POSITION

Subject: Comments on the public consultation on Methodology for the determination of volumes
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Please find hereafter the comments of FEBEG on CREG's public consultation on the parameters determining the amount of capacity procured in the capacity mechanism in the frame of the Belgian CRM.

1. Executive summary

The considered approach should guarantee a targeted adequacy, and this at the lowest possible cost

FEBEG is deeply concerned about the interpretation of the CREG regarding the purpose of a CRM.
The implementation of the CRM has as a primary target to ensure a given Security of Supply (SoS). Based on the targeted adequacy criterion - usually expressed in terms of LOLE and EENS - a given capacity volume is to be procured in the market.
It is only when the volume is determined that the secondary target -as described in article 7undecies. § 1- kicks in, meaning that this volume are to be procured at the lowest possible cost for society.
The approach put forward by the CREG is thus not in line with this and creates an important risk for SoS.
The Clean Energy Package is clear that an adequacy criterium expressed through a LOLE target represents an (overall) economic optimum. Deviating from this approach as suggested by CREG would lead to a sub-optimal outcome.

The proposal made by CREG of "proportionality" has no legal basis, nor in the CRM law, nor in the CEP. As mentioned above, CREG seems to suggest that cost comes before adequacy. CREG uses the proposed so-called proportionality target to fix a budget with which SoS can be achieved. This completely contradicts the aim of the CRM law which puts adequacy first and then the cost. The lowest cost will be achieved by setting a fair and open competitive process for all capacity providers, in line with the design features required in the Clean Energy Package.

CREG's proposal for T-4/T-1 volume determination jeopardizes security of supply

With regard to the CREG proposals regarding the volume determination in the T-4 and T-1, FEBEG is seriously concerned about the risks related to this proposal. FEBEG considers it important to further identify and quantify those risks and associated costs which are not yet included.

Firstly, CREG seems to ignore the role of the T-4 and the T-1 auction to ensure that all required volumes are auctioned to guarantee the adequacy of a specific delivery year. If most of the required volumes would only be auctioned in the T-1 auction, there would be no second chance to contract the missing volumes anymore for the upcoming delivery year.

Secondly, CREG also seems to ignore that the purpose of a T-4 auction is also to foster competition between all capacities -including those with a lead time longer than 1 year- in order to drive the cost of the capacity market down.

200 hours

The CRM law foresees that the volume to be reserved in the T-1 auction is at least equal to the capacity that on average has less than 200 operating hours per year in order to cover the total peak capacity. During the debates in the Federal Parliament in preparation of the approval of the CRM law this volume was quantified at about 2 GW. This 2 GW were based on the hourly duration curve of the structural block volume in the central scenario that can be found in the Elia adequacy study on page 116 figure 4.1.

The CREG gives another interpretation to these 200 hours, more in particular the CREG defines these 200 hours as "the number of hours that capacity with a marginal cost equal to the price ceiling in the electricity market is needed to fill the GAP volume."

This definition is not in line with the definition included in the CRM law and moreover results in a volume that is many times higher than the 2 GW namely 6 GW in 2025, 6 GW in 2028 and 8 GW in 2030.

This would mean that Belgium would be exposed to a significant SoS risk if this volume does not get contracted in the T-1 auction. It was certainly not the intention of the legislator to expose Belgium to such a risk. It was merely the intention of the

legislator to ensure that sufficient volume (+ - 2 GW) was left in the T-1 auction in order to offer demand and storage the opportunity to participate in the auction.

In a general way, FEBEG observes that the approach of CREG is contradictory, assuming perfect foresight in some cases while insisting on uncertainty in other cases. Perfect foresight does not reflect the reality faced by FEBEG members.

In conclusion FEBEG believes the current CREG proposal should be fundamentally reviewed to take into additional considerations but also alternative costs or benefits of the different arguments.

FEBEG also wishes to underline that:

- The ERAA and NRAA should be based on the central scenario and methodology as defined in the EU regulation 2019/943 to be worked out by January 5th 2020 by the EntsoE and approved by ACER.
- The LOLE should the basis for the volume determination of the capacity to be contracted.
- "National resource adequacy assessments may take into account additional sensitivities to those referred in point (b) of Article 23(5)" and that the Belgian state could decide to use the HiLo scenario as a sensitivity and/or preferred scenario if deemed necessary.
- Elements such as the remaining LOLE and ENS, as well as the contribution of non-eligible volume should be reflected in the NRAA performed by Elia. The result of the NRAA should therefore be the volume that has to be procured through the CRM auction, from which indeed capacity that has already been contracted can be subtracted.
- The auctions should be organized in such a way that in execution of article 7undecies. § 1, these volumes are procured at the lowest possible cost for society.

