
Position paper on a Belgian CRM

1. CRM as a last resort

Context - European Legislation

As the CRM would be implemented in Belgium after the recast Electricity Market Regulation starts applying (as of 1 January 2020), the new legal framework, in particular Chapter IV (articles 20 to 27) will fully apply.

A capacity remuneration mechanism is a “temporary measure” (art.2 (22)) and a “last resort” (art. 21) according to the European Regulation on the Internal Market for Electricity¹.

First and foremost, a Member State has to take every possible measure to improve the functioning of the energy market and remove barriers. More specifically, according to article 20 of the regulation, Member States need to develop and publish an implementation plan with a timeline for adopting measures to eliminate any identified regulatory distortions or market failures. The regulation mentions the need to implement market rules in line with article 3 of the regulation (which asks amongst others to facilitate the development of more flexible generation, sustainable low carbon generation, and more flexible demand) and the need to remove regulatory distortions, removing price caps, introduce shortage pricing function for balancing energy, increasing interconnection and internal grid capacity, enabling self-generation, energy storage, demand side measures and energy efficiency by adopting measures to eliminate any identified regulatory distortions, ensuring cost-efficient and market-based procurement of balancing and ancillary services and removing regulated prices. Moreover, according to article 21 of the regulation, Member States shall assess whether a capacity mechanism in the form of a strategic reserve is capable of addressing the resource adequacy concerns. Where this is not the case, the Member States may implement a different type of capacity mechanism.

¹ “To eliminate residual resource adequacy concerns, Member States may, as a last resort while implementing the measures referred to in Article 20(3) in accordance with Article 107, 108 and 109 of the TFEU, introduce capacity mechanisms.”

Take every possible measure to avoid the need for a CRM

It is thus very clear that a capacity remuneration mechanism is a last resort. Therefore, we ask that the federal and regional governments take every measure possible to avoid the need for a CRM and its oversizing.

More specifically, we ask to work closely together with the regional governments to ensure a more voluntaristic/ambitious approach towards the further development of renewable energy², energy efficiency, demand side management, storage and co-generation outside of the CRM. This is not only needed in light of the CRM, but also a prerequisite for a successful climate and energy transition towards 2030 and 2050³. Moreover, as shown in the Elia Adequacy Report, a voluntaristic approach on these future proofed solutions, has a more important role to play in security of supply than the lifetime extension of two nuclear reactors⁴. Besides, a nuclear lifetime extension would only be possible with extra support. The environmental organisations thus ask to stick to the law on the nuclear phase-out and close all nuclear reactors by 2025.

Besides, a proactive approach -outside of the CRM- to mobilise extra capacity in the neighbouring countries in the framework of the Pentalateral Energy forum and bilateral with the neighbouring countries is needed. These negotiations need to be transparent, with a frequent update of the state of play, and a monitoring of the progress.

Take the trade off between demand side response and a CRM into consideration

As also shown in the adequacy and flexibility report of Elia⁵, there is a clear trade off between a CRM and peak energy prices that can trigger extra demand side response. The fact that the incentives for demand side response will be lower due to a CRM, is a factor that has to be duly taken into account.

The CREG study ((f)1950)⁶ on the market situation in the winter of 2018/2019 describes how the existing market mechanisms and contracts (forward prices, balancing costs, BRP liabilities...) gave strong incentives to all stakeholders to take actions. Thus, because of unforeseen circumstances about 450 MW of extra demand side response was ready to be

² Also a swift realisation of the new zones for offshore wind is key. Therefore, not only the new high voltage lines on land have to be realized as quick as possible, the federal government also has to make sure the tender procedure for the new offshore wind farms is launched as soon as possible.

³ The evaluation of the Belgian NECP by the European Commission is very clear: in light of the European climate and energy legislation, Belgium needs to put much more efforts in energy efficiency and renewables:

https://ec.europa.eu/energy/sites/ener/files/documents/be_rec_nl.pdf?fbclid=IwAR2621E5LQBNHnLLbDOJrS7ImddJ80-q5mFlxAAFYSioiLYEH-I_aEh3TNc

⁴ [Elia, Adequacy and flexibility study for Belgium 2020-2030](#), figure 4-3

⁵ [Elia, Adequacy and flexibility study for Belgium 2020-2030](#), Figure 4-14

⁶ <https://www.creg.be/nl/publicaties/studie-f1950>

activated⁷.

