Contribution from BSTOR SA/NV to the consultation organized by Elia on the design note related to the evolution of the connection with flexible access framework at the federal level.

BSTOR contribution is structured in two main parts:

- An analysis of the Regulatory Framework summarizing the various provisions relevant for the topics treated under the Elia Design Note.
- BSTOR contribution on the design note related to the evolution of the connection with flexible access framework at the federal level.

1 Analysis of the Regulatory Framework

In this section, we collate the pieces of European Regulation that apply to redispatching measures, to connection requests and to connections subject to operational limitations (id est with flexible access).

1.1 Electricity Regulation 2019/943 on Redispatching

BSTOR understands (but this is to be confirmed by Elia) that Elia considers G-FLEX as a Remedial Action falling under the concept of redispatching, as defined in Article 2-26 and 13 of Electricity Regulation. Those Article provides for the following (we highlight):

"*Article 2 – definitions*

(26) 'redispatching' means a measure, including curtailment, that is activated by one or more transmission system operators or distribution system operators by altering the generation, load pattern, or both, in order to change physical flows in the electricity system and relieve a physical congestion or otherwise ensure system security;"

" *Article 13-* ***Redispatching***

1. The ***redispatching*** *of generation and redispatching of demand response* ***shall be based on objective, transparent and non-discriminatory criteria****. It shall be* ***open to*** *all* ***generation*** *technologies, all* ***energy storage and*** *all* ***demand response****, including those located in other Member States unless technically not feasible.*

2. The ***resources*** *that are redispatched shall be* ***selected*** *from among generating facilities, energy storage or demand response* ***using market-based mechanisms and shall be financially compensated****. Balancing energy bids used for redispatching shall not set the balancing energy price.*

3. ***Non-market-based redispatching of generation, energy storage and demand response may only be used where:***

(a) no market-based alternative is available;

(b) all available market-based resources have been used;

(c) the number of available power generating, energy storage or demand response facilities is too low to ensure effective competition in the area where suitable facilities for the provision of the service are located; or

(d) the current grid situation leads to congestion in such a regular and predictable way that market-based redispatching would lead to regular strategic bidding which would increase the level of internal congestion and the Member State concerned either has adopted an action plan to address this congestion or ensures that minimum available capacity for cross-zonal trade is in accordance with Article 16(8).

[…]

*5. Subject to requirements relating to the maintenance of the reliability and safety of the grid, **based on transparent and non-discriminatory criteria** established by the regulatory authorities, **transmission system operators** and distribution system operators **shall**:*

*(a) **guarantee the capability of transmission networks** and distribution networks **to transmit electricity produced from renewable energy sources** or high-efficiency cogeneration with minimum possible redispatching, which shall not prevent network planning from taking into account limited redispatching where the transmission system operator or distribution system operator is able to demonstrate in a transparent way that doing so is more economically efficient and does not exceed 5 % of the annual generated electricity in installations which use renewable energy sources and which are directly connected to their respective grid, unless otherwise provided by a Member State in which electricity from power-generating facilities using renewable energy sources or high-efficiency cogeneration represents more than 50 % of the annual gross final consumption of electricity;*

*(b) **take appropriate grid-related and market-related operational measures in order to minimise the downward redispatching** of electricity produced from renewable energy sources or from high-efficiency cogeneration;*

*(c) **ensure that their networks are sufficiently flexible so that they are able to manage them.***

*6. **Where non-market-based downward redispatching is used**, the following principles shall apply:*

*(a) **power-generating facilities using renewable energy sources shall only be subject to downward redispatching if no other alternative exists or if other solutions would result in significantly disproportionate costs or severe risks to network security;***

[…]

(c) self-generated electricity from generating installations using renewable energy sources or high-efficiency cogeneration which is not fed into the transmission or distribution network shall not be subject to downward redispatching unless no other solution would resolve network security issues;

(d) downward redispatching under points (a), (b) and (c)shall be duly and transparently justified. *The justification shall be included in the report under paragraph 3.*

7. ***Where non-market based redispatching is used****, it shall be subject to* ***financial compensation*** *by the system operator requesting the redispatching to the operator of the redispatched generation, energy storage or demand response facility* ***except in the case of producers that have accepted a connection agreement under which there is no guarantee of firm delivery of energy. Such financial compensation shall be at least equal to the higher of the following elements*** *or a combination of both if applying only the higher would lead to an unjustifiably low or an unjustifiably high compensation:*

(a) ***additional operating cost*** *caused by the redispatching, such as additional fuel costs in the case of upward redispatching, or backup heat provision in the case of downward redispatching of power-generating facilities using high-efficiency cogeneration;*

(b) ***net revenues*** *from the sale of electricity on the day-ahead market* ***that*** *the power-generating, energy storage or demand response facility* ***would have generated without the redispatching request****; where financial support is granted to power-generating, energy storage or demand response facilities based on the electricity volume generated or consumed, financial support that would have been received without the redispatching request shall be deemed to be part of the net revenues."*

Conclusions

1) Article 13-1 stresses that objectivity, transparency and non-discrimination are the main principles to follow when defining re-dispatching rules.
2) Articles 13-1, 13-2 and 13-3 stress that redispatching should be organized as a market with a technology neutral level playing field. Non-market based redispatching is only allowed under a restricted number of exemptions.
3) Article 13-5 clearly identifies the TSO as the main and first responsible for preventing curtailment, and stresses once again that the TSO must fulfil this responsibility in a transparent and non-discriminative way, and by relying first in the development and operation of a grid with sufficient capacity, then take (once again, transparent and non-discriminative) grid and market measures, but also by fostering sufficient flexibility on the network.
4) Article 13-6 clarifies that when non-market based redispatching is used, curtailment of renewables should be the last resort except if this creates disproportionate costs. This article obviously in no way can be interpreted as providing for any a carve out from the transparency, objectivity and non-discrimination obligations under Article 13-1 and 13-5. And clearly focusses on preventing “non-market based” redispatching of renewables.
5) Article 13-7 clearly states that when relying on non-market-based re-dispatching, a compensation must cover **both** the direct operating costs as the indirect costs such as loss of remuneration, except ion case connection contract with flexible access.

1.2 Regulation 2017/1485 on Principles and Criteria applicable to remedial actions

Article 21 in this regulation is of importance (we highlight) and does not require any comment.

"*Article 21 - Principles and criteria applicable to remedial actions*

2. ***When selecting the appropriate remedial actions, each TSO shall apply the following criteria**:*

   (a) ***activate the most effective and economically efficient remedial actions**;*

   (b) *activate remedial actions as close as possible to real-time taking into account the expected time of activation and the urgency of the system operation situation they intend to resolve;*"

1.3 Electricity Directive 2019/944 on connections with flexible access

The following provisions of the Electricity Directive 2019/944 are relevant for this analysis (we highlight).