2. Comments regarding the principles put forward

Principle 1: "L'introduction d'un mécanisme de rémunération de la capacité permet de respecter les critères de fiabilité, au coût le plus bas possible et à un coût proportionnel"

The introduction of the concept of proportionality by CREG in principle 1 is to our knowledge new in the context of CRM in Europe and is furthermore not an element foreseen in the Belgian CRM law voted in 2019.

The European Environmental and Energy Aid Guidelines (EEAG) contain a specific chapter (3.9.5) on how to assess the proportionality of Aid in the context of generation adequacy. This has been the touchstone for the European Commission during notifications. In this context, the proportionality of a CRM is assessed against two criteria:

- The calculation of the overall amount of aid should result in a reasonable rate of return for beneficiaries, which can be achieved through a competitive bidding process based on clear, transparent and non-discriminatory criteria, effectively targeting the defined objective.
- The measure should not lead to windfall profits, which can be achieved through a design that ensures that the price paid for availability automatically tends to zero when the level of capacity supplied is expected to be adequate

FEBEG notes that the CREG proposal of the proportionality differs significantly from the EEAG, where the EEAG favours correct market functioning, while CREG relies on direct intervention that would interfere with the effectiveness and efficiency of the measure. FEBEG has been clear and supportive from the beginning on the need of a sound and simple CRM design to optimize market functioning and as a result minimize the overall CRM cost.

FEBEG also refers to article 21 (Article 21 General principles for capacity mechanisms) and article 22 (Design principles for capacity mechanisms) of the EU regulation 2019/943 where the concept of proportionality is not mentioned. The targeted adequacy criterion (a loss of load probability of 3h) does already balance costs (to keep or build new capacity) and benefits (i.e. the reduced loss of load probability times VOLL). From that point of view, any additional constraint can only decrease adequacy below the targeted level, and therefore below what society is willing to accept.

By introducing the concept of proportionality, CREG introduces a fixed "budget" constraint. In others words, CREG is defining <u>ex-ante price and quantity in contrast with a system where quantity is defined and a competitive process defines the least cost solution.</u>

FEBEG considers that CREG's approach should be reviewed taking into account the following considerations:

- By applying the "proportionality" requirement, CREG creates an impossible combination of guaranteeing a certain level of adequacy while remaining within a pre-defined budget based on incomplete calculations. CREG points out that in certain cases, this would not be possible as the cost may exceed the predetermined budget. The crucial question on what should prevail in such a case, the desired level of adequacy or the predetermined budget, CREG does not address. However, it is clear from the Clean Energy Package that the state aid clearance is linked to a mechanism that aims at reaching a certain level of adequacy. CREG illustrates its principle with a budget of 100 million € for 12 000 MW leading to a price of 8.3€/kW. Mechanically, there is no guarantee that at such a price, the required 12 000 MW can be found in the market. It can be both too low, as well as too high.

- In order to artificially stretch the budget CREG proposes an 'optimal' point beyond the intersection of supply and demand. It also combines a Pay-as-Bid calculation with a Pay-as-Clear merit order list, while bidding behavior in fact depends on the clearing mechanism making both incompatible. This is the reason why all CRM in Europe use pay-as-clear.

- CREG mentions that *"in order to finance the CRM capacity providers receive a remuneration to be paid by consumers, which increase the surplus of producers and reduce the surplus of consumers"*. Notwithstanding that capacity providers can be consumers through Demand Side Management, it should also be taken into account that in exchange for this capacity payment consumers benefit from (1) adequacy that they would not get without a CRM and (2) lower power prices in the energy market (in contrast to an "energy only market with price spikes).
  Focusing only on the costs and ignoring benefits of the CRM is incorrect. For FEBEG, it is important to keep in mind that, while a CRM generates some costs for society (as strategic reserve does), it also generates benefits and reminds the conclusion of the welfare calculations presented in the Adequacy and flexibility Elia's study for Belgium 2020 – 2030: *A market-wide CRM ensures a robust security of supply and brings market [social] welfare by decreasing wholesale prices which at least compensates for the cost of the mechanism*. Similarly, the Federal Plan Bureau in its 2017 study "Cost benefit analysis of a selection of policy scenarios on an adequate future Belgian power system – Economic insights on different capacity portfolio and import scenarios" stated that investments that diminish the level of net electricity imports will have benefits for both generators and consumers such as a decrease in the wholesale power prices, drop in energy trade deficit and job creation.

The "net social welfare' should therefore be considered for assessing the CRM. Overall FEBEG considers that a CRM is the most appropriate tool to guarantee a given adequacy level at the lowest cost for society.

