

# ELIA PRODUCT SHEET

# CAPACITY REMUNERATION

# MECHANISM

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# Disclaimer

This document constitutes the Product Sheet for the Belgian Capacity Remuneration Mechanism (CRM) and is to be considered as an educational document facilitating understanding of all other CRM documents that together form the official legal and operational framework. As an introduction to the CRM, the Product Sheet sets out the wide range of principles governing the mechanism as a whole, focusing on the outlook for 2023 and purposely simplifying some items to facilitate understanding. Elia refers any readers wishing to gain a complete understanding to all relevant legal and explanatory references:

- The Law and its implementing Royal Decrees
  - ▶ <https://economie.fgov.be/nl/themas/energie/bevoorradingszekerheid/capaciteitsremuneratiemechanis>
- The Functioning Rules, as formally submitted by Elia to CREG on 1 February 2023 (enhanced with an add-on for the Low Carbon Tender on 01 March 2023)
  - ▶ [https://www.elia.be/-/media/project/elia/elia-site/users-group/ug/wg-adequacy/2023/20230301\\_crm\\_lct\\_functioning\\_rules\\_en.pdf](https://www.elia.be/-/media/project/elia/elia-site/users-group/ug/wg-adequacy/2023/20230301_crm_lct_functioning_rules_en.pdf)
- The proposed Capacity Contract
  - ▶ [https://www.elia.be/-/media/project/elia/elia-site/public-consultations/2023/20230206\\_capacitycontract\\_crm\\_en.pdf](https://www.elia.be/-/media/project/elia/elia-site/public-consultations/2023/20230206_capacitycontract_crm_en.pdf) still to be approved

This Product Sheet is based on the current understanding and state of play, which may evolve as certain regulatory (functioning rules, capacity contract) and legal (Royal Decree/Law) documents still need to be formally approved and/or adopted or might evolve over time. This document has no legal value and if it is in any way inconsistent with existing legal or regulatory documents, then the latter shall prevail. The main objective of this document is to highlight the customer's obligations and opportunities within the Capacity Remuneration Mechanism, the initial phases of which are scheduled for 2023.

# 1 Elia's role

The Capacity Remuneration Mechanism is deployed and organised by the authorities, facilitated and controlled by CREG and supported by Elia as operator and market facilitator of the mechanism.

Elia's role in the CRM, as stipulated given by the Law<sup>1</sup>, is as follows:

- Operator of the CRM's Prequalification Process
- Operator of the CRM's Auction for the Primary Market
- Operator of the CRM's Secondary Market
- Contractual Counterparty for the Capacity Contract
- Monitoring of the pre-delivery and availability contractual obligations

This Product Sheet is built in the framework of Elia's role as a recognised expert in market facilitation.

# 2 Introduction to the Capacity Remuneration Mechanism (CRM)

## 2.1. What is the CRM?

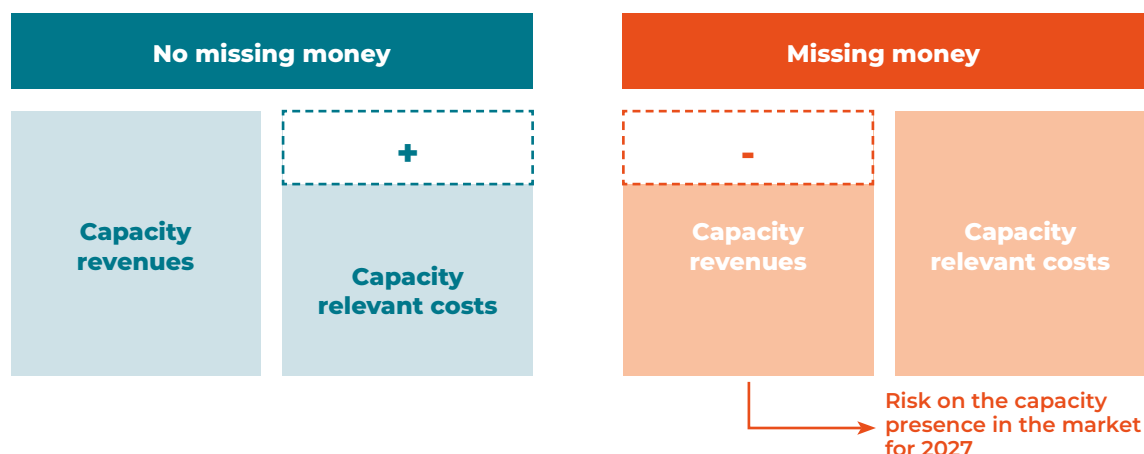
### Ensuring Belgium's security of supply

In connection with the nuclear phase-out legislation and with a view to **maintaining the required level of security of supply for Belgium**, the Belgian authorities introduced the Capacity Remuneration Mechanism (CRM), which is enshrined in the Electricity Act and forming the legal basis.

The CRM **aims to compensate electrical capacity holders** for that portion of their relevant costs that are not compensated by their

revenues, otherwise known as 'missing money'. Such compensation should enable current and new capacities to be available on the market in order to avoid security of supply issues.

When the missing money of an asset exists, there is a risk that the Capacity Holder will not keep capacity in the market or will not invest in new capacity, thus creating a potential risk for Belgium's security of supply.



<sup>1</sup> Law of 22 April 2019 in accordance with Article 7 *undecies* §8 of the Electricity Act as inserted in the Electricity Act by the Capacity Remuneration Mechanism Act.



## Access conditions to the new support mechanism

It is **not possible to combine the CRM with other forms of variable subsidies** subsidies (function of the electricity production) for the service delivery period. In any case, parties interested in the CRM will later be offered the possibility of including in their CRM offers the conditional promise of abandoning all their previous variable subsidies if they are selected.

This support is **accessible to all eligible capacity holders that participate in the CRM**, which is a bidding procedure open to all types of electrical capacity (technological, existing or planned, production, storage or demand side management).

**Successful prequalification of the capacity** is required in order to access the auction. Prequalification involves collecting data and documents in order to determine that the capacity

holder is capable of bidding in the auction. Technologies take part in line with the proportion of their contribution to Belgium's security of supply. In other words, a derating factor is applied to each technology.