"*Article 42- Decision-making powers regarding the connection of new generating installations and energy storage facilities to the transmission system*

> *1. The transmission system operator shall establish and publish transparent and efficient procedures for* ***non-discriminatory connection of new generating installations and energy storage facilities*** *to the transmission system. Those procedures shall be subject to approval by the regulatory authorities.*
>
> *2. The transmission system operator shall not be entitled to refuse the connection of a new generating installation or energy storage facility on the grounds of possible future limitations to available network capacities, such as congestion in distant parts of the transmission system. The transmission system operator shall supply necessary information.*
>
> *The first subparagraph shall be without prejudice to the* ***possibility for transmission system operators to limit the guaranteed connection*** *capacity* ***or*** *to* ***offer connections subject to operational limitations****, in order to* ***ensure economic efficiency regarding new generating installations or energy storage facilities,*** *provided that such limitations have been approved by the regulatory authority. The regulatory authority shall ensure that any limitations in guaranteed connection capacity or operational limitations are introduced on the basis of* ***transparent and non-discriminatory procedures and do not create undue barriers to market entry****. Where the generating installation or energy storage facility bears the costs related to ensuring unlimited connection, no limitation shall apply."*

Conclusion: this Article explicitly prohibits any kind of discrimination between storage and generation, in general in the connection process, and in particular when offering connections with flexible access, which should be seen as tool providing for cost-efficient connection of generation and storage in order to foster their development. In any case **rule**s for granting such contracts with flexible access **may not create undue entry barriers to new entrants**.

1.4 ACER's opinion on applicable exemption to market-based redispatching in Belgium

In the document *"Demand response and other distributed energy resources: what barriers are holding them back?"* published by ACER on 19/12/2023, ACER states that: *"it is in the spirit of the Clean Energy Package to set market based re-dispatching (i.e., local markets for congestion management) with only four exceptions: no market-based alternative is available, all available market-based resources have been used, lack of competition or predictability of network congestions (Article 13 of the Electricity Regulation). At transmission level, TSOs use non-market procurement for re-dispatching in eleven Member States.* ***Their reasons for not implementing a market-based procurement method are found to be in line with the exceptions allowed by the Clean Energy Package, except in Belgium*** *and Slovakia.*"

Acer's opinion is crystal clear: Belgium High Voltage Grid does not fall under the conditions listed under Article 13-3 of the Electricity justify an exemption to market-based redispatching.

1.5 EU Commission Recommendation on storage

The Commission Recommendation on Energy storage dating of 14 March 2023, insist on the necessity to promote the development of energy storage to achieve climate neutrality by 2050 and recommends certain measures for lifting development barriers form which the first is:
"(1) Member States take into account the double role (generator-consumer) of energy storage when defining the applicable regulatory framework and procedures, in particular when implementing the Union legislation concerning the electricity market, ***in order to remove existing barriers****. This includes preventing double taxation and* ***facilitating permit-granting procedures*** [comment: those include grid connection permit procedures]*. National regulatory authorities should also consider such a role when setting network charges and tariff schemes, in compliance with Union legislation."*

2 BSTOR contribution in light with the regulatory framework

BSTOR contribution is structured in 3 points:

- Description of the fundamental imbalance and lack of transparency in the proposed design for contracts with flexible access creating undue entry barriers to new grid users that cannot be accepted in light of the regulatory framework and BSTOR proposals to restore such balance.
- Description of the further imbalance and of the discriminations faced by (battery) storage in the proposed design and BSTOR proposals to restore such balance and remove such discriminations.
- Description of the insufficiency of Elia's proposed modified connection request process to achieve what should be the main targets of such modifications and alternative proposals by BSTOR.

2.1 A fundamental imbalance disfavouring grid users with flexible access and therefore creating undue market barriers to new entrants.

BSTOR believes that Elia's proposed design fundamentally fails to comply with the paramount principles defined in European Regulatory framework and in particular with Article 13 of the Electricity regulation, which is to implement redispatching rules that are first foremost market-based, and in any case based on the principles of transparency, objectivity, non-discrimination and cost effectiveness, and that do not create undue entry barriers.

As a reminder, in the spirit of the Electricity Directive, contracts with flexible access to the grid should facilitate connection of new entrants, not jeopardize their development by putting unjustified, unmanageable and unbalanced burden and risk on those new entrants as proposed in Elia's design.

One of the main reasons for this is that Elia actually mixes up two subjects in the design note:

- Specific conditions applying to connection contracts with flexible access.
- The wider regulatory and operational framework for congestion remedial actions ("RA") and the fact that Elia may need two types of RA: one ahead-of-real-time RA (redispatching) and a real-time RA (G-FLEX).

This second topic should actually not be the subject of the design note. Mixing up both topics leads Elia to treat "G-FLEX as a RA" and "connection with flexible access" as being the exact same thing. This is not, and may in BSTOR opinion not be the case for not creating obvious barriers to new entrants. Theres is absolutely no justification why grid users with flexible access would be the only grid users taking (compulsory) part to G-FLEX, nor why G-FLEX would be the only way to use the "compensation free" flexibility from "flex-GUs", which explicitly goes against provision of Regulation 2017/1485 to always uses most cost-efficient remedial action first.

BSTOR reminds that dispatching should be organized as a market as per Article 13-2 of Electricity regulation and that Elia failed, according to ACER, to justify that conditions for an exemption to such market-based organization are met in Belgium. Under such circumstances of "unjustified exemption to market-based rules". BSTOR therefore requires Elia to define a roadmap for implementing ASAP market-based re-dispatching principles (not as part of a "*sine* die" long-term model as suggested in the design note) and in the meantime requires strict compliance with:

- The conditions applicable when redispatching is non-market based as defined in Article 13-5 and 13-6 of the Electricity regulation ➔ measures must be-transparent and non-discriminative and may not cause disproportionate cost.
- The conditions defined under Electricity Directive 2019/944 for granting contracts with flexible access as per transparent and non-discriminatory procedures which do not create undue barriers to market entry.
- When it comes to operational principles, the requirements of Regulation 2017/1485, activate the most effective and economically efficient remedial actions.

BSTOR finds it fundamentally non-compliant with above principles to have "G-FLEX on flex-GUs" (even within the cap) considered as the first recourse for congestion management, this is significantly harming the business model of flex GUs in a way that could be reduced if such flexibility would be activated under redispatching instead of G-FLEX.

Transparency, cost-efficiency and non-discriminative congestion management should instead include:

- Operational principles enabling to define when either redispatching or G-FLEX (or return to schedule) is needed in order to reach a cost optimum between on the one hand, a principle minimizing G-FLEX activation (which have a higher cost for the GU and as consequence for Elia since Article 13-7 of Electricity regulation clearly state) without on the other hand a principle of avoiding excessive preventive recourse on redispatching volumes.
- Clear and transparent definition of the T&Cs for the two services as well as the consequences on compensation when delivered by a gris user with flexible access (*id est* no compensation of the activation within the cap).

On top of this BSTOR understands and agrees with the principle that "costs to solve congestion risks that would be caused by a grid user who cannot obtain a permanent access may not be mutualized" but BSTOR believe that the second fundamental imbalance creating undue market barriers for new entrants is created the proposed methodology for the cap definition and related operating principles that obviously put a burden on grid users with flexible connection that is much bigger than their direct and full contribution to congestion issues. This imbalance is further reinforced by the fact Elia is not consequent with the corollary of that principle of on-mutualization of cost from individual impact which should be a full mutualization of costs that are not caused by individual risks contribution.