Make sure an adequate and transparent monitoring of the need of a CRM is guaranteed

- **According to the clean energy package, the introduction of a CRM is a last resort.**
- **According to the state aid guidelines, the need, appropriateness, incentive effect and proportionality of the aid has to be proven⁸.**

An appropriate assessment and transparent monitoring for the need of a CRM is of utmost importance. Not only the need for extra capacity (in MWs), but especially the need for extra support for capacity has to be monitored on a frequent basis. Changing market conditions (such as higher CO₂ prices, a higher electricity demand due to eg. the breakthrough of electrical transport, the impact of the phase out of coal in Germany and nuclear phase out in Belgium,...) will determine if extra support for (new) capacity is actually (and will be) needed, and to what extent. A recent study of the CREG shows that existing gas power plants are actually profitable without support⁹. By giving these existing gas power plants support through a CRM, might thus lead to windfall profits.

This assessment has to be done in a transparent way (under control of the CREG) and has to be open-source. In the assessment, energy efficiency, demand side management and cogeneration have to be included in the methodology and in the modelling, not as an external factor. Besides, 70% of the interconnection capacity has to be made available.

Add sensitivities on different LOLES and take the VOLL into account

Sensitivities on a different degree of security of supply (LOLE) have to be calculated. Belgium uses a very strict average LOLE criterium of maximum 3 hours (and 20 hours for the P95), while other countries, such as Ireland, use a LOLE of 8 hours.

The decision on how much a society wants to pay for which level of security of supply has to be taken in a transparent manner. This also has to take into account that consumers have to pay for the level of security of supply that they require (calculation of the Value of Lost Load - VOLL).¹⁰¹¹

⁷ Moreover, in November 2018, the high electricity prices of 200€/MWh would have been an opportunity for some big companies to cease production for a month and plan a big maintenance.

⁸ [Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020](#)

⁹ <https://www.creg.be/sites/default/files/assets/Publications/Studies/F1628NL.pdf>

¹⁰ Electricity directive - Article 25 .3. The reliability standard shall be calculated using at least the value of lost load and the cost of new entry over a given timeframe and shall be expressed as 'expected energy not served' and 'loss of load expectation'.

¹¹ In its decision of 15 April opening a phase 2 investigation against Poland's intention to exempt energy intensive users from the capacity surcharge, the Commission stated: "The overall effect of

As the LOLE criterium sets a national average level, that might not be in line with the individual preferences of a consumer, any CRM design should take this into account (e.g. in the financing of the mechanism and/or the participation in the CRM). We ask to take into account that not all citizens/consumers/companies will need the same level of security of supply at any time. The differences between consumers (e.g. a consumer that needs a certain capacity to guarantee its health care at any time) and consumers that can actively engage in flexibility and need less capacity at peak hours (and thus don't necessarily want to pay a high cost for a high level of security of supply), has to be reflected in the design and financing of the CRM.

Take the fall back options of the law of April the 4th in consideration

Due to the very strict timing, the complexity of designing the CRM and the need for a notification and approval of the European Commission, there is a chance that the CRM won't be ready or approved in time. Therefore it is, in light of the security of supply, of utmost importance to have a possible fall back option in place.

As mentioned above, first of all, the regions can contribute in a significant way to the security of supply. They should take their responsibility by guaranteeing a voluntaristic policy on energy efficiency, renewables, storage, DSM and stimuli for CHP and thus contributing to the security of supply.

Besides, the law on the capacity remuneration mechanism of April the 4th, explicitly foresees two "fallback options" (targeted tender or measures to trigger new capacity¹²) in case the CRM wouldn't be ready in time. These fall back options also should be elaborated and notified to the European Commission to the extent that they involve State aid.

