



# **RfA on the LFC block operational agreement and LFC Means**

## **Consultation Report**

**Elia System Operator  
November 20, 2019**

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# 1. Introduction

The consultation aimed to receive comments of market parties on Elia's proposal of its modifications to the "LFC block operational agreement" and the "LFC Means":

The **LFC block operational agreement** specifies the dimensioning rules for Frequency Restoration Reserves or 'FRR' (also referred to as aFRR and mFRR and formerly to as secondary and tertiary reserves) and the methods to fulfill the obligations of load-frequency control in execution of article 228 of the Belgian Federal Grid Code. After approval by the CREG, the LFC block operational agreement will replace the previous version and will enter into force together with the Terms and Conditions applicable to Balance Service Providers for the mFRR Service (T&C BSP mFRR).

In line with Article 228 of the Federal Grid Code, the **LFC means** specifies the methodology which determines with which balancing services the required reserve capacity for aFRR and mFRR will be delivered. This proposal introduces a daily dynamic dimensioning of the mFRR balancing capacity to be procured on daily basis which will enter into force at the same time as the T&C BSP mFRR.

In parallel with this consultation, Elia organized a consultation on its proposals on the T&C BSP mFRR which will facilitate, amongst others, the daily procurement of mFRR balancing capacity.

The consultation period for the LFC block operational agreement and the LFC Means was set from Friday October 4<sup>th</sup> to Monday November 4<sup>th</sup> 2019 included. Elia received 4 non-confidential answers to the public consultation:

- FEBEG
- FEBELIEC
- Belgian Offshore Platform, hereafter referred to as BOP
- Actility Benelux, hereafter referred to as ACTILITY

All relevant information to this consultation can be found on the following Elia webpage ([link](#)):

The feedback received during the consultation did result in a modification of Elia's initial proposal on the LFC Means Article 6(6):

*"The minimum capacity specified in paragraph 4 will be increased to 640 MW as from July 1, 2020." ~~and to the full mFRR balancing capacity as from January 1, 2021 to be procured following upon agreement with the regulator concerning the phase out the "flex" product.~~*

Elia will clarify in the corresponding explanatory note that it will evaluate the liquidity of the contracted mFRR products since the launch of the "mFRR flex" product. This analysis will be conducted in Q1 2021 and accordingly, Elia will propose an agenda for the next phase of the "mFRR flex" product.

The final proposal for the Request for Amendment of the LFC block operational agreement, the LFC Means, and the corresponding explanatory notes, considering the results of the consultation, is sent to the CREG on November 20, 2019, in line with the SOGL requirements.

## 2. General questions

- *Febeliec understands from the consultation that the LFCBOA will enter into force, after approval, the same day as the T&C BSP mFRR. Febeliec does not oppose this approach, yet does not necessarily like linking such important evolutions as a delay in one might unnecessarily delay also the other. Febeliec would for instance regret that the planned evolutions in mFRR would be delayed because of any ongoing discussion on the LFCBOA. Febeliec understands however that a close coordination is being conducted between Elia and the regulator in this instance, but wants to make the point also in a broader context.*

ELIA recognizes this risk and tries to avoid such situations wherever possible. In this case, as the full potential of both dynamic and daily procurement can only be realized whenever both are implemented, Elia decided to implement both evolutions simultaneously.

The current formulation of the implementation planning (Article 8 of the LFC Means and Article 2 of the LFCBOA referring to the entry into force of the proposed methodologies at the same time as the T&C BSP mFRR) excludes the risk of a delay of the T&C BSP mFRR following discussions on the LFCBOA.