BSTOR draws such conclusions based on following observations:

- The cap under which there is no compensation is defined through a currently proposed methodology which is not meant to investigate consequences of a connection in a "best estimate of the most likely situation" but under a "worst case *what if* situation" in terms of flows on the grid: what if all existing grid users shift their demand to PPAD; if load, storage and generation evolve as per the pre-identified potential behind the federal grid development plan, with load/injection profiles as assumed by Elia; and if on top of that all allocated and reserved capacity is actually connected in due time, with load/injection profiles as assumed by Elia. Unless if all these "what ifs" turn to be true in reality (which is totally unlikely), the cap defined as per current methodology will be significantly higher than the true "full and direct" contribution to congestion risk by the grid user, since such cap is defined using a "reference context" which is much more "congestion prone" than the most likely reality. As a result: **the way the cap is defined in current methodology already inherently individualizes costs on flex-GUs that are fundamentally mutual and this must be taken into account, mitigated and in any case not worsened, for not creating a fundamental imbalance in the scheme putting excessive and unjustified burden on grid users with flexible access**.
- The pre-identified potential behind the federal grid development for a certain type of request can be exhausted by allocated/reserved capacity that in the end will never be developed. Even if requesting a bank deposit could help "cleaning up" such "dead weight" (which in BSTOR's opinion won't be sufficient, see §2.3), there will always be a lead time of few years before allocation of capacity and freeing up of the capacity that in the end won't be developed in the assumptions for the grid study a grid user with flexible access, which will be too long for providing gris users with cap value than not include such fundamentally mutual risk at the moment were entry barrier is the highest: when an investment decision must be taken. **BSTOR believes it is fundamentally wrong to pretend that the optimal cost-benefit ratio for the society is to have all risks related to as to whether the allocated/reserved capacity materializes or not fully individualized on grid users with a request "later on in the queue" and that next to measures needed to reduce such risk, the principle of non-mutualization of costs related to individual risks must be applied with sufficient flexibility (meaning compensation may apply under certain conditions, even within the cap)**
- This imbalance is reinforced by the fact that even when the cap is reached, grid users with flexible do not seem to be treated on the same way as grid users with permanent access (the same prevails for the permanent bend in a contract with flexible access). In workshops and meetings, Elia pretends it is not the case, but the fact is that G-FLEX only applies to grid users with flexible access in Elia's proposal, and that Elia still consider activating G-FLEX on such GUs even beyond the cap or within the permanent bend, while this can't occur for GUs with permanent access. This is unacceptable for BSTOR. **If flex-GUs have a compulsory participation to G-FLEX even beyond their cap or within their permanent bend, the same obligation should apply to GUs with permanent access** (within their technical limitations obviously) for limiting the volume of G-FLEX activation to be received by grid users with flexible access beyond their cap or within their permanent bend.

- This imbalance is reinforced by the fact that chance for obtaining a contract with permanent access are too low, and totally fail to be transparent as explicitly requested in Article 42 of Electricity Directive 2019/944. In particular, **BSTOR finds it totally unacceptable that connection requests falling within the pre-identified potential behind the Federal Grid Development plan wouldn't automatically obtain a permanent access** as proposed by Elia. **BSTOR finds it also totally unacceptable that when carrying out a grid study, Elia only considers the part of the pre-identified potential in the same direction as the request**. This clearly puts a disproportionate cost on grid users in relations with risk that have nothing to do with their request and can't be managed in no way whatsoever by them, which clearly constitute undue market barriers that cannot be tolerated in light of the European Regulatory Framework.

- These undue market barriers are further reinforced by the fact that **Elia consider as "costs" to be individualized**, elements that in fact are related to fundamentally mutual **risks that are not "fully and directly related to the grid user"**, including:

    - The risk related to the **speed at which Elia can deliver infrastructure**, which Elia proposes grid users with flexible access to carry through multi annual usage of the cap and trough a duration of the temporary period which is flexible.

    - **The imbalance risk caused by a G-FLEX activation** is a risk that a grid user with flexible access can in no way manage, nor a cost he is directly and fully causing: he doesn't control volumes of G-FLEX he get activated, doesn't control the moment of G-FLEX activations, and he cannot control what will be the System Imbalance nor the Imbalance tariff when activated under G-FLEX. Furthermore, BSTOR understanding is that correction of BRP perimeter does not necessarily result in a (significant) cost for Elia that may significantly impact the tariffs: 1) compensation of the G-FLEX activation doesn't necessarily cause a net increase of the NRV since it will increase (chance of) NRV activation in one direction but reduce (chance of) NRV activation in the other direction with the same volume; 2) there will be netting between all G-FLEX activation, reducing the aggregated impact on the NRV in terms of volume, which could be low to negligible compared to NRV activations for balancing purpose ; 3) even if the NRV would increase, this doesn't necessarily lead to a (significant) increase of the balancing costs depending on as to whether the FRCE zone is either short/long when compensating a G-Flex activation on injection/off-take.

For the proposed system to be balanced and compliant the regulatory framework, BSTOR requests the changes listed below (all those changes are needed according to BSTOR, list is furthermore not in order of importance):

1. **Elia must define operational procedures for activation of either redispatching or G-FLEX** and define terms and conditions for both services that deliver an optimum cost-benefit (e.g. minimize G-FLEX without excessive unnecessary redispatching volume) **independently from criteria for obtaining permanent or flexible access and associated rules**. Then only specific conditions applying to redispatching or G-FLEX activations on grid user with flexible access (*id est* no compensation within the cap, whether used as redispatching or G-FLEX) should be defined. There is absolutely no reason and is contrary to the regulatory framework to limit G-FLEX participation to grid users with flexible access, nor to systematically use G-FLEX/exclude redispatching for "exhausting" the free from compensation flexibility volumes from grid users with flexible users within the cap.

2. **Beyond the cap and within the permanent bend, there may be no difference of treatment whatsoever between grid user with flexible access and with permanent.** The risk of having a G-FLEX activation (or re-dispatching bid) should be exactly the same and operating principles should be modified accordingly.

3. **The duration of the temporary period set in the connection contract must be fixed and binding**, with sufficient but reasonable margin but without "joker" for Elia to extend it. Next to the fundamental unbalance between individual/mutual risks/consequences it would otherwise create, not having such a fixed and guaranteed period with significantly complexifies seeking banking finance for new built projects since lenders will always look at the most conservative scenario for looking at repayment capacity of a project with as a result a very strong and negative impact on the social benefits from grid investments: assets are not developed or developed with higher cost of capital which will be reflected in service price.

