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**Subject: State Aid SA. 54915 (2019/N) – Belgium
Capacity remuneration mechanism**

Excellency,

The Commission wishes to inform Belgium that, having examined the information supplied by your authorities on the aid/measure referred to above, it has decided to initiate the procedure laid down in Article 108(2) of the Treaty on the Functioning of the European Union.

1. THE PROCEDURE

- (1) Belgium pre-notified the measure on 3 July 2019. Several questions were sent to the Belgian authorities and meetings were organised to discuss the pre-notification file.
- (2) Belgium notified the measure on 19 December 2019. On the same day, Belgium exceptionally agreed to waive its rights deriving from Article 342 of the TFEU, in conjunction with Article 3 of Regulation 1/1958¹ and to have this Decision adopted and notified in English.
- (3) A first formal request for information was sent to Belgium on 23 January 2020. Belgium replied on 19 March 2020 and provided updated documents on 20 April 2020.

¹ Regulation No 1 determining the languages to be used by the European Economic Community, OJ 17, 6.10.1958, p. 385.

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- (4) A second request for information was sent on 29 May 2020 and Belgium replied on 9 July 2020. Belgium sent further information on 24 July 2020 and 13 August 2020.

2. DETAILED DESCRIPTION OF THE MEASURE

2.1. Legal basis

- (5) The legal basis of the measure is the Electricity Act of 29 April 1999 on the organisation of the Belgian electricity market modified by a law² published on the 16 May 2019 in the Belgian Official Gazette ('Belgisch Staatsblad'/'Moniteur belge'). On 24 July 2020, the Belgium authorities sent to the Commission a draft law modifying the law published on 16 May 2019.
- (6) Additionally, Royal Decrees and Market Rules will be adopted and will elaborate the Capacity Remuneration Mechanism (CRM) modalities further: the Royal Decree to determine the methodology for the capacity calculation and auction parameters in the context of the capacity remuneration mechanism³, the Royal Decree on eligibility criteria related to cumulative support and minimal participation threshold⁴, the Royal Decree on Investment Thresholds and Eligible Costs⁵ and the Royal Decree on the determination of the conditions based on which capacity holders of foreign capacities can participate to the CRM⁶. These texts are available on the website of the Ministry of Energy⁷. Moreover, Market Rules are being consulted upon⁸.

² Wet tot wijziging van de wet van 29 april 1999 betreffende de organisatie van de elektriciteitsmarkt, teneinde een capaciteitsvergoedingsmechanisme in te stellen" / "Loi modifiant la loi du 29 avril 1999 relative à l'organisation du marché de l'électricité portant la mise en place d'un mécanisme de rémunération de capacité

³ Projet d'arrêté royal fixant la méthode de calcul du volume de capacité nécessaire et des paramètres nécessaires pour l'organisation des enchères dans le cadre du mécanisme de rémunération de capacité - Finaal voorstel van koninklijk besluit tot vaststelling van de berekeningsmethode van het noodzakelijke capaciteitsvolume en de parameters die nodig zijn voor de organisatie van de veilingen in het kader van het capaciteitsvergoedingsmechanisme

⁴ Projet d'arrêté royal relatif à l'établissement des critères et modalités d'éligibilité à la procédure de préqualification en ce qui concerne les règles relatives au seuil minimal et au cumul des mesures d'aides - Ontwerp van koninklijk besluit betreffende de criteria en nadere regels voor het in aanmerking komen voor de prekwalificatieprocedure voor wat betreft de regels inzake de minimumdrempel en de combinatie van steunmaatregelen

⁵ Proposition d'arrêté royal fixant les seuils d'investissements et les critères d'éligibilité des coûts d'investissement en vue du classement des capacités dans les catégories de capacités - Voorstel van koninklijk besluit tot vaststelling van de investeringsdrempels en de criteria voor het in aanmerking komen van investeringskosten met het oog op de klassering van capaciteiten in capaciteitscategorieën

⁶ Projet d'arrêté royal relatif à l'établissement des conditions auxquelles les détenteurs de capacité étrangère directe et indirecte peuvent participer à la procédure de préqualification dans le cadre du mécanisme de rémunération de capacité - Ontwerp van koninklijk besluit houdende vaststelling van de voorwaarden waaronder houders van rechtstreekse en onrechtstreekse buitenlandse capaciteit kunnen deelnemen aan de prekwalificatieprocedure in het kader van het capaciteitsvergoedingsmechanisme

⁷ <https://economie.fgov.be/fr/themes/energie/securite-dapprovisionnement/mecanisme-de-remuneration-de>

⁸ See : https://www.elia.be/en/public-consultation/20200828_public-consultation-crm-functioning-rules

2.2. Objective of the scheme

2.2.1. Reliability standard

- (7) The primary objective of the proposed CRM is to ensure security of supply, as defined in a reliability standard. In the absence of harmonised European and regional reliability standards, the reliability criteria in Belgium is currently defined by a two-part Loss of Load Expectation (LOLE) criterion: the anticipated number of hours during which it will not be possible for all the generation resources available to the Belgian electricity grid to cover the load and need for operating reserves, taking into account also demand response, storage and interconnectors, for a statistically normal year shall not exceed 3 hours. As a second criterion, the LOLE shall remain below 20 hours for a statistically abnormal year (LOLE95)⁹. These values are also enshrined in the Electricity law.
- (8) This standard has been set based on an estimate¹⁰ of value consumers attach to avoiding disconnections of their electricity supply (the value of lost load or VOLL), and the expected cost of new capacity in Belgium (cost of new entry or CONE). In a study from 2017, the Federal Planning Bureau took 65EUR/kW/y as an estimated value for the CONE in Belgium¹¹. In the same study, the Federal Planning Bureau estimated a Value of Lost Load for Belgium of 23.3EUR/kWh.
- (9) The regulation (EU) 2019/943 (hereafter “electricity regulation”) provides the creation of an EU methodology for defining CONE, VOLL and reliability standards. At the time of the notification, the different methodologies were not available. Notwithstanding the fact that the methodologies are not yet finalised, Belgium explained that the estimation of the reliability standard is based on the latest available methodology proposal from ENTSO-E, the European Network of Transmission System Operators for Electricity.
- (10) Furthermore, Belgium explained that if by 15 September 2020 the new methodology indicated in recital (9) above has become applicable, a new reliability standard will be calculated and used for the determination of the capacity to be purchased in the first auction (see section 2.3.2 below). Otherwise, for the first auction, Belgium will use the LOLE value as fixed in article 7 undecies §3 of the Electricity law and the new reliability standard will be used for the second auction. More generally, the calculations relevant for the CRM will be carried out based on the reliability standard in force on 15 September of the year preceding the auction.
- (11) In 2018, the Commission approved by decision SA.48648¹² a strategic reserve for Belgium until 31 March 2022 to meet the same reliability standard. According to the Belgian authorities, the nuclear phase-out planned for 2022 to 2025 and the accelerated thermal phase-out in neighbouring

⁹ LOLE95 refers to a 95th percentile standard according to which during severe conditions with a chance of 5 % of occurring (i.e. a very cold winter that occurs once in 20 years), the LOLE must be inferior to the given standard, which is, in the case of Belgium, 20 hours.

¹⁰ These values are to be considered as preliminary.

¹¹ https://www.plan.be/uploaded/documents/201709280927450.Addendum_CBA.pdf

¹² JOCE C/121/2018

countries makes a market-wide capacity mechanism necessary, given that the energy market does not provide sufficient investment signals. Belgium notified the latter mechanism to replace the strategic reserve when this expires.

2.2.2. Adequacy assessment

- (12) According to the Belgian authorities, Belgium will be confronted with an adequacy problem from 2025, predominantly resulting from the nuclear phase-out that is planned between 2022-2025, reinforced by the decommissioning of thermal generation capacities in neighbouring countries. Indeed, the most recent national adequacy study (“Adequacy and Flexibility study”, covering the period between 2020-2030), which the Belgian grid operator Elia published in June 2019¹³, identified a systematic need for new capacity of at least 3.9 GW in the “High Impact Low Probability” (HiLo) scenario (“EU-HiLo”), by the winter of 2025-2026. This scenario assumes that several nuclear units are unavailable in France (on top of ‘normal’ unavailability). The same scenario is used in the framework of the strategic reserve volume evaluation¹⁴. The EU base case scenario¹⁵ shows a shortage of 2.4 GW if the existing thermal capacity in the system is maintained (see figure 4-18 of Elia’s Adequacy and Flexibility study).
- (13) The results of the Adequacy and Flexibility study show, for the EU-HiLo scenario that, without intervention, the LOLE would be as high as 10.5 hours in 2025, thereby significantly exceeding the national reliability standard in terms of security of supply. The LOLE95 indicator would even increase to 84 hours. The following table show the LOLE results, as entailed in the national adequacy study for the EU-HiLo and the EU base case scenarios:

Table 1 - LOLE results for Belgium in the Adequacy and Flexibility study

	2025		2028		2030	
	EU-base	EU-HiLo	EU-base	EU-HiLo	EU-base	EU-HiLo
Remaining market LOLE (hours)	9.4	10.5	6	6.9	6	6.2
Remaining market LOLE95 (hours)	89	84	63	76	43	51

Source: Source: Elia’s “Adequacy and Flexibility Study for Belgium 2020-2030”

¹³ https://www.elia.be/fr/actualites/communiqués-de-presse/2019/06/20190628_press-release-adequacy-and-flexibility-study-for-belgium-2020-2030

¹⁴ See State aid decision C(2018) 589 final, in case SA.48648 (2017/NN) - Belgium - Strategic Reserve

¹⁵ The ‘EU-BASE’ scenario takes into account the latest known policies of all modelled European countries (nuclear and coal trajectories, expected new built gas generation, demand-side response and storage developments, capacity mechanisms, flow based, rules of the Clean Energy package, expected grid development...)

- (14) Consequently, the Belgian authorities consider that with no action the reliability standard would be breached from 2025 onwards.
- (15) On 11 July 2019, the Belgian regulator for energy CREG published an analysis of Elia's study "Adequacy and flexibility study for Belgium 2020 – 2030"¹⁶. In this study, the CREG highlights several critical points, among others:
- (a) CREG puts into question the use of the EU-HiLo scenario as the main scenario: Elia states that a shortfall of 3.9 GW is expected by the winter of 2025-2026, after the complete phasing out of nuclear capacity. This result is based on a 'low probability - high impact' sensitivity analysis in which France unexpectedly loses 3.6 GW of nuclear capacity. As a result, France would not be able to guarantee its security of supply, despite a capacity mechanism in France¹⁷. The base case scenario shows a shortfall of 2.4 GW if the existing thermal capacity in the system can be maintained. Furthermore, the CREG notes that the base case scenario, alongside the incorporation of various historical climate years (i.e. thereby including extreme events such as long periods of little wind and cold spells) also simulated the recent decline in the availability of Belgian nuclear power stations (33% to 50% of nuclear capacity unavailable).
 - (b) The CREG would like the methodology for evaluating the profitability of existing and new capacity to be improved. In particular, for the economic viability test, Elia uses the median (P50) inframarginal rent from the probabilistic analysis. However, to assess the economic value of capacity, the CREG considers that utilities need to hedge their assets. Hedging is done on the forward market. According to the CREG, forward prices do not reflect the expected median (P50) spot price, but do reflect the expected spot prices in all possible scenarios, weighted by their respective probabilities. This boils down to using the average simulated inframarginal rent, which would lead a greater share of existing capacity to stay in the market and a greater amount of new capacity to come to the market.
 - (c) The CREG would like all available balancing reserves in Belgium and abroad to be taken into consideration. Assessing the security of supply criteria should be simulated on the basis of the situation in real time. Indeed, according to the CREG, the TSO must take all possible measures to avoid involuntary disconnection in real time, including the use of the balancing reserves that are not required for balancing at that time and can then be used for ensuring the security of supply. According to the CREG, a security of supply problem only arises if the study shows that on average more than three hours are necessary (LOLE criterion) until involuntary disconnection. In addition, the CREG considers that foreign reserves can also improve Belgian security of supply.
- (16) In the conclusion of its analysis, the CREG "suggests that Elia should be requested to perform an additional analysis which incorporates the

¹⁶ <https://www.creg.be/fr/publications/etude-f1957>

¹⁷ See State aid decision C(2016) 7086 final in case SA.39621 2015/C

improvements listed in this document, before concluding on the extent of any electricity shortfall.”

- (17) Following the CREG’s analysis, the Belgian Minister for energy instructed its services and the Belgian Federal Planning Bureau to analyse the remarks made by the CREG. A note was issued by the Belgium authorities on 2 October 2019 and sent to the Commission on 4 October 2019¹⁸. The note confirms the need for additional capacity in the future and refers to several other studies pointing to the risk for the security of electricity supply in Belgium, without a capacity mechanism, as of 2025¹⁹. The note also replies to the CREG’s observations, highlighting notably the following points:
- (a) The use (with specification) of the results of the EU-HiLo scenario in the communication of the need for new capacity to the European Commission pursues the same objective as the use of the results of the EU-HiLo scenario of the need in strategic reserve. According to the Belgian Ministry, through its decision SA.48648, the Commission validated the use of the scenario “High impact low probability” which makes it possible to guard against events on which the Belgian State has no influence. In this note, the Belgian Federal Planning Bureau in case of a significant decrease in the available French nuclear capacity (going from 59 GW in the first case to 38 GW in the second) the estimated LOLE in Belgium increases from below 3h to up to 11h on average.
 - (b) As regards the question of the median vs. average inframarginal rent to evaluate the profitability of existing and new capacity, the note points to a document of the Federal Planning Bureau, which highlights a third possibility consisting in choosing the annuity from the “most probable” scenario. The note recognises that it would be interesting to study the impact of an average inframarginal rent on the profitability of power plants, but considers that the approach would likely not call into question the identification of a need for new capacity. Taking into account the average rather than the median inframarginal rent may have an impact on the amount of the need, not on the need itself.
 - (c) Concerning the balancing reserves, the Belgian authorities indicate that the objective of these reserves is to compensate for the imbalance that could be caused by the unexpected loss of a production unit or by errors in forecasting demand or renewable production. These reserves have the role of covering variations in "real time" between production and demand and are not intended to be called upon within the framework of large structural problems of adequacy. Besides, the

¹⁸ <https://economie.fgov.be/sites/default/files/Files/Energy/Mecanisme-remuneration-capacite-Note-E2-02-10-2019.pdf>

¹⁹ Albrecht, Johan, Hamels, S., & Thomas, L. (2017). Le trilemme énergétique : une exploration du paysage Belge de l’électricité en l’An 2030. Gent: Skribis., <https://biblio.ugent.be/publication/8560302>; Study by Energyville: https://www.energyville.be/sites/energyville/files/downloads/2018/gp_bbl_iew_report_-_v2018_03_06_final.pdf
Study by the Federal Planning Bureau:
<https://www.plan.be/admin/uploaded/201802260841090.OPREP201802.pdf>

Belgian authorities indicate that, in its Mid-term Adequacy Forecast (MAF) 2018²⁰, ENTSO-E underlines that “the balancing reserves are not responsible for maintaining the large-scale adequacy, and are deducted from available resources in the MAF”.

- (18) Besides, the Belgian Ministry of energy indicates that Elia’s Adequacy and Flexibility already integrates all the ongoing and planned market developments and the most recent projected policy targets as integrated or referred to in the implementation plan (see section 2.2.2 below).
- (19) In November 2019, ENTSO-E released the Mid-term Adequacy Forecast 2019 (MAF 2019)²¹ which shows the following results for Belgium in 2025:

Table 2- LOLE levels for Belgium in MAF 2019

	Base case scenario – 2025	Low carbon sensitivity²² - 2025
Average LOLE	1.09 hours	1.61 hours
LOLE95	3.15 hours	-

Source: ENTSO-E’s “Mid-term Adequacy Forecast - 2019”

- (20) However, in the countries’ comments annexed to the 2019 MAF²³, Belgium indicated that: “[...] 2.5 GW new-built capacity is considered for 2025 (on top of assumed developments in DSR, storage and RES). This 2.5 GW capacity was identified in Elia’ adequacy study as the new-built capacity needed to meet the reliability criteria in the ‘CENTRAL/EU-BASE’ scenario for 2025 (which corresponds to the MAF scenario). It should be stressed that, as demonstrated in Elia’ Adequacy and Flexibility study and other studies, there is no guarantee that such investments in new capacity would materialise in the future without a market-wide CRM mechanism.”
- (21) In its final report of April 2020²⁴, the Pentalateral Energy Forum (PLEF) presents the following results for Belgium in 2025:

²⁰ https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/sdc-documents/MAF/MAF_2018_Methodology_and_Detailed_Results.pdf

²¹ <https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/sdc-documents/MAF/2019/MAF%202019%20Appendix%201%20-%20Detailed%20Results%2C%20Sensitivities%20and%20Input%20Data.pdf>

²² A ‘Coal Phase-out’ sensitivity is performed. In total, around 23.6 GW of generating capacity were removed from the 2025 Base-Case scenario, mainly through reductions in lignite and hard coal capacities.

