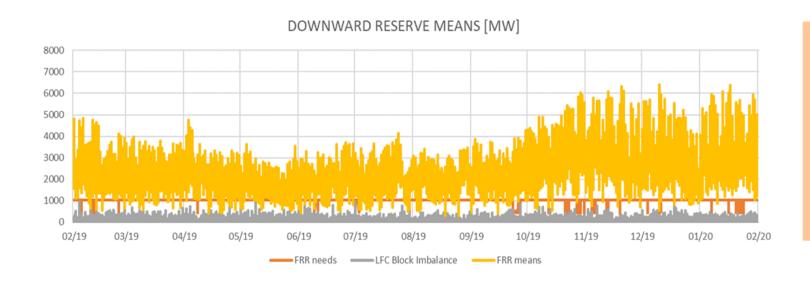
The day-ahead forecast of the Nemo Link flow direction was able to provide a forecast of the direction in 61.3% of the time. Over these periods, the method predicted an import or export flow direction correctly during 96.9% of the time.

forecast accuracy [%]							
	Export forecast –	Export forecast –	Import forecast –	Import forecast	Undecided		
Month	export flow	import flow	import flow	export flow	forecast	wrongful	
Feb-19	59.7%	0.9%	0.0%	1.8%	37.6%	2.7%	
Mar-19	85.6%	0.1%	0.0%	0.0%	14.3%	0.1%	
Apr-19	84.4%	0.0%	0.0%	0.0%	15.6%	0.0%	
May-19	71.5%	0.1%	0.0%	0.0%	28.4%	0.1%	
Jun-19	65.7%	0.6%	0.0%	1.7%	32.1%	2.2%	
Jul-19	47.6%	2.8%	0.0%	0.0%	49.6%	2.8%	
Aug-19	61.8%	1.3%	0.0%	0.0%	36.8%	1.3%	
Sep-19	48.2%	0.3%	0.0%	0.1%	51.4%	0.4%	
Oct-19	37.3%	2.7%	2.0%	2.1%	55.8%	4.8%	
Nov-19	45.3%	0.6%	0.3%	2.1%	51.8%	2.6%	
Dec-19	64.8%	1.9%	0.9%	0.1%	32.3%	2.0%	
Jan-20	35.8%	2.7%	2.8%	0.8%	57.9%	3.5%	
Total	58.9%	1.2%	0.5%	0.7%	38.7%	1.9%	



FRR means 1-2-2019 - 31-01-2020

In line with the analyses made in the framework of the LFC Means, downward needs were not covered during 100% of the time. As explained in the LFC Means, Elia considers that probability to cover the FRR needs is acceptable and expects an improvement over time. The conclusion remains that the procurement of downward balancing capacity cannot be justified at this stage.

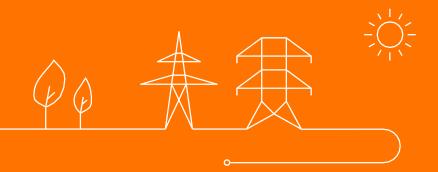


Article 6(7) of the LFC Means specifies that "Elia will not procure any mFRR balancing capacity since the required negative reserve capacity for mFRR is expected to be covered by available reserve sharing and available non-contracted balancing energy bids as specified in Article 3 with an acceptable probability."



Public consultation on aFRR needs dimensioning Publication of Elia's balancing report 2018-19

Presented by Kristof De Vos





Public consultation on the methodology for dimensioning of the aFRR needs

On June 2, 2020, Elia launched a public consultation with analyses supporting a recommendation towards an improved probabilistic aFRR dimensioning method

- taking into account variations within the imbalance settlement period
- determining needs by taking into account iGCC and dynamic behaviour
- being transparent and consistent with FRR dimensioning

Stakeholders are welcomed to provide suggestions and feedback until July 2, 2020.

Following the consultation, a Proof of Concept will test the method and estimate results between 2020 and 2028. The results of this Proof of Concept will be published by Elia in Q4 2020.