4. For the same reason, **BSTOR finds it totally unacceptable to consider multi-annual usage of the cap** as this put burden on a grid user that has nothing to do with congestion risks it directly and fully caused. This is furthermore even further impacting bankability of new build projects since lenders will size debt on a worst-case scenario "every single year", meaning that in the financial model defining repayment capability, the bank will consider that the multiannual cap is used every single year. Elia should be aware that its current proposal would make it totally impossible for a project to source finance on project level starting from flexibility caps around 15%, leading to grid unavailability of ~50% in the lender's financial model. Considering the conservative definition methodology of the cap, reaching such cap in one single year should already be a "exceptional worst case" since it almost by definition means that G-FLEX was activated on a grid user for reasons that have nothing to do with its own full and direct impact on congestion risk. BSTOR therefore believes it is absolutely unacceptable for Elia to provide for options to use such cap every single year on an average basis. BSTOR however understand that Elia may need some flexibility to cover uncertainty of the timing of maintenance/network works temporarily affecting the grid capacity, and leading to situations of increased flexibility for a grid user for a short period (typically 1-3 years). BSTOR could support the idea whereby Elia would define such higher temporary flexibility in (well identified and limited in time) "N-1-1 situation" and would have the option to shift such period in time. But for the rest, the cap should be interpreted as an absolute annual limit. The only acceptable exemption could be a tolerance equal to the flexibility threshold under which a grid user would obtain permanent access (see below).

5. As long as Elia hasn't implemented market based redispatching and in particular considering ACER has rejected the motivation for deviating from such market based rule in Belgium, **Elia must strictly comply with the obligation of transparency,** explicitly required in Article 13-6 of Electricity regulation where non-market-based downward redispatching is used, which is absolutely not the case for the moment. All the steps, assumptions, simplification, models used, output behind the study should be duly documented in a way enabling the grid users to understand results and decisions and enabling auditing by a third party to make sure that no discrimination occur.

6. **The reference context during the temporary period should evolve to reflect the expected evolution of load/generation/storage** in the pre-identified potential (if the assumptions behind the federal grid plan are detailed enough about such evolution) or allocated/reserved capacity (depending on requested connection date in the corresponding request). It is not clear to BSTOR from the design note if Elia proposes it to be the case. In workshop Elia pretended it would be the case, but in results from grid studies received by BSTOR so far it doesn't seem to be the case. In order to limit the computation burden for Elia, this could happen with higher granularity than on a yearly base, and granularity in EOS phase could be higher than in EDS phase (e.g.: 5 yearly periods granularity in EOS and 3-yearly in EDS?)

7. As part of this transparency, **Elia should provide demonstration that its methodology for defining annual cap values based on model outcome for 100 individual situations of 1h, then allocated to the 8760 hours of a full year is not inherently excessively conservative** (e.g. allocation of "situations" to hours of the year where congestion risk is in fact lower than in the considered situation) and correctly takes into account impact on congestion from generators with "continuity constraints" (e.g. gas turbines due to minimum stable generation and energy limited assets due to energy management constraints, from which dispatch cannot be correctly modelled when looking at individual hours).

8. **The same transparency obligation must prevail for operating principles** and **in particular** for re-Dispatching and G-FLEX activation **within the cap** and in general for every single uncompensated activation. All activations should be duly documented in a way enabling establishing as to whether the congestion solved by the remedial action was indeed fully and directly caused by the activated grid user, ad if such cannot be established, the same compensation mechanism should apply as above the cap. In other words, for not creating undue market barriers: **if, without the presence of the activated grid user, Elia still would have had to activate remedial actions, that amount of remedial action that still would have been needed must be compensated to the gird user in the same way as an activation beyond the cap**.

9. For not creating undue market barriers, **remedial actions triggered for other reason than the ones pre-identified in the gird study must be compensated the same way as above the cap**.

10. For not creating undue market barriers, **all requests within the pre-identified potential must obtain a contract with permanent access.** Grid studies upon EOS and EDS stage should provide clear, transparent and auditable definition on as to whether request falls within pre-identified potential and why.

11. For the same reason and to compensate for the conservative character of the cap definition **methodology grid users with a low impact on congestion risk (for instance with cap lower or equal to a threshold if 5%) should be offered a contract with permanent access**. Any year-to-year transfer of the cap should be limited to the same threshold defined for obtaining a permanent access if such is commonly accepted as the "tolerance" of the computation.

12. For the same reason, even for grid user with a cap higher than such threshold therefore receiving a contract with flexible access, **a permanent bend should always be defined coinciding with the connection power with flexible volume equal to the threshold**.

13. **Whether requests are within or without the potential** (within the potential, it should not be relevant since a grid user should get a grid study with permanent access without needing a grid study to be performed)**, the potential in the opposite direction of the request should always be considered in grid studies**. It is absolutely unreasonable to let individual grid users individually bear the risk of the actual development of such potential (and the order of the connection requests corresponding to this potential, which could have a huge impact on flex caps computed).

14. **Elia should provide demonstration that having the BRP perimeter corrected also below the cap truly creates a significant risk of impact on the grid tariffs** or otherwise accept such correction even within the cap.

15. As for the impact from G-FLEX on BSP activities, the scheme must be updated to limit the impact, both beyond the cap

    - For not creating obvious entry barriers and discrimination of grid users with flexible access and in application of Article 13-7 of the Electricity Regulation providing for compensation of all costs (including loss of remuneration) when activating non market-based redispatching, **beyond the cap (and/or when it cannot be demonstrated that the RA was fully and directly due to the grid user), G-FLEX activation (and redispatching) may not lead to any impact on BSP activities**. This can either be achieved through considering redispatching/G-FLEX (beyond the cap) as an unplanned outage giving right to a portfolio reconstitution window as per BSP T&C, or by making sure that the compensation paid by Elia to the activated grid user may include compensation of penalties and loss of remuneration on BSP activities.

    - **Within the cap**, BSTOR understands that penalties and loss of remuneration apply, but **BSP T&Cs should be updated to limit the consequences** to the related penalty (no availability test, no impact on prequalification) to a level not creating undue market barriers (since it would de facto create a risk of excluding grid users with flexible access from participating to BSP activities).

2.2 An even stronger imbalance, and discriminative provisions for storage

For storage (which in the context of connection contract with flexible access means battery storage), BSTOR conclusion is that Elia's proposed design is even more unbalanced than for other grid users, and even entails multiple difference of treatment with other type of grid users potentially or explicitly qualifying as a discrimination prohibited under the Electricity Regulation.

BSTOR conclusion is based on following findings:

- Request for connections for battery storage is subject to fierce speculative behaviour leading to much higher requests for allocating/reserving capacity than the capacity that can be in the end realistically connected to grid. As a result new connection requests for storage will get contracts offered with highly flexibilized access for reasons that have nothing to do with the actual full and direct increase of congestion risk by the request, but are mainly related to the fact that the potential for storage is (artificially, no one knows if corresponding capacity ever will be developed) exhausted with sometimes on top of, large (and also artificial) allocated/reserved capacity.
- This effect is reinforced by the fact that Elia models the impact from storage based on a simplistic and excessively conservative market-based dispatch, assuming (as BSTOR understands) that all storage assets will do the same at the same moment, in a reaction to SPOT market prices signals. This method clearly exaggerates the impact from storage on congestions in a way that is totally unrealistic since SPOT arbitrage isn't a viable business model for batteries as admitted by Elia itself since the economic valuation of new built BESS in the adequacy study hardly delivers any "autonomous growth" (100 MW extra capacity in 2028 in las AdFlex study).
- This is further reinforced by the fact that BSTOR understands that Elia will only look at the negative impact of storage capacity under potential and under allocated/reserved in the reference context: when looking at a storage request in injection profile (or a generation request) it will only consider spot market based modelled profile from non-existing storage capacity in the reference context in injection, that creates a potential conflict with the request, and not to the spot market based profile in off-take, that doesn't conflict with the request but can help mitigating congestions from e.g. renewable production. BSTOR finds this totally unacceptable, totally inconsistent and potentially creating a **first discrimination for storage** (and load) since for other technologies, Elia will look at all the full allocated/reserved capacity "in the opposite direction of the request". In the end, the methodology for defining the annual cap based on simulations for 100 individual situations of 1 hour must be consistent for the total annual output, not for every single situation: for some, negative impact of storage will be exaggerated compared to reality due to the simplistic dispatch model used by Elia, for others the impact will be underestimated. But for not creating a fundamentally biased and exaggeratedly negative impact, Elia absolutely has to take "errors of its simplistic methodology in both directions" into consideration to model the year average impact from storage on congestion caused by a new request.