- *Febeliec is in favour of sharing reserves with neighbouring TSOs under the existing framework. However, and as voiced numerous times, Febeliec does not support any reservation of cross-border capacity for exchanging balancing energy, as this would be according to Febeliec not necessarily efficient for the system and could even create additional inefficiencies (e.g. withholding capacity from yearly, monthly, day-ahead and/or intraday auctions for the balancing timeframe, which might in the end not be used at all). Febeliec remains strongly in favour of giving as much cross-border capacity as early as possible to the market. And especially for the balancing timeframe, Febeliec has many reservations about reserving capacity as the system imbalance is rather random and linked to outages more than energy flows based on relative fuel mixes in countries.*

Elia stresses that it has currently no intention of reserving cross-border capacity in order to increase the capacity of reserve sharing. In its proposal Elia considers only the available remaining capacity after intra-day to determine the reserve sharing capacity which can be considered sufficiently firm to take into account in the determination of the FRR means. Elia refers to the ongoing discussions regarding the methodologies for the reservation of cross-zonal capacity on EU level.

- *FEPEG appreciates that Elia will start to publish the daily results of the new methodology as from 1.12.2019 as announced in the WG Balancing of 23.10.2019*

Elia takes note that FEPEG appreciates ELIA's efforts to increase transparency on the results of the dimensioning methodology.

- *In the light of the increasing stress intermittent generation puts on the Belgian electricity system, Actility welcomes the principle of the dynamic dimensioning of the balancing capacity in the Elia LFC Block. Although agreeing on the main principle, Actility would like to comment on the implementation of the dynamic dimensioning.*

Elia takes note that ACTILITY appreciates ELIA's efforts to propose a dynamic dimensioning methodology in light of facilitating increasing variable generation.

## 3. Questions related to the methodology

### 3.1 Dimensioning of the FRR needs

- *FEPEG comment on Art. 9.4 and 9.5: The methodology for the determination of the required aFRR results in an aFRR needs of 151 MW. However, Elia limits the aFRR needs at the same*

value as in 2019 (145 MW) awaiting the implementation of a new methodology that will be presented in a next version of the LFC BOA. FEBEG doubts the logic for this limitation for the following reasons:

- *The difference (6 MW) is not insignificant.*
- *The variations of the LFC block imbalances increase since 2016.*
- *The risk of volatility is increasing with the increase of the offshore wind capacity.*
- *The implementation of the new methodology will probably not take place before 2021, so the aFRR needs will be fixed for the whole year 2020 to a value kept at a lower level than determined by the current methodology, awaiting the new methodology*

Elia agrees with these observations. However, as explained in the explanatory note (Section 2.3) of the LFC BOA, Elia can justify the proposed approach because the current FRCE-quality is found to:

- (1) be sufficient to maintain system security;
- (2) meet the minimum levels set by ENTSO-E.

Elia remarks that the resulting volume of 151 MW follows from a reliability indicator of 79%. This parameter was in the past determined by Elia as a minimum in order to achieve an acceptable level of FRCE-quality. However, this reliability level is now questioned and one of the main reasons for improving the methodology.

While awaiting the new methodology, Elia will keep monitoring the FRCE-quality and will take necessary measures when facing a substantial decrease in FRCE-quality.

- FEBEG comment on Art 8.3: Elia uses historical data over a period of 2 years, ending not before the last day of the second month before the month of the day for which the capacity is calculated. In case of commissioning of an important wind park between the end of the period of the historical data and the day for which the capacity is calculated, FEBEG is wondering how is this increase of wind capacity taken into account?

ELIA confirms the observation FEBEG that the commissioning of a new park is not immediately taken into account in the dimensioning (but will face a time lag of maximum two months). However, this effect will remain rather minor as the offshore wind power parks are generally connected on a gradual basis, and the exact effect of these new wind power parks can only be investigated based after having at least a few months of data at our disposal.

- FEBEG comment on Art. 8: FEBEG wants to express our concerns about the value of 99,0% of the LFC block imbalance risks that must be covered, used in the design of the probabilistic methodology and to determine the minimum threshold based on the historic LFC block imbalances. Elia chooses the minimum value imposed in art.157(2)(h) and 157(2)i of SOGL, while the imbalance risks increase with the increase of wind offshore capacity and no operational procedure in case of exhausted reserve FRR or escalation procedure is in place.