<u>Link</u>

PUBLIC CONSULTATION

Methodology for the dimensioning of the aFRR needs

June 2, 2020





Publication of Elia's first balancing report on 2018-19

- On June 22, 2020, Elia plans to publish a report on balancing in accordance with Article 60(1) of the Electricity Balancing Guidelines (EBGL)
- Amongst others, this report includes information on :
 - · Summary analysis of the dimensioning of reserve capacity
 - Summary on the optimal provision of reserve capacity
 - Justifications on implementing (or not) sharing and balancing capacity exchange
- This document is based on public information published in the framework of determining the method for reserve dimensioning for 2018 and 2019
- This report is complementary to the report published by ENTSO-E following article 59 of the EBGL on monitoring, describing and analysing the implementation of the EBGL, as well as reporting on the progress made concerning the integration of balancing markets in Europe.



Link

Balancing Report in Accordance with Article 60(1) of Commission Regulation (EU) 2017/2195 of November 2017 establishing a guideline on electricity balancing

June 22, 2020

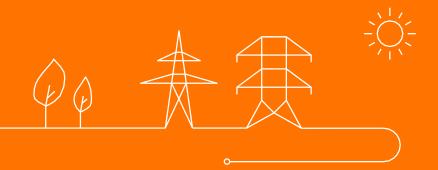






Feedback public consultation on Balancing Rules

Presented by Kristien Clement-Nyns





General info on the public consultation of the Balancing Rules

Non-confidential feedback:

- Centrica
- Febeg
- Febeliec
- Rent-a-port
- + 1 confidential response

Two versions:

- Balancing Rules FCR: applicable when the T&C BSP FCR enter into force
- Balancing Rules aFRR & FCR: applicable when the T&C BSP aFRR enter into force



Overview of feedback on the consulted Balancing Rules Concerns leading to changes to the "Balancing Rules FCR" and "Balancing Rules FCR & aFRR"



Overview of the main changes to the "Balancing Rules FCR" and "Balancing Rules FCR & aFRR" for formal submission to CREG:

Reference	Stakeholder feedback	Elia modification to the "Balancing Rules FCR & aFRR"
Article 12	Is there a change in the way mFRR activations are being handled?	Elia will continue to apply the rules applicable today for the activation of
		mFRR.
		Elia corrects in article 12(1) the reference to ACE instead of the System
		Imbalance and adds in article 12(2) a reference to the expected reaction of
		the BRP in the context of reactive balancing.
Article 16(2) &	Elia has received a question on the calculation of the weighted	Elia clarifies the application of the volume weighted average pricing for
17(2)	average pricing for aFRR for the imbalance tariff.	aFRR for the imbalance tariff by adding the formulas.
Article 18	It seems impossible that the price of an energy bid could exceed (or	Elia deletes "the exceeding of the maximum price" and "being inferior to the
	be inferior) a predefined maximum (minimum) price.	minimum price".
Article 20	N.A.	Elia re-introduces the validation of the 15 minute data for the imbalance
		tariffs and its components.
Article 29	Is there no version in French foreseen?	Elia clarifies that the French version will be published for information.



Overview of feedback on the consulted Balancing Rules Concerns not leading to changes to the Balancing Rules



Comments & concerns on (summary):

- Balancing resources
- The use of the balancing resources to maintain the balance of the Elia LFC block
- The impact of the use of the balancing resources on the imbalance tariffs
- Publication of information



Overview of feedback on the consulted Balancing Rules (summary)



STAKEHOLDER FEEDBACK

ELIA FEEDBACK

It is regretted that Elia has not included **other units with technical limitations** than CIPU-units.

Elia reminds that the introduction of the product for slow non-CIPU incremental bids was announced as a **temporary measure that was applicable until the 31**st of **March 2019** and was introduced as an exceptional measure under exceptional circumstances.

Elia intends to investigate the **opportunity to create a technology-neutral framework** for the use of non-CIPU resources with technical limitations.

Concern that the activation of aFRR could lead to **price spikes in the imbalance prices** although still cheaper mFRR bids are available and this is depending on the actual decision of Elia to start activating mFRR.

