

Subject: Elia consultation on new aFRR design
Date: 28 September 2018

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Introduction

On the 3rd of September, 2018 Elia launched a public consultation on the new aFRR design. The deadline for this consultation is the 30th of September, 2018.

FEBEG welcomes this consultation and would like to thank Elia for creating this opportunity for all stakeholders to provide comments and suggestions with regard to the proposals for a new aFRR design. The comments and suggestions of FEBEG are not confidential.

Major concerns

A cost-benefit-analysis demonstrating the increased social welfare of the new aFRR design is missing

FEBEG understands the objective of Elia to open the aFRR product to non-CIPU units and units connected to the distribution grid. Nevertheless FEBEG wonders whether the costs to implement this new aFRR design – at Elia side but also at the side of the existing and new aFRR providers – are justified by the expected benefits. Two pilot projects have demonstrated the technical possibility, but also the difficulties. Therefore, FEBEG pleads again for **a more thorough cost-benefit-analysis: the potential aFRR volume should be carefully assessed together with the reservation costs and activation costs linked to these new resources.**

Indeed, as Elia explains in the introduction of the document, aFRR can be considered as the most complex balancing product Elia is contracting. The reason is that aFRR implies a high activation frequency as well as large amounts of activated energy and that it requires a continuous automatic signal. **Larger flexible power plants – typically CCGT's – are by nature very well suited to respond to these requirements for aFRR.** Therefore FEBEG regrets that the proposed market design is making it considerably more difficult for CCGT's to offer their capacity in an efficient and economically optimal manner, which will lead – at least in the short term – to increased costs for the procurement of this service.

Although FEBEG is **supportive of opening the market to other technologies, FEBEG has serious doubts about their ability to play an import role.** In this respect, FEBEG would like to remind the following elements:

- One of the merits of providing aFRR with CCGT's is the relatively low price of the balancing energy. As an exponent of this, it can be observed that currently aFRR balancing prices in Belgium are much lower than in neighboring countries.
- When assessing the economic efficiency of the market design, it is important to assess the full cost of the aFRR product and thus both capacity and activation cost.

- It makes sense to assume that – in terms of energy price – demand flexibility or wind and solar flexibility would be higher in price than a CCGT. In fact, wind generation would need negative activation prices to come to a positive economic outcome.

Daily procurement with 4 hours blocks (§ 6.2.2.)

According to article 32, §2 of the EGBL, the second principle for the procurement of balancing capacity states that *'the procurement process shall be performed on a short-term basis to the extent possible and where economically efficient'*. **FEBEG fails to understand how the daily procurement with only 4 hours blocks can be the most economically efficient solution.**

FEBEG is of the opinion that Elia should perform **a sound market potential analysis demonstrating that only 4 hour blocks will lead to a reduction of the total cost of aFRR** (capacity and energy), taking into account the following factors:

- *Impact on CCGT's:*

The shift to procurement of 4 hour blocks will have a significant impact on CCGT's. Indeed, except for market situations where it can be expected with a sufficient degree of confidence that CCGT's will be in the money and thus running, **start-up costs will be added in the capacity bids of CCGT's for each 4 hours block**. On the contrary, with the current weekly procurement daily start-ups are avoided for the units contracted, reducing the capacity cost.

So, one could expect an increase in the capacity costs in the following situations:

- when the capacity needs of aFRR Up and Down cannot be completely fulfilled by the new technologies, and CCGT's remain thus necessary;
- when CCGT's are not necessary to fulfill the capacity needs: will the total cost – in this situation – be lower than when CCGT's do not have to add start-up costs in each 4 hours block.

On top of that, the **length of the start-up of some CCGT's would make it difficult, nearly impossible to continue to offer CCGT's**.

- *Shift to daily procurement is main driver for attracting new resources:*

FEBEG wants to remind the results in the Elia report 'Study on the evolution towards a daily procurement of mFRR' of the 22nd of May, 2018 (see table bellow). This study shows that the **main game changer to attract new resources is the shift to daily procurement**. The reduction of the delivery period has a smaller impact.