First of all, Elia wants to clarify that the reliability level used in the dynamic probabilistic methodology, as specified in Article 8(1) of the LFCBOA is not the same reliability level used in the deterministic threshold specifying the need to cover at least 99.0% of the historic LFC block imbalances in line with Article 157(2)h and 157(2)i of the system operation guidelines. However, Elia has chosen to use the same percentile values, i.e. 99.0%, for its dynamic probabilistic method in order to, ex post, come as close as possible to the dimensioning rules specified in Article 157(2)h and 157(2)i.

The reliability level of 99.0% has already been put forward in 2019, through the former 'dossier volume' and the first version of the LFCBOA. As previously explained, Elia cannot, based on the FRCE-quality justify to implement a reliability level higher than the minimum threshold set by the system operation guidelines. Consequently, in 2018, it has been proposed by Elia and approved by CREG to set the reliability level on the legal minimum,

i.e. 99.0%. However, Elia will continue to monitor the FRCE-quality and will investigate solutions if the FRCE-quality would deteriorate.

- (In Dutch) BOP is nog steeds van mening is dat stormrisico (tenminste gedeeltelijk) moet meegenomen worden in de dimensionering van de reserves. Elia argumenteert dat een stormevent geen "forced outage" is, en dus niet moet meegerekend worden in de reserveringsdimensionering, omdat enerzijds (1) de uitschakeling van de productie niet onmiddellijk gebeurt en anderzijds (2) stormevents voorspelbaar zouden zijn.
  - (1) Uitschakeling of reductie van de offshore productie naar aanleiding van een storm gebeurt inderdaad niet momentaan, enerzijds door de geografische spreiding van de wind parken en wind turbines binnen de volledige zone in de Noordzee en omwille van de verschillende karakteristieken van de diverse wind turbines bij hoge windsnelheden. Het storm risico is echter niet in die mate beperkt en traag dat er zich geen risico voordoet op onbalans. Dat risico is er weldegelijk en kan het best (op zijn minst deels) opgevangen worden via reserves in plaats van het risico af te schuiven op de BRP door middel van de storm procedures.
  - (2) De resultaten van het storm forecast model, zoals voorgesteld tijdens de offshore integration workshop van 12 juni 2019 waren ons inziens niet overtuigend, en tonen aan dat stormevents niet voldoende accuraat voorspelbaar zijn: bij de analyse van de historische events is er zowel sprake van complete 'misses' (i.e. een storm werd vooraf niet gedetecteerd) als van 'false alarms' (een aangekondigde storm deed zich niet voor). Als conclusie kan gesteld worden dat een storm met een redelijke, maar geen accurate manier kan voorspeld worden voor de volgende dag, met een venster voor de start van de storm van zes uur of meer. Echter om onbalans risico's te beperken is een accurate voorspelling op kwartierbasis noodzakelijk om correct te kunnen 'schemen'. De kwaliteit en accuraatheid van de forecastmodellen staan nog heel ver af van dit punt, waardoor de onbalansrisico's weldegelijk bestaan.

In afwachting van betere forecastmodellen over de komende jaren is BOP van mening dat storm events weldegelijk moeten meegenomen worden in de dimensionering van de reserves. BOP wenst zich verder wel constructief op te stellen in het systematisch verbeteren van de forecastmodellen

Elia wants to refer to its answer in the previous consultation of the LFCBOA: *"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 analysis<sup>1</sup> 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 wants to stress that it has to size its reserve capacity in to cover for the dimensioning incident and residual system imbalances not managed by BRPs. Besides, Elia wants to remind that BRPs have an individual balancing obligation as specified in the current BRP contract, approved by CREG. As a consequence, BRPs must, as specified in article 15 of the BRP contract, "[BRP] will at all times during the execution of this BRP Contract provide

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<sup>1</sup> [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](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)

*and deploy all reasonable resources in order to stay balanced on a quarter-hourly basis, for a given quarter-hour Q [...]*” . Elia wants to clarify that a correct behavior of a BRP includes anticipating predictable risks on the offshore production due to storms (i.e. of cut-off or limitation of the power that can be produced). In this view, Elia does not agree with the statement of BOP that there exist system imbalance risks which cannot be passed to the BRP.