²³ <https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/sdc-documents/MAF/2019/MAF%202019%20Appendix%203%20-%20Country%20Comments.pdf>

²⁴ https://www.benelux.int/files/4515/8998/1576/PENTAreport_FINAL.pdf

	Base case scenario - 2025²⁵	Low gas sensitivity - 2025²⁶	Low nuclear/ CH NTC sensitivity sensitivity 2025²⁷
Average LOLE	3.3 hours	8.1 hours	4.6 hours

Source: Pentalateral Energy Forum “Generation Adequacy Assessment -April 2020 – Final report”

- (22) In the notification file, the Belgian authorities indicate that the methodology and data are aligned on European level so that the national adequacy study for Belgium (i.e. Elia’s Adequacy and Flexibility study) is in line with the ENTSO-E’s MAF 2019.
- (23) Besides, the Belgian authorities indicate that, to a maximum extent possible, the national adequacy study already integrates the modalities of the electricity regulation, notably a probabilistic modelling, flow-based modelling of interconnection capacity, a central scenario with several sensitivities, an economic viability check and stakeholder interaction on the input data and sensitivities²⁸.
- (24) It should be noted that, according to article 23.3 of the electricity regulation, ENTSO-E should develop a methodology which shall be used for the European resource adequacy assessment and any national resource adequacy assessment (see article 24 of the electricity regulation). This methodology shall be approved by the Agency for the Cooperation of Energy Regulators, ACER.

2.2.3. Market failures

- (25) Belgium has identified a number of market failures which hamper a well-functioning, secure, affordable and sustainable electricity market.
- (26) The first market failure stems from different factors that prevent efficient price signals and the fact that energy prices are prevented from rising to VOLL and other market design imperfections.
- (27) The combination of these market failures and associated regulatory action may tend to ‘dampen’ price signals in electricity markets so that prices fail to increase to an ‘efficient’ level at times of scarcity. This leads to a chronic shortage of revenues for plant operators and demand response operators, so

²⁵ Like for MAF 2019, “for 2025 a need of 2.5 GW new capacity is thus assumed in this study to be delivered under the CRM in 2025 in order to reach adequacy for Belgium.”

²⁶ “For the ‘Low Gas Sensitivity’ in PLEF for Belgium, the assumed new capacity of 2.5 GW was removed from the PLEF ‘Base Case’”. “Belgian and French gas capacities are respectively 2.5 GW and 2.2 GW lower than in the base case. For Austria (1.2 GW less gas capacity), the Netherlands (1.6 GW less gas capacity) and Luxemburg (0.1 GW less gas capacity)”

²⁷ “For the Low Nuclear / CH NTC sensitivity, nuclear capacity is 1700 MW lower in France and 1190 MW lower in Switzerland. For all other countries, the installed capacity is unchanged compared to the base case. Additionally, NTCs between Switzerland and the neighbouring zones are reduced in order to take account of increasing unscheduled flows through Switzerland due to the fact that Switzerland may not be included in the flow-based market coupling (FBMC) in 2025.”

²⁸ See also recital (38) below.

that ability to recover their fixed and variable costs is affected, usually referred as the “missing money”, preventing market forces from achieving the required level of adequacy.

- (28) In theory, the inability of consumers to select their desired level of reliability could be addressed in an energy-only market by allowing prices to rise to a regulatory level reflecting the price at which consumers would no longer be willing to pay for energy and allowing generators to receive scarcity rents. However, as a consequence of low demand response, it is difficult to capture the actual VOLL and price spikes face issues of political acceptability. As a consequence, price caps in the market are usually set below the VOLL.
- (29) The second market failure is the risk aversion of investors in a context of increased volatility and high regulatory uncertainty. The increasing penetration of intermittent renewable energy sources makes prices more volatile and reduces possibilities for conventional technologies to recover their fixed costs in the electricity market. Slight variations of conditions could have significant impact on the revenues of conventional generation technologies. The 'missing money' problem is becoming more severe as the intermittent capacity increases. As a result, this increases the economic risk associated with investments in flexible conventional generation technologies. In addition, forward energy prices usually do not provide for a more than three-year forward hedging horizon, which is short to build an investment case for investors. Besides, even though forward markets could accommodate incremental changes in supply and demand, they would not be able to provide a hedge in case of a brutal shock, such as the planned nuclear phase-out in Belgium.
- (30) Third, the reliability of electricity systems has certain features of a public good. This is because investments for a higher level of security of supply benefit all, while, as explained earlier, it is not possible for most individual final consumers to be selectively disconnected by the system operator on the basis of their willingness to pay. Thus, generators will likely have suboptimal incentives to invest in generation capacity, which would therefore ultimately deliver suboptimal levels of system reliability.
- (31) These issues take a particular form in Belgium, insofar as it is a relatively small, illiquid and highly interconnected market and thus is also affected by similar supply risks from neighbouring electricity markets. Therefore, Belgium's adequacy is largely influenced by the situation in the neighbouring electricity markets.
- (32) Currently, a strategic reserve is implemented in the Belgian market based on the Federal Law of 26 March 2014 and has been approved by the European Commission until 31 March 2022²⁹. The objective of the strategic reserve is to meet peak demand during winter periods when the market fails to do so by maintaining some existing generation and demand response capacity out-of-market as a back-up only to be activated when the balancing resources are exhausted.
- (33) According to Belgium, strategic reserves are mainly focussing on keeping existing generators or demand response capacities in the market in order to

²⁹

provide additional back-up capacity during peak periods, the instrument is not adapted to support the development of large amounts of new capacities. Additionally, given that nuclear capacity, a base-load technology, is leaving the system, it does not seem appropriate to address the need by a mechanism that – by design – can only deliver energy on peak moments and outside the market (i.e. after exhaustion of the balancing resources).

- (34) Given that the Belgian security of supply issue follows from the phase-out of existing capacity and as the resource adequacy shortage is expected to continue on the long term, strategic reserves are not considered to be an appropriate solution to solve this adequacy issues on the long run.

2.2.4. *Market reforms*

- (35) On 25 November 2019, the Commission received an implementation plan³⁰ from the Belgian Energy Ministry prepared pursuant to Article 20.3 of the electricity regulation, which requires Member States with adequacy concerns to set out measures to eliminate regulatory distortions or market failures on their markets in an implementation plan. Following a public consultation, the European Commission adopted on 30 April 2020 an opinion on Belgium's implementation plan, pursuant to article 20.5 of the electricity regulation³¹. Belgium adopted a final version of its implementation plan, which it submitted to the Commission³².

- (36) As regards balancing markets, Belgium has introduced a so-called 'alpha component' in its imbalance pricing mechanism. It constitutes an extra imbalance price component laid upon Balance Responsible Parties (BRPs) to increase the real-time price signal when the system imbalance of the Belgian control zone increases. Moreover, Belgium is implementing Imbalance Netting, as well as prepares for joining the EU balancing platforms for aFRR (Automatic Frequency Restoration Reserve) and mFRR (manual Frequency Restoration Reserves) which are expected to be in place by end 2021 and 2022 respectively. Besides, Belgium has committed to the following concerning the procurement of balancing and ancillary services:

- (a) Not later than July 2020, FCR (frequency containment reserves) shall be tendered on a daily basis and procured exclusively regionally;
- (b) Not later than July 2020, aFRR shall be tendered on a daily basis and all technologies, all players and all voltage levels will be able to participate in the market. Activated balancing energy shall be remunerated through marginal pricing as soon as there will be sufficient liquidity;
- (c) Since February 2020, mFRR is dimensioned & sized on a daily basis, and activated balancing energy is remunerated through marginal pricing

³⁰ https://ec.europa.eu/energy/consultations/consultation-belgiums-market-reform-plan_en

³¹ Commission opinion C(2020) 2654 final: https://ec.europa.eu/energy/topics/markets-and-consumers/capacity-mechanisms_en

³² <https://economie.fgov.be/sites/default/files/Files/Energy/Belgian-electricity-market-Final-implementation-plan-CRM-22062020.pdf>

(37) In Belgium, demand side response is eligible to participate in the wholesale electricity markets (including day-ahead and intra-day) as well as the balancing market and is treated in a similar way as other market participants and balancing service providers. Demand side response can be represented either individually or via aggregators. To further facilitate demand side response, Belgium committed to a roll-out of smart meters which will be different for each of its regions:

(a) Flanders:

- No later than 2023, 33% of customers shall have a smart meter.
- No later than 2028, 66% of customers in Flanders shall have a smart meter.
- No later than 2034, 100% of customers in Flanders shall have a smart meter.

(b) Wallonia:

- No later than 1 January 2023, there will be a systematic roll out of smart meters (i) for residential consumers in default of payment, (ii) when the meter has to be changed, (iii) for new connections to the grid, (iv) when the consumer requests it
- No later than 31 December 2029, there will be 80% of smart meter installed for (i) consumers with a consumption equal or above 6.000 kWh, (ii) prosumers, when the net developable electrical power is equal or above 5 kWe; (iii) for charging points open to the public

(c) Brussels Region: smart meters rolled out (i) when meters have to be changed or (ii) for new connections to the grid.

(38) Belgium will already have an electricity interconnection rate of 21% in 2020. With the projects already planned (see Federal Development Plan 2020-2030³³), the Belgium electricity interconnection rate will reach around 30% by 2030³⁴. The following Belgian network reinforcements recently became or will become operational in the coming years:

(a) ALEGrO: The ALEGrO project of common interest (PCI) for a 1 GW interconnector between Belgium and Germany is on track to be commissioned by 2020

(b) NEMO: The NEMO PCI project for a 1 GW interconnector between Belgium and the UK has been operational since 2019

BRABO: The BRABO PCI project concerns an upgrade of the Belgian electricity grid with the aim to, among others, increase the import capacity from the Netherlands.

³³ <https://www.elia.be/en/grid-data/grid-development/investment-plan/federal-development-plan-2020-2030>

³⁴ These percentages are based on the definitions used by the Interconnection Target Experts Group (ITEG), i.e. interconnection rate = Total import / Total generation capacity, with total import implying “maximum power flow that the cross-border asset can transmit in accordance with system security criteria

2.3. Auction process and pricing rules

2.3.1. Auctions frequency

- (39) According to the notification, the TSO (Elia) will organise CRM auctions in function of the level of capacity resources that are needed to guarantee an adequate level of resource adequacy to reach the reliability standards.
- (40) A capacity auction is held every year for delivery in four years' time in a "Y-4 auction". A further year-ahead auction is held in the year immediately prior to the delivery year of the main auction ("Y-1 auction").
- (41) The first Y-4 auction should be organised in 2021, while the last Y-4 and Y-1 capacity auctions, for delivery period starting in November 2034, should be organised in 2030 and 2033 respectively.

2.3.2. Determination of the volume to be auctioned

- (42) Article 7 undecies §2 of the Electricity law provides that the methodology defining the parameters determining the quantity of capacity to be purchased is proposed by the TSO. However, the electricity regulation, which is applicable since 1 January 2020, provides that the Member State shall approve the volume to auction on the basis of a proposal from the regulator. The CRM Committee (FPS Economy, CREG, Elia and the Cabinet of the Energy Minister) therefore decided in 2019 that the CREG would develop a proposal for the methodology for the parameters determining the volume to be procured in the auctions. The following recitals give more details on the chronology.
- (43) On 22 November 2019, Elia elaborated a draft proposal of a Royal Decree for the determination of the methodology for the auction parameters (such as de-rating factors, strike and reference prices, intermediate price cap), including the process to determine the scenario to determine the capacity needed³⁵. On 6 December 2019, the CREG adopted an opinion³⁶ on Elia's proposal in which it notably explains that the use of the EU-HiLo scenario to determine the capacity to purchased is inappropriate³⁷ and not in line with article 24.1 of the electricity regulation.
- (44) On 18 March 2020, the CREG sent a draft proposal 2064 for the determination of the volume of capacity to be procured to the Belgian Energy Minister. The draft proposal was largely inspired by the CREG's note (Z) 2024, which was sent to the Minister on 20 December 2019 after a public consultation³⁸. The CREG adopted the final proposal on 24 March 2020³⁹.

³⁵ <https://www.elia.be/fr/users-group/implementation-crm>

³⁶ <https://www.creg.be/fr/publications/avis-a2030>

³⁷ "The use of a Hi-Lo scenario, in which extreme events are assumed to be the base case, can hardly be considered to be a "statistically normal year". On the contrary, a Hi-Lo scenario implies, by definition, an exceptional situation. The CREG does not deny that extreme situations may actually occur, but these must be included with their probability in a probabilistic simulation. Instead, Elia's security of supply analyses based on a Hi-Lo scenario involves a calculation of an average LoLE with a statistically anomalous base assumption (i.e. 'low probability')."

³⁸ <https://www.creg.be/fr/publications/note-z2024>

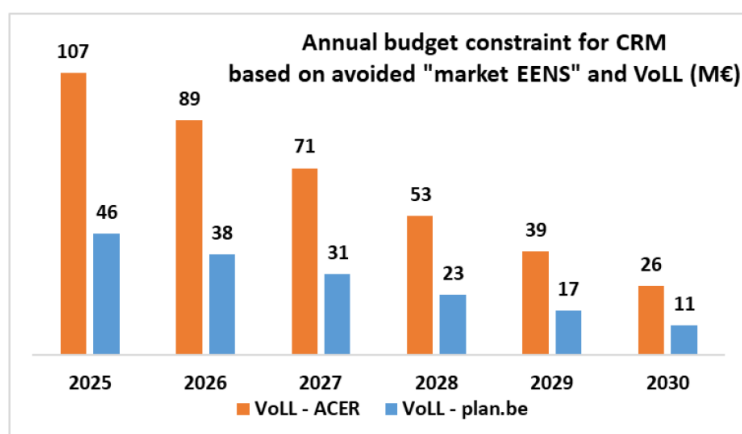
³⁹ <https://www.creg.be/fr/publications/proposition-e2064>

- (45) In its final proposal, the CREG indicates that the target volume should be determined on the basis of the methodology mentioned in article 23.3 of the electricity regulation. This methodology has been proposed by ENSTSO-E to ACER for its approval.
- (46) The CREG considers that the following principles should be respected when designing the parameters of the volume to be purchased (i.e. the demand curve):
- (a) the introduction of a capacity remuneration mechanism makes it possible to comply with the reliability standard(s) at the lowest possible cost and at a proportional cost;
 - (b) the methodology for determining the parameters determining the volume of purchases in the capacity mechanism must be capable of effectively addressing the increasing and decreasing reliability concerns (adequacy concern);
 - (c) the organised capacity auction four years in advance (Y-4 auction) is needed only to attract capacity with longer preparation time (more than one year);
 - (d) due to technological neutrality, there can be no discrimination between different technologies in the capacity auction;
 - (e) the capacity remuneration mechanism may not lead to over-compensation of capacity;
- (47) Based on these principles, the CREG's proposal:
- (a) derives a budgetary constraint in which the cost of the CRM must be lower than the cost to the consumer due to the expected non-delivered energy (EENS)⁴⁰ which is avoided by a CRM. The cost of CRM is the cost of the capacity requested to comply with the reliability standard. The expected cost of missing energy is the EENS multiplied by the willingness to pay for customers who unintentionally do not receive this energy (VOLL). In the event of a security of supply risk, this VOLL represents the cost of non-supply announced in advance. Using values of VOLL of the Plan bureau⁴¹ and of a study by ACER⁴², the CREG derives the following budgetary constraint:

⁴⁰ Expected Energy Not Served: forecast of annual demand that cannot be provided by resources available on the energy market, expressed in MWh

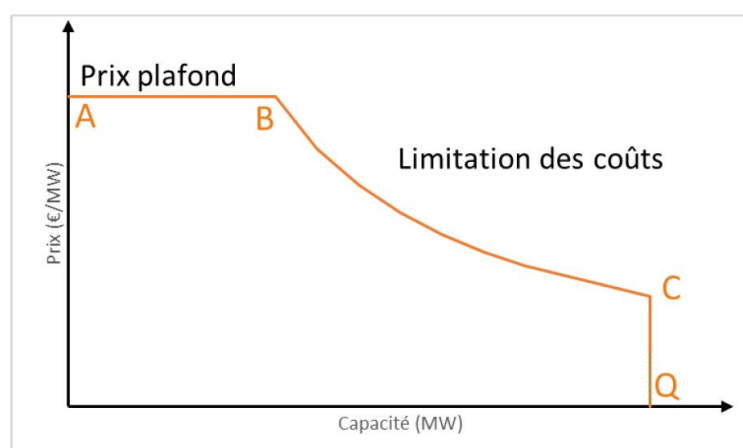
⁴¹ https://www.plan.be/admin/uploaded/201403170843050.WP_1403.pdf

⁴² https://www.acer.europa.eu/en/Electricity/Infrastructure_and_network%20development/Infrastructure/Documents/CEPA%20study%20on%20the%20Value%20of%20Lost%20Load%20in%20the%20electricity%20supply.pdf



Source: CREG “Proposition (E)2064 – 24 mars 2020”

- (b) derives the following demand curve, where the targeted volume to be auctioned is C-Q⁴³:



Source: CREG “Proposition (E)2064 – 24 mars 2020”

- (48) Taking into account the results of the public consultation on the CREG note 2024, the Belgian Ministry concluded that the methodology proposed by the CREG (especially the budgetary constraint) did not provide sufficient guarantees that the CRM objective to “ensure the required level of security of supply”, would be respected in accordance with the legal criteria.
- (49) Consequently, the Belgian Ministry drew up an alternative method defining the parameters determining the quantity of capacity purchased under the capacity mechanism, taking into account Elia’s proposal of a Royal Decree mentioned in recital (43) above and the CREG’s proposal mentioned in recital (44) above. A public consultation was held on this adapted methodology from 23 March 2020 to 27 March 2020. The final draft Royal Decree was published in the Ministry’s website on 17 April 2020⁴⁴. The following recitals describes the process as provided for in this final draft Royal Decree.