The CRM is an organised **competitive bidding procedure**, market-wide and technology neutral, that does not discriminate by type, as per the legal requirements governing participation.

The mechanism is an **availability-based support mechanism for missing money assets**, implying, for the first procedure, an expectation that they will be available in the market at the latest by November 2027. The energy market will continue to operate as it should; the CRM will have no impact on its operation.

## 2.2. Who can/must participate?

### In general

**Grid users are by default recognised as capacity holders.** For the CDS (Closed Distribution System), the Capacity Holders are the CDS Users. They also have the option of transferring all CRM rights and obligations to another counterparty.

**Their CRM capacities are recognised at delivery points**, i.e. a point at which the CRM service will technically be delivered on a power grid (DSO, TSO, CDSO).

### Must I participate?

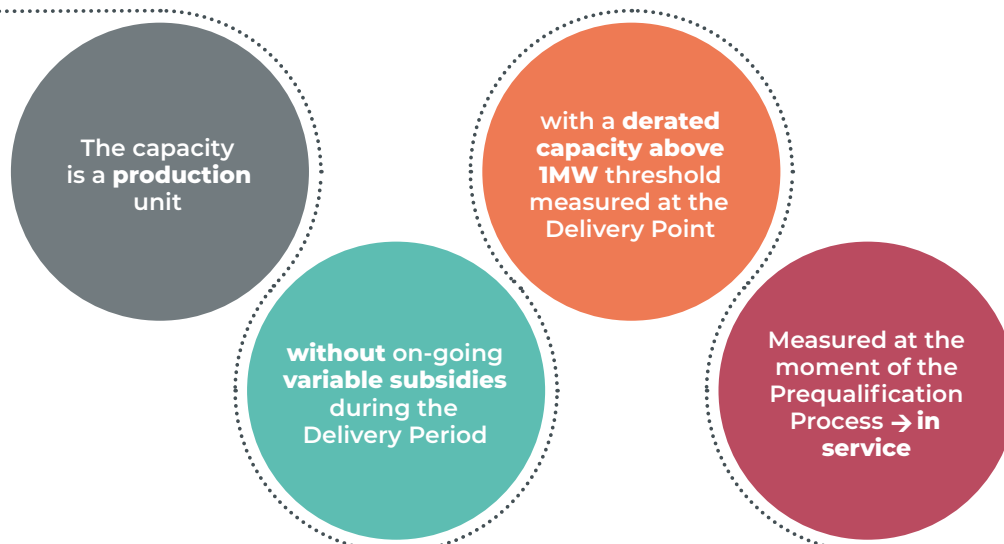
By law, **a subset of Belgian capacity holders are required to take part in the CRM prequalification process**, more specifically, existing production units with 1MW of derated capacity (see below derating factors) and without variable subsidies for the relevant delivery period (November 2027-October 2028). Note that the production

units which are not in service yet and having a connection contract signed or having a detailed study and a production permit must also be prequalified.

Although participation in the prequalification process is mandatory for them, **there is no obligation to bid in the auction.**

### May I participate?

**All capacity holders' capacities may participate in the CRM** if they comply with a set of eligibility criteria, which include the refusal of other variable subsidies during the delivery period and the creation of participation units of at least 1 MW of derated capacity (see below prequalification process).