## 3.2 Determination of the FRR means

- On art 4.6, Febeliec would like Elia to justify the 50 MW and 350 MW of respectively positive and negative sharing capacity, as these values are not justified neither in the LFC means document nor in the explanatory note. Febeliec would like to know how these were calculated and which hypotheses were taken into account, especially since both values (especially the positive sharing capacity) seem very low, taking into account the addition of two electrical neighbours for Belgium in the recent past/future.

Elia would like to refer to the explanatory note of the LFC Means (Section 3.2). Similar to the analysis presented in last year in the “méthode d’évaluation et de détermination de la puissance de réserve primaire, secondaire et tertiaire pour 2019” approved by CREG, and hereafter referred to as “Dossier Volume 2019”, the maximum shared volume for positive and negative reserve on mFRR that can be taken into account is calculated pursuant Article 9(1) of the LFC BOA, in accordance with Article 157(2) of the SOGL.

Following the principles described in these articles, and further explained in detail in the explanatory note of the LFCBOA , the maximum capacity following reserve sharing which can be taken into account in the calculation of the mFRR balancing capacity to be procured is equal to:

- for positive FRR reserve capacity, 312 MW, i.e. 30% of the positive dimensioning incident;
- for negative FRR reserve capacity, 560 MW (if NEMO-Link is predicted to be scheduled in export or if the prediction is inconclusive) or 0 MW (if NEMO-link is predicted to be scheduled in import or foreseen to be in maintenance).

However, taking into account the above-mentioned constraints, and following a reduction in the reliability rate from 99.9% (in 2018) to 99.0% (in 2019), Elia determines as an act of prudence and in order to limit the planned activations, as the activation of the sharing reserves must remain an exceptional measure:

- the positive sharing capacity included in the dimensioning to 50 MW;
- the negative sharing capacity included in the dimensioning to 350 MW.

This approach is identical to the one used in the former methodology to determine balancing capacity (dossier volume)

- Comment of Febeliec on art 5.3, where Elia states that “it is found that this availability does not exceed 75% (incremental bids) or 43% (decremental bids) of the observed quarter-hours”, without justification. Febeliec would also here like to get a more precise explanation and justification.

These percentages refer to the percentage of time that not any volume of incremental / decremental bids (non-contracted energy balancing bids) for aFRR are available. Elia wants to refer to Figure 1 (Section 3.3) in the explanatory note of the LFC Means (determines the volume of non-contracted balancing energy bids for aFRR that can be taken into account to cover the required reserve capacity for FRR based on an analysis of

the historical availability of these non-contracted balancing energy bids for a period of 2 years (July 1, 2017 to June 30, 2019). The available energy bids are only based on the local market as ELIA has currently no mechanisms for the exchange of non-contracted balancing energy bids for aFRR within the European platforms.

- On art 5.4, Febeliec finds the proposed approach, as already indicated before during numerous previous consultations and discussions, extremely conservative and an underestimate of the flexibility available in the balancing timeframe, leading to an over-reservation of balancing capacity and thus an unnecessarily high cost for consumers. Febeliec yet again urges Elia to develop a more refined methodology on this point that would allow to take better into account the flexibility in the system.

Elia regrets that FEBELIEC feels that ELIA is being conservative in the determination of the non-contracted balancing energy bids. Elia conducts a calculation to determine the balancing capacity which can be considered sufficiently available to take into account in the dimensioning. Although the results do not justify taking into account any capacity in the upward FRR dimensioning, it does for the downward FRR dimensioning.