⁴³ Other elements of the CREG’s proposal can be found here: <https://www.creg.be/fr/publications/proposition-e2064>

⁴⁴ <https://economie.fgov.be/fr/themes/energie/securite-dapprovisionnement/mecanisme-de-remuneration-de>

- (50) Each year, the amount of capacity required to meet the reliability standard in a particular future delivery year (i.e. the target volume) will be determined based on data and parameters provided by Elia. The target volume is determined on the basis of the legal reliability standard, which corresponds to a certain LOLE value. A scenario is calibrated to ensure that this criterion is met. Once the scenario is calibrated, a market simulation is carried out and lead to the identification of simulated scarcity hours. The target volume is then calculated as the sum of the mean load during the simulated scarcity hours and the balancing need, from which the average EENS during the simulated scarcity hours is subtracted.
- (51) The scenario mentioned in recital (50) takes, as a starting point, the scenarios and sensibilities from the latest European resource adequacy assessment (ERAA)⁴⁵ or the National resource adequacy assessment (NRAA)⁴⁶. These are updated with the most recent data available and the next step foresees that also sensitivities can be updated, while additional ones can also be defined, which might not have been taken into account in the ERAA or the NRAA. According to the final draft Royal Decree, these sensitivities can refer to events within or outside Belgium's borders which impact Belgium's security of supply. Based on the Belgian Ministry's report on the public consultation about the Royal Decree, one of the additional sensitivity can be the EU-HiLo scenario⁴⁷.
- (52) The final draft Royal Decree provides the following process in order to establish the reference scenario. As input for the decision by the Minister of Energy, the Belgian TSO will publish a recommendation, after public consultation of the market parties on the data and assumptions. Consecutively, the regulator will make a proposal on the reference scenario, taking into account the methodology as foreseen in the proposed Royal Decree. Finally, the Energy Administration will publish an advice on this proposal. The final decision of the scenario choice is the responsibility of the Minister of Energy.
- (53) A global auction cap determines the maximum remuneration that can be received by a bid in the CRM auction and is applicable to all capacity categories. By limiting the maximum remuneration that can be received, the global auction cap limits the possibility for abusing market power by submitting inappropriate bids. The global auction price cap is calculated as

⁴⁵ See article 23 of regulation (EU) 2019/943

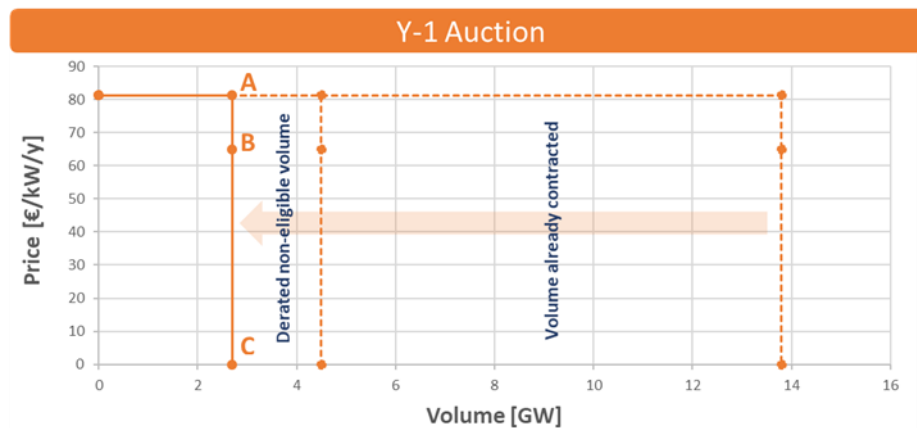
⁴⁶ See article 24 of regulation (EU) 2019/943

⁴⁷ <https://economie.fgov.be/sites/default/files/Files/Energy/AR-methode-de-calcul-volume-de-capacite-parametres-encheres-mecanisme-de-remuneration-de-capacite-Annexe-1-Rapport-de-consultation.pdf>; notably: "La DG Énergie constate que globalement, CBS soutient la méthode alternative telle que proposée par la DG Énergie. En particulier, CBS apprécie également que la possibilité soit prévue pour que des sensibilités HiLo puissent être prises en compte et que des volumes de balancing soient intégrés », and « le paragraphe 4 de l'article 4 déroge des propositions précédentes d'Elia, en ce sens que la possibilité subsiste de tenir compte d'évènements HiLo, mais qu'il s'agit à présent d'une possibilité parmi d'autres. Elia peut se retrouver dans cette approche plus ouverte ». [*"DG Energy notes that, overall, CBS supports the alternative method proposed by DG Energy. In particular, CBS appreciates the possibility of taking into account HiLo sensitivities and that balancing volumes are integrated", and "Article 4 (4) derogates from earlier proposals from Elia, in the sense that the possibility remains to take account of HiLo events, but is now one of several options. Elia supports this approach, which it finds more open."*]

reference LOLE) multiplied by the correction factor X (see recital (53) above).

- (55) The demand curve for the Y-1 auctions is designed on the basis of the same points B and C as for Y-4 auctions, but the target volume is adjusted to take into account capacity already contracted in the Y-4 auction corresponding to the same delivery period. Point A corresponds, in ordinate to the global auction price cap, and in abscissa, to the target volume.

Figure 2 Indicative estimation demand curve Y-1



Source: Notification

- (56) The Belgian authorities consider that the design of the demand curves respects two principles:
- Ensuring security of supply: this means that once Y-4 and Y-1 auctions have been concluded the reliability standard should be met, otherwise the CRM would not meet its objective. As point B corresponds to the volume required to meet the reliability standard it should be ensured that at least this volume is contracted. As after a Y-4 auction, there is still the opportunity to contract further capacities in the Y-1 auction, a sloped curve between point A and point B in Y-4 is possible, allowing to contract less than the amount calibrated for point B in that Y-4 auction. However, contracting less than the volume associated to point B in Y-1 would not guarantee that the reliability standard is met. This explains the vertical section in Y-1 between point A and point B.
 - Ensuring a proportionate, least-cost mechanism: this means that overall the volume to be procured should not exceed the volume required for meeting the reliability standard as otherwise this would inflate the mechanism's total cost. This explains why the demand curve is vertical between point B and the intersection with the X-axis both in Y-4 and Y-1 auctions.
- (57) According to the Belgian electricity law, a minimum volume of capacity needs to be reserved for Y-1 auctions and be deducted from the target volume for the Y-4 auction. This reserved volume shall be at least equal to the capacity required, on average, to cover the total peak capacity for less than 200 hours of operation per year, plus the margin of uncertainty provided for in the calculation of the initial volume carried out by the system operator.

According to the draft Royal Decree, the capacity necessary to cover the total peak capacity for less than 200 hours on average shall be determined, for each block of 100 MW, by the average number of hours required to comply with the security of supply criterion based on the load duration curve. These are the hours needed by a certain capacity needs to meet the maximum electricity consumption. According to the Belgium authorities, this would result in the reservation of approximately 2 to 3 GW for the Y-1 auction. According to Belgium, the decision to reserve part of the volume to be procured for the Y-1 auction process reflects its willingness to stress the technical-neutrality and technical openness of the mechanism. This measure encourages the participation of demand response providers as it might be more difficult for these capacities to plan their availability long in advance, possibly complicating their participation in the Y-4 auction. Notwithstanding this shift of capacity volume to the Y-1 auction, all capacity holders are allowed to participate in both the Y-4 and Y-1 auction process for a certain delivery period.

(58) Anticipating the implementation of the final draft Royal Decree:

- (a) Elia launched a public consultation on the scenarios, sensitivities and data for the CRM parameter calculation for the Y-4 Auction for Delivery Period 2025-2026. The public consultation was held between 5 May 2020 and 5 June 2020⁵¹. Elia consulted on the data from ENTSO-E's MAF 2019, updated with the most recent available information from public sources and on sensitivities to be included in the reference scenario that can have an impact on the security of supply of Belgium, in accordance with the Royal Decree (see recital (52) above). After the public consultation, Elia recommended integrating into the reference scenario a "low demand" sensitivity and a sensitivity corresponding to the EU-HiLo scenario⁵² (see recital (12) above). On 10 July 2020, the CREG subsequently adopted a proposal of a reference scenario⁵³, in which it notably reiterates its criticisms against Elia's recommendation to include a sensitivity of a reduction of the availability of French nuclear by 4 units (see recital (43) above), pointing also to the existing capacity mechanism in France to ensure adequacy and to the risk of an increased in the capacity to be procured. However, shortly after, the Belgian Directorate-General for energy adopted an advice to the Minister of energy⁵⁴, in which it recommends integrating in the reference scenario a modification of the expected demand as the latter dropped subsequent to the impact of the Covid-19 outbreak. It also included an additional unavailability of nuclear units in France. Thus, the Belgian Directorate-General of Energy rejects most of CREG's criticisms but still invites Elia to review its analysis in light of what the PLEF has done (see recital (21) above).

⁵¹ https://www.elia.be/en/public-consultation/20200505_public-consultation-on-the-scenarios-sensitivities-and-data-for-the-crm

⁵² "2.2.1 French nuclear availability- The first sensitivity is in line with the 10-year Adequacy and Flexibility study 2020-30 (Elia, 2019) and is presented in §2.6.8. It includes a nuclear availability reduced by 4 units in winter."

⁵³ <https://www.creg.be/fr/publications/proposition-c2105>

⁵⁴ <https://economie.fgov.be/sites/default/files/Files/Energy/avis-dg-energie-projet-proposition-2105-signed.pdf>

- (b) The CREG organised as public consultation from 1 July 2020 to 13 July 2020 on a proposal about the values of the gross CONE, the weighted average cost of capital (WACC) and the correction factor X⁵⁵. The Minister will decide on the basis of the CREG's proposal but can depart from it.

2.3.3. *Pre-qualification phase*

- (59) A mandatory prequalification procedure is applicable to all holders of generation capacity above 1 MW. Nevertheless, pre-qualified capacities are not obliged to participate in the bidding process (opt-out). To facilitate this mandatory prequalification, a fast track prequalification process is foreseen to enable capacity holders to meet the prequalification obligation at a minimum effort (only a minimum quantity of information is required, such as an identification number, type of delivery point and total installed capacity): capacity holders after a fast track prequalification process, the capacity is automatically treated as opt-out.
- (60) The prequalification requirements include an emission limit: capacity providers that exceed the emission limit below cannot participate in the capacity auction:
 - (a) For capacities that started production on or after 4 July 2019 an emission limit of 550 gr CO₂ of fossil fuel origin per kWh of electricity applies;
 - (b) Capacities that started production before 4 July 2019 can neither emit more than 550 gr CO₂ of fossil fuel origin per kWh of electricity, nor more than 350 kg CO₂ of fuel origin on average per year per installed kWe.
- (61) Besides, as part of the prequalification process, the candidates have to deliver a provisional financial security in order to be allowed to participate in the auction. This provisional financial security becomes effective when the capacity market unit (hereafter CMU) is selected in the auction. If the capacity provider, after selection in the auction, does not respect its contractual obligations or in case he is not willing to sign the capacity contract, financial penalties will be applied as part of the pre-delivery control process. The contractual counterparty has the right to claim financial security in case these penalties would remain unpaid. At the moment of prequalification, the amount of the provisional financial security will be 20,000 EUR/MW for virtual and additional CMUs and 10,000 EUR/MW for existing CMUs, in function of the CMU's eligible volume (given that the contracted capacity is not known yet and ensuring that the financial security is proportional to the size of the project and the consequent risk to system in case of not delivering). If the final contracted capacity of the CMU is lower than its eligible volume, the amount of the financial security is lowered for the positive difference between the eligible volume and the contracted capacity, multiplied by EUR 20,000 (for virtual and additional CMUs) or EUR 10,000 EUR (for existing CMUs).

⁵⁵ <https://www.creg.be/fr/consultations-publiques/consultation-publique-relative-au-projet-de-proposition-2086-relative-au>

2.3.4. *Specific auction design features*

2.3.4.1. Pricing rule

- (62) The competitive auction mechanism makes use of the sealed bid auction format where bidders anonymously submit bids and the market is subsequently cleared in one single round. According to the Belgian authorities, by not providing information to the market during market clearing and not allowing bidders to update their bids, the sealed bid auction format limits the potential for market power abuse. They also indicate that with the sealed bid process, unlike in descending clock auctions, bidders are not tied up for (typically) 2-3 days in which they have to be available to react on the information that is made available for the auction process. The less complex and time-consuming auction process could further lower the entry barrier, especially relevant for new and small players and for demand side response parties whose core business is not the energy market.
- (63) All successful bidders will be awarded a capacity remuneration, based on the pay-as-bid pricing rule for all auctions related to at least the initial two delivery periods (Y-4 and Y-1 auctions for delivery periods starting in November 2025 and November 2026). In other words, successful capacity providers will receive their bidding price as capacity remuneration.
- (64) Following the presentation to the Parliament of an evaluation report, the pay-as-cleared pricing rule could apply for auctions related to subsequent delivery periods. Under the pay-as-cleared rule, the capacity remuneration equals the bid price of the most expensive bid selected (with the limitation of the intermediate price cap, see section 2.3.4.2 below).
- (65) The Belgian authorities believes that the adequacy situation in Belgium around 2025 will require new capacity (see recital (12)). Therefore, capacity holders presenting very heterogeneous cost structures will probably compete in the initial CRM auctions. Consequently, the Belgian authorities fear that some capacity providers could benefit from high inframarginal CRM rents and hence windfall profits if the pay-as-cleared pricing rule was applied. According to Belgium, in theory, in case of perfect information when market participants can anticipate the would-be market clearing price under pay-as-cleared, a pay-as-bid pricing rule would result in the same outcome, as bidders have an incentive to bid in at this anticipated clearing price. In practice however, a certain degree of uncertainty and unpredictability related to the would-be pay-as-cleared market price is inevitably associated with the first CRM auctions. Therefore, under a pay-as-bid pricing rule, market players may act more prudently to avoid the risk of not being selected, and hence pay-as-bid may lead to a less costly result.
- (66) However, Belgium considers that the cost-efficiency advantage of pay-as-bid auctions likely diminishes over time, not only because the requirement for new capacity might disappear, but also because recurring pay-as-bid auctions allow market participants to better anticipate the reference market clearing price, resulting in a “flat” offer curve. Besides, in case the missing money issue were to disappear in the medium to long-term, pay-as-bid could prevent the price to tend to zero since capacity providers have no incentive to bid in at zero under the pay-as-bid pricing rule.

- (67) Belgium considers that after subsequent auctions, the pay-as-cleared pricing rule might become the better choice in order to stimulate competition, provide a transparent price signal and allow capacity remunerations to tend to zero when the level of capacity supplied is expected to be adequate to meet the level of capacity demanded. An important feature of the pay-as-cleared pricing rule is that the rational bidding behaviour is to bid in at true costs. Besides, as pay-as-cleared pricing provides a transparent price signal towards the market, this information can be particularly valuable to small units and new market players, as it may give them a better idea about current and future expected market conditions, thereby encouraging participation over time. Additionally, the pay-as-cleared pricing rule facilitates contractual arrangements, especially for aggregations. Therefore, Belgium will foresee a procedure allowing to change to the pay-as-cleared pricing rule when it is shown that it is beneficial to do so.

