



LFC block Operational Agreement

Consultation Report

September 14, 2018

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1. Introduction

The consultation aimed to receive comments of market parties on Elia's proposal of the LFC block operational agreement. Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereinafter referred to as "SOGL") requires the transmission system operator to submit the methodologies and conditions listed in Article 6(3.e) to the relevant regulatory authority 12 months after the entry into force of the regulation. These methodologies and conditions are part of an operational agreement for Elia's control zone, hereinafter referred to as the "LFC block operational agreement".

The objective of the LFC block operational agreement (as specified in Article 119 of the SOGL) is to determine the dimensioning rules for Frequency Restoration Reserves or 'FRR', also referred to as secondary and tertiary reserves in Belgian legislation, and to fulfill the obligations of load-frequency control. This concerns the process of restoring the power balance of the LFC block to its scheduled value, and resolving the residual imbalance between injections and off-take.

The proposal for the method of assessment and determination of the primary, secondary and tertiary reserve capacity for 2019 according to Article 233 of the Royal Decree of 19 December 2002 establishing a technical regulation for the management of the electricity transmission network and the access is submitted in parallel, as in previous years, to the CREG for approval via a specific document, hereafter referred to as Dossier Volume 2019. This assessment method is in accordance with the rules set out in the LFC block operational agreement. The consultation on the 'Dossier Volume 2019' - organized by CREG - is scheduled in September.

The consultation period for the LFC block operational agreement was set from Tuesday July 10th to Tuesday August 21st 2017 included. Elia received 2 non-confidential answers to the public consultation:

- FEBEG
- FEBELIEC

All relevant information to this consultation can be found on the following Elia webpage:

http://www.elia.be/en/about-elia/publications/Public-Consultation/Archives/20180710_Formal-consultation-LFC-block-operational-agreement

The feedback received during the consultation did not result in modifications of Elia's initial proposal. The final proposal of the LFC block operational agreement and corresponding explanatory note, considering the results of the consultation, has been sent to the CREG on September 14, 2018, in line with the SOGL requirements.

2. General remarks of FEBEG and FEBELIEC

- *"FEBEG notices that the operational agreement for the LFC-block creates the regulatory basis for several methodologies and procedures. Unfortunately, some of these methodologies and procedures have not yet been presented to or discussed with the stakeholders. How can one expect that stakeholders agree with this proposal of agreement when, for example, the congestion and re-dispatch measures – as well as their impact on the FRR needs - are still under development or when Elia intends to solve off-shore storm risks with emergency measures only, especially as there's no information available with regard to a possible regulated framework to support incurred costs of generators in case of a slow start of units?"*

Therefore, FEBEG opposes to the proposed operational agreement for the LFC-block to the extent that it pre-decides on methodologies and procedures that still need to be developed. In other words, (1) this

FEBEG response cannot in any way be interpreted as a consent with regard to the methodologies and procedures that still need to be developed and (2) FEBEG preserves the right to question this proposal of operational agreement for the LFC-block if this agreement would - in a later stage - appear to block or hamper the implementation of a methodology or procedure that market parties consider as fair, reasonable and proportionate.”

- *“Febeliec hopes to be informed of all evolutions in the LFC Block Operational Agreement and the related operational documents and calculations, as the dimensioning of the required reserves is an important cost driver for the Elia tariffs. For Febeliec it is of the utmost importance to guarantee the stability and security of the system without however over-dimensioning the required reserves, as Febeliec has always indicated in the consultations on the Dossier Volume 2019.”*

First of all Elia welcomes the remarks of FEBELIEC and FEBEG. Elia acknowledges that this document specifies the main principles for the methodology to dimension the FRR needs, as well as procedures related to maintain a stable FRCE/ACE in its LFC block. Elia wants to stress that the LFC block Operational Agreement (hereafter also referred to as LFCBOA) determines only the general principles, and does not intend to describe the methodologies or procedures in detail. Depending on the procedure, this can be elaborated, if necessary, in other official documents.

The implementation of the **dimensioning of the FRR needs** is currently elaborated in a separate document “Dossier Volume 2019” which implements the calculation of the FRR needs as well as the determination of the FRR means, including the volumes of the balancing capacity of aFRR, R3flex and R3std. This document has been sent for approval to CREG and will be consulted.

On the one hand, the implementation of **FRCE measures and the exhausted reserve procedure**, specified in the SOGL as procedures to be specified in the LFC block Operational Agreement are based on an existing measure specified in the balancing rules (chapter 8.9). This measure gives Elia already the possibility to activate units with a full activation time slower than 15 minutes (and not pre-qualifying for FRR) in function of its operational needs. In fact, the LFC block Operational Agreement is only re-confirming this under two separate categories (respectively FRCE measures and exhausted reserve procedure), as specified in the LFC block Operational Agreement. On the other hand, the implementation of the **escalation procedure** specified in the SOGL is based on existing re-dispatch measures specified in the CIPU-contract.