Nevertheless, Elia will further continue to refine its methodologies to maximize the amount of non-contracted balancing energy bids and reserve sharing which can be taken into account in the dimensioning, however, without relaxing the constraint that this capacity has to be guaranteed the moment it is needed. After all, the reserves serve to guarantee the operational security.

- On art 5.5.b, concerning the bids from pump storage units, Febeliec does not understand why energy constraints in both incremental and decremental bids are considered simultaneously during the same hours. Febeliec would rather expect one or the other and thus different blocks and ask Elia to further clarify this point.

Elia agrees with FEBELIEC that the methodology should take into account other time periods when considering the constraints for incremental and decremental bids. For this reason, ELIA includes all bids from pump storage units :

- i. incremental bids only during morning (04h00– 08h00) due to energy constraints;

As explained in the explanatory note (Section 3.3.1), Pumped-hydro storage is taken into account but only between 4 AM and 8 AM due to operational and technical constraints which can limit their availability in real-time. These units with energy limitations are not taken into account as there is currently no view on the availability of the energy in the energy reservoir. Increasing generation or reducing off-take may furthermore not be acceptable for BRPs as such an activation may prevent the BRP from following its program the rest of the day.

- ii. decremental bids except during morning (04h00– 08h00) due to energy constraints.

As explained in the explanatory note (Section 3.3.2), it is found that during these hours, BRPs face an energy reservoir which is full, or are filling the energy reservoirs resulting in energy limitations. It is assumed that besides this period, it is acceptable for BRPs to increase off-take or decrease injections.

- “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.”



Any changes to the methodology have to be conducted in the LFCBOA and LFC Means requiring regulator's approval after public consultation. Elia commits to present any future modifications in the working group before ending the public consultation.

## 4. Questions related to transparency

- On art 7, Febeliec takes note of the proposed volumes for aFRR (145 MW) and mFRR (844 MW) until the entry into force of the T&C BSP mFRR, but is missing any indication of what the volumes might be after foresaid entry into force. Does Elia expect the volumes to diverge drastically from the proposed volumes for the beginning of 2020?

As explained in the working group balancing of 23 October 2019, Elia will provide in November and December 2019 a data dump of all results of the parallel run and this from the beginning of the parallel run (February 2019 until the 'go live' of the publications on December 1<sup>st</sup>, 2019). This will allow the market to gain experience with the behavior of the method. Furthermore, Elia committed to start already in December 1<sup>st</sup> with the publication of the results to allow the market to gain experience with the results before the implementation of the daily procurement. Elia already wants to mention that the parallel run indicates that the results are much of the time determined by the dimensioning incident, and therefore remain in the same order of magnitude as the current mFRR balancing capacity requirements (i.e. around 840 MW).

- On the proposed dimensioning rules for reserve capacity on FRR, Febeliec welcomes the fact that Elia is constantly revising and improving its methodologies. Nevertheless, and notwithstanding the potential benefits of the newly proposed approach, Febeliec wants to remark that the proposed approach, based on machine learning algorithms and combinations of dynamic probabilistic and deterministic methodologies results evermore in a black-box outcome from the point of view of all other stakeholders than Elia (and the regulator, insofar involved in checking the operational implications). Febeliec would thus strongly ask Elia and the regulator to improve the transparency as much as possible and foresee clear evaluation of the proposed methodology as well as dissemination of the results towards stakeholders at regular intervals and in any case after each implementation of methodological changes.

Elia is fully aware that the current complexity of the methodology may challenge the transparency of the calculations. Elia is doing its utmost best to avoid any 'black box' outcomes by already explaining the methodology in large detail in the explanatory notes, publishing the results of the data dump before the 'go live' of the daily procurement, and already publish the results on daily basis as from the 1<sup>st</sup> of December 2019.