2.3.4.2. Intermediate price cap

- (68) As described in details below in section 2.5, a CMU that requires significant investments can apply for a multi-year capacity contract. For the time being, this rule does not apply to indirect foreign participation, which can only receive a one-year contract (see in detail in section 2.9 below). According to the Belgian authorities, CMUs within the one-year contract category are confronted with no or low investment cost requirements to cover for (otherwise they would qualify for a multi-year contract). Therefore, it is foreseen to apply an intermediate price cap to CMUs in the one-year contract category, to avoid windfall profits. This rule will also apply to the contracts attributed to indirect foreign capacity (see in detail in section 2.9 below).
- (69) Concretely, the CMUs within the one-year contract category will not be allowed to bid at a price higher than the intermediate price cap. Furthermore, even under the pay-as-cleared rule (see recital (64)), these CMUs would not receive capacity payments higher than the intermediate price cap.
- (70) According to the Belgian authorities, the intermediate price cap will also prevent market actors with significant market power from strategically deciding to mothball or close existing capacity, thereby effectively taking capacity out of the market, influencing the market clearing price. By limiting the maximum capacity remunerations for capacities in the 1-year contract capacity category (among which existing assets), the intermediate price cap would limit the potential for excessive inframarginal rents.
- (71) The Belgian authorities indicate that the intermediate price cap, on the one hand, should be sufficiently low to avoid windfall profits, but, on the other hand, it should not be too low as to prevent normal returns for the investors, or even prevent CMUs from participating in the CRM auction and create an unwanted exit signal.
- (72) The methodology described in the draft Royal Decree setting out the methodology for calculating the auction parameters under the capacity remuneration mechanism, determines that the intermediate price cap shall be calibrated to the expected “missing-money” level of the worst performing technology currently in the market, considering both costs and revenues.
- (73) The following costs are taken into account:

- (a) yearly Fixed Operation & Maintenance (FOM) costs;
 - (b) annualized non-yearly maintenance costs (excluding costs related to a capacity augmentation or lifetime extension of an installation);
 - (c) activation costs for an availability test.
- (74) These cost components are divided by the applicable de-rating factors, as the intermediate price cap applies in the auction in which prices are expressed per de-rated MW. The Belgian authorities provided the following indicative data⁵⁶.

Table 3 – Indicative total yearly fixed costs for a short-list of existing technologies

	Yearly FOM [EUR/KW] ⁵⁷			Annualized non-yearly maintenance cost [% of FOM] ⁵⁸	Activation cost for availability test [EUR/kW-derated] ⁵⁹	Derating factor ⁶⁰	Total Yearly fixed cost [EUR/kW] ⁶¹		
	LOW	MID	HIGH				LOW	MID	HIGH
<i>CCGT</i>	15	20	25	20%	/	90%	20	27	33
<i>OCGT</i>	10	15	20	23,5%	/	90%	14	21	27
<i>Turbojet</i>	10	15	20	/	/	90%	11	17	22
<i>Market response</i>	5	10	15	/	0,46	30% (low) - 40% (mid) - 55% (high)	17	25	28

Source: Notification

- (75) The following yearly revenues are taken into account:
- (a) Yearly inframarginal rents earned on the electricity market;

⁵⁶ Elia launched a public consultation on the scenarios, sensitivities and data for the CRM parameter calculation for the Y-4 Auction for Delivery Period 2025-2026 (see recital (58)(a))

⁵⁷ Derived from Figure 2-63, page 83 of the Adequacy and Flexibility Study for Belgium 2020 -2030. Note that for the OCGT technology, the values for units >25 are used, as there are OCGT units in the Belgian control zone that are older than 25 years.

⁵⁸ Derived from Section 4.4.5. Fixed costs under LTSA, page 36 of the Pöyry study in the context of CONE determination for the I-SEM

⁵⁹ Derived from data published on the Elia website regarding contracted volumes and prices for strategic reserves (<https://www.elia.be/en/suppliers/supplier/energy-purchases/strategic-reserve-volume-and-prices>), considering the average activation price for SDR winter period 2015-2016 for a 4h activation (hence corresponding to a 40% derating), and assuming one availability test of 15 minutes per year, as follows: $\frac{0,73636EUR}{kWh} * 0,25h * \frac{1}{0,4}$

⁶⁰ Considering the derating factor range for “large scale thermal” varies between 85 and 95%, as illustrated in Figure 4-5 of the Adequacy and Flexibility Study for Belgium 2020-2030, a derating factor of 90% is applied for the *CCGT*, *OCGT* and *Turbojet* technology. For the *Market Response* technology, a range is used from 30% (2h availability; low) – 40% (4h availability; mid) – 55% (8h availability; high) to take into account the variety of possibilities included in the *Market Response* technology.

⁶¹ Calculated as follows:

$$\frac{\text{Yearly FOM} + (\text{Annualized nonyearly maintenance cost} * \text{Yearly FOM})}{\text{Derating factor}} + \text{Activation cost for availability test}$$

(b) Yearly net revenues from the provision of frequency-related balancing services.

(76) The Belgian authorities provided the following indicative data:

Table 4- Indicative yearly revenues for a short-list of existing technologies (values used in the missing-money calculation are indicated in bold)

	Yearly inframarginal rents from electricity market [EUR/kW] ⁶²			Yearly revenues from balancing service provision [EUR/kW] ⁶³		
	LOW	MID	HIGH	LOW	MID	HIGH
<i>CCGT</i>	10	13	15	/	/	/
<i>OCGT</i>	1	2	3	/	/	/
<i>Turbojet</i>	around 0			3	3,5	4
<i>Market response</i>	around 0			2	2,5	3

Source: Notification

(77) Finally, “missing-money” is calculated by subtracting the yearly revenue from the yearly cost values. A 5% uncertainty margin is added to the derived

⁶² Based on estimations done in the context of the Adequacy and Flexibility Study for Belgium 2020-2030. The revenue estimations considered in this calibration exercise are derived based on a reference scenario for 2025. Furthermore, it is considered that by means of intervention, missing money is covered such that the – in the study so-called “not-viable gap” – is filled, meaning that sufficient capacity is assumed in the system in 2025 to meet the adequacy requirements. The yearly inframarginal rents from the electricity market (MID values) are derived as P50 revenues from a probabilistic simulation. For the LOW and HIGH values, for the sake of this indicative calibration a range of 20% around the estimated revenues is considered.

⁶³ Derived from the data published on the Elia website regarding capacity auctions for the balancing services (<https://www.elia.be/en/grid-data/balancing/capacity-auction-results>), considering the overall average of average procurement prices for all auctions related to delivery periods from January 2017 until December 2019. Note that only mFRR reservation fees below 10EUR/MW/h are taken into account towards the overall average value, as prices above this cut-off point are considered to represent periods with adequacy issues and therefore not representative for this analysis. The LOW/MID/HIGH values are calculated as 60/75/90% of the overall average value, to account for variable costs associated with the reservation of mFRR, such as for instance a cost for making a bid. The net revenues from the provision of frequency-related balancing services, in order to avoid double counting and consider only net revenues, have been considered to the following extent:

- FCR revenues are not considered, since Batteries are likely to become the dominant technology to provide FCR. The Batteries technology is not considered for the calibration of the intermediate price cap, as they are considered to derive a positive business case from the provision of FCR.
- aFRR revenues are not considered, as it is assumed that technologies who provide aFRR arbitrage between the provision of aFRR and selling energy. Therefore, aFRR reservation fees are assumed not to represent a net revenue on top of the inframarginal rents earned on the energy market.
- mFRR revenues are considered relevant for the Turbojet (assumed to provide mFRR standard product) and Market response (assumed to provide mFRR flex product) technologies, as they typically provide these services currently in the market. More specifically, revenues for Turbojet and Market response are determined by a percentage of the average mFRR reservation fee or the inframarginal rent from the energy market, according to whichever of both leads to the highest value.

number, to take into account general uncertainties that are associated with a “missing-money” estimation, especially given that the calibration of the intermediate price cap requires the generalisation of cost and revenue figures per technology and that this estimation takes place up to several years before the relevant delivery period.

- (78) The Belgian authorities provided the following indicative data. The HIGH/LOW value for “missing-money” considers the HIGH/LOW value in terms of yearly costs and LOW/HIGH value in terms of yearly revenues.

Table 5 – Indicative “missing-money” values derived for a short-list of existing technologies

	“Missing-money” [EUR/kWde-rated/y]		
	LOW	MID	HIGH
<i>CCGT</i>	5	14	19
<i>OCGT</i>	11	20	26
<i>Turbojet</i>	7	14	19
<i>Market response</i>	15	24	26

Source: Notification

- (79) From the table above, and in order to be inclusive towards all units currently in the market, the Belgian authorities deem it appropriate to consider HIGH values. Observing an upper value of 26 and taking into account a margin of 20% around this number, the intermediate price cap for the first auction, i.e. the Y-4 auction with a delivery period November 2025 – October 2026, is indicatively assessed to be in the range of 20,8 to 31,2 EUR/kW-de-rated/year.

2.3.4.3. Specific clearing rules

- (80) If multiple clearing solutions (i.e. a combination of bids) are equivalent in terms of maximizing economic surplus, the solution with the lowest CO₂ emissions is selected. If two solutions are equivalent both in terms of maximizing economic surplus and weighted average CO₂ emissions, the solution with the lowest weighted average contract duration is selected with the goal to limit the lock-in over several years.
- (81) The auction algorithm will also take into account grid constraints, in such a way that it will reject certain combinations of bids which are together not grid feasible. The set of grid constraints related to the TSO grid that will apply during the auction clearing, will be determined before the auction clearing takes place and will be driven by either system security considerations, or physical spacing limitations.

2.4. Beneficiaries and eligibility rules

- (82) The Belgian authorities indicate that their planned scheme will be open to all capacities that can contribute to resource adequacy, that it will be technology-neutral, and will be in particular open to both existing and new capacity, storage and demand response. Aggregation of capacity, including from different technologies will be allowed.
- (83) Participation of foreign capacity will also be allowed. The rules are further described in section 2.9 below.
- (84) The beneficiaries of the Belgian CRM will be the in-merit capacity providers in the competitive bidding process.

2.4.1. Minimum threshold for participation

- (85) The minimum participation threshold has been set at 1 MW, notably for the following reasons:
 - (a) Alignment with the balancing market: this value is the result of a continuous dialogue with market parties, including several formal public consultations;
 - (b) going below the 1MW-limit implies that many small capacities must start the CRM prequalification process and face the related costs even though they would have no intention to offer to the CRM auction;
 - (c) going below the 1 MW threshold also increases significantly the administrative burden.
- (86) The Royal Decree on eligibility criteria related to cumulative support and minimal participation threshold⁶⁴ foresees to evaluate the level of the minimum participation threshold during the lifetime of the CRM, at least after each period of 5 years.
- (87) Aggregation rules enable participation of smaller capacity providers that do not meet the minimum threshold requirement.

2.4.2. Aggregation

- (88) Multiple capacity providers can choose to aggregate into a single capacity market unit of minimum 1 MW without maximum size limitation. The only limitation is that delivery points for which the energy markets daily programs apply (typically today delivery points with a size of above 25 MW) cannot be part of an aggregated portfolio. Aggregation is allowed across all technologies. In addition, the reallocation of components within an aggregated CMU is allowed to increase the flexibility towards aggregators and to encourage their participation in the auction process.
- (89) Aggregation rules will be periodically reviewed and modified if deemed necessary by the authorities, in order to ensure that the aggregation rules do not constitute an obstacle to participation.

⁶⁴ Projet d'arrêté royal relatif à l'établissement des critères et modalités d'éligibilité à la procédure de préqualification en ce qui concerne les règles relatives au seuil minimal et au cumul des mesures d'aides

2.4.3. *Unproven capacity*

- (90) A specific category of ‘unproven capacity’ is foreseen in the mechanism. It is defined as a capacity, which, at the start of the Y-4 prequalification process, cannot be associated to a delivery point and therefore cannot respect the delivery point prequalification requirements. The category is open to all technologies and aims at fostering the participation of capacities which may have more difficulties to already provide the standard required maturity level in Y-4. An unproven capacity shall only be offered in Y-4 auction. This category can only be assigned the standard capacity category of 1-year contract (see recital (104) below).
- (91) To limit the risk to system security by relying on less mature projects, the overall capacity to be accepted in this category is limited to 400 MW. The latter threshold has been discussed with stakeholders and is deemed appropriate by Belgium in the Belgian context today⁶⁵. The threshold could further evolve over time based on a positive return of experience.

2.4.4. *De-rating*

2.4.4.1. General rules

- (92) The CRM is open to all capacity holders in function of their availability rate and their contribution to the objective of resource adequacy. Indeed, CMUs are not expected to be available 100% of the time at 100% of their reference power (due to e.g. weather conditions, maintenance cycles, breakdowns, etc.).
- (93) For this reason, a de-rating factor is calculated for every technology in order to assess its reliability and its contribution to the security of supply during moments that are particularly relevant from an adequacy point of view (so called “simulated scarcity hours”). Capacity holders can therefore only participate in the auction and are thus only eligible for capacity contracts up to their de-rated capacity⁶⁶.
- (94) The methodology to calculate these de-rating parameters differs per technology as specified more in detail in the Royal Decree to determine the methodology for the capacity calculation and auction parameters in the context of the capacity remuneration mechanism⁶⁷. It will depend on the category of capacity:
- (a) De-rating factors for thermal technologies with a daily schedule are determined based on statistical analysis from historical data by undercutting the forced outage rate as this parameter is assumed independent from climatic conditions
 - (b) De-rating factors for thermal technologies without a daily schedule connected to the distribution network (DSO-connected) or a closed

⁶⁵ The threshold for instance corresponds to the size of the larger existing units in the Belgian market and thereby such volume can be critical to create a competitive effect.

⁶⁶ Capacity providers are only eligible for capacity contracts up to their eligible volume, defined as their reference power (taking into account the opt-out volumes) multiplied by the derating factor.

⁶⁷ Arrêté royal fixant la méthode de calcul du volume de capacité nécessaire et des paramètres nécessaires pour l’organisation des enchères dans le cadre du mécanisme de rémunération de capacité.

distribution system (CDS-connected) are determined by dividing the expected average contribution of those technologies during the simulated scarcity hours by the aggregated nominal reference power of the technology. The average contribution comes from the output of an associated ‘Monte-Carlo’ simulation of the reference scenario referred to in recital (52).

- (c) De-rating factors for weather dependant technologies with daily schedule and for the weather dependent technologies without daily schedule that have not chosen a service level agreement (see point e) below) will be determined by dividing the associated average contribution from those technologies during simulated scarcity hours by the aggregated nominal reference power of the applicable technology.
- (d) De-rating factors for technology with a daily schedule which are energy-limited will be determined by dividing the expected average contribution of such technologies during simulated scarcity hours by the aggregated nominal reference power.
- (e) Service level agreement (hereafter SLA) (typically demand response or small storage but it is also accessible to all technologies without a daily schedule, including RES): the de-rating factor is associated to each SLA, selected by the CMU itself during the pre-qualification process (and as fixed in the capacity contract) in function of the selected energy constraints. The choice from a menu allows the technologies without daily schedule to determine for themselves which SLA suits best their technical constraints, rather than forcing them into a predefined SLA. In addition, an aggregator can choose a Service Level Agreement which best fits his portfolio.

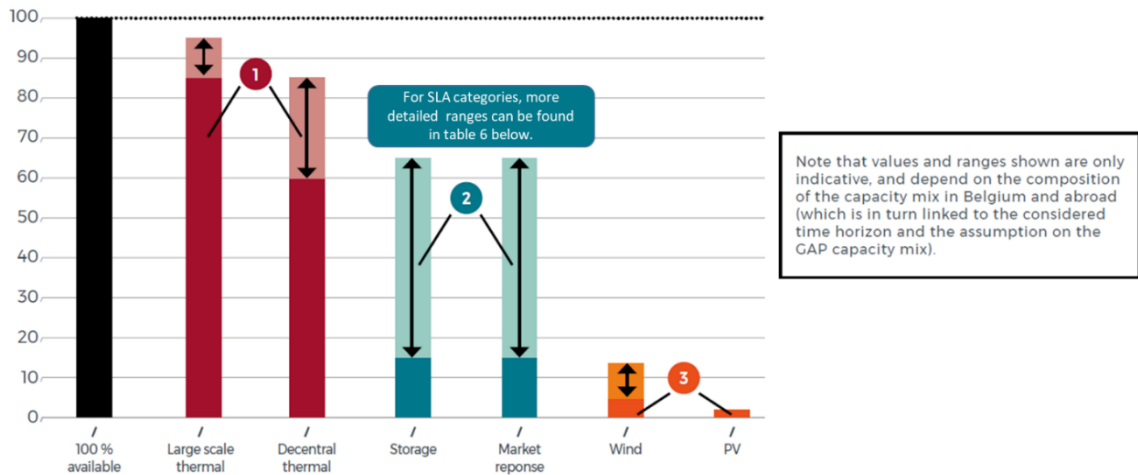
Figure 3 SLA Categories De-rating Factors Range (indicative values)

SLA Category	Range [%]	
	Min	Max
1h availability	10	20
2h availability	20	40
4h availability	30	50
8h availability	40	70
100% available	100	

Source: Notification

(95) Belgium provided indicative de-rating factors ranges⁶⁸ illustrated in the figure below:

Figure 4 Indicative De-rating Factors Range



Source: Notification

(96) “Large scale thermal” can be linked to the daily schedule thermal technologies category. The de-rating factors of daily schedule thermal CMUs are around 85 and 95%. “Decentral thermal” can be linked to the thermal DSO- or CDS- connected aggregated category. The de-rating factor of thermal DSO- or CDS- connected is comprised around 60 and 85%. This de-rating factor range is significantly lower than the one of daily schedule thermal CMUs because these smaller units that are decentralised usually have other constraints (heat supply, industry processes, etc.). “Storage” and “Market Response” can be linked to the daily schedule energy-limited category and to the SLA category (see Figure 3 above). “Wind” and “PV” categories can be associated with the weather-dependent category. The de-rating factor for wind is comprised around 5 and 15% with a higher contribution for offshore than onshore due to better technical characteristics. The de-rating factor for solar would be around 2 and 5%.