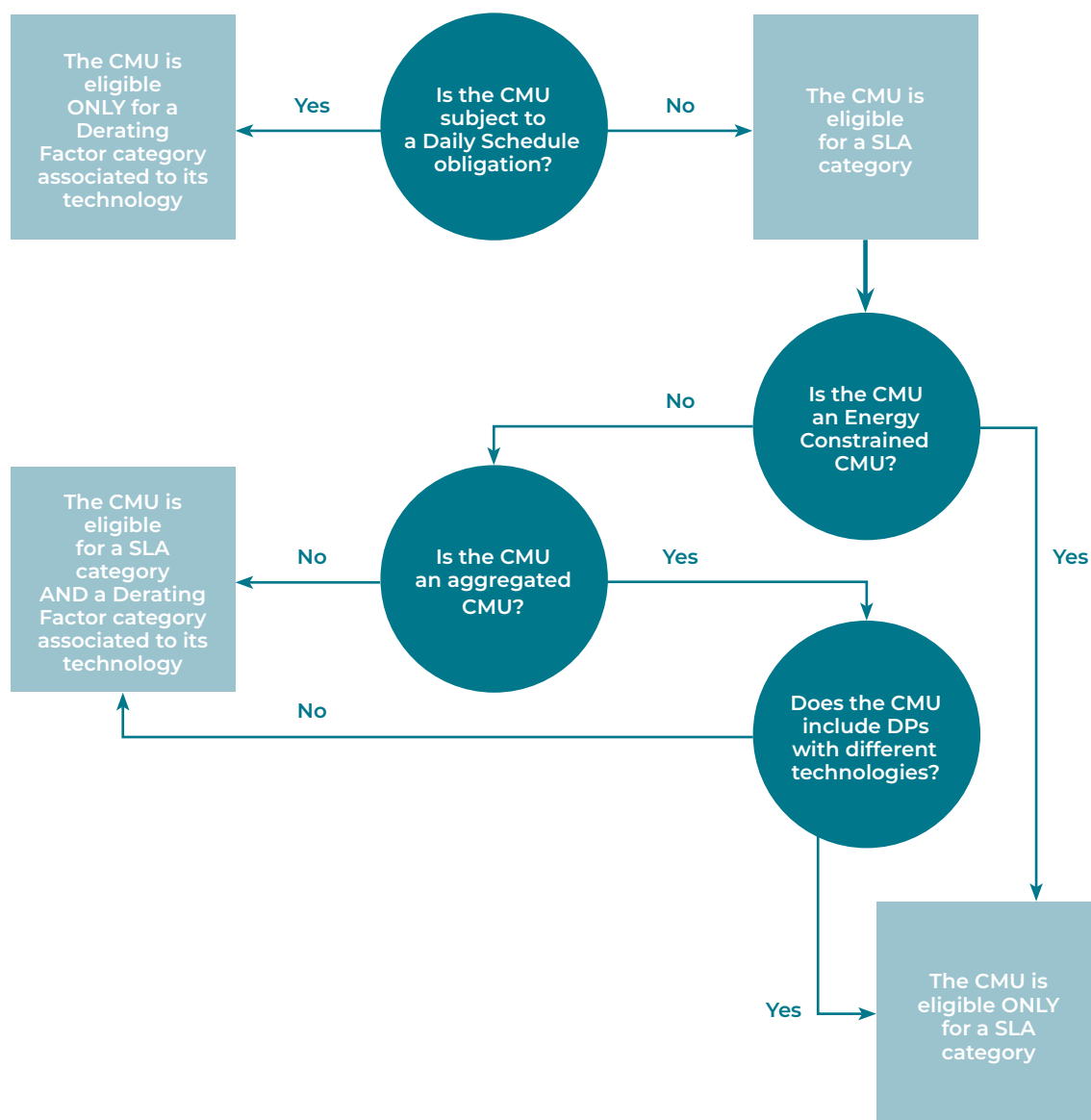


### Any technological criteria?

**All technologies are allowed to participate in the CRM** (the mechanism is 'market-wide'). However, they are subject to the application of a derating factor representing the degree to which the technology enhances security of supply. The derating factors for each technology are defined, along with other auction parameters, by the minister as part of the organisation of the auction, so that an update is published for each new auction.

The **derating factors** are organised into categories with which each delivery point can be associated. The adequate derating factor for a given delivery point/CMU technology may be found based on whether:

- the delivery point is under an "Elia individual MW schedule obligation", known as the 'Daily Schedule' or not
- the delivery point is energy constrained (limited numbers of Service Level Agreement (SLA) hours in a day) or not



Derating Factor according to the Ministerial decree of 30 March 2023 for the Y-4 Auction 2023: [https://www.ejustice.just.fgov.be/cgi\\_article.pl?language=nl&sum\\_date=2023-03-](https://www.ejustice.just.fgov.be/cgi_article.pl?language=nl&sum_date=2023-03-31&lg_txt=n&pd_search=2023-03-31&numac_search=2023041521&caller=&2023041521=-2&view_numac=2023041521f)

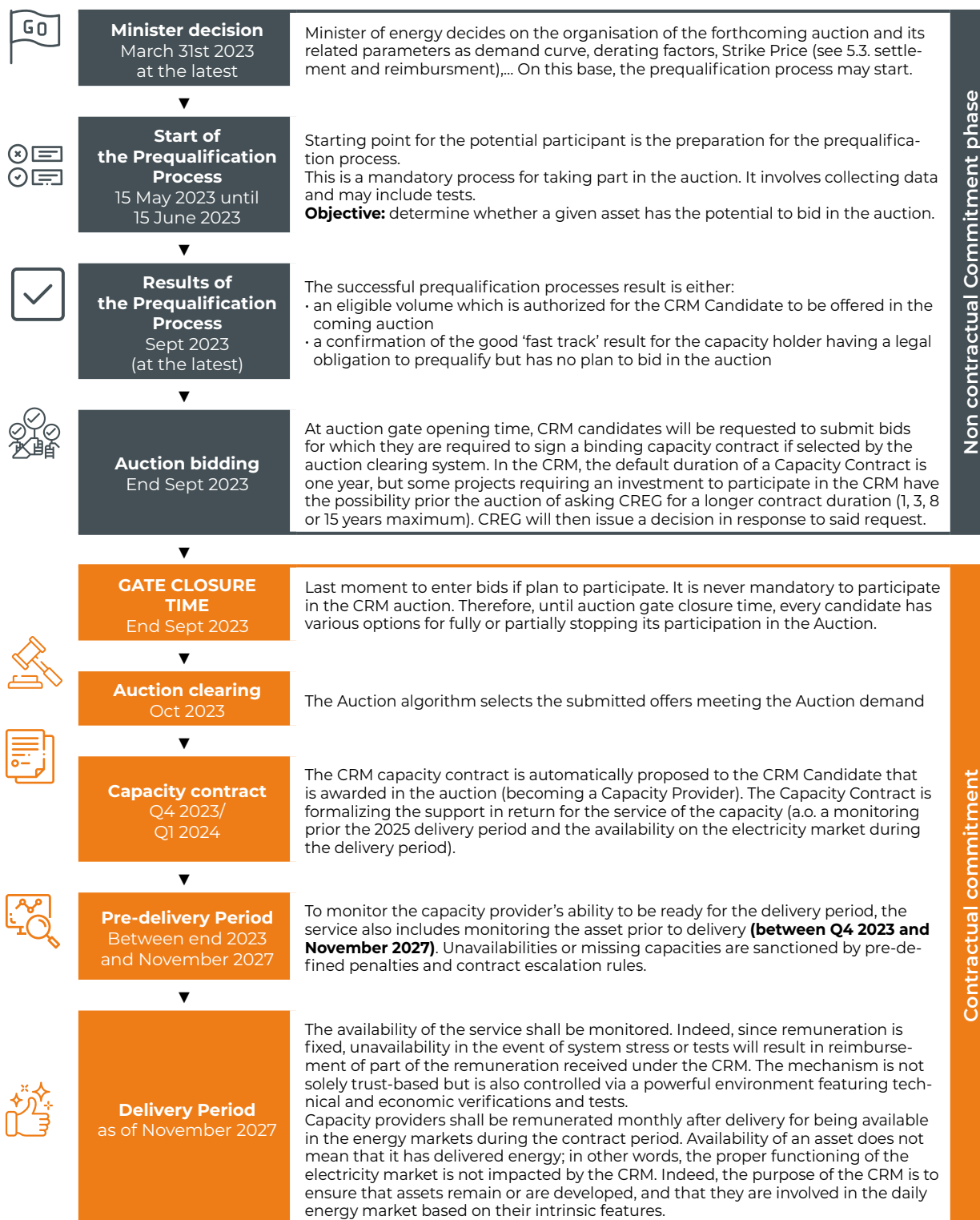
[31&lg\\_txt=n&pd\\_search=2023-03-31&numac\\_search=2023041521&caller=&2023041521=-2&view\\_numac=2023041521f](https://www.ejustice.just.fgov.be/cgi_article.pl?language=nl&sum_date=2023-03-31&lg_txt=n&pd_search=2023-03-31&numac_search=2023041521&caller=&2023041521=-2&view_numac=2023041521f)