- The activation of **aFRR is automatic** and the activation of bids at the end of the MO cannot be avoided with quickly changing power deviations.
- Activating **mFRR preventively** to avoid the activation of expensive aFRR bids would require a **forecast** of **the system imbalance** and arbitrage rules
- The risk for **higher imbalance prices** is the main driver for maintaining a **price limitation** and the **application of the volume weighted average pricing** for aFRR in the imbalance tariffs.

Request to increase the starting value of 1000€/MWh and to improve the procedure which increments the moving aFRR activation price.

The level of the maximum price for the energy bids is described in the **T&C BSP aFRR**. Elia will re-assess the level of the price cap one year after the entry into force of the T&C BSP aFRR.

The update of the maximum price for aFRR energy bids requires an **update of the T&C BSP aFRR** and this process is clearly described in article 18 of the EBGL.



Overview of feedback on the consulted Balancing Rules (summary)



STAKEHOLDER FEEDBACK

ELIA FEEDBACK

Proposal to use a **time-average marginal activated price on a 15 minute basis** and to define the imbalance tariff based on the **activation time** and not the activated volume.

Elia will investigates the application of an average of the marginal prices of the 4-seconds intervals of the quarter-hour, weighted by the energy activated in the corresponding 4-seconds interval. Elia assumes this to be in line with the future imbalance settlement harmonization methodology.

Question whether the currently applied transparency almost in real-time does not lead to **adverse effects** with actors not bidding in the correct price levels.

The publication of information on individual mFRR capacity bids is a requirement of EBGL and was launched together with the start of the daily procurement.

Elia confirms that after the first publication of the individual mFRR bids, there was a **strong increase of prices but after one month** (with high fluctuations), the prices are back to prior levels.

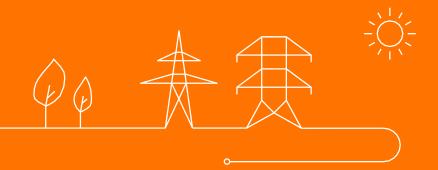
Elia concludes that although there was a change in the bidding behavior of the BSPs shortly after the implementation of the new mFRR design and the publication of individual bids, the **causes for this change are difficult to identify with certainty** and such behavior may not be observed in the longer term.





Go-Live approach for FCR and aFRR

Presented by Kristien Clement-Nyns



Go-live FCR



The first auction for FCR takes place on the **30**th **of June** (08h00) on Regelleistung (for first delivery date on the **1**st **of July**).

- → T&C BSP FCR are approved by CREG
- → Balancing Rules are approved by CREG (Balancing Rules will be published as soon as possible)

- → Elia kindly reminds that a successful communication test is <u>mandatory</u> to participate in the first daily auctions on the 30th of June.
- → Technical guides are shared and are available <u>here</u>.



Go-live FCR



FCR capacity tender

To facilitate the go-live of FCR on the 30th of June 2020, Elia will perform capacity auctions for week 27 as follows:

- Auction 1 with delivery period 29/06/2020 and 30/06/2020 (i.e. 2 days): procurement of both FCR and aFRR capacity (as performed today on a weekly basis).
- Auction 2 with delivery period 01/07/2020 to 05/07/2020 included (i.e. 5 days): procurement of aFRR capacity only.
- The GCT of both auctions is foreseen on the 25th of June at 10:00 AM CET.
- As of the 1st of July, the procurement of the FCR capacity is governed by the BSP Contract FCR and will only be performed on the regional platform (Regelleistung).
- GOT is on the 17th of June for FCR Regelleistung

First FCR activations

- The first FCR activations governed by the BSP Contract FCR will be performed as of 1 July 2020.
- → Contract managers are available for any questions and support.



Go-live aFRR



Postponement of the entry into force of the T&C BSP aFRR until the 31st of august (for first delivery date on the 2nd of September).

- → Final confirmation of the go-live date will be made after consultation with CREG in the second half of June taken into account the technical and commercial readiness of all involved parties. Elia is currently working on this reassessment.
- → T&C BSP aFRR are approved by CREG
- → Balancing Rules are approved by CREG (Balancing Rules will be published as soon as possible)



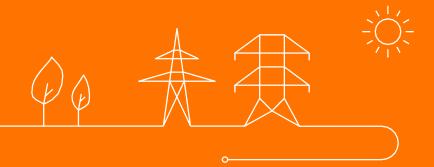
Implementation for T&C BSP aFRR



- Technical guides are shared and are available <u>here</u>.
- Update of the documents:
 - Technical requirements for the private measurement devices.
 - Technical guide for gateway management.
- All demo environments are communicated to stakeholders
 - → Contract managers are available for any questions and support.