(97) The de-rating rules can be yearly reviewed and modified if needed. In particular, the TSO will consult upon the list of current technologies existing in the market. If feedback would be received that a new type of technology is missing in the list, this could still be taken into account during the yearly calibration of the de-rating factors. Hence, if needed, the de-rating factors and the technologies will be yearly updated and reviewed

2.4.4.2. Rules applicable to cross-border participation

(98) As regard cross-border participation, the maximum entry capacity available for the participation of indirect foreign capacity in a control zone shall be defined by the system operator for each directly electrically connected market zone to the Belgian control area, in accordance with Article 26 of the electricity regulation.

⁶⁸ Based on Figure 4-5 of the latest Belgian Adequacy and Flexibility Study for Belgium 2020 – 2030 by Elia-https://www.elia.be/-/media/project/elia/elia-site/company/publication/studies-and-reports/studies/13082019adequacy-and-flexibility-study_en.pdf

- (99) Pending the adoption of the relevant strategies, proposals or decisions implementing Article 26 of the electricity regulation, the contribution of each market zone directly connected with Belgium is determined by the contribution of those zones during simulated scarcity hours as described in section 2.9.1 below.

2.4.4.3. Rules applicable to unproven capacity

- (100) To guarantee a level playing field with other contracted capacities in Y-4 auction, Elia will use the contractual de-rating factors of the virtual CMU as input parameter for the standard prequalification process of the existing CMU(s) that will take over the obligations of the virtual CMU as part of the pre-delivery control process (as the standard prequalification process related to those existing capacities can be organized up the Y-1 auction, with an intermediate milestone 24 months after Y-4 auction).

2.5. Contract duration

- (101) According to the Belgian authorities, a longer capacity contract duration allows the capacity provider to secure long-term funding to spread the investment costs over a longer period of time. This could reduce the capacity remuneration required per year and help ensure that a new project is competitive against existing projects in the market. The potential for new entry at a competitive price is also of the utmost importance for controlling the market power of existing capacity providers.
- (102) However, a longer capacity contract duration can also “lock-in” a technology in the energy market for a longer period of time. Therefore, the Belgian state has opted for different capacity categories (1 year, up to 3, 8 and 15 years). Consequently, new investments are not immediately granted a capacity contract for the maximum (15 years) period, thereby avoiding that the future energy market would be locked for new (and potentially more environmentally friendly) technologies.
- (103) In the Royal Decree of 12 December 2019⁶⁹ proposed by CREG, the eligible costs are established as: “initial and non-recurrent investment expenditure, which is ordered from the date of publication of the auction results in which the bid for that capacity is retained and carried out at the latest on the day preceding the first day of the capacity provision period, necessary for the construction and/or the provision of the essential physical technical elements of capacity, and for the purpose of offering to the Belgian market additional capacity, as of the first delivery period covered by the capacity contract”. For existing capacity, expenditure which has the effect of offering additional capacity is (i) expenditure made necessary to enable the capacity to comply with environmental standards and thus to maintain it on the market; (ii) expenditure necessary to increase the installed capacity or the technical lifetime of the installation and (iii) for direct foreign capacity, expenditure necessary to connect the unit to a network within the Belgian control area (see section 2.9.2 below).
- (104) The proposed Royal Decree foresees the thresholds presented in Table 6. These investment thresholds have been calculated so as to ensure that the

⁶⁹ <https://www.creg.be/fr/publications/proposition-c1907>

average estimated annualized investment costs are equal between the capacity categories linked to a maximum capacity contract duration of 15, 8 and 3 years. The CREG will update the investment thresholds when it seems necessary and at least every 3 years. The thresholds take into account the installed capacity rather than the de-rated capacity. According to Belgium, in case the de-rated capacity offered by the CMU instead of the installed capacity would be taken into account for the investment thresholds, capacities with a high de-rating factor (contributing less to the security of supply) would reach the investment thresholds for multi-year contracts more easily, which would be contradictory to the CRM objective.

Table 6 – Investment thresholds giving access to longer-term contracts

Contract length	Investment threshold (in EUR/ kW of installed capacity)
Contract covering one delivery period	< 177 EUR/kW
Contract covering a maximum of 3 delivery periods	177 EUR/kW
Contract covering a maximum of 8 delivery periods	400 EUR/kW
Contract covering a maximum of 15 delivery periods	600 EUR/kW

Source: CREG “Proposition (C)1907- 12 décembre 2019”

- (105) The CREG will monitor the investment costs to ensure, both ex ante and ex post, that the capacity category assigned to each capacity provider is appropriate. In particular, the capacity provider has to provide an ex-post investment file that the regulator can use for its ex-post assessment of the assigned capacity category. In case the ex post analysis would reveal that the cost criteria were not met (including a limited tolerance range to account for small uncertainties), contractual conditions could be revised (e.g. reclassification of the CMU in the in the appropriated category of contract). Additionally, in case the ex-post investment file is not provided (on time), reclassification of the CMU in the 1-year capacity category by the regulator is possible as well.
- (106) A contract category is also assigned to aggregated offers. If an aggregated offer is made of capacities corresponding to different contract categories, the aggregated offer is assigned the contract category corresponding to the capacity with the shortest contract category.
- (107) According to the Belgian authorities, the possibility for multi-year contracts cannot be foreseen for foreign capacity as, in the long-term, sufficient entry capacity cannot always be guaranteed. The latter does not only depend on the level of interconnection and its availability, but also on the risk of concurrent system stress with neighbouring countries. This latter risk may vary significantly over time, depending on the adequacy and market situation in other countries.

- (108) Finally, unproven capacity can only be eligible to a one-year capacity contract, because it is difficult to justify precise cost figures that would allow them to be categorised in one of the multi-year contract categories (see section 2.4.3).

2.6. Obligations

2.6.1. Reliability options

- (109) In the Belgian capacity mechanism, the contractual counterparty buys the capacity from the capacity providers in the form of reliability options. The capacity providers that are selected in the auction sell the reliability options to the central buyer and receive a fixed capacity remuneration in return. Whenever the reference price exceeds a pre-defined level, the so-called strike price, the capacity provider has a payback obligation of the difference between the reference price and the strike price towards the central buyer, calculated on the contracted capacity volumes.
- (110) As a result, revenues for the capacity provider on the energy only market are capped at the strike price, but capacity providers are ensured a fixed and certain capacity remuneration in return. In other words, the capacity providers give up part of their uncertain scarcity rents to receive a certain capacity remuneration in return, significantly reducing the risk of volatile revenues and therefore the risks related to the investment to be made. The reliability option objective is twofold. Primarily, the payback obligation limits the potential for windfall profits and secondarily, incentivises CMUs to be available in moments relevant for security of supply.

2.6.2. Reference price

- (111) Belgium has selected the day-ahead market (DAM) price as reference price. According to Belgium, its main advantages are:
- i. The DAM represents the most pertinent market signal related to adequacy issues as most drivers of the market actors' positions are incorporated in the production planning and forecasts.
 - ii. The DAM has a strong signalling function and represents the strongest, most liquid spot market, because of its granularity and the high accuracy of the assumptions, which is reflected in the exchanged volumes.
 - iii. After the day-ahead matching in the Belgian system, all Balancing Responsible Parties have to be balanced (nomination DA at 15h00) and at that unique moment, the market is settled. In this way, the DAM is the last opportunity in the electricity product timeline to cross the full remaining demands and offers after the forward market and before the flexibility needs of the intraday and balancing.
 - iv. Due to its timing position in the spot markets, it should allow all technologies (e.g. also slow capacity) to react upon.
- (112) Belgium explained that the methodology of the reference price may be reviewed in the future to make sure it sends the most adequate price signal, once the maturity of other spot markets will increase to a level close to the

day-ahead market. In particular, intraday market prices may be considered again once the liquidity is sufficient and it is continuous.

2.6.3. *Strike price*

- (113) Belgium has opted for a single strike price with some corrections to ensure technology openness of the system and limiting windfall profits in the calibration. According to the Belgian authorities, these corrections are necessary to limit the risk of a single strike price for the participation of some technologies to the CRM. Particularly technologies with a short run marginal cost above the strike price may be hindered without these corrections.
- (114) As foreseen in article 7undecies §2 of the Electricity Act, the strike price parameter will be calibrated each year by a Ministerial Decree no later than 31/03 of that year (both for the Y-4 and Y-1 auction) and based on the methodology that is set in the Royal Decree for the auction parameters.
- (115) It will be based on an analysis of the aggregated curves gathering the elastic part of the volume of reaction from the market observed on the DAM weighted over a period of 3 years for the relevant periods during these 3 years (winter weekdays). The methodology indicates that the calibrated strike price should be selected between the corresponding range [75%; 85%] of the price-elastic volume of reaction from the market reacting to it and taking into account a number of guiding principles :
- (a) First criterion: the short run marginal costs (hereafter SRMC) of the technologies with daily schedule should be covered by the selected strike price.
 - (b) Second criterion: the strike price calibration takes the calibration curve shape into account.
 - (c) Third criterion: the strike price calibration takes the energy market evolution into account
 - (d) Fourth criterion: strike price stability in time
 - (e) Fifth criterion: a reasonable chance for the strike price to be reached by the reference price
- (116) For the assessment of the first criterion, this is looked at in the light of the results and hypotheses used in Elia's Adequacy and Flexibility Study for Belgium 2020 -2030, especially in the § 2.9.3 and § 2.9.4. The calculation of these SRMC is based on several assumptions: an estimation of the fuel prices, an estimation of the potential evolution of the CO2 price, an estimation of the performance ('efficiency') of the various technologies considered in the Adequacy and Flexibility Study for Belgium (in this case CCGT, OCGT and diesel generator).
- (117) Belgium proposed an indicative calibrated strike price range based on the last 3 winter periods (winter 2016/2017 to winter 2018/2019) to be narrowed to [320; 500] EUR/MWh.

- (118) This implies that the strike price may evolve over time (but remains fixed for a CMU's capacity contract duration), in line with evolutions on the energy market, and that capacity contracts as a result of one auction do not necessarily include the same strike price as capacity contracts related to another auction. In any case, the capacity providers will be informed of the applicable strike price prior to each auction, allowing them to factor in this information into their bids.
- (119) In addition, Belgium has opted to offer CMUs without individual scheduling obligation (demand side response providers and aggregators typically fall into this category) the possibility to replace the one single strike price by their declared market price (i.e. their short run marginal cost) in the pay-back obligation whenever this would be higher than the one single strike price. In other words, these CMUs without individual scheduling obligation (and thus demand response providers) are only subject to the payback obligation in case the reference price exceeds their declared market price (DMP), representing the price above which these capacity providers have declared to deliver energy in the energy market. In other words, in case the single strike price calibration would result in a price below their activation cost, these energy-constrained CMUs are not obliged to pay back revenues that were not received in the energy market (in case the reference price would exceed the strike price, but would be below their declared market price). This measure was introduced after the public consultation process to mitigate the concern of demand response providers and other parties that they otherwise would face more difficulty in participating as they may be subject to paybacks without being dispatched and having earned the revenues in the first place. According to Belgium, it also ensures a technology-openness while limiting the windfall profits. In particular, according to the authorities this design element should explicitly facilitate the participation of demand-response in the CRM and any other technology with higher short run marginal costs.
- (120) Additionally, CMUs without individual scheduling obligation can decide to declare several day-ahead prices as DMP. This is particularly relevant for aggregators, which may have a portfolio composed of CMUs with different marginal prices and reflect their actual cost curve. This is meant to avoid applying the payback obligation on energy that has not been sold on the market and where no revenue was earned.

2.6.4. *Paybacks*

2.6.4.1. Description

- (121) As explained above, whenever the electricity price on the wholesale day-ahead market exceeds the strike price, the capacity provider has to pay the difference between the reference price and the strike price to the Elia, calculated on the contracted capacity volumes. As a result, revenues for the capacity provider on the energy only market are capped at the strike price, but capacity providers are ensured a fixed and certain capacity remuneration in return.
- (122) The capacity provider will be subject to the payback obligation, irrespective of whether it was selling electricity at high prices during the relevant settlement period.

- (123) It is important to add that the reliability option is designed in such a way that planned and unplanned outages of the assets duly communicated in advance are exempted from this payback obligation to the extent of the unavailability. Indeed, the payback obligation aims to avoid windfall profits by reimbursing unanticipated revenues from the energy market. However, in case of outages (both planned and unplanned), no energy is delivered. As a consequence, in case of (duly communicated) outages, it is impossible for the capacity provider to capture the higher energy revenues resulting from the high price spikes, so therefore no pay-back obligation should be applicable in these circumstances.
- (124) Demand side response units and other capacity without a daily schedule obligation are subject to the payback obligation in case the reference price exceeds their declared market price (see recitals (119) above).

2.6.4.2. Stop-Loss Mechanisms

- (125) Belgium will also implement a stop-loss mechanism on both the payback obligation (linked to the reliability options) and the penalties for unavailability, which are applied cumulatively (see section 2.7.4 below).
- (126) Such stop-loss mechanism implies that the capacity provider under the CRM will never have to repay an amount exceeding the value of its annual capacity remuneration. In other words, in case the contract value is reduced to zero, there is no payment obligation (not for the reliability options, nor for the availability payments). This principle implies a useful risk limitation for the capacity provider, allowing zero bids in case the missing money in the energy market is reduced to zero. On the contrary, without such a stop-loss mechanism, the capacity provider would risk to be subject to a payback obligation and/or a penalty, even in case it would have no missing money and a capacity contract value of EUR 0. To cover this risk, a capacity provider would never bid at EUR 0/MW/year (even in case he would have no missing money) without the implementation of this stop-loss mechanism.

2.7. Availability monitoring, testing and penalties

2.7.1. Pre-delivery control

- (127) During the pre-delivery period (i.e. the period after a CMU is selected in the auction but before the start of the delivery period), the selected capacity providers are subject to a set of requirements to ensure that their contracted capacity will be available at the start of the delivery period and contribute to security of supply. They are notably meant to mitigate the gaming risk and cover the uncertainty inherent to new investments (e.g. delay in construction works).
- (128) A conditional financial security is required to ensure the requested and punctual fulfilment of all the obligations in respect of the pre-delivery controls arising from the Capacity Contract and/or the Market Rules (see recital (61) above). In case of non-respect of a Capacity Provider's obligations during a pre-delivery period, the financial security can be invoked.

- (129) For existing CMUs, pre-delivery availability tests will be organized, to which penalties apply in case of non-compliance. Furthermore, for additional and virtual CMUs, additional obligations and monitoring requirements between Y-4 and the delivery period are foreseen. The pre-delivery monitoring of these new capacities will be based on the detailed project planning provided by the capacity provider. In case the capacity provider does not meet the milestones set in the project planning, resulting in a residual delay, penalties will apply, including financial penalties (covered by the financial security), or in some cases the reduction of the initially contracted capacity (and thus the capacity remuneration per year) and/or reduction of the capacity contract duration (and thus the number of years during which a capacity remuneration will be received).

