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ENTSO-E Consultation FC LER

A Eurelectric response paper

September 2021

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:

- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

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WG Market Integration & Network Codes

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ENTSO-E consultation on all continental Europe TSOs' proposal for the definition of a minimum activation time period required for LER to remain available during alert state in accordance with Article 156(11) of the SO GL

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INTRODUCTION

Eurelectric would like to thank ENTSOE for having performed further analyses of the CBA aiming at defining a minimum activation period (Tmin) for LER's and reviewing of the FCR procurement.

Eurelectric's response to the consultation is split into two parts. We will first give our remarks on the conclusion of the analysis's results, as well as our remarks on the CBA. Secondly, we will explain what would be the prerequisite for a Tmin setting that would exclude some existing resources. These considerations will explain why we are opposed to changes that would require important investments on the LER assets, without being sufficiently certain that this is the most efficient remedy to the problem.

Comments on the proposal

Eurelectric's view is that, considering the elements provided by the TSOs and the insufficient analysis of the impact of the LER on system safety (see below), TSOs should set a Tmin of 15 minutes for the LER. Should further analysis and assessments demonstrate conclusively that the 15 minutes Tmin has a negative impact on the system costs to achieve the same level of safety, then adequate measures could be considered. These measures could be the increase of the required volume of FCR or the introduction of a Derating Factor (DF) scheme on LER remuneration, provided that DF's implementation fulfills the principles listed below (see our comments on the proposed Derating Factor scheme). For further details, please see our proposals below in the section "Recommendations/prerequisite prior to considering a Tmin extension".

Considering the economic impact of the decision, a detailed assessment should be completed, and the efficiency of the decision should be carefully demonstrated. This will impact the existing LER's, which have today a 15 minutes requirement, and the development of future LER capacities. In particular, TSOs should study the impact of applying a derating factor, which could in the end be sufficient to ensure the operational security of the system with a smaller cost than extending the Tmin. The TSOs deem the application of a derating factor complex without providing any clear demonstration. We nevertheless urge TSOs to consider this option further as it could ensure the preservation of the "LER15" capacities for the provision of FCR services while ensuring a better cost sharing between FCR market actors and the system via the procurement cost for TSOs.

If the option D is selected by the NRAs, TSOs state they will commit to ensuring a proper interim period for already prequalified LER to deal with the regulation change, both from the technical and financial point of view. Current 15 minutes Tmin LER having to comply with a longer Tmin will take several years and will affect both ongoing and planned investments. An exemption should be granted to prequalified LER and to planned projects, defined as those that have already filed for a connection agreement or those for which a final and binding contract for the purchase of the main component has already been concluded before the proposal comes into force.

We would like to recall the doubts already expressed by Eurelectric and many stakeholders during the dedicated ENTSO-E and ACER consultations, as well as the webinars organized on this issue and in the SO ESC, about the methodological approach used by ENTSO-E and its full compliance with the SO GL. TSOs should explain how stakeholder's feedback from the previous consultations was considered and ensure full transparency on any further analysis carried out by TSOs on this matter.

Considering the methodology of the CBA, Eurelectric considers that the problem should be studied with a more holistic and broader approach, in particular given the following points:

1. The assumptions and the methodology of any study on the acceptability criterion for frequency worsening caused by LER should consider the actual contribution provided by LER to system safety and be compliant with SO GL. For instance, any simulation of LER energy depletion should duly consider the alert state triggering in full compliance with SO GL. Not considering inertia may also affect the outcome of such analysis.
2. Today, the impact of LER's depletion on the needed amount of FCR has not been properly assessed, mainly because the criteria of the maximum acceptable worsening of frequency deviation caused by LER is currently not defined.
3. The FCR dimensioning is evolving towards a probabilistic recalculation (according to Article 153(2)(c) of the SO GL). Therefore, the risk for the system of LER participation to FCR provision is limited.

4. TSOs did not consider the faster reaction time and higher accuracy in operation of storage units providing FCR, as well as the system's inertia.
5. The CBA is a theoretical approach, with a lot of "simplified" assumptions. For instance, the fact that no improvement on the balancing of the system, due to ongoing work on the reduction of the occurrence of Long-Lasting or Deterministic Frequency Deviations, is taken into account.
6. The likelihood and duration of events of Long-Lasting unidirectional frequency deviation should be forward looking rather than based on historical records. These events considered in the CBA, are the most impacting elements leading to the possibility of LER exhaustion LL's. More generally, we call for the inclusion of the different measures implemented since the most relevant incidents in the different simulations of the CBA, especially defense services.
7. The CBA should not be based only on the cost of the FCR procurement. Indeed, the TSOs overlook other externalities of LER development for the system. CBA should also consider assets' costs including existing LERs, investments, upgrades etc. One could also consider covering the worsening of the frequency deviations during LLs by dedicated services (activated a priori for a limited amount of time), rather than by increasing the total amount of FCR required. The relevant cost for the system would then be the procurement of this specific service.