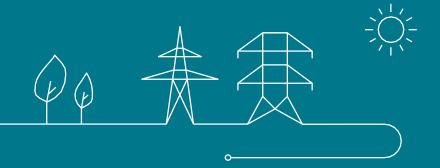
AOB





AOB - EU Stakeholder workshop MARI/PICASSO on 13th of July

Presented by Didier Chim





EU Stakeholder workshop MARI/PICASSO on 13th of July

- The MARI (mFRR) and PICASSO (aFRR) Implementation Projects in collaboration with ENTSO-E organize a stakeholder workshop on the 13th of July, starting at 9:30.
- The workshop will be carried out via webinar
- The projects intend to provide further information to the stakeholders on the design of the upcoming balancing platform as well as implementation planning.
- The stakeholders are invited to register.





Agenda of the EU Stakeholder workshop

Welcome:

Welcome to participants

9:30 - 9:40

- Agenda

MARI

- The mFRR process
- mFRR balancing energy product
- mFRR bidding design (linked, indivisible, parent-child bids; bid parameters)
- Activation optimisation function (AOF) of mFRR-Platform

9:40 - 12:00

- Pricing principles
- MARI's TSO accession roadmap and Covid-19 impacts
- Project timeline

Q&A





Agenda of the EU Stakeholder workshop

PICASSO

- The aFRR process
- aFRR balancing energy product
- Activation optimisation function (AOF) of aFRR-Platform
- 3. Pricing principles
 - PICASSO's TSO accession roadmap and Covid-19 impacts
 - Project timeline

Q&A

General (common for MARI and PICASSO) - Balancing energy gate closure time (BE GCT): timing for bid submission - Monitoring and reporting Q&A 16:00 - 16:50

5. *AOB* 16:50 - 17:00

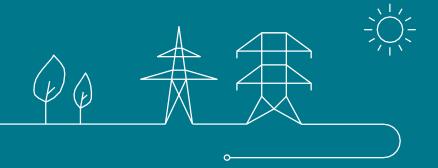


13:30 - 16:00



AOB - Smart Testing: State of Play

Presented by Didier Chim





Smart Testing: State of Play

Elia is currently progressing on the development of Smart Testing in a number of ways:

- reviewing literature from the industry and other industries
 - For the time being, no literature from the energy sector seems to cover the topic of Smart Testing
 - Some applications from finance and from maintenance may seem relevant but requires further investigation.
- collection from some TSOs of any experience related to smarter way of testing.
- reviewing feedback and suggestions from stakeholders from public consultations

Additionally, Elia is testing several ideas based on available data within Elia (e.g. correlation of availabilities to a number of variables)

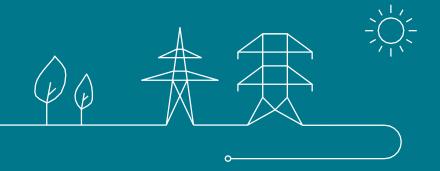
Next steps:

15/09 – Public consultation on Smart Testing





AOB - MOG II System Integration:Public consultation





MOGII System Integration

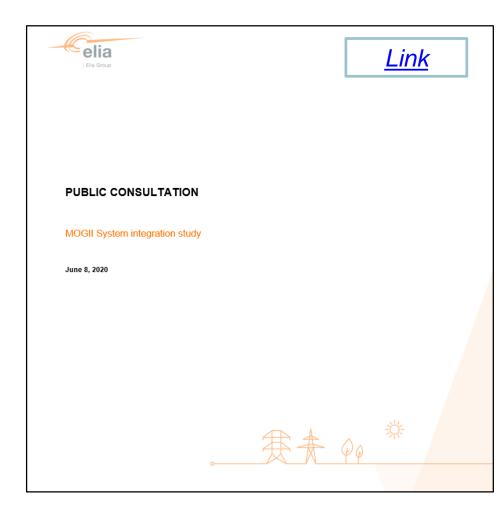
Public Consultation

On **June 8, 2020**, Elia launched a **public consultation** with the impact assessment of the integration of additional offshore capacity. The report includes a preliminary list of mitigation measures.