2.7.2. *Availability Monitoring*

- (130) The Belgian TSO ensures the availability of all the contracted CMUs (taking into account de-rating) to reach the targeted level of security of supply. Given that the main objective of the CRM is to ensure an adequate level of capacity in the system, the availability monitoring takes place during moments that are relevant for security of supply. In this respect, an Availability Monitoring Trigger (AMT) is defined to identify the moments relevant from an adequacy point of view and during which the TSO will monitor the availability of CMUs.
- (131) The AMT is based on the day-ahead market price. The reasons for opting for the day-ahead market price are the same as for the payback obligation, as described in section 2.6.2 above. During AMT moments (i.e. moments during which the day-ahead market price exceeds the AMT), the TSO can verify whether the procured capacity is indeed able to respond to a day-ahead market signal. If the capacity does not meet the obligated capacity⁷⁰ (based on the terms and conditions in the capacity contract and the functioning rules), the part of the obligation that was not available is liable to penalties, unless the CMU can cover the positive difference between obligated capacity and available capacity⁷¹ via the secondary market of the CRM (see section 2.8 below). By selling obligations on the secondary market, the capacity provider can effectively reduce the obligated capacity to avoid a discrepancy between the obligated and available capacity and thus penalties.
- (132) For the calculation of the obligated capacity, a distinction is made between energy-constrained and non-energy constrained assets as they contribute to the security of supply in a different way. An energy-constrained asset (e.g. batteries, demand side response) can only be available during a certain number of consecutive hours, whereas these constraints do not apply for the non-constrained assets.
- (133) For non-energy constrained assets (e.g. thermal installations, wind farms), the duration of the AMT moment (expressed in a number of hours) does not affect the available capacity. On average, these assets should be able to

⁷⁰ The volume that a CMU is obliged to make available during availability tests and availability monitoring.

⁷¹ The CMU's capacity that is actually available during the availability monitoring mechanism or the availability test.

deliver at least their de-rated capacity. Therefore, at every AMT hour during the capacity contract, the obligated capacity equals the de-rated capacity of the asset as determined during the pre-qualification phase.

- (134) Given that energy-constrained assets (e.g. batteries, demand side response) can only be available during a certain number of consecutive hours, during the prequalification phase these CMUs can select a certain Service Level Agreement (SLA) (see recital (94)(e) above). Therefore, the obligated capacity equals their non-derated capacity for hours within their energy constraints. The obligated capacity will equal 0 MW for any other AMT hour in the same day. The CMU retains the liberty to dispatch their asset for any AMT moment of a set of AMT hours they chose as long as they have delivered at least their SLA over all AMT hours of a day.
- (135) Capacity providers with a daily schedule obligation in the energy market are presumed to have an available capacity at each AMT hour of P_{max} available⁷².
- (136) On the other hand, there is less visibility on the actual availability for capacity providers without such a scheduling obligation. Therefore, these latter capacity providers are always obliged to communicate before day-ahead market closure, a day-ahead price above which they would deliver energy to the market with the CMU in accordance with at least the obligated capacity, which can be above the AMT price. If the market clearing occurs below this price, the unit is presumed to be available (but not delivering energy) according to a declaration. In case of a market clearing above the declared day-ahead price, the TSO will verify energy delivery. In this way, the monitoring does not impose the delivery of energy during all AMT moments, only in case market conditions are favourable for the CMU (i.e. the declared day-ahead price).
- (137) Optionally, the capacity provider without a scheduling obligation can also declare other prices to indicate delivery on other markets (intraday or balancing markets) and/or for lower volumes. This is meant to reflect market functioning as part of the energy can be sold closer to real-time. The TSO will monitor availability using the price that corresponds to when the energy was delivered. In case the declared price(s) are never surpassed on their respective market(s), the asset will not be sufficiently visible in the market and will consequently be more prone to testing. The Market Rules will include a right for the TSO to request a certain number of tests during a delivery period (see section 2.7.3 below).
- (138) According to Belgium there are two main drivers for a capacity provider to declare correct prices for their CMUs, as regards the pay-back obligation and the availability monitoring:
- (a) Successful dispatching of the CMU in response to a declared price contributes to the credibility of the unit's capability to respond to the market. As stated before, this will reduce the chance of availability

⁷² The maximum power (in MW) that the Delivery Point can inject into (or take off) the Elia grid for a certain quarter-hour, taking into account all technical, operational, meteorological or other restrictions known at the time of notification to Elia with the Daily Schedule, without taking into account any participation of the Delivery Point in the provision of balancing services.

tests. The costs associated to these tests are borne by the capacity provider (see recital (143) below) which creates an incentive to show availability through the declared prices mechanism.

- (b) During AMT hours with a payback obligation, the CMU's dispatching will be checked in accordance with the capacity provider declared prices. In other words, the TSO should be able to measure the communicated volume to be delivered as well as the margin to be retained. As an example: if a CMU has indicated that, based on resulting market prices, they would dispatch energy at 90% of the contracted capacity, 90% delivery should be measured as well as 10% margin compared to the technical limit. The result of not respecting either the energy delivery or margin that was communicated will result in availability penalties. This avoids false declaration of prices to omit the payback obligation. Outside of payback obligation AMT hours, such checks will not be made as there is no such potential gain for the capacity provider.

2.7.3. *Testing*

- (139) Elia can verify the availability of a CMU through unannounced availability tests. Such tests will be notified by Elia to the capacity provider before 15:00 CET the day before the availability test at the latest, i.e. the same moment at which the identification of AMT hours is communicated.
- (140) Elia can test a CMU up to three times successfully during the winter period and one time successfully outside the winter period. Additionally, Elia reserves the right to test at maximum one time the full duration of the SLA (if any) successfully. Elia will not conduct availability tests in a period where they have prior knowledge of planned unavailability for the concerning CMU on the (part of the) capacity which is not available (i.e. the obligated capacity is limited to what is known to be available).
- (141) Elia will select the CMU's to be tested according to an internal procedure, which will not be disclosed publicly. Nevertheless, Elia shall base its procedure on criteria including, but not limited to:
 - (a) The amount of proven availability of the CMU's relative to all other CMUs subject to a capacity contract for the current delivery period;
 - (b) Previously failed availability tests by the CMU;
 - (c) Missing capacity during availability monitoring;
 - (d) Correlations of the CMU's outputs with the declared market prices.
- (142) When Elia notifies the availability test along with its expected duration (full SLA duration or 1 quarter-hour) to the capacity provider, it shall also contain its start and end time. Within that period, the capacity provider has the freedom to organise the energy delivery as it suits him best.
- (143) Any missing capacity during this period is liable to an availability penalty. Any costs of availability tests are borne by the capacity provider.

2.7.4. Penalties

- (144) Any missing capacity, i.e. a positive difference between obligated and available capacity, during an AMT hour is liable to an availability penalty.
- (145) The total amount of availability penalties a capacity provider can receive for one CMU, for one delivery period and for missing capacity holding a primary market obligation or a secondary market transaction of which the transaction period covers at least one complete delivery period, is limited to the awarded selected bid prices in the auctions for the delivery period multiplied with the contracted capacities in the auctions.
- (146) The total amount of availability penalties a capacity provider can receive for one CMU, for one month and for missing capacity stemming from a primary market obligation or a secondary market transaction of which the transaction period covers at least one complete delivery period, is limited to 20% of the awarded selected bid prices in the auctions for the delivery period multiplied with the contracted capacities in the auctions.
- (147) In case missing capacity over 20% of obligated capacity is established during three separate AMT moments and/or availability tests for the same CMU, Elia issues a downwards revision of the capacity remuneration for that CMU proportional to the maximum missing capacity established during that period. The capacity provider however retains an availability obligation and remains liable to possible availability penalties for that CMU as in the original capacity contract. The total contract value is not altered. The original capacity remuneration is reinstated after the CMU has successfully provided its obligated capacity, corresponding to the contracted capacity and SLA in the primary contract, during three consecutive AMT moments or availability tests.
- (148) In case the CMU was subject to a downwards revision of capacity remuneration during two subsequent delivery periods and the CMU each time failed to reinstate the original capacity remuneration within 12 weeks of each revision, the CMU will lose the possibility to reinstate original capacity remuneration and all capacity contracts applying to delivery periods starting from the one covered by the first upcoming Y-1 auction after applying this clause are terminated.

2.8. Secondary market

- (149) Belgium will put in place a secondary market to provide the capacity providers with a mechanism to improve their risk management under the CRM. Indeed, in case a capacity provider faces a lower than anticipated availability (lower than its obligated capacity as calculated in accordance with the Market Rules) it has the possibility to cover the positive difference between its contractual obligated capacity and its available capacity in the secondary market, without being subject to any penalties for unavailability. In case of transactions on the secondary market, a full transfer of obligations, including the strike price of the initial obligation, is performed.
- (150) The secondary market will be implemented at the latest 1 year before the start of the first delivery period. The modalities of the secondary market mechanism are described in the Market Rules.

2.9. Cross border capacity participation

- (151) Belgium will allow foreign capacity located in neighbouring countries to participate from the first delivery. The rules are laid down in a Royal Decree⁷³. According to Belgium, as it is uncertain when the methodologies, common rules and terms mentioned in point 11 of article 26 of the electricity regulation will be approved and become applicable, and as a reasonable time should be allowed for the necessary preparations for cross-border participation, Belgium has developed a back-up solution in case cross-border participation would not be possible as of the first Y-4 auction. This solution consists in reserving a volume for the Y-1 auction replacing the cross-border volume that could not be auctioned in the Y-4 auction. This way, foreign capacities can still participate and contribute as of the first delivery year (2025).
- (152) Participation will be open to all technologies. It distinguishes two types of foreign capacity – direct and indirect.

2.9.1. Participation of indirect foreign capacity

- (153) Indirect foreign capacity is capacity located in neighbouring Member States. For each of the neighbouring Member States, a pre-auction is organised. Each pre-auction will start no later than 1 June and will be organised by the TSO in accordance with the instruction given by the Minister referred to in Article 7undecies § 2 alinea 5 of the Electricity law, and specified by neighbouring Member State. In his instruction, the Minister may decide, where appropriate, that a pre-auction with a neighbouring Member State should not be organised. The parameters of the pre-auction are the same as the parameters of the corresponding auction. However, the reference price for each neighbouring Member State shall reflect the price that would have been obtained by the indirect foreign capacity provider on the electricity markets managed by the NEMO⁷⁴ nominated by the indirect foreign capacity.
- (154) Each year, the TSO determines the maximum entry capacity available for the participation of indirect foreign capacity of each neighbouring Member State, on the basis of the recommendation of the Regional Coordination Centre referred to in Article 26 (7) of the electricity regulation, in accordance with the methodology approved by ACER referred to in Article 26 (11) (a) of the electricity regulation .
- (155) Pending the adoption of the relevant strategies, proposals or decisions implementing Article 26 of the electricity regulation, the contribution of each market zone directly connected with Belgium is determined by the contribution of those zones during simulated scarcity hours.

⁷³ Projet d'arrêté royal relatif à l'établissement des conditions auxquelles les détenteurs de capacité étrangère directe et indirecte peuvent participer à la procédure de préqualification dans le cadre du mécanisme de rémunération de capacité (*Draft royal decree on the establishment of the conditions under which holders of direct and indirect foreign capacity can participate in the prequalification procedure within the framework of the capacity remuneration mechanism*).

⁷⁴ "Nominated electricity market operator (NEMO)" means an entity designated by the competent authority to perform tasks related to single day-ahead or single intraday coupling – see article 2 Regulation (EU) 2019/943

- (156) The net position of Belgium during simulated scarcity situations will be determined and the capability of electrically directly connected market zones to export energy during those moments will be used to determine the average contribution of each zone to the Belgian adequacy. The calculation of the contribution depends on the way interconnection is modelled in the simulation.
- (157) If there is a NTC link modelled between Belgium and another electrically directly connected market zone, then:
- (a) For each simulated scarcity hour:
 - If the market zone is exporting to Belgium, its contribution equals the simulated market exchange;
 - If the market zone is importing from Belgium, its contribution is null;
 - (b) The maximum entry capacity market zone is defined as equal to the average contribution during simulated scarcity hours.
- (158) If a flow-based domain is defined in the simulation that integrates Belgium, then:
- (a) First there is a check of the net position of Belgium of the simulated scarcity hours:
 - If the net position of Belgium is positive, the contribution of other market zones in the flow-based domain is null
 - If the net position of Belgium is negative, there is a check of the net position of other market zones:
 - If the net position of the other market zones is negative, the contribution of this market zone is null;
 - For all the market zones with a positive net position, a weighted average on the net positions is made between market zones in order to reach the level of Belgium's net position.
 - (b) The maximum entry capacity of a market zone is defined as equal to its average contribution during simulated scarcity hours.
- (159) The indirect foreign capacity wishing to submit a bid in the pre-auction shall provide the TSO with the information on the volume of capacity offered after the application of the derating factor, the price offered and the CO2 emissions of the capacity concerned.
- (160) The indirect foreign capacity whose bid is selected at the end of the pre-auction submits a prequalification file. The assessment of the prequalification file will be carried out by the neighbouring TSO in cooperation with Elia, in accordance with the rules laid down in the methodologies referred to in Article 26 (11) and (f) of the electricity regulation and, when applicable, in accordance with the agreement concluded between TSOs.

2.9.2. *Participation of direct foreign capacity*

- (161) Direct foreign capacity is capacity located in a neighbouring Member States but having a direct and exclusive connection to the Belgian network.
- (162) The capacity must also be located in a neighbouring Member State with which Belgium has concluded an agreement on the participation of direct foreign capacity in the CRM, ensuring that:
- a) the participation of any direct foreign capacity depends on a declaration by the neighbouring Member State in which the capacity is located, that the capacity in question meets a number of technical, organisational and financial requirements set out in the agreement and that all the necessary authorisations for the capacity in question have been issued regularly and unconditionally, or will be issued within a reasonable period;
 - b) the participation of any direct foreign capacity depends on a declaration by the neighbouring Member State in which the capacity is located, that such participation does not give rise to serious problems in terms of security of supply in the neighbouring Member State or does not deprive it of the necessary infrastructure to adequately address known congestion problems

2.9.3. *Congestion revenue*

- (163) The allocation of the revenues resulting from allocation of cross-border tickets, i.e. access rights for foreign capacity providers to participate in the Belgian CRM, is fully governed by Art. 26(9) of the electricity regulation. This article considers two situations:
- a) The neighbouring Member State also has a capacity mechanism allowing for cross-border participation: in this case, either the methodology being proposed by ENTSO-E and to be approved by ACER following article 26 (11) (b) of the electricity regulation is to be applied or the NRAs of Belgium and the neighbouring Member State have to agree on an allocation.
 - b) The neighbouring Member State has no capacity mechanism or a capacity mechanism without cross-border participation: in this case, the NRA of Belgium, after having sought the opinion of the NRA of the neighbouring Member State, should determine the allocation.
- (164) By the time that indirect cross-border participation is possible in an auction, cross-border tickets are allocated and hence a congestion revenue emerges, ACER should have approved the methodology referred to in article 26 (11) (b) of the electricity regulation. Belgium indicates that the congestion revenues will be used for the purposes set out in article 19 (2) of the electricity regulation as required by article. 26(9).

2.10. Cumulation

- (165) According to Article 3 of the draft Royal Decree on eligibility criteria related to cumulative support and minimal participation threshold, capacity that already benefits from operating aid is excluded from the prequalification

phase. Capacities that benefit from such aid can participate in the prequalification phase under the condition that they renounce to the aid in case they are awarded with a capacity mechanism contract. They will do so by submitting a form to the energy ministry. Furthermore, capacities commit not to apply for other operating aid during the period while they have a capacity contract when submitting an application for the prequalification phase.

2.11. Budget and financing mechanism

2.11.1. Budget

- (166) The precise cost of the measure will be determined by the auctions. According to a report from 9 March 2018 by the consulting company PricewaterhouseCoopers mandated by the authorities, the overall cost of the measure can be estimated to be 345 million euro per year. According to the CREG, the cost of the measure can be evaluated around 614 and 940 million euros.

2.11.2. Financing of the measure

- (167) The Belgian Parliament adopted a resolution on 16 July 2020⁷⁵ indicating that the costs of the CRM will be financed via a “public service obligation” by Elia in the network tariffs.
- (168) The Belgian authorities indicate that the CRM is financed via para-fiscal charges or taxes assigned to a beneficiary. According to article 12 § 1 of the Electricity law, the connection, use of infrastructure and electrical systems and, where appropriate, ancillary services of the system operator shall be subject to tariffs for the management of the transmission system and of networks with a transport function. Moreover, according to article 12 § 13 of the Electricity law, the system operator shall, as soon as possible, communicate to the users of its network the tariffs which it has to apply and make them available to all persons who so request.
- (169) According to article 12 §5 11° of the Electricity law, the net costs of public service tasks imposed by this law shall be taken into account in the tariffs in a transparent and non-discriminatory manner, in accordance with the applicable laws and regulations
- (170) According to article 4 §2 of the decree adopted by the CREG on 28 June 2018 on the basis of article 12 of the Electricity law⁷⁶, and which determine the network tariffs for the period 2020-2023, network tariffs are the prices due by network users to the network operator. According to article 4 §7 of the same decree, the general tariff structure distinguishes transport tariffs, which cover the total revenue of the system operator, and tariffs for public service obligations. Article 6 of the decree provides that tariffs for public service obligations compensate for the net costs of public service obligations, including management costs and financial charges, imposed on the system operator and in respect of which the law, decree or order, or their implementing decrees, have not provided for a specific compensation

⁷⁵ <https://www.dekamer.be/kvvcr/showpage.cfm?section=/none&leftmenu=no&language=fr&cfm=/site/wwwcfm/flwb/flwbn.cfm?lang=F&legislat=55&dossierID=1220>

⁷⁶ <https://www.creg.be/sites/default/files/assets/Publications/Decisions/Z1109-10FR.pdf>

mechanism, by means of an overload or other levy, in return for the performance of the system.