- CREG argues that a *"CRM can finance existing capacity that would remain in the market anyway leading to windfall profit"*. This argument should be further expanded taking the following considerations into account.
  An existing asset in an Energy Only Market (EOM) would in theory benefit from periods of price spikes in times of scarcity. With the introduction of a CRM, these periods of scarcity and high prices will decrease (in line with the targeted criterion, i.e. 3h per year on average). Therefore, an existing asset will see its "energy revenue" decrease with the introduction of a CRM.
  In the case of a reliability auction with a payback obligation (as it will be the case in Belgium), an existing asset will in addition have to pay back revenue above the strike price - which would not be the case under an EOM.
  Stating that a CRM automatically and in all cases leads to windfalls profits and reduces consumer welfare is therefore biased.
  On the contrary, we argue that existing assets excluded from the CRM would realize windfall losses: past investment expected an inframarginal and scarcity rent, while the latter is replaced by an explicit capacity remuneration from which existing assets cannot benefit it they would be excluded.
  While it is already a strong assumption of CREG arguing that existing assets would remain in the market without capacity remuneration, excluding existing units from a capacity remuneration will lead to discrimination between existing and new assets and will at least distorts investment decisions by increasing risks through regulatory uncertainty. This is also the basis for the choice for a market-wide CRM made in the Belgian CRM law.

- CREG completely neglects the cost in case of under-procurement. The case when too little capacity is procured in Y-4 while there is not enough capacity in Y-1 will lead to additional cost (due to last minute procurement of more expensive capacity) or might even lead to adequacy levels below the expressed target, resulting in additional cost for society. Not including these costs makes the proposal incomplete and one-sided.

- CREG argues that the *"cost of the solution should not be higher than the cost of the problem"*. This principle raises some questions:

  - The "direct cost" of the CRM ("the solution") is easy to compute based on the MW contracted to ensure reliability and the price paid.
    Note that in an EOM design this cost would be replaced by price spikes and reduced adequacy.

- The direct benefit of the CRM, namely an increased adequacy level and lower energy prices (less scarcity prices), is overlooked. CREG does not provide the impact on the energy cost reduction. This element is critical in the overall argumentation since under the discussion on the split between T-4 and T-1, CREG is suggesting that for more than 200 hours power prices should equal market price cap (3.000€/MWh, or even 10.000€/MWh). This would lead mechanically to higher costs for customer in terms of Energy Served. This comment has been made publicly in the CRM taskforce in the FEBEG presentation in October 2019[1].

One should not only assess the direct costs while there is clearly also an indirect costs which will occur in case the adequacy is not guaranteed. FEBEG is concerned that only assessing the cost/benefit aspects from a purely mathematical approach is completely missing the indirect impacts which should be considered as well.

Additionally, FEBEG considers that VOLL in case of announced outage cannot be used for the determination of the cost of the problem as it does not include the enormous costs which would occur in the event of an unannounced outage. The simple assumption that in Belgium capacity shortages will always be announced is not necessarily true. Capacity shortages can also happen unannounced as we have seen during the previous winters, certainly in a tight capacity context without any margins.

FEBEG believes that the proposed principle 1 is not in line with European and national legislation. Moreover, the convoluted additional constraint does not ensure that the level of adequacy is achieved, raising the prospect of creating a CRM that does not actually bring the legally required adequacy.

[1] https://www.elia.be/nl/users-group/implementatie-crm/20191022-tf-crm-7

Principle 2: "La méthodologie permettant de déterminer les paramètres déterminant le volume à acheter dans le mécanisme de capacité doit être en mesure de traiter efficacement les problèmes de fiabilité croissants et décroissants (adequacy concern)."

A CRM should be able to respond to changes in the adequacy concern, but this should be build-in in the overall design and not be tackled inefficiently in response to one specific adequacy study outcome.

First of all, FEBEG would like to qualify the statement of CREG "The study of Elia published in June 2019 shows that adequacy concern decreases both in term of LOLE and EENS (p138)" by adding "in 2 scenarios with only 3 years of results".

- FEBEG disagrees with this deterministic and perfect foresight approach. It is impossible to tell with certainty today what the situation will be in 2025 and in 2030. Hence it is possible that the adequacy concern will decrease in 2028 but there is no certainty about it. For instance, recent development in support mechanisms for renewables in Germany and Flanders raise concern about future RES development. If those RES developments do not take place as planned, the issue of adequacy may not decrease. As a result, the CRM design should be able to respond to fluctuations in the adequacy level, but should not be tailor-made for one specific expectation of future fluctuations.

- The drivers behind this trend are not unique to Belgium and CREG is overlooking how the issue is addressed in other CRMs. FEBEG believes that a market-based CRM can cope easily with this issue. For instance, if adequacy become less of an issue in 2028, the Y-4 auction in 2024 and the Y-1 auction in 2027 would clear at lower price (tending to zero in a situation of significant capacity available) and attract less or no additional capacity at all.