Elia would like to remark that, based on practical experience up to now, there is almost no need to actually use these procedures. Given this experience, Elia has decided not to work out detailed rules, but provide a transparent reporting in case such procedures are used. Elia would like to remark that the proposal of the LFC block Operational Agreement improves the transparency and clarifies the usage of this procedure for market parties since in the LFC block Operational Agreement, it is now confirmed that these are **exceptional** procedures and clear reporting requirements are added that did not exist in the past. In order to ensure that this topic is only dealt within one methodology, Elia intends to remove in the future the current formulation dealing with this topic from the balancing rules.

Elia would also like to clarify that in future any new feature which potentially might affect the use of the procedures as described in the current proposal of the LFC block Operational Agreement will be discussed into detail with the stakeholders in order to decide whether the current rules need to be adjusted or not.

3. Questions from Febeliec

“With respect to the dimensioning of the positive and negative FRR reserve capacity on respectively yearly and daily basis, Febeliec agrees, as this is also in line with the discussions in the Work Group Balancing as well as the Febeliec position on this point. Febeliec hopes that any changes to this approach will be extensively justified and discussed in the Work Group Balancing.”

As already indicated in the previous section, Elia confirms it will present to and discuss such evolutions with stakeholders. Modifications to the dimensioning principles for the FRR needs specified in the LFC block Operational Agreement are subject to public consultation by Elia while the determination of the reserved capacity is consulted by CREG in the framework of “Dossier Volume 2019”.

“With respect to art. 9 point 1b (sharing of FRR) on the fact that the reduction of the positive reserve capacity shall not exceed 30% of the size of the positive dimensioning incident, Febeliec wonders to what extent the current practices applied by Elia and its neighbouring TSOs are covered by this rule and whether this does not constitute at this moment or in the future a limiting factor, to the detriment of consumers in Belgium (and abroad, but more specifically for Belgium as dimensioning incidents weigh heavier on the overall imbalance position in Belgium as in larger countries) as this could lead to the sourcing higher contracted volumes of reserves and thus higher costs. Moreover, Febeliec would like to get a clearer indication of what will be the dimension event that will be taken into account or at least the principles for the determination of this incident.”

First of all, Elia wants to point out that this 30% cap for sharing (only for positive reserve capacity) is a legal requirement of the system operation guidelines (Article 157). Even if this would result in an increase of the reserve capacity, it is not in Elia’s power to ignore this. For 2019, the positive dimensioning incident is determined as the loss of the largest nuclear plant, i.e. 1039 MW. This is following the definition given in SOGL as the ‘dimensioning incident’ means the highest expected instantaneously occurring active power imbalance within a LFC block in both positive and negative direction.

Elia determines the contribution of sharing in the dimensioning of FRR in a specific document referred to as Dossier Volume 2019. This follows the principles set out in the LFC block Operational Agreement. More details are given in the Dossier Volume 2019 which is planned to be consulted in September 2018 by CREG.

With respect to the foreseen procedure for the interconnector with the UK, Febeliec takes note of the proposed solution by Elia, but wonders whether the proposed probabilistic approach will be a sufficient tool for the desired outcome and hopes to receive feedback on this procedure as well as the obtained results.

Elia wants to remind that it will start with a dynamic dimensioning methodology in 2019 (start 1/1/2019) for downward mFRR, proceeding to a more sophisticated approach for both up- and downward dimensioning foreseen as from 1/1/2020. Elia already indicated it will be as transparent as possible on the results once the daily dynamic dimensioning is having a direct impact on the determination of balancing capacity which need to be procured.

With respect to art. 11, Elia mentions the operational procedures for cases of exhausted FRR, but Febeliec wonders where these procedures have been described and which the applicable procedures in such case are. To the knowledge of Febeliec, such procedures have not yet been published nor discussed.

As explained in the explanatory note, the objective of the exhausted reserve procedure specified in in the LFC block Operational Agreement is to reconstitute reserves upon extraordinary events which are not covered in the dimensioning method. This uses an existing measure specified in the balancing rules (chapter 8.9). This measure gives Elia already the possibility to activate units with a full activation time slower than 15 minutes (and not pre-qualifying for FRR) in function of its operational needs (cfr. Section 2).

Elia would like to stress again that, based on practical experience up to now, there is almost no need to actually use this procedure. Hence this procedure is expected to be used as last measure, and under very extreme conditions, and ELIA will draft a report for the NRA justifying the decision.

Any modification of the procedures specified in the LFC block Operational Agreement will be subject to stakeholders' discussions (in the working group) and specification in the corresponding documents.