- (171) On this basis, each year the TSO will submit a tariff proposal for the public service obligation to the CREG for approval, accompanied by a budget including a forecast of all costs (capacity remuneration, the TSO management and development costs) and incomes of the CRM for the following year. The proposed tariff for the public service obligation will also take into account the balance carried over from the previous financial year.
- (172) At the end of the year, the TSO will submit a tariff report to the CREG for approval, setting out the actual costs and incomes for the past year and the income resulting from the application of the tariff. After checking the accuracy of the data and the reasonableness of the CRM management and development costs incurred by the TSO, the CREG will determine the balance to be carried forward.
- (173) Any revenues linked to the CRM mechanism will be used to cover the costs included in the tariff for the public service obligation, without prejudice to article 26.9 of the electricity regulation.
- (174) The tariff is uniformly applied on a EUR/MWh basis to all consumers (directly to the consumer connected to the transmission network or indirectly, via the Distribution System Operator, and the suppliers, for the consumers connected to the distribution network).
- (175) The specific CRM-financing modalities will be applied at the earliest three years before the first delivery period of capacity, i.e. not earlier than 1 November 2022. First, the anticipated application of the financing model from 2022 could generate financial means for the TSO who will have to pay the capacity providers for the offered service at the moment it will be delivered. Second, this anticipation will help to smooth and spread over time the costs related to the implementation of this mechanism over more than one year.
- (176) According to the Parliament's resolution, from 2029 at the latest, the tariff will be levied on the basis of peak power depending on the deployment of smart meters in the regions. Therefore, by the end of 2023 at the latest, the Government will make an analysis of the expected deployment of smart meters.

2.12. Duration

- (177) Belgium has requested an approval for the CRM for the maximum allowed time of 10 years.

3. ASSESSMENT OF THE MEASURE

3.1. State aid within the meaning of Article 107(1) TFEU

- (178) Article 107(1) of the Treaty defines State aid as 'any aid granted by a Member State or through State resources in any form whatsoever'.
- (179) State aid falling within Article 107(1) of the Treaty is incompatible with the internal market if it 'distorts or threatens to distort competition by favouring

certain undertakings or the production of certain goods [...], in so far as it affects trade between Member States’.

- (180) Paragraphs 2 and 3 of Article 107 of the Treaty list specific circumstances in which aid is or may nonetheless be considered compatible with the internal market. The Commission’s assessment of whether any of those circumstances apply in this case is set out in section 3.3.

3.1.1. Imputability to the State and financing through State resources

- (181) For measures to be qualified as State aid within the meaning of Article 107(1) of the Treaty, (a) they have to be imputable to the State and (b) they have to involve State resources. The latter condition means that the aid must be granted directly by the State or by a public or private body designated or established by the State⁷⁷.
- (182) As explained in section 2.1 above, the CRM was put in place by the federal law, adopted on 4 April 2019 modifying the federal Electricity Act of 29 April 1999 on the organisation of the Belgian electricity market (primary legislation). Several implementing provisions for this capacity mechanism are foreseen via secondary legislation such as Royal Decrees, Ministerial Decrees and regulatory approved Market Rules and contracts. All this secondary legislation has its legal basis in the above mentioned Federal Electricity Act. Consequently, the Commission considers that the measure is imputable to the Belgian State.
- (183) With the financing mechanism described in section 2.11.2 above, the Belgian State creates a system where the costs incurred by the TSO due to the CRM are fully compensated through the network tariffs, which present the characteristics of a para-fiscal levy. Indeed, the Commission notes that the State establishes by law a surcharge on electricity consumption through the network tariffs (see recitals (168) and (169) above). On the one hand, the Electricity act provides that the TSO is obliged to collect these tariffs directly from network users (see recital (168)). On the other hand, network users on which the tariffs are levied have to pay it (see recital (170)). In addition, as highlighted in recital (168) above, the compulsory network tariffs originate from the State in the sense that the State did not limit itself to rendering compulsory for a group of private persons a contribution that was introduced and administered by an association of such private person as in the *Pearle*⁷⁸ and *Doux Élevage*⁷⁹ case-law. Consequently, in line with the Court of Justice’s judgment in the case *Germany v European Commission*, the network tariffs qualify as a levy imposed by law⁸⁰.
- (184) Consequently, the Commission takes the view that the CRM is financed from State resources since it is financed from the proceeds of a para-fiscal levy imposed by the State and which are managed and apportioned in

⁷⁷ Case 76/78 *Steinike & Weinlig v Germany* [1977] ECR 595, paragraph 21; Case C-379/98 *PreussenElektra* [2001] ECR I-2099, paragraph 58; Case C-706/17 *Achema* [2019] paragraph 47 and following

⁷⁸ Case C-345/02, *Pearle and Others* [2004] ECLI:EU:C:2004:448

⁷⁹ Case C-677/11, *Doux Élevage and Coopérative agricole UKL-ARREE* [2013] ECLI:EU:C:2013:348

⁸⁰ Case C-405/16 P, *Federal Republic of Germany v European Commission* [2019] ECLI:EU:C:2019:268, paragraph 68

accordance with the provisions of the legislation. Indeed, if national law requires a charge to be passed on a given group of persons, the charge is compulsory and thus the funds raised are State resources⁸¹.

3.1.2. *Economic advantage conferred on certain undertakings or the production of certain goods (selective advantage)*

- (185) An advantage, within the meaning of Article 107(1) TFEU, is any economic benefit, which an undertaking would not have obtained under normal market conditions, i.e. in the absence of State intervention⁸².
- (186) The Commission notes that the successful bidders in the CRM auctions receive remuneration through the CRM, which they would not receive if they continued to operate in the electricity market under normal economic conditions selling electricity and ancillary services only. The measure therefore confers an economic advantage on undertakings, which have been successful in the CRM auctions. This advantage is selective in that it favours only certain undertakings, namely the successful bidders in the CRM auctions, that are in a comparable factual and legal situation to other capacity providers that either could not, or did not participate in the CRM auctions, or did participate but were not successful.
- (187) Moreover, the measure confers a selective advantage only on certain undertakings able to help tackle the identified adequacy problem because capacities smaller than 1MW (see recital (85)) are excluded from participating directly in the CRM (i.e. without aggregation, see recital (88)), even though they can also help reduce the identified adequacy problem. For the future, the existence of a minimum threshold to participate in the CRM, even if reduced (recital (86)), will continue to exclude some capacities from a direct participation (i.e. without aggregation) in the CRM. Furthermore, foreign capacities located in non-neighbouring Member States will be excluded from the CRM even though they are able to help tackle the identified adequacy problem. Consequently, also from this perspective, the measure confers a selective advantage.

3.1.3. *Distortion of competition and trade within the EU*

- (188) The measure risks distorting competition and affecting trade within the internal market. Electricity generation as well as electricity wholesale and retail markets are activities open to competition throughout the Union⁸³. Therefore, any advantage from State resources to any undertaking in that sector has the potential to affect intra Union trade and to distort competition.

⁸¹ See case C- 405/16 P, *Federal Republic of Germany v European Commission* [2019] ECLI:EU:C:2019:268, paragraphs 68 and 72; case C-706/17 *Achema and Others* [2019] ECLI:EU:C:2019:407, paragraph 57 and case T-217/17 *FVE Holýšov I and Others v Commission* [2019] ECLI:EU:T:2019:633, paragraph 111

⁸² Judgment of the Court of Justice of 11 July 1996, *SFEI and Others*, C-39/94, ECLI:EU:C:1996:285, paragraph 60; Judgment of the Court of Justice of 29 April 1999, *Spain v Commission*, C-342/96, ECLI:EU:C:1999:210, paragraph 41

⁸³ See notably Regulation (EC) n°714/2009, Directive 2009/72/EC, Regulation (EU) n°2019/943 and Directive (EU) 2019/944

3.1.4. *Conclusion on the assessment under Article 107(1) of the Treaty*

(189) In the light of the above assessment, the Commission preliminarily concludes that the measure constitutes State aid within the meaning of Article 107(1) TFEU.

3.2. **Lawfulness of aid**

(190) By notifying the scheme before its implementation, the Belgian authorities have fulfilled their obligation according to Article 108(3) TFEU.

3.3. **Compatibility with the internal market**

(191) The Commission has assessed the compatibility of the measure with the internal market, on the basis of the conditions established in Section 3.9 of the Environmental and Energy Aid Guidelines (EEAG)⁸⁴, which set specific conditions for aid to generation adequacy and have been applicable since 1 July 2014. On 2 July 2020, the Commission adopted a communication prolonging the EEAG until 31 December 2021 and amending them⁸⁵.

3.3.1. *Objective of common interest and need for State intervention*

(192) In order to be considered necessary and contributing to an objective of common interest, the measure should meet several conditions of sections 3.9.1 and 3.9.2 EEAG; i) the generation adequacy concerns must be identified through a quantifiable indicator and the findings must be consistent with the analysis carried out by ENTSO-E; ii) the measure must pursue a well-defined objective; iii) the measure must address the nature and causes of the problem and in particular the market failure that prevents the market from delivering the required level of capacity; iv) the Member State must have considered alternative options to address the problem to avoid missing the objective of phasing out environmentally harmful subsidies.

(193) The Belgian authorities have identified market failures which may jeopardise Belgium's resource adequacy, as described in details in section 2.2.1.

(194) As described in section 2.2.2 above, the Belgian authorities have committed to several market reforms, notably view a view to strengthening balancing markets (see recital (36)), facilitating demand side response (see recital (37)) and increasing interconnection capacity (see recital (38)). Consequently, the Commission takes the preliminary view that Belgium has considered alternative options to address the adequacy concern to avoid missing the objective of phasing out environmentally harmful subsidies in line with point (220) of the EEAG.

(195) As explained in recital (18) above, the Belgian Ministry of energy indicates that Elia's Adequacy and Flexibility study already integrates all the ongoing and planned market developments and the most recent projected policy targets as integrated or referred to in the implementation plan.

⁸⁴ OJ C 200/1 of 28 June 2014, as corrected by the corrigendum adopted by the Commission in OJ C 290, 10.8.2016, p.11.

⁸⁵ See Communication C(2020) 4355 final – In particular, in point (16) of the EEAG, the following sentence has been added: 'These Guidelines shall, however, apply to undertakings which were not in difficulty on 31 December 2019 but became undertakings in difficulty in the period from 1 January 2020 to 30 June 2021.'

- (196) Despite these reforms, the Adequacy and Flexibility study identifies risks for the Belgian resource adequacy, with reference to the national reliability standard described in recital (7). As shown in Table 1 according to the Adequacy and Flexibility study, the national reliability standards risk being breached, especially in the EU-HiLo scenario.
- (197) On this basis, the CRM aims at procuring the necessary amount of capacity to meet the reliability standard. The measure therefore has a well-defined objective. In exchange for receiving capacity payments, capacity providers commit to be available at times of system stress.
- (198) Nevertheless, the Commission takes note of the debate and disagreement between the CREG and the Belgian ministry of economy, as described in recitals (15) to (17) above. While the CREG does not deny the existence of a resource adequacy problem from 2025, it questions its dimension, as underlined in recital (16) above. During its preliminary examination, the Commission received market information referring to the CREG's criticisms questioning the necessity and or the dimension of the planned CRM.
- (199) Moreover, while the Adequacy and Flexibility study seems broadly in line with ENTSO-E's MAF2019, the latter does not provide a proper counterfactual scenario to estimate the extent of the resource adequacy problem. Indeed, as explained in recital (20), the MAF2019 already includes the 2.5 GW capacity identified in the Adequacy and Flexibility study as the new-built capacity needed to meet the reliability criteria in the EU-BASE scenario for 2025, while "there is no guarantee that such investments in new capacity would materialise in the future without a market-wide CRM mechanism". Consequently, ENTSO-E's MAF2019 does not present the LOLE results for Belgium without these additional 2.5 GW.
- (200) What is more, the emphasis of the Adequacy and Flexibility study on the results based on the EU-HiLo scenario does not seem appropriate, as far as a market-wide capacity market is concerned. Indeed, as pointed out by the Belgian authorities (see recital (17)(a) above), the Commission considered the use of the EU-HiLo scenario justified for the Belgian strategic reserve. However, as explained in the Commission's Sector Inquiry on Capacity Mechanisms⁸⁶, "for temporary risks, a strategic reserve is likely to be a more appropriate solution while the market is reformed to deliver security of supply in the longer term. The reserve must be held outside the market". Moreover, as explained in the Commission decision, "the strategic reserve serves as a last resort measure, which is only activated in case the market fails to clear"⁸⁷. On the contrary, a market-wide capacity mechanism such as the Belgian CRM targets long-lasting risks while the beneficiaries continue participating in the electricity market. In this context, the use of an EU-HiLo scenario does not seem appropriate to determine the level of the resource adequacy problem since it risks overestimating this problem and distorting the electricity market. Besides, as explained by the CREG, the base case scenario, alongside the incorporation of various historical climate years (i.e. thereby including extreme events such as long periods of little wind and cold

⁸⁶ COM(2016) 752 final
https://ec.europa.eu/competition/sectors/energy/capacity_mechanisms_final_report_en.pdf

⁸⁷ SA.4864 Belgian Strategic reserve - JOCE C/121/2018

spells) also simulated the recent decline in the availability of nuclear power stations (33% to 50% of nuclear capacity unavailable): it therefore appears as a more appropriate scenario.

- (201) Finally, as explained in recital (24) above, ENTSO-E has developed a methodology which shall be used for the European resource adequacy assessment and any national resource adequacy assessment. This methodology shall be approved by ACER. According to article 24.1 of the electricity regulation, if the national resource adequacy assessment takes into account additional sensitivities compared to the approved methodology, it has to “make assumptions taking into account the particularities of national electricity demand and supply”. However, the HiLo scenario makes assumption about *foreign* supply, namely, the unavailability of nuclear units in France.
- (202) Based on the elements presented above, at this stage the Commission has doubts as to whether the resource adequacy problem has been identified precisely enough and has been properly analysed and quantified by the Belgian authorities, in particular with regard to points (221) and (222) of the EEAG.

3.3.2. *Appropriateness of the measure*

- (203) To determine if the measure is appropriate based on Section 3.9.3 of the EEAG, the measure should meet several conditions.
- (204) First, the measure should remunerate solely the service of pure availability (point 225) of the EEAG. The Commission notes that the capacity fee paid to capacity providers with a reliability option consists of a fixed payment for maintaining the contracted capacity available for any periods of scarcity. It thus remunerates the availability of the capacity and does not include remuneration for the amount of electricity the capacity providers will offer on the market. Therefore, the Commission takes the preliminary view that the measure complies with this condition of the EEAG.
- (205) Point (226) of the EEAG determines that capacity mechanisms should be (i) open to different technologies, (ii) take into account to what extent interconnection capacity can help remedy the generation adequacy problem identified, and (iii) provide adequate incentives for both new and existing capacity.
- (206) As explained in recital (82), the measure is planned to be open to all capacities that can contribute to resource adequacy, be technology-neutral, and be in particular open to both existing and new capacity, storage and demand response. Aggregation of capacity, including from different technologies will be allowed.
- (207) Participation of foreign capacity located in neighbouring countries will be allowed from the first auction onwards (see recital (151)).
- (208) As explained in section 2.5 above, capacity will have the possibility to receive one-year or multi-year contracts. The determination of the contract length to which one capacity can be eligible is based on the level of investments required for its availability. The regulator determines several

investment thresholds giving access to the different lengths of contracts. The thresholds are based on a number of eligible investment costs as described in recital (103) above. The thresholds take into account the installed capacity (i.e. maximum capacity that the unit is designed to run) instead of the de-rated capacity (i.e. their pre-defined availability rate and their contribution to the objective of resource adequacy).

- (209) The later parameter is likely to create distortion against capacity having high investment costs and high de-rating factor (notably intermittent solar and wind renewable energy sources). For instance, between two capacities with the same de-rated capacity -and hence equally contributing to resource adequacy- and the same investment costs, the investment thresholds in EUR/MW of installed capacity would make it much easier for the capacity with a low de-rating factor to have access to longer term contracts. This feature may make it difficult for certain technologies to obtain long-term contracts while they also bear heavy investment costs compared to other capacity equally contributing to resource adequacy. Therefore, they will have to revert to one-year contracts, which will make it more difficult for them to secure long-term funding to spread the investment costs over a longer period of time, especially for new capacity (see recital (101) above). This may oblige them to bid at a higher price in the capacity auctions, compared to capacities with the same investments costs and same de-rated capacity but with a longer term contract, reducing their chance of being selected. Furthermore, they will be subject to the intermediate price cap (described in section 2.3.4.2 above). Consequently, they might not even be allowed to bid at the higher price necessary for them, which might deter them from participating in the auction altogether, leading to their de-facto exclusion.
- (210) The Commission takes the preliminary view that this feature may prevent fair competition between technologies equally contributing to resource adequacy and discourage in particular intermittent technologies from participating altogether. The Commission therefore doubts at this stage whether the current eligibility rules provide equal opportunities for all technologies as provided for by point (226) EEAG.