Indeed, one cannot rely on two scenarios and only 3 years of results to state that the issue of adequacy is decreasing with time and use it as a justification for the introduction of additional restrictions that hamper the good functioning of the overall CRM. Additionally, long term contract and short term contracts should be able to compete on equal terms. While an investment threshold is meant as a tool to ensure a level playing field between projects with different cost structures, CREG misuses this parameter to achieve an apparent new target imposed by themselves, namely the avoidance of long-term contracts while these were specifically meant to create a level playing field for capital intensive projects. As recognized in other CRMs and by the European Commission, long-term contracts have a clear value in lowering investment risks (and thus cost to consumers) and attracting new entrants. The restriction of such long-term contracts in response to the belated recognition that adequacy concerns may evolve through time is therefore misguided. FEBEG reminds that

this has already been considered and tackled by the requirement that CRMs, based on competitive auctions, should be able to tend to zero when the level of capacity is expected to be adequate. It is through this mechanism that CRMs will bring the required long-term adequacy at the lowest, overall cost to consumers.

Principle 3: « L'enchère de capacité organisée quatre ans à l'avance (enchère T-4) n'est nécessaire que pour pouvoir attirer une capacité avec un long temps de préparation (plus d'un an) »

FEBEG fundamentally disagrees with this principle. The T-4 auction is required to ensure more competition and industrial planning (not only for new investments, but also for existing capacity). The T-1 auction should be considered as an adjustment auction, coping with the residual uncertainty. A CRM is not only there to attract new capacity when needed, but also to coordinate asset management decisions on existing assets. These decisions can be taken more efficiently and at lower cost when there is some guidance provided on the capacity need several years ahead.
FEBEG already raised this point in its presentation during the CRM taskforce in October 2019.

In general, the reflections made by CREG on the benefits and drawbacks of the two different time-horizons is very one-sided in favour of the T-1 auction:

- For some principles, CREG seems to rely on perfect foresight and for some other principles CREG postulates uncertainty. The comments around uncertainty are inconsistent with previous statements of CREG on LOLE and EENS (e.g. *« les inquiétudes concernant la fiabilité de la Belgique, exprimées en LoLE et EENS, diminuent (considérablement) », « Cela signifie que les LoLE et EENS réels seront plus bas » VERSUS « la décision quant au volume à acheter repose sur une étude qui doit être réalisée 5 ans à l'avance. Cela signifie que beaucoup d'incertitude subsiste quant à la capacité disponible en Belgique et à l'étranger, à l'évolution des prix et à l'évolution de la demande, etc »*). For FEBEG uncertainty is a key feature and can only be addressed via different scenarios.
- The CREG seems to ignore the purpose of a T-4 auction, namely to foster competition between all capacities- including those with a lead time longer than 1 year- to drive the cost of the capacity market down. CREG also ignores the fact that the T-4 auction provides a preliminary view on which capacity can already be relied upon. A 'second chance' to further calibrations is given in the T-1 auction. If most of the required volumes would only be auctioned in the T-1 auction, there would be no second change to contract the missing volumes anymore for the upcoming delivery year. This to the contrary in case of the use of the full potential of the T-4 and T-1 auction. "Prevention is better than cure."

- 'Over-estimation' in the T-4 auction is unlikely, as a significant volume will anyhow be kept for the T-1 auction. Moreover, an important share of demand for the T-4 auction is fostering competition between various capacity providers – new vs existing, generation vs storage vs demand response.
- On the difficulty during the T-4 auction for the participation of Demand Response, it is worth pointing out that a volume will anyhow be reserved for the T-1 auction in order that such capacity has a fair chance of participation.
- Regarding the argument on market concentration, the European Commission explicitly mentions the T-4 auction as lowering the barrier for new entrants by providing better visibility. CREG is referring to the Polish case as a counter example where the largest player has provided the largest share of capacity. It is a key duty of the regulator to make the mechanism as competitive as possible by, amongst others, facilitating market entry. In addition, competition in the Belgian CRM is not only between producers but also include DSM and foreign capacity. Any complex rules, compliance cost and regulatory uncertainty will inevitably hamper market entry and competition.
- There is no guarantee that existing capacity in 2021 will still be there 3 years later, unless contracted through the CRM in the T-4 auction.
- FEBEG emphasizes that important benefits of the T-4 auction such as improved visibility and precautionary planning for the TSO and capacity owners are missing in the CREG argumentation. The T-4 auction creates stability and predictability which is beneficial while uncertainty increases costs.
- CREG argues that *« En outre, lors d'une enchère T-4, suivie d'une enchère T-1, le risque existe que les principaux acteurs du marché adopteront un comportement stratégique afin de créer une pénurie de capacité »*. For FEBEG this argument is highly speculative and any evidence of such strategic behaviour in any CRM is missing. In a well-designed CRM open to competition, a player should have all interest to offer its capacity in a competitive manner in T-4. Not offering in T-4 does not create any guarantee to be retained in T-1. Secondly assuming that a player could withhold existing capacity in T-4 to make sure that a new built project would be retained in T-4 is highly speculative and totally underestimating competition. Finally, the CREG as regulator has sufficient powers to tackle inappropriate market behaviours.