A **stakeholder workshop** has taken place on June 15 to present the main conclusions of the report and open a discussion with stakeholders.

Stakeholders are welcomed to provide suggestions and feedback until **July 8, 2020**.

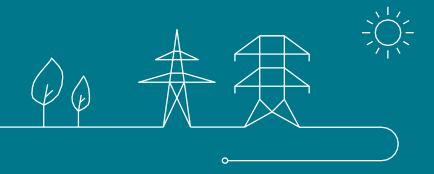
The feedback on the impact assessment and on the mitigation measures described in this document will be taken into account towards the **2**nd **consultation**, planned to start on **October 1, 2020**. This 2nd consultation will be dedicated to the mitigation measures. The **final report** will be published on **December 23** the latest.





AOB - Implementation of ToE in DA/ID: Next steps

Presented by James Matthys-Donnadieu



ToE DA/ID

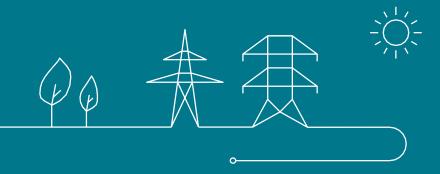


- Elia performed a study related to the extension of the ToE mechanism to the DA/ID markets in 2019
 - The study has been publically consulted in June 2019
 - Document submitted to consultation, consultation report and final study after public consultation are available on <u>Elia's website</u>
 - Main conclusions and implementation plan were presented during last WG Bal
 - ToE (+ Pass-through + Opt-out) will be extended to DA/ID markets
 - Elia is open to develop the activation combo functionality once a better view is established on the volumes participating in DA/ID and the effective needs from stakeholders; In the mean time, Elia proposes to implement a contractual combo
 - The Multiple-FSP functionality will not be implemented
- Final design note will be made publically available as of 1/7/2020
 - Elia website + sent to WG BAL members
 - Based on the study performed in 2019, without details regarding elements that will not be implemented and with additional implementation details
 - Feedback welcomed until 31/8/2020
- Formal public consultation ToE rules and T&C BRP planned for October-November 2020 (indicative planning)
- Go-live foreseen for Q2 2021





AOB – Deterministic Frequency Deviations Public consultation





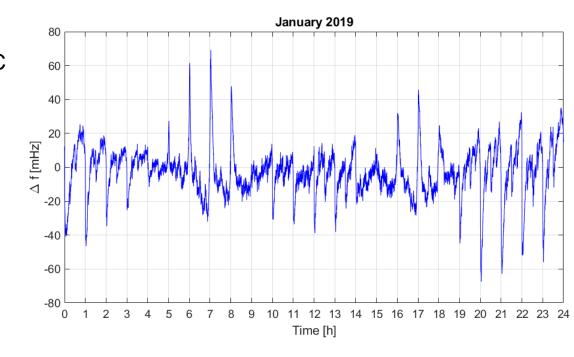
Deterministic Frequency Deviations (DFD)

Public Consultation

Elia intends to start a **public consultation** in July on the possible solutions to mitigate the contribution of the Belgian LFC Block to DFDs. The consultation will last 2 months.

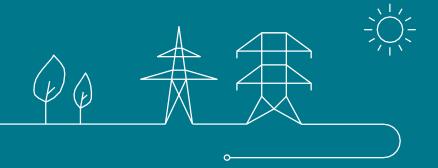
The study follows up to an ENTSO-E analysis, which was publicly consulted in December 2019 and January 2020.

The feedback on the study will be taken into account towards the **final report**, which will be published on **December 23** the latest.





AOB - next WG Balancing





Next WG Balancing

Dates:

- WG Balancing Workshop Scarcity Pricing 02/07 @14:30
- WG Balancing 14/09 @ 13:00 TBC