3.3.3. *Incentive effect*

- (211) A State aid measure has an incentive effect if it changes the behaviour of the undertakings concerned in such a way that they engage in activities which they would not carry out without the aid or which they would carry out in a restricted or different manner. The EEAG has laid down more specific guidance as to the interpretation of this criterion in Section 3.2.4, namely that the measure should induce the beneficiary of the aid to change its behaviour to improve the functioning of a secure, affordable and sustainable energy market, a change in behaviour, which it would not undertake without the aid.
- (212) The objective of the measure is to ensure security of supply by keeping available sufficient capacity. As mentioned in recital (196) above, without the capacity mechanism there would probably be insufficient capacity to ensure security of supply because a significant portion of plants is projected

to make insufficient revenues from the energy-only market to cover their costs.

- (213) In addition, the payback obligation described in section 2.6.4 creates a financial incentive to be available at times of scarcity. Moreover, Belgium has introduced monitoring procedures for availability before and during the delivery period (see sections 2.7.1 and 2.7.2) and appropriate testing and penalties (described in sections 2.7.3 and 2.7.4) to ensure compliance with the availability obligation.
- (214) Based on the elements presented above, the Commission reaches the preliminary view that the measure has in principle an incentive effect.

3.3.4. Proportionality

- (215) The aid amount is proportionate if it is limited to the minimum needed to achieve the objective pursued. The EEAG specify this requirement for generation adequacy measures in points (228) to (231), which aim to ensure that beneficiaries do not earn more than a reasonable rate of return and that windfall profits are excluded.
- (216) The notified measure provides for a competitive tender procedure with a maximum auction price with regard to the selection of the capacity to be procured. As set out in point (229) of the EEAG, clear, transparent and non-discriminatory eligibility criteria and objective delivery requirements are necessary to ensure maximum participation and therefore competitive pressure on the price, leading to reasonable rates of return.
- (217) Nevertheless, the Commission has expressed its concerns with regard to the eligibility to multi-year contracts (described in Section 3.3.2) and, as regards the possible discrimination against capacities with high de-rating factors. Consequently, at this stage, it cannot be assumed that the competitive bidding process will be based on non-discriminatory criteria in line with point (229) of the EEAG, and therefore that the tender will result in a total aid amount that is limited to the minimum needed to achieve the objective pursued.
- (218) Moreover, point (229) of the EEAG also provides that the competitive bidding process should “effectively target the defined objective”. Reading this provision in conjunction with point (221) of the EEAG, as analysed in section 3.3.1 above, the Commission has doubts as to whether the volume to be procured in the auction is proportionate to reach the objective of the security of supply.
- (219) Indeed, the methodology of the demand curve will be based on a scenario that goes beyond the adequacy issue of Belgium. As explained in recitals (50) and (51) above, the TSO will identify the capacity volume to buy on the basis of the legal reliability standard, which corresponds to a certain LOLE value. A scenario is calibrated to ensure that this criterion is met. Based on the Belgian Ministry’s report on the public consultation about the Royal Decree, one of the additional sensitivities could be the EU-HiLo scenario. As a matter of fact, Elia consulted on and proposed to include in the reference scenario a sensitivity corresponding to the EU-HiLo scenario for the first Y-4 auction (see recital (58)(a) above). As explained in recital (200), this

scenario largely departs from a scenario based on realistic yet not over pessimistic assumptions, which the Commission considers to be the appropriate basis to calculate the proportionate volume of capacity necessary to the system in a centralised market-wide capacity mechanism. While the authorities argue that the Commission found this scenario appropriate to determine the volume of the Belgian strategic reserve, this conclusion was reached for a measure which was limited in time, not market-wide and which did not aim at subsidising new investments. More precisely, the strategic reserve aimed at keeping additional capacity in the market as an extra-insurance while limiting the effect on market price and incentive to invest in new capacity. The Commission considers that using an unrealistic scenario to calculate the volume in a market-wide capacity mechanism will lead to financing unnecessary capacity. The CREG made similar comments in that regard (see recital (42) and (58)(a)), while the Commission received market information highlighting similar issues during its preliminary examination. As explained in recital (58)(a) above, while inviting Elia to review its analysis, the Belgian Ministry of Energy endorsed the inclusion of an additional unavailability of nuclear units in France in the reference scenario.

- (220) In the light of the above, at this stage the Commission doubts that the CRM is in line with points (229) and (231) of the EEAG.

3.3.5. Avoidance of undue negative effects on competition and trade

- (221) The negative effects of the CRM on competition and trade in the internal electricity market must be sufficiently limited, so that the overall balance of the measure is positive. The EEAG specify this requirement in points (232) and (233), which underline the need for broad participation in the scheme and the avoidance of market undermining effects of the measure, for instance by strengthening dominance or affecting investment decisions.
- (222) Point (232) of the EEAG provides that 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.
- (223) While the Commission acknowledges that Belgium will ensure that cross-border capacity can participate in the CRM from the first auction onwards (see recital (207) above), it doubts that the rules as presented by Belgium will ensure effective participation. Indeed, for the reasons explained in recital (107) indirect foreign capacity will only be eligible to one-year contract. Additionally and as a consequence thereof, as explained in recital (68), indirect foreign capacity will be submitted to the intermediate price cap. Therefore, an indirect foreign capacity with investment costs meeting the thresholds presented in Table 6 will only have access to a one-year contract and, in addition, will not be able to bid at a price higher than the intermediate price cap. The Commission takes the preliminary view that the conjunction of the absence of multi-year contracts and the application of the intermediate price will prevent these CMUs from bidding their true costs in the auction in case they are higher than the intermediate price cap. Therefore, they may be discouraged from participating in the CRM altogether.
- (224) The Commission thus doubts at this stage that the measure can be found compatible with point (232) of the EEAG.

- (225) Point 233 (c) of EEAG provides that capacity mechanisms should not “*undermine investment decisions which preceded the measure*”. As explained in section 2.3.4.2, according to the Belgian authorities, capacities within the one-year contract category are confronted with no or low investment cost requirements to cover for (otherwise they would qualify for a multi-year contract). Therefore, it is foreseen to apply an intermediate price cap to capacity in the one-year contract category, to avoid windfall profits.
- (226) Such intermediate price cap has been approved by the Commission in the past concerning the Italian capacity mechanism functioning under a pay-as-cleared principle⁸⁸, as a temporary feature, meant to address new entry of capacity which would create windfall profits for existing capacity in a pay-as-clear system. In that scheme, after the transitional period, existing capacity would receive a premium higher than the intermediate price cap if new capacity was contracted. In other centralised market-wide capacity mechanisms, the capacity payment received corresponds to the clearing price (i.e. pay-as-cleared) and there is no intermediate price cap but only a bid cap for existing capacity⁸⁹. In other words, existing capacity (“price takers”) cannot bid above the cap but can still receive payments corresponding to the clearing price, even when the clearing price is higher than the bid cap. Moreover, some flexibility is provided and capacity can apply for a higher individual bid cap if they face costs higher than the general bid cap⁹⁰. Therefore, having an intermediate price cap as a permanent feature without any possible individual derogation to it is novel. It could have the effect of preventing existing capacity from bidding their true costs, while not being able to apply for multi-year contracts, as stated by some stakeholders in the final consultation report published by Elia⁹¹. This may lead to their exclusion from the CRM and even their exit from the electricity market, as pointed out by some market information received by the Commission during its preliminary examination.
- (227) While the Commission considers that the intermediate price cap can be useful to avoid windfall profits in line with point (230) of the EEAG, analysing its whole effect on the auctions and hence its compatibility with point (233) (c) the EEAG requires further information.
- (228) Belgium will allocate the congestion revenues between TSOs and use those revenues as described in recitals (163) and (164) above.
- (229) According to point (233) (a) the measure should not reduce incentives to invest in interconnection capacity. The Commission finds that it is therefore essential to ensure that the CRM will provide the right incentive to invest in interconnection capacity, for instance by making sure that congestion revenues arising from a situation where the maximum entry capacity acts as a limiting constraint on foreign participation (i.e. the interconnection is a

⁸⁸ SA.42011 Italian capacity mechanism - JOCE C/158/2018 (see recitals 79 and 80)

⁸⁹ SA.44464 Irish Capacity Mechanism - JOCE C/121/2018 (see recital 50) ; SA.46100 Polish capacity mechanism - JOCE C/462/2018 (see recitals 46, 47, 48); see SA.35980 British capacity market - JOCE L/70/2020 (see recital 70)

⁹⁰ SA.44464 Irish Capacity Mechanism - JOCE C/121/2018 (see recital 50) ; see SA.35980 British capacity market - JOCE L/70/2020 (see recital 71)

⁹¹ Available at <https://www.elia.be/fr/users-group/implementation-crm>

constraining factor) are used for investment in additional interconnection capacity.

- (230) The Commission considers that Belgium should clarify further how the congestion revenues will be used. The Commission finds therefore that further information is required to analyse the whole effect of the measure on investment for interconnection capacity and thus its compatibility with point (233) (a) of the EEAG, on which the Commission has doubts at this stage.

3.1. Compliance of the aid measure with intrinsically linked provisions of Union law

- (231) If a State aid measure (including its method of financing, if hypothecated to that aid) entails aspects which are indissolubly linked to the object of the aid and which breach other provisions of Union law, such a breach could affect the assessment of compatibility of that State aid.⁹² In the present case, this issue could arise with respect to Articles 30 and 110 TFEU, as well as certain provisions of the electricity regulation. The Commission, therefore, needs to verify whether that Union law might be breached by aspects of the CRM and, in the affirmative, whether such aspects are likely to be indissolubly linked to the object of the aid under the CRM. In such a case, such possible indissolubly linked breaches of Union law by the CRM would also raise doubts as to its compatibility with the internal market under State aid rules.

3.1.1. Compliance with Article 30 and 110 of the Treaty

- (232) As indicated in point (29) of the EEAG, if a State aid measure or the conditions attached to it (including its financing method when it forms an integral part of it) entail a non-severable violation of Union law, the aid cannot be declared compatible with the internal market. In the field of energy, any levy that has the aim of financing a State aid measure needs to comply in particular with Articles 30 and 110 TFEU. The Commission has therefore verified if the financing mechanism of the notified aid measures complies with Articles 30 and 110 TFEU.
- (233) As explained in recital (183) above, the Belgian State creates a system where the costs incurred by the TSO due to the CRM are fully compensated by the network tariffs, which present the characteristics of a para-fiscal levy. As explained in recital (174), the tariff is uniformly applied on a EUR/MWh basis to all consumers. The Commission considers therefore that these tariffs are very similar to a tax on the electricity consumed.
- (234) With regard to Article 30 and 110 TFEU, it is settled case-law that in its present state of development, Union law does not restrict the freedom of each Member State to establish a tax system which differentiates between certain products, even products which are similar within the meaning of the first paragraph of Article 110 TFEU, on the basis of objective criteria, such as the nature of the raw materials used or the production processes

⁹² See recital (25) of the Commission Decision in State aid SA.40029 (2014/N) "Reintroduction of the winding-up scheme, compensation scheme, Model I and Model II – H1 2015", OJ C 136, 24.4.2015, p.4. See recital (29) of Commission Decision in State aid SA.42215 (2015/N) "Prolongation of the Greek financial support measures (art. 2 law 3723/2008)", OJ C 277, 21.8.2015, p.11.

employed. Such differentiation is compatible with Union law, however, only if it pursues objectives which are themselves compatible with the requirements of Union law, and if the detailed rules are such as to avoid any form of discrimination, direct or indirect, against imports from other Member States or any form of protection of competing domestic products⁹³.

- (235) A discriminatory treatment against imports from other Member States presupposes that similar situations are treated differently. The Commission has therefore assessed whether imports are in a similar situation to the national production. As explained in section 2.9 above, Belgium will allow the participation of foreign capacities in the CRM.
- (236) In the light of the above, the Commission reaches the preliminary conclusion that the financing mechanism of the notified aid measures does not introduce any restrictions that would infringe Article 30 or Article 110 TFEU.

3.1.2. *Compliance with article 24 of the electricity regulation*

- (237) According to article 20 of the electricity regulation, Member States may carry out national resource adequacy assessments. According to article 24 (1) of the electricity regulation, such national resource adequacy assessment shall be based on the methodology agreed upon for the European resource adequacy assessment, referred in article 23 of the electricity regulation. The European methodology is developed by ENTSO-E, as explained in recital (24) above. This methodology shall be approved by ACER.
- (238) According to article 24 (1) of the electricity regulation, Member States can include sensitivities in their adequacy assessment, which are linked to “particularities of *national* electricity demand and supply”.
- (239) However, as explained in recitals (12) and (17)(a) above, the Adequacy and Flexibility study used the EU-HiLo scenario, which is based on assumptions about *foreign* electricity supply (additional unavailability of French nuclear plants). Consequently, the Commission has doubts as to whether the CRM is in line with article 24 (1) of the electricity regulation.
- (240) Such possible breach of article 24 (1) of the electricity regulation would concern aspects of the CRM that are indissolubly linked to the aid it entails, since they are a necessary component for the achievement of the objective and functioning of that aid.
- (241) Therefore, the Commission has doubts on the compliance of the CRM with article 24 (1) of the electricity regulation, which raises doubts on the compatibility of the aid entailed in the CRM with the internal market.

3.1.3. *Compliance with article 22 of the electricity regulation*

- (242) Article 22 (1) (c) provides that any capacity mechanism shall not go beyond what is necessary to address the adequacy concern identified in line with articles 23 and 24, which indicate that the assessment carried-out by a Member State shall be based on appropriate central reference scenarios.

⁹³ Case C-213/96 *Outokumpu* [1998] I-1777, paragraph 30.

- (243) According to article 24 of the electricity regulation, Member States can include sensitivities linked to “particularities of *national* electricity demand and supply”. However, the HiLo scenario or any other sensitivity based on an additional unavailability of French nuclear plants are based on assumptions about *foreign* electricity supply (see recital (58)(a)above). The Commission finds that this scenario to be over-pessimistic and may have the effect to over-procure capacity that is not necessary in the framework of a central reference scenario. Consequently, the Commission has doubts as to whether the CRM is in line with article 22 (1) (c) of the electricity regulation.
- (244) Such possible breach of article 22 (1) (c) of the electricity regulation would concern aspects of the CRM that are indissolubly linked to the aid it entails, since they are a necessary component for the achievement of the objective and functioning of that aid.
- (245) Therefore, the Commission has doubts on the compliance of the CRM with article 22 (1) (c) of the electricity regulation, which raises doubts on the compatibility of the aid entailed in the CRM with the internal market.

4. CONCLUSION

- (246) At this stage, the Commission doubts whether the measure can be declared compatible with the internal market. More specifically, it doubts whether the measure:
- (a) is necessary, in view of the diverging studies and opinions on generation adequacy and the forthcoming EU adequacy methodology;
 - (b) is appropriate, in view of its restrictive way of calculating investment thresholds for the purpose of eligibility to multi-year contracts.
 - (c) is proportionate, in view of the methodology to calculate the demand curve;
 - (d) minimises its impact on competition and trade, in view of the application of an intermediate price cap, notably but not only to indirect foreign capacity and the way congestion revenues will be allocated.

In the light of the foregoing considerations, the Commission, acting under the procedure laid down in Article 108(2) of the Treaty on the Functioning of the European Union, requests Belgium to submit its comments and to provide all such information as may help to assess the measure, within one month of the date of receipt of this letter. It requests your authorities to forward a copy of this letter to potential recipients of the aid immediately.

The Commission wishes to remind Belgium that Article 108(3) of the Treaty on the Functioning of the European Union has suspensory effect, and would draw your attention to Article 14 of Council Regulation (EC) No 659/1999, which provides that all unlawful aid may be recovered from the recipient.

The Commission warns Belgium that it will inform interested parties by publishing this letter and a meaningful summary of it in the Official Journal of the European Union. It will also inform interested parties in the EFTA countries which are signatories to the EEA Agreement, by publication of a notice in the EEA Supplement to the Official Journal of the European Union and will inform the EFTA Surveillance Authority by sending a copy of this letter. All such interested parties will be invited to submit their comments within one month of the date of such publication.

Yours faithfully,

For the Commission

Margrethe VESTAGER
Executive Vice-President