It is worth noting that the T-4 and T-1 auctions should not be considered conflicting or mutually exclusive, but rather complementary and each with their respective strengths. An interesting example is the UK CRM, where the bulk of the contracted volumes is procured in the T-4 auction and around 5% of the capacity is kept for the T-1 auction as a residual, adjustment auction. The amount kept in the T-1 auction is based on a confidence interval for the situation of the corresponding delivery year, not on an arbitrary split. FEBEG invites CREG to look carefully at international experience on this topic.

Country	Capacity reserved for T-1 auction
UK	95% confidence interval around T-4 (i.e. around 5% of T-4 auction volume)
IE	2-5% of capacity requirement
PL	1.160MW out of ca. 22.000MW (i.e. approximately 5% of main auction)
IT	At least 1% of expected capacity demand

CREG proposal for the amount to be reserves in the T-1 auction is not in line with the CRM law

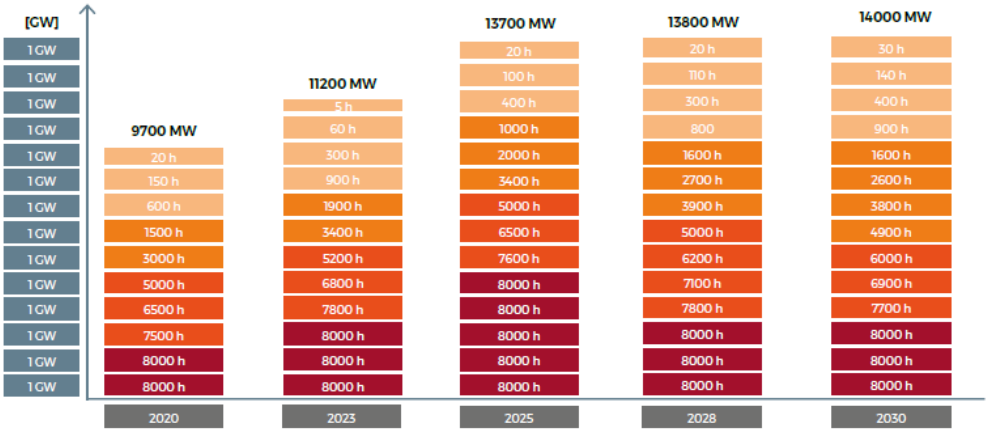
CREG states *« Elia a publié les résultats pour 2025 et 2028 dans son étude. Ils sont repris ci-dessous. D'après les résultats de la simulation d'Elia, au moins 6 GW devront être réservés pour l'enchère T-1 pour une livraison entre 2025 et 2026 »*.
FEBEG will rely on ELIA to confirm this interpretation or not.

The graph on p.15 of the consultation is a partial reproduction of the graph made by ELIA in its report (reproduced below). The CRM law explicitly mentions that "If the average number of hours is lower than or equal to 200, this block is auctioned in T-1". CREG instead proposes: "The average number of hours needed to meet the reliability standards should be calculated as the hours that capacity with a marginal cost equal to the market price cap is needed to fill the gap".

The rationale behind CREG's reasoning is unclear. It is also unclear what the impact of such a gap fulfilled at market price cap would be: does this means that for 200 hours market prices would reach the price cap (3000€/MWh or even 10.000€/MWh) ? In our view this would have a significant cost in the energy market and seriously harm societal welfare.

FEBEG would also like to refer to the intention of the law, and more specifically the justification put forward for the amendment introducing the reservation of volumes representing capacity with running hours below 200. The justification explicitly refers to a CREG presentation based on Elia data, stating that the construction of new production capacity for such low running hours may be economically inefficient. During the debates in preparation of the approval of the CRM law this volume was quantified at about 2 GW. This 2 GW were based on the hourly duration curve of the structural block volume in the central scenario that can be found in the Elia adequacy study on page 116 figure 4.1. It is clear that the CRM law foresees that the volume to be reserved in the T-1 auction is at least equal to the capacity that on average has less than 200 operating hours per year and makes no reference to the "market price cap" that CREG refers to.

STRUCTURAL BLOCK VOLUME IN THE CENTRAL SCENARIO WITH ASSOCIATED HOURS DURING WHICH A CERTAIN CAPACITY IS NEEDED [FIGURE 4.1]



EXPLANATION OF THE EVOLUTION:

The 'structural block' increases towards 2025. This is linked with the nuclear phase-out calendar. As the 'CENTRAL' scenario assumes a third of the nuclear fleet is unavailable, the nuclear phase-out amounts to a delta of 4 GW between 2020 and 2025.

