



FLEX grid access

Comments on Elia Design Note and Workshops on the subject

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1. General comments

1.1. Transparency in study phase

It is generally accepted that the concept of flexible grid access creates a risk for the investor which can be determining for the bankability of any project. Project developers must be able to assess this risk with a maximum of information to be provided by the TSO regarding the nature of the constraints. In this respect, the table at the bottom of page 47 of the design note should be complemented with quantitative scenarios, allowing the project developer to quantify the risks related to the access flexibility in his business plan. This will involve some interactive communication (e.g. via workshops) between the Elia services and the project developers and further development of the study tools in this respect.

We feel that it is important to have transparency in how the locational potential for the different technologies is determined by Elia and what the provisions are that Elia is making per location.

1.2. Transparency in operational phase

A direct link between the Critical Network Elements (CNEs) and the (not compensated) flex activations seems to be crucial to ensure this transparency. Therefore, the option with the CNEs being part of the contract is the preferred one. This is option 2 of page 55. We have noticed Elia's arguments in favour of option 1, but it appears that the following points are more determining for the choice of option 2:

- the general concern for transparency
- the level playing field between connections with firm and with flexible access: if a certain constraint is related to general grid issues beyond the critical constraints identified in the study phase, there is no justification for a different treatment between both groups of connections.

However, from an operator point of view, we could agree to less transparency on the activation methodology as stipulated under option 1 in case the congestion is managed via a new real-time redispatching product that is freely traded and market based.

1.3. Limitation of the non-compensated flexibility

This is one of the most important, if not the most important issue. As a result of the study phase, the cap and the duration of the temporary period are fixed. The Design Note is clear that non-compensated activations will be strictly limited to those two contractual limits (in volume and in time).

In this respect, it is necessary to apply the cap on a strictly yearly basis, without carry-over to subsequent years. The argument for this is again based on the crucial aspect of quantification and mitigation of risks in the business plan for the bankability of the project.

The Design Note addresses also the quantification and remuneration of flexibility beyond the cap. For the remuneration, reference is rightly made to the iCAROS framework, the detailed discussion of which is not part of this consultation (page 69). The following seemingly obvious point deserves confirmation on this: whatever quantification or remuneration of activations beyond the cap, and whatever the future evolution of the iCAROS framework or a more market-oriented redispatch, the treatment of connections with flexible access and "firm" access will be strictly the same.

The above statement implies that the socialization of activation costs, which is mentioned as a major concern in the Elia document, is strictly identical between "firm" and "flexible" access for all activations beyond the cap. This is fully justified, since these activations are beyond the constraints identified in the study phase. For example, if a planned investment cannot be realized in the contractual Temporary Period, society is at the origin, since investment planning is the result of the trilateral decision process between TSO, regulator and authorities. Hence, where the Elia document mentions the search for a balance between risks for investors and socialization of costs, it are clearly those elements (Cap, Temporary Period, CNE's) that define the borders for this balance.

The arguments developed above on transparency, level playing field and socialization of costs imply obviously that for an investor in "flexible access" resources, there can be no question of revaluation of flexibility needs which would entail an increase of either Cap, Temporary Period or CNE's. A contrario, as also mentioned in the Elia note, this would imply that connections with firm access could also be converted into flex access resources.

Finally, we oppose the idea of permanent flex connections. We think that a maximum period of 8 years for a project on 220-380kV would be reasonable, and 6,5 years for 36-70-150 kV. There needs to be an incentive for the TSO to properly build infrastructure that can accommodate the renewable assets of the future.

1.4. Impact of Ancillaries and CRM

Beyond the cap, there should be no distinction between firm and flex connections. Hence it is not acceptable that there would be curtailment beyond that cap that could lead to penalties for non-delivery. Beyond the cap, only redispatch is an option.

Yuso expects Elia to apply CRI filtering in the aFRR energy bids. Otherwise, even without aFRR activation, penalties would apply during curtailment for not making the contracted balancing capacity available with energy bids.

1.5. Operational efficiency - merit order

In the "Visienota" of 28 March 2024 regarding flexible access under point 18, CREG refers to the general obligation for the TSO, pursuant to art 21(2) of the SOGL guidelines, to use the economically most efficient remedial actions to manage congestion risks. Elia's Design Note is not compliant with this obligation. We illustrate this point with an example.

Assume a gas plant with firm access and a wind farm with flexible access, both competing for limited grid capacity in a given network node. In accordance with Elia's proposal, the gas plant will force curtailment of - at least a part of - the wind farm each time gas is in the money. Of course, such a situation is not compliant with SOGL 21(2).