Category I: SLA	
Sub-Category	Derating Factor [%]
SLA-1h	20
SLA-2h	35
SLA-3h	47
SLA-4h	57
SLA-5h	65
SLA-6h	72
SLA-7h	78
SLA-8h	83
SLA-9h	87
SLA-10h	90
SLA-11h	93
SLA-12h	95
SLA unlimited	100
Category II: Thermal technologies with daily schedule	
Sub-Category	Derating Factor [%]
Combined Cycle Gas Turbine	93
Open Cycle Gas Turbine	93
Turbojets	96
Gas-engines	95
Diesel-engines	95
Combined Heat and Power, Biomass, Waste	93
Nuclear installations	80
Coal	90
Category III: Energy-limited technologies with daily schedule	
Sub-Category	Derating Factor [%]
Storage 1h	23
Storage 2h	39
Storage 3h	51
Storage 4h	60
Storage 5h	66
Storage 6h	71
PSP	48
Category IV: Weather-dependent technologies	
Sub-Category	Derating Factor [%]
Offshore Wind	11
Onshore Wind	10
Solar	1
Hydro Run-of-River	46
Category V : Thermal technologies without daily schedule	
Sub-Category	Derating Factor [%]
Aggregated thermal technologies	63

## 2.3. How is the CRM sequenced and when does it occur?

Effective availability of service is expected as of November 2026. Therefore, two auctions for a given delivery period are scheduled. Even if actual availability is expected as of November 2027, **the first auction** will take place four years in advance with a clearing in **October 2023 ("Y-4 Auction")**, allowing all technologies to contract for, **maintain**

**or invest in assets**, build new power plants or other generation and demand facilities and to secure them with a Capacity Contract. **Another auction** for the same delivery period in 2027 will be organised one year in advance in **October 2026 ("Y-1 Auction")**. The same annual process is maintained for delivery periods following 2027.



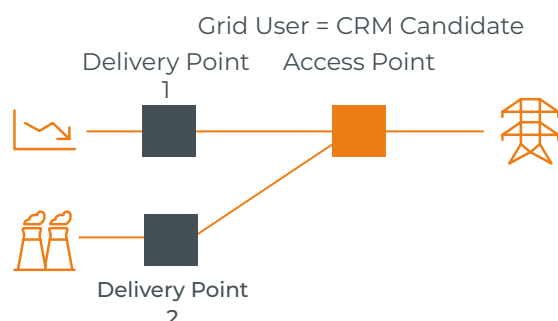
# 3 Prequalification process

This section refers to the CRM Functioning Rules chapter 5.

## 3.1. Introduction

### The delivery point is central:

Capacities for consideration in the CRM are associated **delivery points**, which are the points **where the service will be technically delivered** on an electricity grid (DSO, TSO). It could be either a headmeter or a submeter in accordance with Elia's rules (standard requirements) and regulations.



The CRM distinguishes three types of delivery points:

- Existing capacity for which, at the time of the prequalification process, the Nominal Reference Power can be calculated based on quarter-hourly measurements;
- Additional capacity for which, at the time of the prequalification process, no Nominal Reference Power can be calculated based on 15-minute measurements, or which requires a signed technical agreement with Elia as per the connection process set out in the Federal Grid Code;
- Unproven capacity, which, at the time of the prequalification process, cannot be associated with (a) specific delivery point(s).

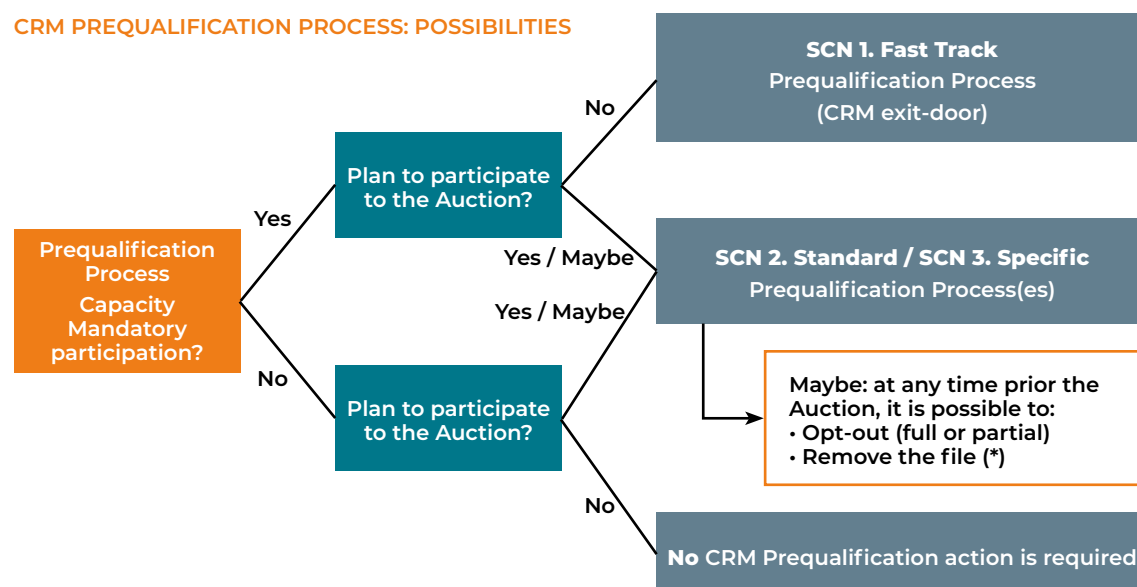
### Selection of the adequate prequalification processes (among 3):

In preparation to the prequalification process, the capacity holder must answer two questions in order to determine which prequalification process is to be followed:

- Question 1: Is it required by Law** to have its capacity take part into the process?
- Question 2: Does it plan** to perhaps **take part in the CRM** auction and if selected to obtain a Capacity Contract?

As exposed in introduction, **Mandatory participation in the CRM prequalification process** is only considered for existing production delivery points at the time of prequalification having a derated capacity (after application of the Derating Factor) above the threshold of 1MW and having no variable subsidies for their production for the delivery period in question, i.e. for the first delivery period, which runs from November 2027 to October 2028.