- This is further reinforced by the fact that storage cannot reserve capacity at the same time as a load, while directly competing on the off-take bend. Load gets capacity reserved upon ordering of the EDS, storage upon delivery of the EDS (from which timing isn't guaranteed and can massively exceed the regulatory delay). Next to the fact that it is making it impossible to define the reference context for the grid study under the EDS and therefore makes the whole process unmanageable for Elia (as long as the EDS isn't delivered to storage, reference context can still be updated by any EDS request for load), this is according to BSTOR a **second, this time obvious and explicit discrimination of storage** that must be removed. Nothing justifies such difference in treatment. Capacity to be allocated to load either storage is already arbitrated in the definition of the pre-identified potential. Beyond such potential, deviating from the FCFS principle can in no way be justified and obviously causes discriminative entry barriers.
- **A third, obvious and explicit discrimination of storage** relies in the technology non-neutral activation order proposed under G-FLEX, always activating storage first. BSTOR understands that this would apply both among the assets having a PTDF above a certain significance threshold as among assets below such threshold. The two are totally unacceptable breaches of fundamental principles of both technology-neutrality as of cost efficiency in BSTOR's opinion. Article 42 of the Electricity Directive explicitly prohibits discrimination in granting connections with flexible access (which clearly excludes difference of treatment among grid users with flexible access based on technology) and Article 13-5 and 6 explicitly conditions "preventing curtailment of renewable generation" to non-discriminative criteria and to avoiding disproportionated costs. Its is clear that preventing curtailment of renewable generation which is itself granted with a connection contract flexible access can in no way justify creating a disproportionated cost and related undue market barriers of "always hitting storage first". This also goes fundamentally against Article 21-2 of Regulation 2017/1485 requiring to always use most cost-efficient RA first. The fact that discriminative provisions were taken at Walloon level in no way provide justification for taking over such provisions at federal level. Anyway, the situation can in no way be compared: Walloon framework mainly apply to DSO, which have less remedial action and on top of that a cap to non-remunerated activation is set at 5% in the Wallon framework and above such cap all direct and indirect costs are explicitly said to be compensated, which obviously totally changes given; furthermore, large-scale grid connected batteries, which will be the most impacted by G-FLEX activations cannot be developed at DSO level. Instead of taking over such provision, Elia should sensibilize the Walloon authorities of the cost-inefficient character of their measure and legal risk for the whole redispatching procedures should a claim be filed against such provisions.

  In BSTOR's opinion:

  - Above the PTDF significance threshold, nothing justifies stepping away from the technology neutrality principles and cost efficiency principles stated in Article 21-2 of Regulation 2017/1485 should be the main guiding principle (reducing the activated G-FLEX to obtain a certain congestion relief).

- Below the threshold, we speak of G-FLEX activations that are highly inefficient. Depending on the threshold, BSTOR understand that we here speak about activating e.g. 100 MW of G-FLEX for a "relieving" effect of 5-10MW. Such fundamentally inefficient Remedial Action should be used as a very last resort and avoided as much as possible including by first activating flexible units without flexible access (with compensation) with a higher PTDF. If those aren't sufficient, impact of such below PTDF significance threshold should be spread as much as possible, not concentrated as possible as Elia proposes by relying on a technology discriminating merit order and "LIFO" principle, which obviously create entry barriers.

- **A fourth, explicit discrimination of storage obviously** comes from the proposal to apply the re-dispatching compensation principle for G-FLEX compensation for storage. For load and generation this may makes sense as such efficiently hold the grid user "harmless" for such activation as long as BRP perimeter is corrected, but for (battery) storage, it fundamentally doesn't as the damage from a G-FLEX activation is much higher than the one from an activated re-dispatching bid, which leaves (battery) storage as the only unit for which G-FLEX activations wouldn't be fully (nor even decently) compensated after the cap. Such proposal is anyway in direct and obvious breach of provisions of Article 13-7 of the Electricity Regulation requiring that when non-market-based redispatching is used, all costs (including loss of remuneration) are compensated.

  The higher impact from G-FLEX versus redispatching is threefold:

  1. Redispatching provides for a MWh baseline to follow per quarter-hour, allowing infra quarter-hourly variability, without MW limit to respect. G-FLEX provides for a hard MW limit that cannot be exceeded.
  2. Consequences from not following a re-dispatching bid are economic (penalty), consequences from not following G-FLEX are operational (disconnection). G-FLEX comes over as a close to physical limitation that compares with an outage.
  3. Redispatching bid will (or at least can) be sent longer ahead than G-FLEX which is real-time leaving the BRP/BSP with more options to find alternative flexibility in its perimeter (and or adapt bidding).

  As a result, G-FLEX has the same effect as an unplanned partial outage for batteries, which will fundamentally harm their capacity to earn revenues.

  For these reasons, where under re-dispatching it can be acceptable under certain conditions to limit compensation for storage to energy management costs as proposed under Icaros (anyway the list proposed in Icaros is said as non-exhaustive and BSTOR reserve to claim additional compensation in application of Article 13-7 of the Electricity Regulation, and furthermore, Elia must anyway ASAP switch to market based redispatching principles), it is totally unacceptable under G-FLEX, from which impact is comparable to an unplanned outage and lead to a loss of remuneration that must be compensated at least at the level of "half of the levelized cost of storage" for every MW.h of G-FLEX activation, independently from the actual energy that could have been injected/off-taken (which anyway cannot be defined).

  On top of this G-FLEX (no economic merit order whatsoever) merit is "even less market-based" than redispatching which also justifies for an even more "all-inclusive remuneration" as required under Article 13-7 of Electricity Regulation, in particular in a context where ACER rejected the motivation to deviate from market-based redispatching because non-compliant with Article 13-3.

This discrimination is obviously reinforced by Elia's proposal not to compensate impact from G-FLEX activations on BSP activities even above the cap, which will constitute a bigger part of the revenues for BESS than for any other type of units but as explained above, BSTOR comes to the conclusion that such proposal is totally unacceptable. Here again, this is an unacceptable breach of Article 13-7 of the Electricity Regulation, in particular in such context of according to ACER undue deviation from market-based principles.