Since the energy transition needs a strong development of renewables up to a gradual phasing out of the gas-fired resources, and grid development cannot always (and should not always) ensure the simultaneous injection of both kinds of resources, such a situation is not to be excluded, it could rather be typical for many use cases during the energy transition.

Several solutions can be envisioned for the problem. But each of them requires a further step in the development of the "flex access" mechanism as proposed by Elia, for example consider the following situation in winter:

1. Downward Redispatch (RD) of the gas plant. In a competitive redispatch framework, the cost of this is the power market value minus the marginal cost of the plant (mainly gas). This entails a socialization which Elia intends to avoid.
2. Downward Redispatch of the gas plant, combined with a local redistribution of the RD costs to avoid socialization. In this specific case, the RD cost would be charged to the wind farm. For the "flex" part, the net revenue of the wind farm is: market value - RD cost = substitution value of the gas. This can be considered fair for the wind farm,

since the only value it creates with its flex part is gas substitution: it provides no contribution to security of supply as long as the gas plant is available. The socialization is avoided, while both parties are treated in a fair way. Further, there is a surplus for society, though not visible in cash: the cost (internalizing carbon) of the avoided gas. Only as a last resort, Elia will curtail the wind farm while according to the design note, the firm gas plant would get priority.

As long as flex constraints are purely caused by grid elements and not by competition between technologies, the above example seems not to be very topical. But this is only apparently so: in the end, all grid constraints are caused by injection somewhere else, domestically or abroad.

This example shows that further development in the direction of market-based close-to-real-time RD is needed.

We believe that Elia underestimates the potential depth of a new market for offering curtailment. On higher voltage levels (> 70 kV), the curtailment to alleviate grid congestion is possible on multiple locations in the grid.

2. Comments for BESS

2.1. Quantification of activations beyond the cap

Volume estimate

For BESS, a theoretically determined volume based on historical measurements ('historical baseline') is not an accurate enough representation of the actual intended/ expected dispatch. A BESS will typically execute its schedule unless the real-time price exceeds a certain critical threshold and the SOC allows for such activation.

Hence perimeter corrections can only be based on contractual schedules that have been sent to Elia.

We consider this approach the "least bad" option. However, we would expect that there is a level playing-field for flex and firm connections and that congestion after exceeding the cap is only managed via redispatching and that curtailment is only used under the cap. Perhaps it is needed to extend the redispatching capability closer to real-time. However the alleviations of congestion would be controlled by activation of energy bids and offers with known volume and price. We refer to the progress that has been made in light of the iCaros discussion where a BESS should at least be compensated for the cost per cycle when activated for redispatching.

In case there is no transparency on activation, we believe that the pricing of activation for real-time congestion management should be left to the operator. There are ample general mechanisms in place to constrain (local) monopolies and monitor fair competition and restrain excessive market power.

2.2. Impact of Ancillaries and CRM

The BSP is encouraged not to adjust the EMS strategy to ensure continuous delivery of the ancillary services based on the risk of curtailment. Yet the penalty of failing to deliver the ancillary service because of curtailment is fully passed on to the BSP. At least after the cap there needs to be a level playing field between firm and flex connected assets providing the service. Hence it is not acceptable that there would be curtailment beyond that cap that could lead to penalties for non-delivery. Beyond the cap, only redispatch is an option.

2.3. Access point - Delivery point

The perimeter correction needs to be done at the point where the BRP_supplier is appointed and sending the Schedules. In absence of any other agreement this is typically done at the access point.

2.4. Capacity Reservation - Bank Deposit

We advocate for a similar treatment of load and other types of connection. Nowadays, load receives its capacity reservation at EDS request while BESS only at the reception of the results of the EDS.

The bank deposit is currently calculated using the grid access fees as a reference. This raises the question of whether a storage asset, which has an exemption for the first 10 years, will still be required to pay this bank deposit. Moreover, the proposed calculation of the bank deposit seems rather high. It might be more logical to base it on the connection cost, a portion of which is due shortly after the connection agreement is signed, rather than on the grid access fees. Additionally, since there is already a bank deposit required to participate in the CRM Auction, a double bank deposit might not be reasonable. It also seems impractical to require a bank deposit for the period when Elia is physically unable to connect the grid user. For instance, if a detailed study concludes that the grid user can only be connected in 2030, it would be unreasonable to require the yearly bank deposit to be paid to Elia before this date. Finally, it appears inequitable for a storage unit to have to pay a double bank deposit for both injection and offtake.