2. Modalities of the CRM

If the CRM has to be activated, it has to be in line with the energy transition goals towards climate neutrality before 2050. Therefore, environmental organisations ask to organise the CRM in such a way that:

- **more environmentally friendly solutions are prioritised**
- **a lock-in of fossil fuel generation is avoided**
- **there are no barriers for solutions such as aggregation and demand side**

these incentives in the electricity market and capacity mechanism should be that consumers pay for the level of security of supply that they require. Since theoretically the capacity mechanism is only needed to the extent that consumers wish to pay for security of supply, its financing base is in principle dynamic and should automatically adjust to match the need for (and size of) the measure" (see para. 57 and footnote 22 of

http://ec.europa.eu/competition/state_aid/cases1/201923/279884_2073021_20_2.pdf)

¹² Title IV and Title V of the law of April the 4th changing the law of April the 29th of 1999 concerning the organisation of the electricity market, to install a capacity remuneration mechanism

management

- **windfall profits are avoided.**

This is also recognised in the state aid guidelines¹³:

(220) Aid for generation adequacy may contradict the objective of phasing out environmentally harmful subsidies including for fossil fuels. Member States should therefore primarily consider alternative ways of achieving generation adequacy which do not have a negative impact on the objective of phasing out environmentally or economically harmful subsidies, such as facilitating demand side management and increasing interconnection capacity.

(233) ... (d) give preference to low-carbon generators in case of equivalent technical and economic parameters.

Moreover it has to be guaranteed, that the CRM is open for aggregation:

(232) The measure should be designed in a way so as to make it possible for any capacity which can effectively contribute to addressing the generation adequacy problem to participate in the measure, in particular, taking into account the following factors: the participation of generators using different technologies and of operators offering measures with equivalent technical performance, for example, demand side management, interconnectors and storage. Without prejudice to the paragraph (228), restriction on participation can only be justified on the basis of insufficient technical performance required to address the generation adequacy problem. Moreover, the generation adequacy measure should be open to potential aggregation of both demand and supply;

Prioritise most environmentally sound solutions

Examples of CRMs in other countries demonstrate that a prioritisation of more environmentally sound solutions is perfectly possible:

- In the Polish, French and the Italian CRM, in case of tie-break in an auction, preference would be given to capacity providers with a lower emission factor.
- The Polish CRM provides for a “green bonus” consisting in an extension of the contract length by 2 years when the capacity market (generation) unit that is contracted meets an emission performance standard, i.e. 450 kg CO₂/MWh, taking into account the unit’s total net efficiency (in %) and a fuel related CO₂ unit emission factor (in kgCO₂/GJ). However, it is regrettable that such extension of already too long contracts (see below on the risk to lock in fossil fuels) is granted only to generation capacity. We suggest to lower the emission performance standard to a more ambitious level and grant it for both demand side measures as generation. For example, a green bonus could be given to

¹³ [Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020](#)

technologies that emit no CO2 at all.

- Italy generalised the emission performance standard prohibiting capacity payments and commitments to plants emitting more than of 550gCO₂/kWh, provided in Article 22(4) of the recast Electricity Market Regulation, to all plants - and not only those who have started commercial production after 4 July 2019.¹⁴

Moreover, a discrimination of demand side management and/or storage (whether or not aggregated) has to be avoided. High capacity thresholds (for eligibility) and investment thresholds (for eligibility and length of contracts) can discriminate against DSR and storage (see Tempus case¹⁵). Besides, to limit the needed capacity in the T-4 tender (and to deal with the possible adequacy concerns in 2023) we ask to consider a T-1 tender in an earlier stage (e.g. already in 2021).

Concerning renewables and cogeneration we ask that:

- Renewables and cogeneration that don't receive, or elect not to receive, (production) support (anymore) should in any case be eligible to the CRM.
- Providers of cogeneration that are eligible for regional support should be able to choose which support mechanism they prefer (either participate at the CRM or benefit from support such certificates for cogeneration at regional level).

Because of the interaction with the regional energy policy, we ask to actively engage the administrations at the regional level in designing the CRM.