- Finally, for not creating a (fifth) discrimination of storage, provisions must be taken for making sure that principles for BRP perimeter correction, when applicable are as efficient as for other type of grid user in a context where "it can impossibly be defined what would have been the dispatch of a battery without G-FLEX signal" and where to the opposite of other grid users, batteries main business model is to offer hedging/opportunity value to BRPs by enabling to exit/enter a short/long position until the very last minutes before real-time, with as a result, a much higher impact from G-FLEX than other type of grid user.

In order to enable BESS to contribute to a much better cost/benefit optimum and remove explicit and potential discriminations against storage, BSTOR request Elia to implement the below changes in the proposed design (here again: BSTOR's opinion is that all those changes must be implemented, and list is not in order of importance).

16. **Elia must look into much more details to what should be the optimal sequence of activation of Remedial Actions for battery storage that maximizes social cost/benefits and is in line with Article 21.2 of Regulation 2017/1485** and how such sequence can be materialised in the operational principles and in turn reflected in the grid study methodology. From BSTOR's point of view: G-FLEX activation to preventively prevent potential deviations from schedule/dispatch on battery storage hardly have any impact on grid congestions while having high impact on the grid user's business model and should be prevented as they goes against provisions of Article 21.2 of Regulation 2017/1485 cost efficiency Article 13 of Electricity Regulation (disproportionate cost and discrimination) and create entry barriers. Elia should not anticipatively prevent any possible deviation from schedule using such G-FLEX but only correct actual deviations from schedule if BESS doesn't sufficiently quickly react to a return to schedule instruction. **In BSTOR's opinion, the sequence should therefore be**

    i. **Re-dispatching bids to change schedule of a storage units**

    ii. **If changes from schedule cause congestion issues => return to schedule.** In BSTOR's opinion, this should always be activated before G-FLEX in light of cost-efficiency requirements under Article 21.2 of Regulation 2017/1485.

    iii. **Only if actual deviation from schedule/actual dispatch causes a problem or if return to schedule not respected, G-FLEX signal to be sent**

    Considering the speed of reaction of batteries (which could be reflected in lead time to follow G-FLEX signal) and the fact that in last resort they can even be disconnected without damage, this sequence, limiting G-FLEX activations on storage to the strict necessary seems totally acceptable to BSTOR.

17. **G-FLEX activation merit order and activation definitions rules must rely on strict application of technology neutrality and cost efficiency and must be fundamentally reviewed to be compliant with requirements of transparency, cost-efficiency, non-discrimination in the Regulatory Framework.** BSTOR suggest considering following activation principles.

    i. First grid users with flexible access and with a PTDF above the significance threshold and with a remaining volume above the cap are activated. Within this group, Elia could either activate all considered grid users pro rata the remaining volume under the cap, or one by one from the highest to the lowest PTDF. Each has its pros and cons, but from a grid users' perspective, BSTOR believes that the pro-rata principle has the advantage of not concentrating activations over a certain period the time always on the same grid user (the one with highest PTDF).

    ii. If not sufficient, grid users with permanent access but with flexible units (permanent contracts, permanent bend of contracts with flexible access, flexible bend of contracts with flexible access contracts beyond cap considered all together for not discriminating grid users with flexible access), with a PTDF above the significance threshold should be activated. From a social cost/benefit perspective and in line with Article 21.2 of Regulation 2017/1485 BSTOR believes it is justified to use G-FLEX on these grid users to avoid exhaustion of the flexibility cap of grid user with flexible access for congestions on which those hardly have any impact because having a PTDF below the significant threshold. As this consist in activating grid users with permanent access or equivalent, impact should be lowered as much as possible by spreading the activation to as much as possible GU's (activation of all considered grid users pro rata the maximum flexible power for instance).

    iii. If not sufficient, grid users with flexible access with a PTDF<significance threshold should be activated, under same merit order as under i above.

    iv. If not sufficient, flexible units with permanent access with a PTDF<significance threshold should be activated, under same merit order as under ii above.

18. **Compensation principles of G-FLEX activations on storage beyond cap must deviate from the compensation rules under re-dispatching (ICAROS)** since impact is totally different. This means that for not creating obvious discrimination of storage **compensation should be sufficient to cover the entire value destruction from the G-FLEX activation** in line with Article 13-7 of Electricity Regulation, in particular in a context where ACER is of the opinion that deviation from market-based redispatching rules in Belgium is not justified. The compensations must apply to every single MW.h of G-FLEX activation compared to an 8760 hour flat baseline, and not the "average MWh injected/off-taken per MW.hours of available grid capacity" as Elia propose to benchmark on a reference period. It is the availability of batteries that create value in BRP perimeters, not their activation, and G-FLEX has exactly the same impact as a partial unavailability whereas it's not the case under the redispatching as this last one provides for a MWh baseline to follow, allowing infra quarter-hourly variability, without MW limit to respect.

19. **For not creating (a sixth) discrimination with production** units for which principle of BRP perimeter correction under G-FLEX fully hold gris user "harmless", Elia should adapt BRP correction for storage as follows:

    - BRP perimeter correction of the part of the schedule that is modified by the G-FLEX signal.
    - Rest of the impact on BRP perimeter defined as eligible cost in the compensation definition (i.e. if a grid user get an imbalance penalty passe through by its BRP that can be duly and fully imputed to such G-FLEX activation -and that the cap is exhausted-, such cost may be claimed in compensation by the grid user).

    The methodology proposed by Elia with "benchmarking" of injection/offtake rates for batteries over the last 4 weeks indeed create risks that other grid user will not have: Arbitrary BRP correction that may have nothing to do with the actual perimeter of the BRP should no G-FLEX signal be received and which can be "polluted" by impact from unavailabilities and G-FLEX activation within the benchmarking period.

20. **Difference in timing for capacity reservation between load and storage cannot be justified and must be removed for not creating a discrimination**. Both must be allowed to reserve capacity upon EDS procurement. For the same reason, when a capacity request falls outside the potential and/or a grid study is needed, **it is totally unacceptable that some grid user may "skip the queue" by starting an EDS or MIC straight ahead**. As soon as a grid study is not necessary, an EOS must be performed.

21. Elia must improve the methodology for modelling impact from battery storage on congestions in the grid studies. BSTOR understand that this may first require return on experience on the large capacity that is expected to connect in the coming years. However, in the meantime, **Elia must consider the output of the market-based dispatch model for storage as a whole, and not only look at the dispatch in the same direction as the one from the considered grid user for which cap is being determined in a grid study**. Such "cherry picking" in the reference context is clearly likely to impact storage more than other technologies (because of higher chances of being outside of pre-identified potential) and therefore could be potentially discriminative, but more fundamentally this even further deteriorates the overall rights/obligation of any grid user with flexible access with storage in its reference context leasing to unjustified excessively conservative cap definition.

2.3 Changes in the connection process that fail satisfyingly reaching objectives

BSTOR comes to the conclusion that the changes proposed by Elia it the connection process fail to satisfyingly reach two objectives that according to BSTOR should drive those changes, being:

1) To put Elia in a position to provide an answer (id est a connection contract) to grid users within anticipable and decent (id est within a period of time of about 1 year max) time after initiation of the connection request.