	Product duration / product resolution	Base delivery	Peak & long-off-peak	8h blocks	4h blocks
Onshore wind farm	Month	0%	0%	1%	1%
	Week	2%	4%	5%	8%
	Day	25%	34%	50%	65%
BE aggregated offshore production	Month	0%	1%	1%	1%
	Week	3%	6%	7%	11%
	Day	36%	47%	65%	78%

If Elia nonetheless choses to stick to the introduction of 4 hour blocks, FEBEG proposes to have a **daily procurement of 24 hour products in combination with daily procurement of 4 hour blocks**. The introduction of daily procurement with a 24-hour product – baseload product – is a must: it could to a very large extent reduce the start-up costs of CCGT's and would allow all CCGT's – taking into account the length of the start-up – to participate.

FEBEG believes that this proposal:

- allows Elia to do global optimization to ensure that aFRR is procured at the lowest cost for society;
- respects the principle of technology-neutrality: no technology – nor CCGTs, neither new resources – would be excluded from participation.

Activation of aFRR/mFRR (§ 8.6)

In the current proposal, Elia is proposing to go to a marginal pricing (most expensive activated bid sets the imbalance price) while still holding onto to a pay-as-bid towards the BSP's. Following article 30.1 of the EBGL, the balancing market should evolve towards pay-as-cleared for the balancing energy and have this reflected in the imbalance price. Elia seems to only propose the second part while omitting the first.

FEBEG is of the opinion one cannot be implemented without the other: therefore FEBEG pleads to change both – implementation marginal pricing and pay-as-cleared towards BSP's – in one step. Implementing the one without the other, creates a disequilibrium in the price signal between BSPs and BRPs which is not acceptable.

FEBEG also does not understand for which reason the pay-as-cleared mechanism could not be implemented as FEBEG notices that Elia is already proposing – which is much appreciated – mitigating measures to avoid 'demand spikes'.

Should, nevertheless, Elia chose to still stick to the pay-as-bid mechanism for a temporary period, this can only be combined with a weighted average imbalance pricing for the aFRR activations.

On top of that, FEBEG also insists on more **clear and transparent rules for the activation of mFRR**. At the moment the decision to start activating mFRR – to replace aFRR – is left to the dispatcher's assessment while this decision has an immediate impact on the activation of aFRR and the imbalance price.

Specific comments and suggestions

Communication of baseline (§4.2)

FEBEG wants to express its concerns with regard to the new baseline approach for aFRR: an aFRR provider will have to send the baseline which is expected one minute later each 4 seconds. Several operators use their power plants for continuous optimization, meaning that they use the remaining flexibility on the power plants to balance their positions. For this reason, **it is extremely difficult for such operators to send a correct baseline 1 minute in advance and, on top that, the methodology risks to kill the within quarter hour flexibility** between Pmax-reserves and Pmin+reserves that is currently optimized within the quarter hour. Power plants operators therefore risk to be confronted with significant opportunity losses.

FEBEG also has a question with regard to the baseline methodology: can Elia confirm that the BSP must only send the baseline delivery points submitted on the bidding platform?

Real-time data exchange (§4.4.2)

The settlement of the new aFRR design will be based on 4 seconds data. FEBEG would like to understand what the benefits of shortening the time from 10 to 4 sec for data exchange are as it will increase the **stress on the communication systems**.

FEBEG is also of the opinion that assets for which all parameters have to be exchanged in real-time (CIPU assets or assets with an individual power schedule) should be exempted of the supplementary data exchange of aggregated values. This applies all the more for BSP's who have only CIPU assets in their portfolio.

Metering and submetering (§4.5)

FEBEG agrees with the principle of metering at the same level for delivery points, allowing submetering without hierarchy. To this effect **no distinction between CIPU and Non-CIPU delivery points should exist**: submetering should also be allowed for a CIPU delivery point.

Communication chain (§4.5.1)

FEBEG has a questions with regard to a RTU of Elia: how can the BSP be responsible for the communication of the power measures by this RTU to the SCADA of Elia?

Separate procurement FCR and aFRR (§ 6.2.2.)

As regard the way forward for the implementation of the separate procurement of FCR and aFRR, Elia proposes two options. **FEBEG is clearly in favor of the first option, i.e. 'one-step' option**: the aligning the timing of the introduction of the new aFRR design with the shift to the full regional FCR procurement.

The following elements justify this choice:

- Taking into account the costs of the high number of implementation projects in Belgium, but also in other countries, FEBEG recommend to **skip as much as possible unnecessary implementation steps** and to go directly to the target model, e.g. inclusion of Belgian FCR needs in the regional platform.
- Given the increasing workload related to short term ancillary tenders, this approach will also allow for **operational efficiency**: it will avoid to increase even more the operational pressure in the short term markets.