Elia will also report to CREG on regular basis. A first review of the results is already foreseen in Q1 2020, where the results of the dynamic dimensioning of the FRR needs will be analyzed, as well as set against the historically available FRR means to make sure the FRR needs are sufficiently covered by non-contracted balancing energy bids, reserve sharing and balancing capacity. This commitment is explicitly stated in Article 6(8) of the LFC Means.

- In order to have the possibility to assess ex post the results of the new methodology for the determination of the FRR needs, FEBEG would appreciate if Elia could publish the FRR needs for 2020 calculated according to the previous methodology (cfr. dossier volumes).

Although this would be technically possible, it would be difficult to agree on all parameters. Indeed, this former methodology depends on the calibration of extrapolation and correction factors to take into account uncertainty between the moment of dimensioning and the real-time. Elia also questions the usefulness of such an analysis as the advantages of dynamic dimensioning go far beyond the result, as it (1) allows a more accurate estimation closer to real-time and (2) having a robust self-learning methodology taking into account latest evolutions without recurrent discussions on methodology and parameters.

Finally, Elia wants to point out that market players will already have this benchmark available with the publication of the parallel run of February 1 2019 to December 1 2019. Everyone can compare the results with the volumes determined by the previous 'static' methodology in 2019.

- Activity fears that using a dynamic and complex method to determine the dimensioning volumes will lead to a lower level of market transparency, impacting mostly small market participants.
  - Suggestion: to battle this unintentional side-effect, Activity asks to compensate this with a publicly available, extensive historical back-testing of the dimensioned FRR volumes if the dynamic dimensioning mechanism would already have been in place. We consider a one-year lookback as a minimum to be able to sufficiently investigate the impact on our portfolio. Given the potential significant impact of the Nemo interconnector, we recommend applying 2 scenarios for the period before the interconnector became operational; one in full exporting modus and one in full importing modus.

Elia explained in the working group it will make available a 'data dump' of the results of the dynamic dimensioning for the time period of the parallel run. This data dump will take into account the exact same assumptions and parameters as it will be implemented on December 1<sup>st</sup>, 2019. This includes the real day-to-day day-ahead prediction of the direction of NEMO Link.

- To Activity it seems strange that while considerable effort is put in the dynamic dimensioning of the FRR volumes, mFRR down volumes are not considered necessary by Elia because sufficient free bids would be available. Indeed, 95% of the time 900 MW downward free bids would be available, but strongly depending on voluntary cross-border contracts which are not yet finalized and available interconnection capacity. When ignoring this, the availability of downward reserves drops significantly. but the threshold of 900MW seems very arbitrarily chosen and impossible to evaluate without stating the required volumes correspondingly. Activity wonders what will happen if more downward reserve capacity than this 900MW is deemed necessary by the algorithm and this capacity cannot be met by free bids. Activity considers this as a potential risk and a methodological inconsistency.
  - Suggestion: A similar analysis back-testing analysis should be performed for the determination of the required downward volumes. Once the methodology of LFC BOA becomes operational and upward volumes are being published and contracted, similarly, the need for downward volumes should be published. This will also provide transparency to the market, warning the market for potential situations of system stress. We propose for a possibility to contract mFRR down reserves if the dynamically dimensioned downward reserve cannot be met by the free bids

First, Elia also wants to clarify that the 900 MW threshold is a worst case estimate of the downward mFRR needs in 2020. Highest FRR needs are observed when the direction of NEMO Link is predicted in export (or where the direction could not have been predicted), requiring FRR needs of 1026 MW. Taking into account the aFRR needs set at 145 MW, the remaining mFRR needs can be determined in these periods at 881 MW. Of course, average mFRR needs may be lower as the direction of NEMO Link might be predicted in import during some moments resulting in the absence of a dimensioning incident and lower probabilistic results and exact results will only be available ex post. ELIA also wants to stress that the reserve sharing with Great-Britain, France and the Netherlands are already into operation today.

As mentioned above, as stated in Article 6(8) 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 purpose 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).