   This is not the case in Elia's proposal. Before requesting an EOS, a grid user would have no idea of the duration of such process due to sequential approach proposed by Elia. And the EOS process only could last for at least one year as soon as the request wouldn't be "the first in the row" and could escalate to ridiculous durations in case of multiple requests ahead. This makes work for securing options on land impossible.

2) To provide for decent monitoring and filtering principles to avoid that capacity is unduly reserved/allocated and to reflect such in the way cap is defined in contracts for flexible contracts to avoid individualizing costs that are in essence mutual and unnecessarily deteriorate economic viability of such grid users with flexible access.

   This is not the case in Elia's proposal. First the delay for accepting a connection offer is huge (1 year, but BSTOR understands that this must remain for some categories of players). Then BSTOR supports the idea of a bank deposit but believes that the proposal can lead to amounts that are way too high, and that those should be proportional to the allocated capacity and the works to be carried out by Elia, not with the duration of the allocation (mainly caused by the duration needed by Elia to carry out connection works). Finally, BSTOR believes that paying such deposit may not give the right to get capacity allocated endlessly as proposed by Elia. There should be monitoring afterwards, and long stop dates on dates at which Grid User gives notice to proceed to Elia to starting works/procurement phases required to deliver the connection within the timing agreed upon in the connection contract.

Obviously, those objectives are from a grid user perspective and BSTOR is aware that those must be balanced out by a principle that workload for Elia remains reasonable. However, BSTOR believe that those objectives could be much better satisfied without inacceptable additional workload by Elia through below alternative proposal which also aims at increasing the transparency of the process to acceptable levels.

EOS process

The process would be divided in following phases.

1) Request completeness/receivability check (20 WD).

   BSTOR believes that for limiting computation burden at Elia's, a certain filter should be applied before any request, at EOS level. The level of requested information should be higher than currently, in particular for new built capacity.

   - A plot of land (cadastral plots) should be identified, with an identified owner.
   - Candidate grid user should also demonstrate having investigated feasibility wrt permitting. What is the zone in the land use plan? Is it compatible with the contemplated usage or if not, what are reason to believe that an exemption could be granted?

- Grid user should also demonstrate having investigated the feasibility of obtaining a permit considering social-environmental impact (vicinity with residential/environmentally protected/flood prone areas and compatibility with the project).
- A high level lay-out drawing should be requested, for the candidate requester to demonstrate having investigated the technical feasibility of the project and in particular that the identified plots are large enough to host the requested capacity.

This is also the occasion for Elia to discuss informally with the candidate grid user about connection alternatives and to suggest changes easing the connection.

At this point, together with the decision of the completeness/receivability of the request, Elia should also communicate (and duly motivate) to the off-taker first indication on as to whether his request fits within the pre-identified potential:

- Depending on the substation and voltage level on which it would be connected.
- Depending on capacity subject to EOS request "ahead in the queue".

This could lead the grid user to already select/eliminate connection options, or even give up its request and reduce computation burden from Elia.

1st half of the EOS price should be paid here.

If the request is found complete and receivable, Elia should proceed to EOS (jump to step 4) and for transparency reasons, Elia should communicate (and duly motivate) to the grid user at this point already what is the reference context in terms of load/generation/storage that will be considered for the grid studies depending on the considered connection options.

This reference context should be provided for one year only (the end of the ongoing federal grid development plan since temporary period not known at this point).

BSTOR proposes that such reference contexts (and later on grid studies under EOS) are defined for two scenarios:

- A best case corresponding to the reference context if none of the EOS ahead in the queue go to the EDS phase.
- A worst case corresponding to the reference context if all EOS ahead in the queue go to the EDS phase.

This enables to deliver EOS within a fixed timing. Sequential approach is shifted to the EDS phase whare a filter already has occurred and where the delay is longer anyway. This is according to BSTOR the best way to inform gris users at the stage of an EOS: provide the grid user as soon as possible with high level feasibility assessment of the connection, based on the information available at Elia's at the moment of the request.

If the request is judged incomplete/unreceivable, grid user is invited to complete/modify its request (step 2) and another completeness/receivability check is performed (step 3).

2) Grid user to complete its file (30 WD) – Optional (refer as step 2 as mentioned above)

After receiving the completeness check the grid user should have maximum 30 WD to provide missing/more detailed information, otherwise he "loses its place in the queue".

3) Second completeness/receivability check (20WD) – Optional (refer as step 3 as mentioned above)

   20 WD after having received completed file, Elia would provide final decision on file completeness/receivability.

   If not receivable, grid user must start over again and doesn't have to pay more than half of the EOS price.

4) EOS results (40 WD) - refer as step 4 as mentioned above

   40 WD (current EOS delay) after completeness/validity check, Elia should provide grid user with the EOS results being:

   - The worst- and best-case results for the flexibility cap (if any).
   - Gross and non-binding cost/timing estimate for connection options.

   BSTOR agrees with Elia that EOS results can be shared on a PowerPoint presentation, and even believe that such can be the final deliverable of the EOS, which should stop at that point (second half to be paid). Drafting and validating a full report totally has no added value and cause massive loss of time in BSTOR experience.

   CREG would be in copy of all communication, but should never have to validate results prior to being shared with the grid user since the whole procedure is fully transparent and treats all grid users on same foot.

This means that the EOS process would be completed in maximum 60 WD (3 months) for a grid user submitting a file that is complete as from the initial request and 110 WD (5.5 months) if he needs to complete the file and use the max delay to do so.

EDS process and capacity reservation

1) EOS validity period (40 WD) - optional.

   A grid user should have a maximum delay to request an EDS after receiving EOS (deadline should be communicated by Elia together with EOS results transmittal). An exception could be foreseen for grid user receiving a (large) range between the best and the worst-case scenario which could have the time to wait for the validity of the last EOS "earlier in the queue" to be exhausted before launching its EDS.

2) Request completeness/receivability check (20 WD).

   Here again, the level of information should increase comparted to present situation and should be sufficient for Elia to start the connection works design part of the EDS:

   - Indication of the connection option retained if several ones proposed in EOS
   - A high level SLD corresponding to such option
   - Indication of where partie B must end if in Elia scope

   Furthermore, grid user should make a declaration (worn statement) to Elia that it has secured an exclusive option on the land that is sufficiently long to cover the EDS period. BSTOR believe it will be difficult for Elia to check such options and therefore propose to rely on such "sworn statement" but Elia could have the right to ask for evidence of such option when receiving EDS request on the same plot of land for instance.

If the file is incomplete/non-receivable, grid user is invited to complete/modify the file within a certain period of time for not losing "its ticket in the row" (step 3) and a second completeness/receivability check is performed (step 4)

If file is declared complete and receivable, Elia would proceed to EDS (step 5).

Once file is declared compared, Elia would communicate to the grid user about the timing left for being able to define the definitive reference context for the grid studies, meaning the remaining time, for EOS ahead in the queue to proceed to EDS request and obtain final completeness/receivability by Elia, and as a result the deadline for EDS study

At this point, capacity is also formally reserved.

3) Grid user to complete its file (40 WD) - Optional

Same as for EOS. 40 WD seem sufficient to BSTOR considering the level of information required

4) Second completeness/receivability check (20WD) – Optional

Same as for EOS.