### CRM PREQUALIFICATION PROCESS: POSSIBILITIES



(\*) Not recommended for the capacity holder with mandatory participation to comply with Law



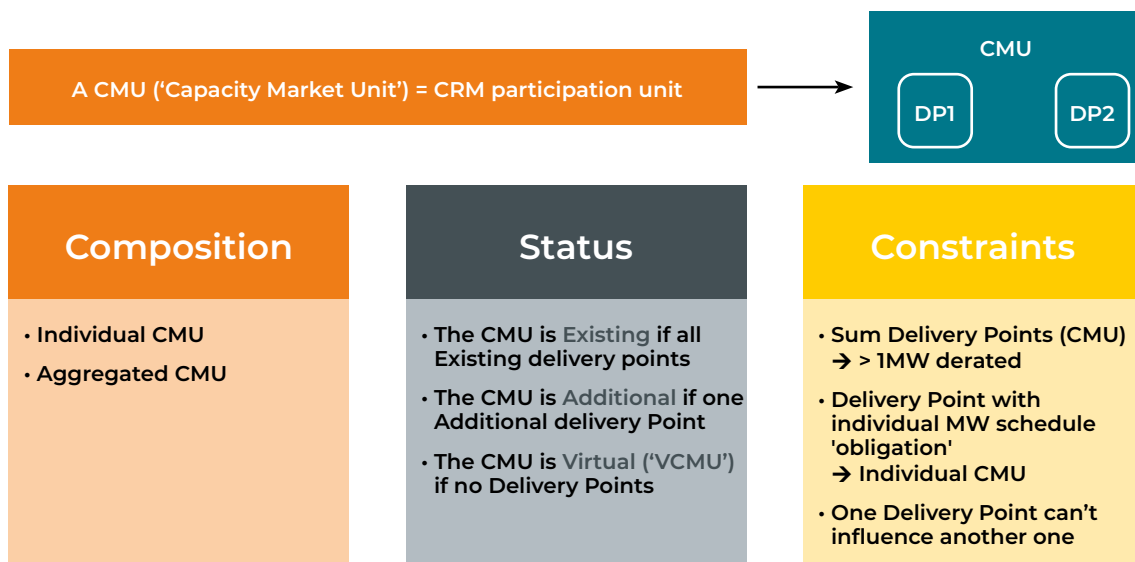
## Generic CMU concept to all prequalification processes:

**Participation** in the prequalification process **requires the creation of a Capacity Market Unit (CMU)**, which is the CRM unit for participation in the prequalification process and auction. The CMU can comprise **one delivery point or multiple delivery points (aggregation)**, in compliance with the relevant requirements and constraints. Virtual CMUs are authorised to the prequalification process, provided they shall be associated with new delivery points prior the delivery period.

The main constraints on creating the CMU relate to:

- the minimum threshold for participation, i.e. 1MW, that needs to be surpassed by the sum of the derated nominal power of all CMU Delivery Points.
- the fact that aggregation is not possible for the delivery point under an individual MW schedule obligation
- compliance with a set of combinability rules between delivery points within a CMU in Annex A3 of the Functioning Rules. Those are preventing a double count of the role of the delivery points for adequacy

## PREQUALIFICATION PROCESS TERMINOLOGY:



## Participation in any type of prequalification process follows the same basic sequence:

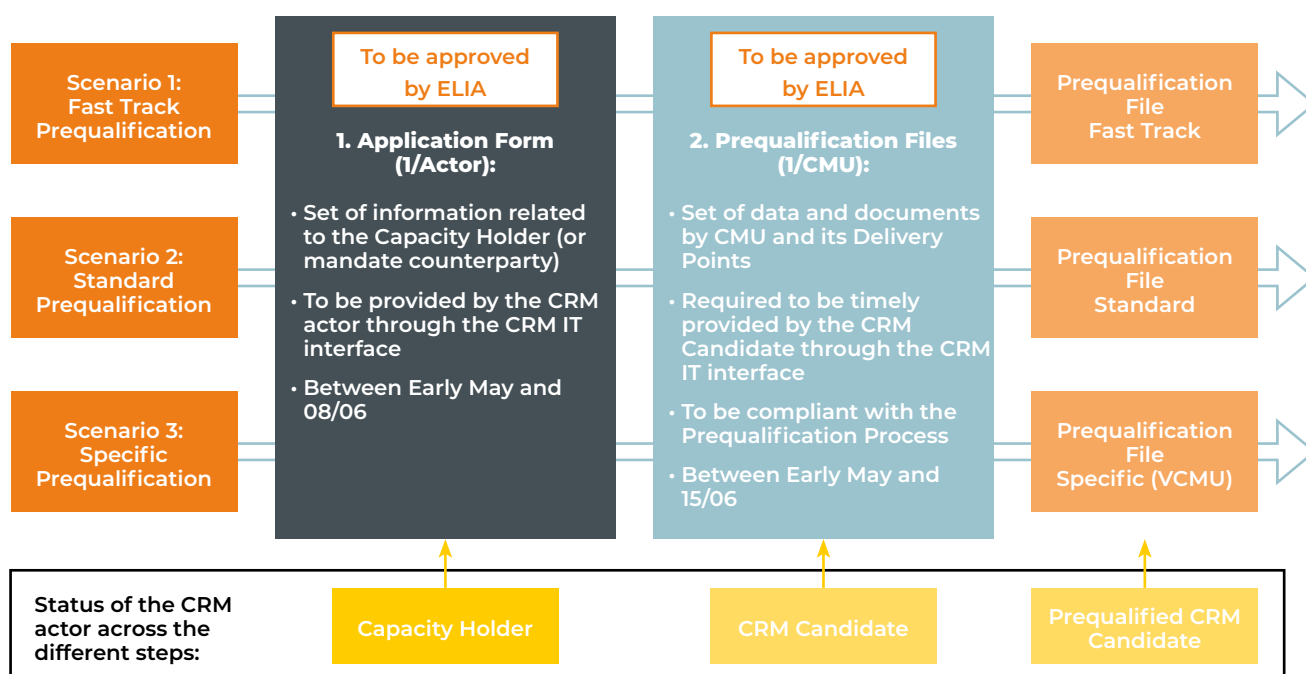
### Step 1:

The creation of an application form by the capacity holder or the mandated CRM actor (which can be transferred via Grid User Declaration) that is also linked to the acceptance of the CRM's legal and contractual framework (including recognition of the law and its implementing Royal Decrees, the functioning rules and the capacity contract).