## 5. Questions related to the phase out of R3 flex

- Febeliec takes note of the 844 MW of mFRR, of which at least 314 MW mFRR standard, and wants to stress again that for Febeliec it is very important that in 2020 but also consecutive years R3Flex remains part of the balancing means arsenal of Elia as the product is firstly already revised and has become much more stringent and thus valuable for Elia, while at the same time providing mFRR balancing reserves at a (substantially) lower cost than mFRR standard (as can for example be seen in the beginning of the winter 2018-2019). Febeliec also wants to refer to France, where a similar product has been prolonged after acceptance from the regulator as it has shown to provide ample value for money. Febeliec thus continues to urge Elia and CREG to be extremely cautious about the diminishing of R3Flex volumes in the mFRR mix and definitely any future abolition of the R3Flex product, to the detriment of the cost for the consumers.
- Comment of FEBEG on Art 6 (6.4 and 6.6): FEBEG welcomes and supports the foreseen reduction of the share of mFRR Flex and the phase out of the Flex product.

The reasons according to which ELIA proposes to evolve towards one standard product **have already been presented and consulted in the study** on the evolution towards a daily procurement of mFRR published in May 2018. The main reasons are:

- A better answer to the operational needs of the system
- A level-playing field for all technologies
- Allow a full merit order for activation of mFRR energy bids
- Simplify products and processes

Not at least, the standardization towards one product is a prerequisite for the integration of the Belgian balancing market in European platforms for the exchange of mFRR.

To prepare the market for this phase-out, a clear and gradual phase-out calendar is desirable. However, following the concerns of the market concerning market liquidity and the potential cost savings following the mFRR "flex" product, it will relax the phase out calendar by adapting Article 6(6) as follows :

*"The minimum capacity specified in paragraph 4 will be increased to 640 MW as from July 1, 2020." ~~and to the full mFRR balancing capacity as from January 1, 2021 to be procured following upon agreement with the regulator concerning the phase out the "flex" product.~~*

Elia will clarify in the corresponding explanatory note that it will evaluate the liquidity of the contracted mFRR products since the launch of the "mFRR flex" product. This analysis will be conducted in Q1 2021 and accordingly, Elia will propose an agenda for the next phase of the "mFRR flex" product.

- Lastly, Actility is worried by the impact LFC BOA might have on the mFRR flex volumes which are to be procured in 2020. The dynamic dimensioning of FRR combined with the increasing minimum mFRR standard to-be contracted volumes might lead to a phasing out of mFRR flex which is faster and more drastic than foreseen. The current phasing out design implies that first a certain mFRR standard volume is contracted and only if more reserves are needed that mFRR flex is contracted. In practice this could lead to periods in which no mFRR flex can be procured. This increases the cost for society, because mFRR standard is a more expensive product, and potentially decreases the reliability as the currently available mFRR standard might not be able to cover the demand. This poses a risk for volumes which currently can only deliver mFRR flex and might disappear from the market prematurely. Actility proposes two options:

- A first option would be to change the minimum to-be contracted mFRR standard volume from an absolute value to a fixed percentage of the dimensioned mFRR or a minimum absolute volume of mFRR flex. This should not entail stability issues as when the total need for mFRR decreases the absolute need for mFRR standard can also be decreased as the absolute need for volumes which can be activated longer than 4 hours will also decrease. This would always allow for a certain percentage of mFRR flex to participate in the market, increasing the volume available to participate, decreasing the cost and allowing flexibility providers to adjust to the mFRR flex phase-out in a more realistic pace.
- A second, more comprehensive option would be to be consequent in considering mFRR standard and flex as two separate products and thus to dimension the two products separately. This would provide a level playing field for all reserve products and affiliated offering technologies.

Elia wants to clarify that the risk of a faster phase out due to dynamic dimensioning is very low. As explained earlier, positive FRR needs are often set by the dimensioning incident determining FRR needs around the same volumes as today, being 844 MW.