5) EDS results/connection offer (80 WD)

BSTOR believes 4 months are sufficient to deliver EDS results (1 additional month compared to current situation). This could be extended to make sure that Elia has at least 40 WD to complete the study after final definition of the reference context, meaning when the delay giving right to get capacity allocated is exhausted for all EOS earlier in the queue.

As for the grid study, BSTOR proposes to compute a flexibility cap:

- Per timespan of 3 years when it comes to load/generation/storage in the refence context.
- As per two scenarios:
    - The "base case" based on the regulatory framework (which also defines the contractual cap).
    - A "best case" whereby only the capacities existing (not shifted to PPAD) and "in REA" (meaning for grid user having emitted a first notice to proceed to Elia under the connection agreement) are considered in the reference context.

This is to enable the grid user to appraise the risk related to realisation of the potential and of the allocated and reserved capacity.

For doing so, the grid user should also have sufficient details of the load/storage/generation in its reference context and the share of each consisting in existing, shift existing to PPAD, reserved, allocated, remaining potential (same level of information as the powerpoint shown by Elia during workshops illustrating the definition of such reference context).

Here as well, there should be no validation by CREG before transmittal of results to the grid user.

Contract process and capacity allocation

1) EDS validity period (120 + 120 WD).

   BSTOR finds Elia's proposal extremely long and not in line with business practice but understand this will be necessary for having the same delay applying to everyone.

   It must be however clear that this is the total delay for entering a contract, not to request one, and Elia should make it clear how long ahead of the end of the EDS validity period a grid user should request such contract for complying with such delay.

2) Contract signing and capacity allocation

   Once the grid user validates the EDS results and requests a realization offer (including a connection contract), Elia has 30 WD for providing those elements. Once received, the grid user has 30 WD for signing the realization offer and the connection contract.

   Upon contract signing, BSTOR agrees that a payment security (bank deposit or bank guarantee) should be made to get the capacity allocated.

   This payment security should be sufficiently high but reasonable. In line with business practices, BSTOR proposes that such payment would be the maximum out of:

   - 5-10% of the estimated connection works amount (Partie A + B).
   - The annual PPAD (at rate upon the year of the signing of the contract) amount for 1 year.

   BSTOR sees no reason why storage would have to pay twice the amount paid by its "competitors" (load on off-take/generation on injection) for getting capacity allocated. Furthermore, Elia's proposal to have a bank deposit based on a multiple of annual PPAD amount is excessive as it leads to amounts which are a multiple of the guaranties to be given under the CRM, which can in no way justified.

   This amount would be sufficient for Elia to complete its design studies (including permit application).

   Before Elia to start works/procurement, BSTOR proposes the payment security to be increased to 40% of the total works amount under Partie A and a payment of 40% of the amount for Partie B to be executed. Only starting from this point, the capacity would be considered "in REA".

   The contract should also indicate clear deadlines for the grid user to give notice to proceed to Elia for the several phases of procurement/works that Eila must start for complying with the "guaranteed" time to deliver the connection. At each deadline, the payment security for Partie A and payment for Partie B should be increased for Elia's cash flows and commitments to be secured (as soon as they exceed the initial 40% security/payment upon 1st NTP).

   The grid user would have maximum the right to delay two times a NTP versus the contractual deadline and for a maximum delay of 2 years for not losing the validity of its grid study. Any delay would further offer Elia an option to review the contract price and guaranteed completion time.

   With respect to the risk of loss of the grid study validity, grid user would have excuse event to cover appeal procedures with respect to permitting procedure (but not covering the delays caused by the grid user).

   Grid users applying for a multiyear contract under the CRM should lose their connection rights if not selected as it is already the case at the moment in BSTOR understanding.

Every minimum 3-6 months, the grid user may request Elia to inform him about changes in the reference context and may ask once to have an updated grid study.

Every time a request later in the row would obtain lower flex caps in a grid study, Elia should inform the grid user and offer him an option to update his grid study.

Any update of the grid study should always be at grid user's hand and grid user should always accept the consequences of such update (flex cap may increase in some case).

Other requests/proposals

- At the end of each phase both CREG and the grid user should have a recourse period limited in time (e.g. 20 or 40 WD).
- The delays above must be made really binding to Elia with significant incentives/penalties when delay is respected/not respected.
- Equally, there should be economic penalties for Elia when delays occur in the connection works, but this is not the topic of this consultation.

3 Other minor business

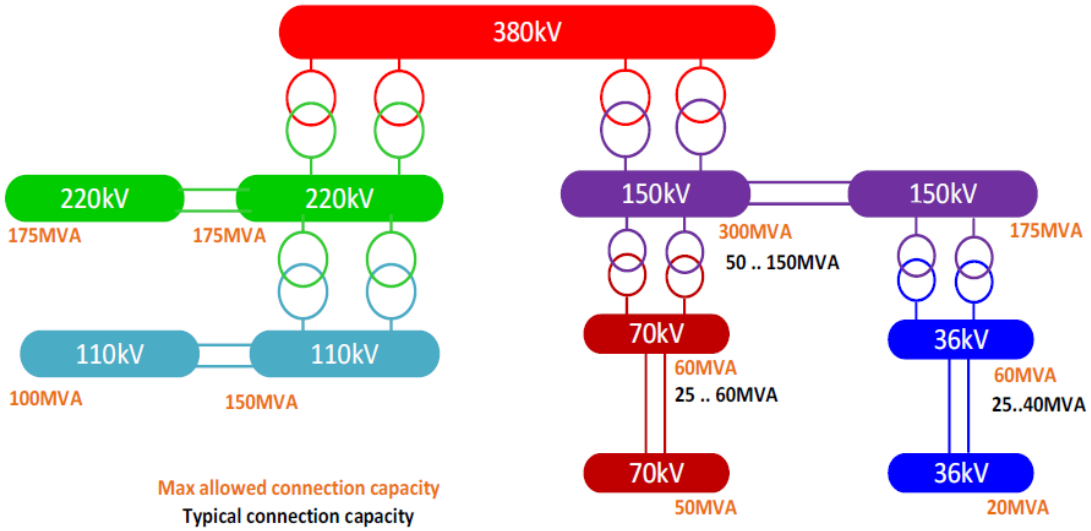

Figure 9 : Maximum allowed connection capacity per voltage level for source substations and remote substations

Aren't there typos in this graph?

- 220kV should be higher than 150kV?
- 220kV at a 380kV post should be higher than 220 kV standalone post?

> **6.4.4.2 Obligations related to voltage and reactive power management service**
>
> The Gflex setpoint is in MW, not in MVA. As far as the Gflex setpoint remains above the minimum active power threshold of the unit to provide voltage services, the VSP obligation remains. If the Gflex setpoint is below the minimum active power threshold of the unit , according to the VSP contract the service should not be delivered during this period..
>
> Therefore, Gflex activations are implicitly considered in the controls for the voltage and reactive power management service when sending a Gflex setpoint below the minimum power threshold as defined in the VSP contract.

We don't understand this. Isn't the line rating in apparent, not active power?