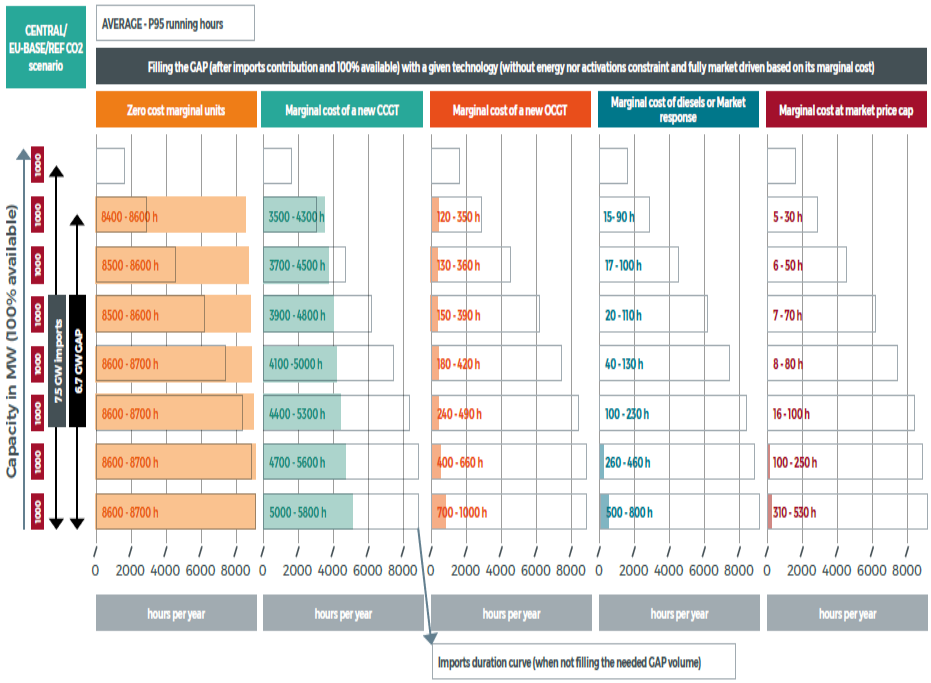
After 2025, the 'structural block' volume increases slighty, which is linked to a moderate increase of the consumption in the 'CENTRAL' scenario (linked to electrification) compensated by the addition of renewable capacity in Belgium.

The amount of hours during which a certain volume of capacity is needed is slightly decreasing from 2025. This is linked to the increase in renewable capacity and is mainly driven by wind additions.

In 2030, there still is a need for around 6 GW 'baseload' capacity (>6000 h) in Belgium. Such capacity could be provided by several means (including imports) which will depend on the capacity mix that will be installed in Belgium and in neighbouring countries. Depending on the time horizon, there is around 2 GW needed for around 200 hours a year.

FEBEG therefore considers that this new interpretation of CREG raises questions, is unlike any other CRM implemented in Europe and is not in line with the intention of the lawmaker.

FOR 2025 [FIGURE 4-43]



Not all new capacity can be delivered in one year.

Finally, CREG insists that a lot of capacity can be built in less than one year. FEBEG agrees and is familiar with the different technologies mentioned, which can have a role in a balanced and sound energy-mix.

However, FEBEG has strong reservations that the replacement of 6 GW of baseload capacity (which historically produced 50% of electricity consumption in Belgium) by gas engine, batteries and small cogeneration is economically sound from consumer and societal perspective.

These are all low investment cost projects, but high short run marginal cost projects. Demand response and batteries for instance both have a much lower contribution to security of supply than larger projects. Furthermore, demand response and gas engines have a much higher short run marginal cost, which again would have an upward effect on energy prices. This upward effect also has a negative effect on consumers. FEBEG would welcome additional clarifications on the impact on the energy market for consumers.

In addition, FEBEG highlights that small gas engines have in general a size of 5 MW meaning that in order to replace a unit of 1.000 MW, 200 engines with associated land and connections are needed. Again, this seems highly theoretical and not realistic from an industrial perspective.

In any case, if this would be economically optimal, this should be the outcome of a technology-neutral, competitive auction.

Principle 4: « en raison de la neutralité technologique, la mise aux enchères de capacité ne peut pas être discriminante entre différentes technologies »

FEBEG fully supports technology neutrality. For FEBEG it is not only a sound principle but a European obligation (Article 22, Regulation 2019/943).

FEBEG would welcome some additional explanation on how this principle will be applied in practice. For example, CREG explicitly mentions in paragraph 57 a selection of technologies with lead-times below a year as a reason for limiting the ability to obtain long-term contracts. Is CREG therefore expressing a preference for these technologies over other technologies?