### Step 2:

The creation of a prequalification file for each CMU to be submitted to Elia with a view to obtaining the successful prequalification of the CMU so that it is possible to take part in the auction.

## PREQUALIFICATION PROCESS: APPLICATION FORM & PREQUALIFICATION FILES



At each step, the **status of the CRM actor changes**, with a final expected status after the prequalification process being **prequalified CRM candidate**, a status **necessary** for being able to submit an offer on the auction platform of the CRM IT interface.

This process requires **Elia's approval at each stage**. The CRM IT interface indicates the mandatory fields and requirements (cfr. paragraph

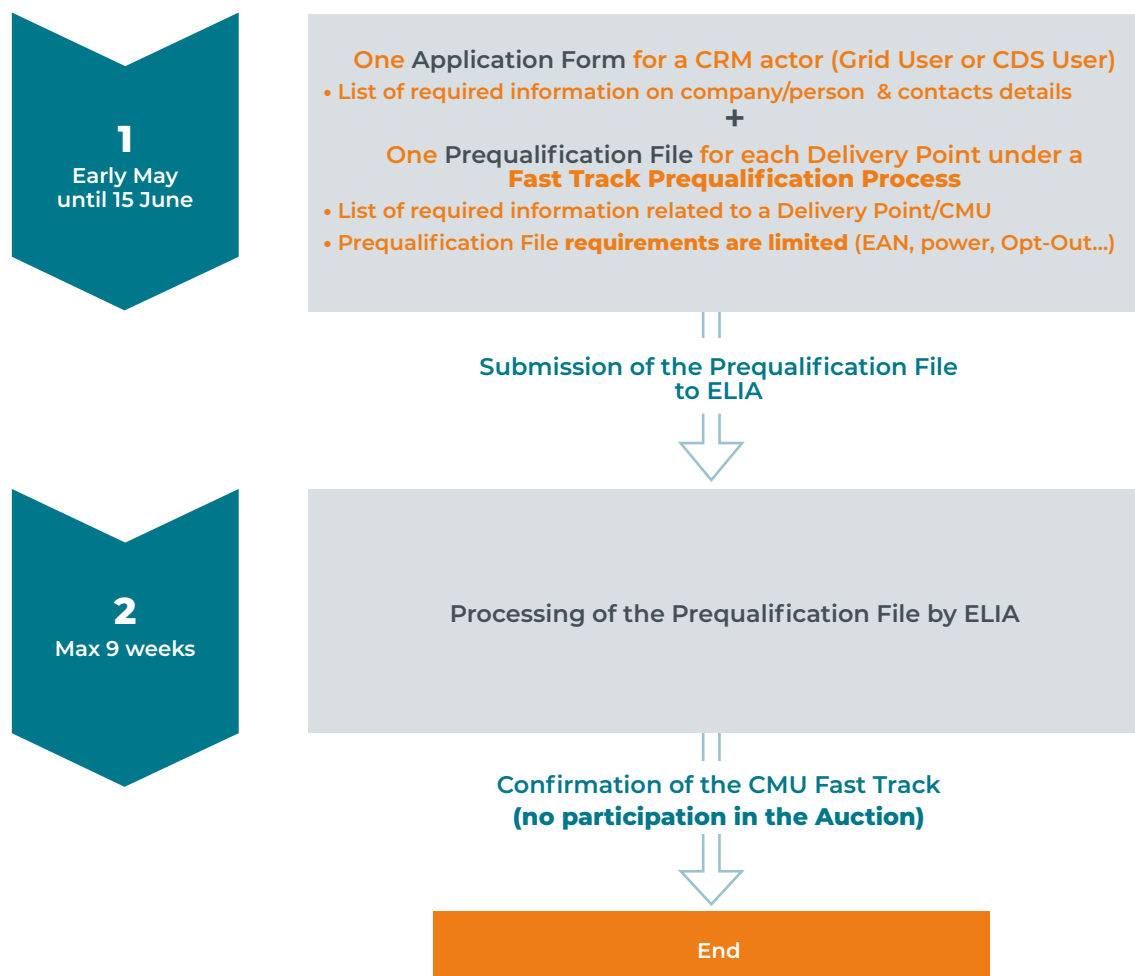
5.2 of the Functioning Rules). **Financial security is a common element in all prequalification files leading to potential participation in the auction** and is to be provided via bank guarantee, cash deposit, or parent company guarantee. This is described in Chapter 11 of the Functioning Rules and the template to be completed is available in annexes D1 and D2 of the Functioning Rules. No financial guarantee is required for fast-track cases.

## 3.2. Fast-track prequalification process

The CRM Law requires **mandatory participation** in the prequalification process **for a subset of Belgian capacity assets** considered as eligible. Since participation in the CRM auction is never mandatory and since a capacity contract is only provided for awarded auction bids, the Functioning Rules provide a **way for any capacity holder that does not want to participate in the**

### **auction: the fast-track prequalification process.**

In the prequalification files, a Nominal Reference Power in MW is declared and represents in case of Fast Track the Opt-out of the capacity, for which an IN or OUT notification is required to indicate the presence or not in the electrical system for the delivery period. The process to fulfil the legal obligation involves limited operational effort.



### 3.3. Standard prequalification process

In both mandatory participation or at demand participation cases, **if the CRM actor has a plan to offer volume in the auction, it may do so via the standard prequalification process, for which the operational effort depends on the CMU.**

Successful prequalification of the capacity market unit (CMU) and delivery points implies an access to the auction. The CRM candidate may provide multiple prequalification files, each for one CMU.

In the prequalification process, the **Opt-out Volume** in MW allows the CRM Candidate to lower

the unit's final volume up for bidding: **the Eligible Volume**. By providing an Opt-out volume different than zero megawatt, the CRM actor is also required to complete the opt-out template as provided in the paragraph 5.4.2. of the Functioning Rules and also available on the CRM page on the Elia website. In this template, the CRM candidate mentions the (partial) presence 'IN' the market for the Delivery Period or the (partial) absence 'OUT' the market and gives the reasoning.