Avoid a lock in of fossil fuels

Support in the CRM should avoid a lock-in of fossil fuels. First of all, there has to be a prioritization of more environmentally sound solutions (see above). Next, an unconditional support for fossil fueled power plants for a duration of 15 years should be avoided. Therefore, we ask to put requirements for energy efficiency and a gradual increase in CO₂ performance as a precondition to get support (by eg. a switch from fossil fuels to sustainable green gas and or the use of the waste heat (preferably in a cogeneration)). An option could be to introduce a gradually increasing quatum obligation for the gas user, with an obligation to use only sustainable green gas by 2040 at the latest.

In any case, we ask to not use the option to give 15 year CRM contracts to technologies that emit CO₂ (or above a stringent threshold) to avoid a lock in of CO₂.

We also ask to investigate if it would be possible to grant the CRM for technologies (such as OCGT) with a higher CO₂ emission factor, under the condition that they only operate for a limited number of operating hours.

¹⁴ Commission's decision of 14 June 2019 on SA.53821 - Modification of the Italian capacity mechanism (not yet published). See the press release here: http://europa.eu/rapid/press-release_IP-19-3001_en.htm

¹⁵ <http://curia.europa.eu/juris/liste.jsf?language=en&num=T-793/14&td=ALL>

In any event, the CRM has to comply at the very least with the emission performance standard set by Article 22(4) of the recast Electricity Market Regulation providing that, on the one hand, (a) generation capacity that started commercial production on or after 4 July 2019 and that emits more than 550 g of CO₂ of fossil fuel origin per kWh of electricity shall not be committed or to receive payments or commitments for future payments under a capacity mechanism” and (b) from 1 July 2025 at the latest, generation capacity that started commercial production before 4 July 2019 and that emits more than 550 g of CO₂ of fossil fuel origin per kWh of electricity and more than 350 kg CO₂ of fossil fuel origin on average per year per installed kWe shall not be committed or receive payments or commitments for future payments under a capacity mechanism”.

Open up the CRM for aggregation

Aggregated capacity has to be able to participate at the CRM. The design of the CRM has to be in such a way, that aggregated capacity can participate on a non-discriminatory basis. Therefore, the design of the CRM has to take aggregated capacity into account in the different principles from the beginning .

To ensure there are no thresholds for demand side management and aggregation to participate, we propose not to introduce a minimum threshold as a principle (or as low as (technically) possible). Besides, a correct derating factor for aggregation has to be introduced, proactive monitoring has to be avoided,.....

Avoid information asymmetry

The elaboration of the CRM is particularly complex. There is a big risk of information asymmetry, where only the big energy companies will be able to understand (and influence) the specifics of the CRM. In light of the above mentioned, it is of utmost importance that also smaller/decentralised energy players can join. Therefore, the design should be kept as simple as possible. Any addition to the design should be accounted for. For instance: one has to justify the existence of availability monitoring, of bidding obligations, of prequalification processes,... And not the other way around, where this is all added to the design, unless if one can suggest an alternative.

Guarantee a fair distribution of the costs

The decision on how much a society wants to pay for which level of security of supply has to be taken in a very transparent manner. This also has to take into account that consumers have to pay for the level of security of supply that they require, and that this level can differ between different kinds of consumers. The financing mechanism of the CRM has to take this into account.

It is important to notice that an exemption for energy-intensive users is not allowed in

the state aid guidelines as such. A full assessment is thus needed, taking the VOLL into account.¹⁶

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¹⁶ In its decision of 15 April opening a phase 2 investigation against Poland's intention to exempt energy intensive users from the capacity surcharge, the Commission stated: "The overall effect of these incentives in the electricity market and capacity mechanism should be that consumers pay for the level of security of supply that they require. Since theoretically the capacity mechanism is only needed to the extent that consumers wish to pay for security of supply, its financing base is in principle dynamic and should automatically adjust to match the need for (and size of) the measure" (see para. 57 and footnote 22 of http://ec.europa.eu/competition/state_aid/cases1/201923/279884_2073021_20_2.pdf)