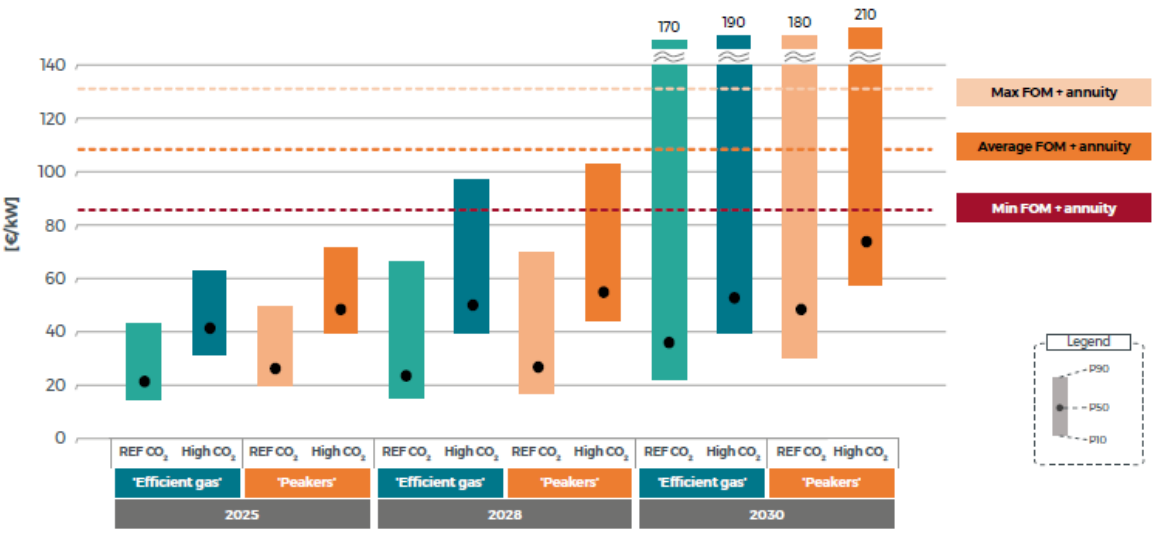
Principle 5: « Le CRM ne peut pas conduire à une sur-subvention de la capacité »

CREG states that the CRM should not lead to a compensation above the missing money. While FEBEG agrees with the principle, the following considerations should be taken into account: the CRM should not lead to a compensation below the missing money neither, eventually resulting in full-scale regulation of capacity prices and losing the advantages of a strong competition.

More fundamentally, FEBEG considers it as challenge to evaluate the assessment of missing money of the market parties. For FEBEG this is mainly due to uncertainty making it impossible to estimate ex-ante or even ex-post "the" missing money as it is also based on market participant's assessment of risks and opportunities in the market.

The report of ELIA (graph below p 161) illustrates the uncertainty faced by a potential investor in Belgium. It shows that under different scenarios the infra marginal rent varies significantly.

INFRAMARGINAL RENT FOR THE MOST EFFICIENT CCGT INSTALLED IN THE SYSTEM IN BELGIUM FOR 2025, 2028 AND 2030 - EU-BASE IN 'EFFICIENT GAS' AND 'PEAKERS' SENSITIVITIES [FIGURE 4-44]



For instance in 2028 the inframarginal rent can be below 20€/kW or above 100€/kW. Logically, this means that the ex-ante assessment of the missing money by an investor can vary significantly. When participating to the CRM auction, each market player will need to make a decision on its assumption with respect to missing money.

Considering this range, let's assume that three players with exactly the same asset have different expectations:

- Player A: expects an infra-marginal rent of 20€/KW
- Player B: expects an infra-marginal rent of 60€/KW
- Player C: expects an infra-marginal rent of 100€/KW

Ceteris Paribus, player A has the highest missing money, player C the lowest (if any), and player B is in between. For the sake of the discussion, let's assume all players are needed in the CRM and let's only consider 2028. In 2028 the realized infra-marginal rent is 50€/KW. This means:

- Player A has been too conservative when assessing its missing money
- Player B has "slightly" underestimated its missing money
- Player C has significantly underestimated its missing money

Regardless of the pricing rules (pay-as bid VS pay as clear) market participants have offered their capacity in good faith based on their missing money and based on their expectations of the energy market.
Player A is making a profit, player B & C are making a loss. Would player A be "over-subsidized" under the CRM and player C "under-subsidized"?