#### Different levels of data treatment:

The details provided in a prequalification files depend on the complexity of the delivery points and their status (existing or additional).

- Existing delivery points are requested to select one of the different methodologies that will be used in the prequalification process to determine the Nominal Reference Power. This capacity will be used to determine the eligible volume, which is the actual volume that can be offered in the forthcoming auction.
- Additional delivery points are simply requested to provide capacities in accordance with a technical agreement.

Failure to comply with these requirements leads to the feedback of inaccurate information from Elia to the CRM candidate, and ultimately the final rejection of the prequalification file.

**Compliance** with these requirement prompts **Elia to calculate an eligible volume**, which is the volume of an asset **that may be offered** when participating **in the auction**.

It is **always possible to quit** a prequalification file process **prior 30 september 2023 6am**. This is possible via the (full) opt-out or via the deletion of the prequalification file by the candidate (in compliance with the grid user's legal obligation to participate).

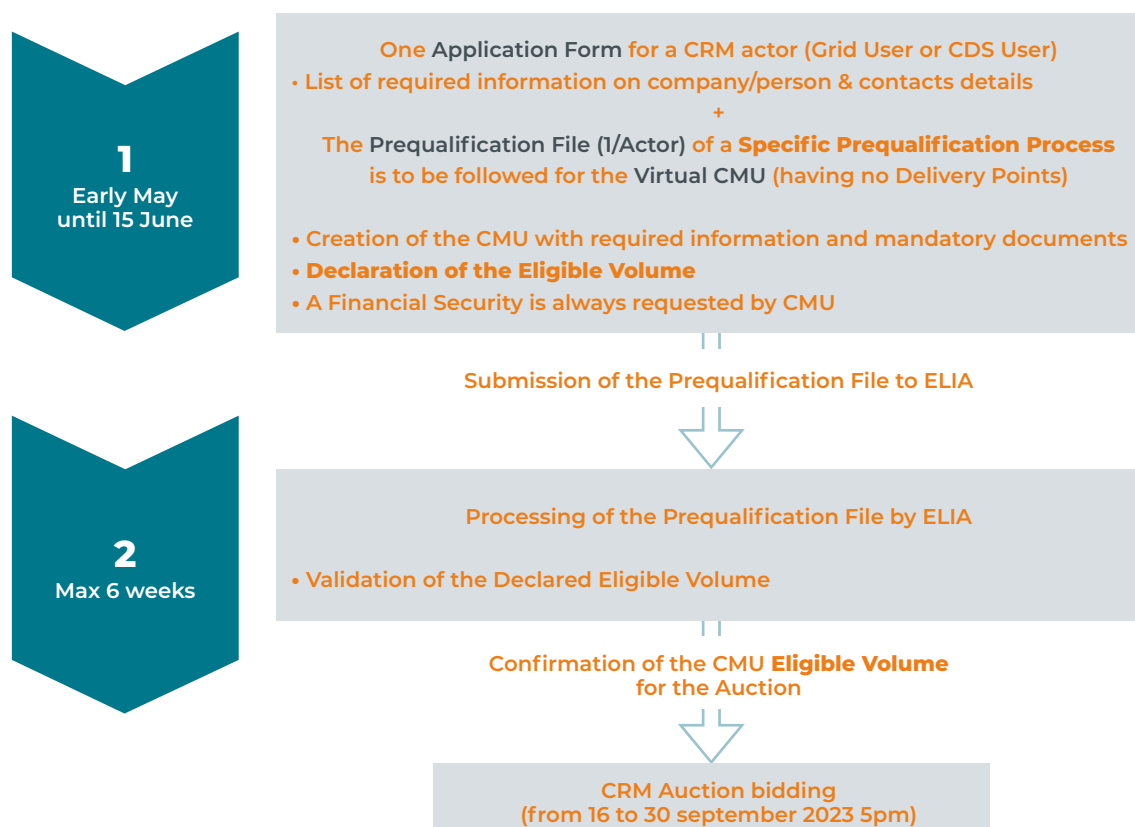
The end product of the process is that Elia will send final notification by e-mail of the results of the prequalification process, ensuring, in case of compliance, that the CRM actor can bid an eligible volume in the auction, and can be awarded a capacity contract if selected by the clearing algorithm.



### 3.4. Specific prequalification process

Successful prequalification of the capacity market unit (CMU) is required in order to access the auction. Within this framework, **the CRM actor that plans to offer volume in the auction but has no delivery points (yet)** may follow the **specific prequalification process**. The operational effort for this is very limited and the CMU deemed to be a virtual CMU.

It is important to point out that the specific prequalification process only occurs for the Y-4 auction and the total volume of virtual CMU selection in that auction is limited in terms of MW to a predefined VCMU capacity parameter decided by the minister. The submission of a prequalification file for virtual capacity complies with details list in Functioning Rules 5.2. but is in concept limited to the Declaration of an Eligible Volume.



Failure to comply with these requirements leads to the feedback of inaccurate information from Elia to the CRM candidate, and ultimately the final rejection of the prequalification file. Compliance

with these requirement prompts Elia to confirm the eligible volume, which is the volume of the CMU that may be offered when participating in the auction.

# 4 Auction

This section refers to the CRM Functioning Rules chapter 6.

Following the prequalification process, all prequalified CRM candidates are allowed to participate in the CRM auction with their prequalified CMUs. As the CMUs have been subject to the application of a derating factor in prequalification, all participating MW are based on the (remaining) eligible volume and so are subject to the same level of competition on the CRM service during the bidding.

## Bid submission

From the working day following 15 September until 30 September 2023 5pm, prequalified CRM candidates are invited to submit bids committing them to sign a capacity contract if selected by the auction clearing algorithm. The bids are entered via the CRM IT interface by prequalified CRM candidates. Bids are related to CMUs. Each bid is considered with its volume in MW, price in €/MW/year and capacity contract duration for a given number of delivery periods (years).

The (remaining) eligible volume of the CMU limits the volume of a bid and is to be offered entirely (at least once) in the auction.

The bid price is limited by the global price cap, a maximum bid price determined by the minister prior to the auction for all bids. However, bids related to CMUs assigned to the one-year capacity category are further limited to the intermediate price cap, a (lower) value determined by the minister prior to the auction.