4. Questions from FEBEG

Febeg provides three examples of topics that still need to be presented and discussed with stakeholders

- **Impact of congestion management.** *The lack of explanation on how the impact of congestion management on the reserve needs is dealt with, raises some concerns. To our understanding the following scenario is possible: a unit is constraint due to congestion and the compensation for this unit is provided by activating the reserved capacity on a unit nominated for FRR as there are no other means available. Should this scenario be taken into account in the determination of the volume of reserve needs? If it is not integrated, would it then not be appropriate to not use the nominated reserved capacity to cope with congestions? It's also not clear how the reserve restoration procedure – if this is what is been referred to as 'escalation procedure' – will be implemented and how it will affect BRP's operationally.*

Elia does not foresee to take into account reserve capacity used for congestion management in the dimensioning of FRR needs. This would not be compliant with SOGL specifications as the probabilistic analysis should be based on historic LFC block imbalances (Article 157 of the SOGL). Elia is open to discuss this matter further with stakeholders, but does not foresee to implement such measure in its dimensioning of FRR needs in 2019.

The **escalation procedure** will only be used in case of a severe unavailability of reserves (including a case where unavailability of reserves following congestion reasons): this will only be used as last measure, under very specific extreme conditions, and ELIA will draft a report for the NRA justifying the decision. Elia foresees currently to use the existing CIPU procedures for re-dispatching. ELIA expects the impact of congestions on reserve availability will remain limited and will not frequently trigger an activation of the procedure. Any modification of the mechanism will be subject to stakeholders' discussions (in the working group) and specification in the corresponding documents.

- **Impact of offshore wind.** *FEBEG also would like to have a more detailed justification why off shore capacity should not be taken into account in the dimensioning of balancing needs (N-1). The only explanation is the reference in footnote 4 on page 12 of the explanatory document to a study conducted by Elia in 2018. According to Elia this study demonstrates 'that the possible simultaneous cut-off of offshore wind turbines following the protection measures for wind speeds related to storm should not be considered as N-1, or be treated as force outage as the instantaneous loss of power plants or a relevant HVDC-interconnector'. In the Elia 'study on the integration of off shore wind in the Belgian balancing zone', published on the 5th of February, 2018 FEBEG cannot find any clear argumentation or justification why off shore capacity should not be taken into account in the dimensioning of balancing needs. There's not only the storm risk, but also technical risks related to the operation of the MOG or the network elements. It seems that Elia is looking for arguments to artificially keep the balancing needs at the current level while increasingly relying on the operational procedures in case of exhausted FRR. It's also important to point out that this operational agreement for the LFC-block creates a regulatory basis for these procedures, but that stakeholders have no view on their functioning, the possible remuneration of the service or the impact on both their position and the market.*

Elia recognizes that the observed correlation of the behavior of the various offshore parks currently connected to the system is very high, particularly during storms. This is mainly due to the geographical concentration of the wind farms but also to the technical

characteristics of the wind turbines that compose them. In 2017, Elia conducted an analysis to specifically study the behavior of parks in the face of high wind speeds and to determine the predictability of this type of event.

The results of this analysis¹ allows to conclude that it is possible for BRPs to anticipate the meteorological phenomena having the greatest impact on offshore production (for example the most powerful storms), at least a few hours in advance. Elia therefore believes that BRPs will be capable in managing this situation in most of the cases and therefore from a societal point of view it cannot be defended to source additional reserves for this. If somehow BRPs would fail in fulfilling their balancing obligation, Elia will apply the existing process of starting up slow units.

Elia presented in the WG balancing of 10th September their ideas on how storm situations should be managed. Consecutive to this presentation, a document with more details will be shared with market parties. ELIA will adjust its proposal after the consideration of market parties feedback.

- ***Dimensioning of the volumes of the different products.*** FEBEG would also expect that the operational agreement clarifies the rationale or methodology for the dimensioning of the different mFRR products (volume R3 flex versus volume R3 standard) or for the split between aFRR and mFRR. An example: if there would be a larger volume of aFRR contracted, would this then affect the R3 flex or rather the R3 standard? Is up to Elia to choose a split between these products, or is there a clear and transparent methodology?

As explained in the explanatory note of the LFCBOA (Section 3.5), the scope of the LFCBOA is limited to the requirements formulated by the SOGL Art. 119. This implies that the dimensioning principles are limited to formulating the overall FRR needs, as well as the ratio aFRR needs versus mFRR needs. This methodology to make the split aFRR / mFRR is elaborated in Article 8 of the LFCBOA. The methodology is further elaborated in Section 3.3 of the explanatory note. In summary, the total FRR needs have to equal the sum of aFRR and mFRR meaning that larger aFRR needs reduce the required mFRR needs.

The allocation of FRR needs to FRR means is currently not in the scope of the LFCBOA, as explained in Section 3.5, this allocation is subject to EBGL Art. 32 requirements, and is currently treated in the Dossier Volume 2019. The allocation of the different products R3flex and R3standard, while taking into account a part of sharing is detailed in Dossier Volume 2019.

¹ http://www.elia.be/en/users-group/Working-Group_Balancing/Projects-and-Publications/Study-on-the-integration-of-offshore-wind-in-the-Belgian-balancing-zone