Under a competitive process competition will ensure that players do not get "over-subsidised" if being too conservative in their estimation of the missing money. It could be for instance that Player A has not been selected in the CRM auction in the first place, as his expectation of missing money was the highest and therefore his bid was the least competitive. Hence this principle is redundant in a CRM that complies with the EEAG, i.e. based on a competitive auction. FEBEG moreover does not see how to comply with such a principle and how CREG could enforce such a principle ex-ante and ex-post.
Finally, FEBEG appreciates that CREG refers to EU regulation 2019/943 (50) with respect to overcompensation
"Capacity mechanisms (underlined by CREG) should not result in overcompensation, while at the same time they should ensure security of supply. In that regard, capacity mechanisms other than strategic reserves should be constructed to ensure that the price paid for availability automatically tends to zero (underlined by FEBEG) when the level of capacity which would be profitable on the energy market in the absence of a capacity mechanism is expected to be adequate to meet the level of capacity demanded."

FEBEG take this opportunity to ask how CREG considers this element of the regulation when advocating for pay-as-bid later in the document which is not compatible with a price tending to zero.

3. Comments on chapter 5 proposal to improve the determination of parameters for the volume to buy

3.1 Scenario choice (5.1)

CREG should align to the objectives of Regulation 2019/943 when using the NRAA and ERAA for determining the capacity volume to be procured.

The NRAA and ERAA as defined in the Regulation 2019/943 aim to objectively map adequacy concerns in countries. To achieve this, the NRAA and ERAA have to use a central reference scenario with a number of variations reflecting the different likelihood of the occurrence of resource adequacy concerns. To determine the capacity volume to be procured, CREG should use the scenario selected by the Belgian authorities, which –in the frame of the strategic reserve– currently is "the HiLo scenario" considering the high dependency of Belgium on its interconnections.
. The proposal of the CREG to use the 'scenario with least cost = No Regret' should therefore be rejected. Furthermore this latter doesn't seem to be a scenario to model a future situation (based on varying input parameters), but rather is a choice based on the output of the modelling.
For FEBEG, the outcome will not fit the CRM objective but risks to determine the procurement of a volume that seriously underestimates the actual or most likely adequacy concern which Belgium may face. The statement that in the T-1 auction only 'One scenario' is available, is also not in line with Regulation 2019/943.

3.2 Determination of volume for the delivery year

CREG should further detail the methodology to calculate the auction volume in respect of the principles set out in Regulation 2019/943 Articles 23 & 24 on the ERAA and NRAA

The representation by CREG of the calculation of the Total Auction Volume is a serious oversimplification of the actual modelling that has to be performed and which should reflect the uncertainties inherent in such probabilistic modelling. Elements such as the remaining LOLE and ENS, as well as the contribution of non-eligible volume should be reflected in the NRAA performed by Elia. The result of the NRAA should therefore be the volume that has to be procured through the CRM auction, from which indeed capacity that has already been contracted can be subtracted.

Reference is made to article 24[2] sub 1 in which "National resource adequacy assessments may take into account additional sensitivities to those referred in point (b) of Article 23(5)"

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[2] *Art. 24 National resource adequacy assessments*
1. National resource adequacy assessments shall have a regional scope and shall be based on the methodology referred in Article 23(3) in particular in points (b) to (m) of Article 23(5).
National resource adequacy assessments shall contain the reference central scenarios as referred to in point (b) of Article 23(5).
National resource adequacy assessments may take into account additional sensitivities to those referred in point (b) of Article 23(5). In such cases, national resource adequacy assessments may:
(a) make assumptions taking into account the particularities of national electricity demand and supply;
(b)use tools and consistent recent data that are complementary to those used by the ENTSO for Electricity for the European resource adequacy assessment.
In addition, the national resource adequacy assessments, in assessing the contribution of capacity providers located in another Member State to the security of supply of the bidding zones that they cover, shall use the methodology as provided for in point (a) of Article 26(11).

3.3 Price cap multi-year contracts (5.5.7)

As mentioned in FEBEG's answer to the ELIA's design notes consultation, FEBEG considers that the introduction of a price cap is not suitable for the following reasons:

- The price caps is complex and isn't justified in a "pay as bid" auction.
- Inframarginal CRM rents does not create windfall profit.
- A CRM does not generate more revenues than needed to attract or keep a given level of generation capacity.
  - The competitive bid of an existing unit in the CRM (with a pay-as-bid clearing mechanism) corresponds to the amount needed on top of the expected (risk adjusted) inframarginal rent in short term energy markets to cover fixed annual O&M costs:
  - Earnings above the Short-Run Marginal Cost are an integral part of the electricity market functioning and under no capacity or energy market model labelled as windfall profits but as the so called infra-marginal rents, which is necessary to cover costs which are not included in the SRMC.
- The introduction of an intermediate price cap is costly and an inefficient measure to address possible market power abuse. Rendering markets more contestable is a more efficient measure to ensure competitive behaviour.

We refer to section 3 of our contribution (20191011 CRM Design notes 1 - Intermediate price cap Position FEBEG) for more details.

We therefore consider that multi-year price caps should be avoided as it will hamper the creation of a well-functioning market with abundant competition.