Recommendations/prerequisite prior to considering a Tmin extension:

Eurelectric considers that more appropriate measures should be taken to act on the root causes of imbalances and their effects simulated in the CBA by the TSOs prior to considering Tmin extension:

1. The measures aiming at reducing the occurrence and the duration of the LL's may show to be effective also in the intervals at which LER exhaustion takes place, or reduce the occurrence of LL and thus reduce the probability of LER's depletion. It is in our view necessary to coordinate these measures, as well as those designed in line with the REX of network incidents. We would also like to stress that LER participation does not impact the number of occurrences of LLs, which ensue mainly from malfunctions of other mechanisms like FRR or errors in measurements or schedules in automatic generation control.
2. Effective countermeasures to solve the problems related to the FRR misbehaviors should be put in place. FRR dimensioning rules should duly consider such misbehaviors to prevent them. In this respect, the publication by the TSOs of detailed information about these malfunctions and the countermeasures considered would be much appreciated.
3. Moreover, other measures may be adopted to address these issues. For example, we expect that putting in place the appropriate actions to reduce the occurrence and amplitude of Deterministic Frequency Deviations will reduce the associated activation of FCR.
4. The establishment of the European-wide balancing platforms (PICASSO and MARI projects), the harmonization and the reduction of the Full Activation Time (FAT) of standard aFRR energy bids and the harmonization of imbalance settlement periods (ISP) to 15 minutes should be considered, as well as any other measure aiming at system balancing and operational security.
5. TSOs could consider additional emergency measures for the alert state for example in case frequency falls below 49.8 Hz. These measures are helpful in case of Long-Lasting frequency deviation and thus be considered in the CBA. In normal state, FCR only needs

to be activated for less than 15 minutes, as it is replaced afterwards by FRR activation. However, LER-FCR providers always have to be able to provide 30 minutes, as the alert state can be announced at any moment. This seems to be an inefficient approach. Instead TSOs should consider to implement dedicated measures for the alert state. It is also necessary to coordinate and harmonize these measures. Nowadays, different approaches are followed to a different extent, so we recommend further analysis on this matter because such absence of harmonization is questionable, as the relative contribution of each TSO to frequency support should be equivalent. It is relevant that one of the elements that need to be considered before considering extension of the Tmin for LER-FCR providers.

6. The analysis conducted by TSOs focuses on the future security of supply but is based on the generation fleet currently available. It thus disregards phase-out plans, age-related dismantling, the build out of RES-E generation and additional investments in flexible capacity over the coming years. In order to make the European energy transition possible, today's changes should be set as future-proof as possible so that investments do not face unnecessarily high regulatory risk. All the measures that have been implemented to prevent the most relevant frequency events occurred in the past should be considered

Comments on the proposed Derating Factor (DF) scheme

The assumptions for DFs calculation shall be as accurate as possible. For example, a wrong estimation of the FCR marginal prices may lead to the wrong estimation of the amount of LER in the FCR provision. We note that it would be easy to mitigate the effects of overestimated DFs, since the probabilistic dimensioning of FCR would always grant that the respect of the criterion for the acceptability level of frequency worsening. However, since the reserve capacity for FCR required for the synchronous area shall cover at least the reference incident, nothing will mitigate the cost-inefficiency of underestimated DFs.

The DFs calculation methodology described by the TSOs does not share the increased costs amongst all the involved parts, it only makes FCR providers bear them all (including, for example, those due to the increase of LL occurrence for which LER are not responsible). Complying with a longer Tmin for existing entities would imply extra-costs (upgrade, qualification…). Such costs should be considered as an increased cost to be shared amongst all the involved parts in the DF model. In addition, the DFs shall reflect not only the increase of procurement costs due to FCR volume increase but also the fact that LER penetration into the market tends to lower the FCR marginal price. A too low DF may lead to the reduction of the submitted FCR capacity, which may be far lower than the prequalified value, and to the increase of the FCR cost borne by the TSOs (and thus by the consumers).

We suggest applying the following principles to DFs calculation methodology:

a. In the model presented in the report, LER will contribute in the same proportion to FCR provision as non-LER during a vast majority of the time but will always have a diminished remuneration. The DFs should guarantee a sufficient remuneration, which reflect their real contribution. One could for example consider increasing ex-post the calculated DFs in a linear way.

b. If no DF is applied to LER30 (as deemed acceptable in the TSOs' proposal), then the minimum DF for LER15 should be set at 0.5.

Besides, the implementation of DFs should be harmonized as much as possible through the whole CE synchronous area, to ensure a level-playing field across LFC blocks. Therefore, TSOs should use the same methodology to calculate DFs. The FCR dimensioning and the DF recalculations should take place on a regular basis and at least at any notable change of the expected LER share in the FCR provision. They should be carried out by TSOs in a transparent and harmonized way.

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability

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