The maximum capacity contract duration is granted by CREG for each CMU based on an on-demand investment application process (CREG link). A lower or equal number of delivery periods is authorised. By default, the capacity contract duration of a standard bid is one delivery period.

Conditions are either inherited from the prequalification process or from the other set of bids already entered in the auction platform. For example, it is possible to:

- replicate linked capacities. The capacities that CMUs offer are offered via 'linked bids' (bids that are selected together or not for all)
- create mutual exclusivity between bids (or set of linked bids) via 'mutual exclusive bids' (the selection of a bid or set of linked bids implies the exclusion of the other bids and/or sets of linked bids).

## Bid selection

After the gate closure time is past, all "submitted" bids are taken into consideration by the auction algorithm.

The algorithm considers a set of predefined grid constraints that limit the selection of combinations of CMUs. A limited number of MWs will be contracted through virtual CMUs, in line with the specifications of the Minister.

Bounded by the above-mentioned constraints with respect to bid characteristics, grid constraints, maximum volumes from virtual CMUs, etc., the algorithm will select the combination of bids that maximises economic surplus for the delivery period specified in the auction.

## 5

# CRM capacity contract and implications

After the results are validated by CREG and the auction results are published by 31 October for the 2027 delivery period (November 2027 to October 2028), **a capacity contract for the awarded capacities is signed with Elia.**

Following the positive selection of the offers, the capacity contract is **signed** by the capacity provider:

- a. **Within 40 working days** after the auction results
- b. In the event of additional capacity, where applicable the related connection contract is signed within the time limits of the Grid Codes (and in accordance with the technical agreement provided during the prequalification process). Then only, the capacity contract is signed by the Prequalified CRM Candidate within 20 working days right after the connection contract.

The capacity provider **commits to Elia to provide the service**, as specified in the Functioning Rules, **throughout** each **transaction period** (in this case as of November 2027) **and** its respective **pre-delivery period**: between the auction results and the delivery period) for the transactions (selected offers) listed in Annex A of the contract.

The capacity provider is entitled to capacity remuneration for transactions after the actual service delivery and settlement, invoicing and payment.

## 5.1 Pre-delivery check

This section refers to the Capacity Contract and CRM Functioning Rules chapter 7.

### After Capacity Contract signature:

This leads to a new timeframe, the **pre-delivery period** ('the period prior to the delivery period') in which the CRM gathers **information on the ability of the asset to deliver the service in 2027**. Asset reliability is continuously communicated as per the capacity contract prior the delivery period.

The objective is to ensure that all CMUs remain or become existing CMUs. If not on track, several penalties are provided; the contract could even be stopped and the unreleased volume of the CMU may be added as an extra need to the inputs for the calibration of the Y-1 auction parameters.

**Q4 2023 until Q3 2027**

### Pre-delivery Period

All contracted CMU become Existing CMU prior November 2025.

Reports on capability for additional / virtual CMU each quarter.  
Information on Work plan, permits, yards,  
+ Availability tests for all CMU prior 2027.

Penalties are due in case of delays or missing capacities.

## 5.2 Availability monitoring and tests during the delivery period

This section refers to the CRM Functioning Rules chapter 9.

During the **delivery period**, the capacity is deemed to be **present in case of adequacy-relevant moments**. Those times are **AMT moments**.

**Availability is requested** in the delivery period as an energy delivery expectation **when spot prices exceed a certain adequacy-relevant issue trigger price**, or in the event of a test. The higher running

(declared) cost of the participating asset is also taken into account for its own trigger, so that no proof of delivery will be verified under the scenario where the price is too low still for that specific CMU.

Full or partial lack of availability in comparison with the level of service will result in penalties. Recurrent lack of availability will result in an escalation of such penalties and could even lead to termination of the contract.

As of November 2027

### Availability Obligations

As of November 2027, the Delivery Points Availability in the Energy Markets is monitored.

Availability is to be considered in adequacy relevant and tests moments.

Penalties are due in case of unavailable capacities.

## 5.3 Settlement and reimbursement

This section refers to the Capacity Contract and CRM Functioning Rules chapter 12.

The capacity **remuneration** of the transaction is **paid monthly after delivery**.

**Settlement also factors in any penalties related to the pre-delivery and delivery period** to be reimbursed. To avoid double remuneration, the **CRM applies the payback obligation principle**.

The **excessive revenue** considered as the day-ahead market prices above a certain threshold in €/MWh **are to be reimbursed** by the capacity provider. For the CMUs without a daily schedule, if the operating costs are higher than the threshold, only said excess is to be reimbursed. The threshold is defined by the minister as an auction parameter.

As of November 2027

### Payback Obligations in the Delivery Period as of November 2027

If DAM Price > 417€/MWh and the asset is activated in the Market, the Capacity Provider reimburses the delta for its contracted capacity.



# 6

## Secondary market

This section refers to the CRM Functioning Rules chapter 10.

The **secondary market mitigates the risks** run by the capacity provider **and creates additional opportunities** for the CRM prequalified candidates.

**Starting in the first half 2023**, it will be possible to partially or completely transfer contracted capacities of the auction to other existing and prequalified CMUs. As the level of service is to be maintained, Elia and CREG will approve the secondary market transaction, thus validating compliance with the secondary market requirements.

# 7

## Cross-border participation

This section refers to the CRM Functioning Rules chapter 17.

The direct **capacity** of member states bordering Belgium (**directly connected to the Belgian grid**) **can participate in the first Y-4 auction**.


For the delivery period 2027, **Indirect capacity** of member states bordering Belgium **can**

**participate in the first Y-1 auction**. A pre-auction with the same features as the auction will be available for selecting them up to their country's contribution to Belgium's security of supply. The indirect capacities granted in connection with the pre-auction follows Belgian prequalification and can participate in the auction.

## Additional information

Feel free to visit the FPS Economy website and the Elia/CRM website for more detailed information.

 ► <https://economie.fgov.be/nl/themas/energie/bevoorradingszekerheid/capaciteitsremuneratiemechanis>

 ► <https://www.elia.be/en/electricity-market-and-system/adequacy/capacity-remuneration-mechanism>