Reconstitution time after a forced outage (§7.3)

Elia proposes to reduce the reconstitution time after a forced outage from currently 6 hours to 4 hours. As a cold CCGT start-up takes 6 hours, this evolution to 4 hours appears to **increase the risk on aFRR providers from CCGT's for penalty exposure after outages**. FEBEG doubts whether the secondary market is liquid enough to allow participants to rely on this 24/7 in case of forced outage. The capacity procurement by blocks of 4 hours does not justify the decrease of the reconstitution time, as by nature a forced outage cannot be foreseen when bidding the capacity.

Nomination of energy bids (§8.2)

FEBEG also wonders if Elia has assessed the impact of the proposals on the portfolio effect. **FEBEG clearly regrets that the portfolio effect will be seriously reduced, thus reducing the possibility to optimally dispatch in real time within a portfolio:**

- on the availability test: the portfolio effect is reduced to the units nominated in a reserved bid (each bid is considered individually);
- on CIPU units: only one unit per bid is allowed which means that there's no portfolio effect at all;
- on activation control: the portfolio effect is limited to the units nominated in bids (together), instead of the prequalified units of the BSP;
- on non CIPU units: the volume per bid is limited;
- on the combination of CIPU and non CIPU units in a bid: this is simply not allowed;
- on the re-nominations: these are possible, but only until H-25 minutes (FEBEG supposes it is until Qh -25 minutes) meaning that no switch is possible in real time; comment on 'Reserved bids can be updated until the balancing energy GCT (volume, activation price,...)': FEBEG supposes it is possible to switch completely the reserved volume to other units.

FEBEG does not understand the interest of Elia for significantly reducing options for BSP's to create a portfolio effect as this will effectively impact BSP's: less (real time) optimization, implementation costs of the new rules,... Ultimately, the **resulting additional costs will be reflected in the prices of the offers.**

FEBEG has also the following **proposals with regard to the nomination of energy bids:**

- the nomination platform should allow automatic nominations, i.e. a machine to machine system;
- it should be possible (but not compulsory) to nominate units together or to link the energy bids to each other in case CIPU units are linked to each other, e.g. GT and ST in a combined cycle mode.

Pro-rate activation versus merit order activation (§10.1)

With a pro-rata activation all selected bids are activated at the same time, increasing the speed of the global reaction for Elia. With the proposed merit order activation, this advantage will be lost: how will Elia cope with a slower global reaction?

Transition between quarter-hours (§ 10.2)

The jump in the control request in case the bid volume for Qh1 is larger than the bid volume for Qh2 and the bid is fully activated during Qh1 and Qh2, should be avoided (the control request should at any time take the ramping rate into account) and in any case it should not lead to potential activation penalties.

Activation penalties for aFRR Down (§ 12.2.2)

These penalties are based (partly) on the energy remuneration. So, how does this work for aFRR Down: the less a BSP pays for the energy to Elia, the less penalties he may incur? If the prices would be negative, will the penalty then also be negative?

Availability test (§ 13)

The availability test should be designed to control only the availability of the reserved volume and not the baseline quality nor the ramping rate: **it is key that reserved and non-reserved bids are controlled in the same manner for baseline and ramping rate.**

In case $P_{measured}$ is different from $P_{baseline}$ at starting point, some problems may appear:

- In case Elia requires to reach $P_{baseline} + \text{requested volume}$: if in a UP test, $P_{measured}$ is lower than $P_{baseline}$ at starting point, the 7,5 minutes ramp-up period may be insufficient with a normal ramping rate. A longer ramping period should be foreseen.
- In case Elia requires to reach $P_{measured}$ (at starting point) + requested volume : if in a UP test, $P_{measured}$ is higher than $P_{baseline}$ at starting point: this may be higher than the P_{max} of the asset

After a test, a transition period must be foreseen to reach the new set point. On top that, delay of 7,5 minutes to de-activate the aFRR and go back to baseline can be too short to stabilize the unit if the test is requested while the unit was at its upper or lower limit (availability test should only check the availability, not the ramp rate).

FEPEG is also of the opinion that no tolerance on measurements is – from a technical perspective – not acceptable as all measures have associated deviations or tolerances.

Transfer of Energy

When no delivery points with a transfer of energy are nominated by the BSP, the notification procedure is abundant and should not be executed. This applies all the more for BSP's who have no delivery points with transfer of energy in their portfolio.
