



**COGEN**

*Voor kwaliteitsvolle warmte-krachtkoppeling*

***WKK-cursus  
Capacity Remuneration System***

**18 November 2021**

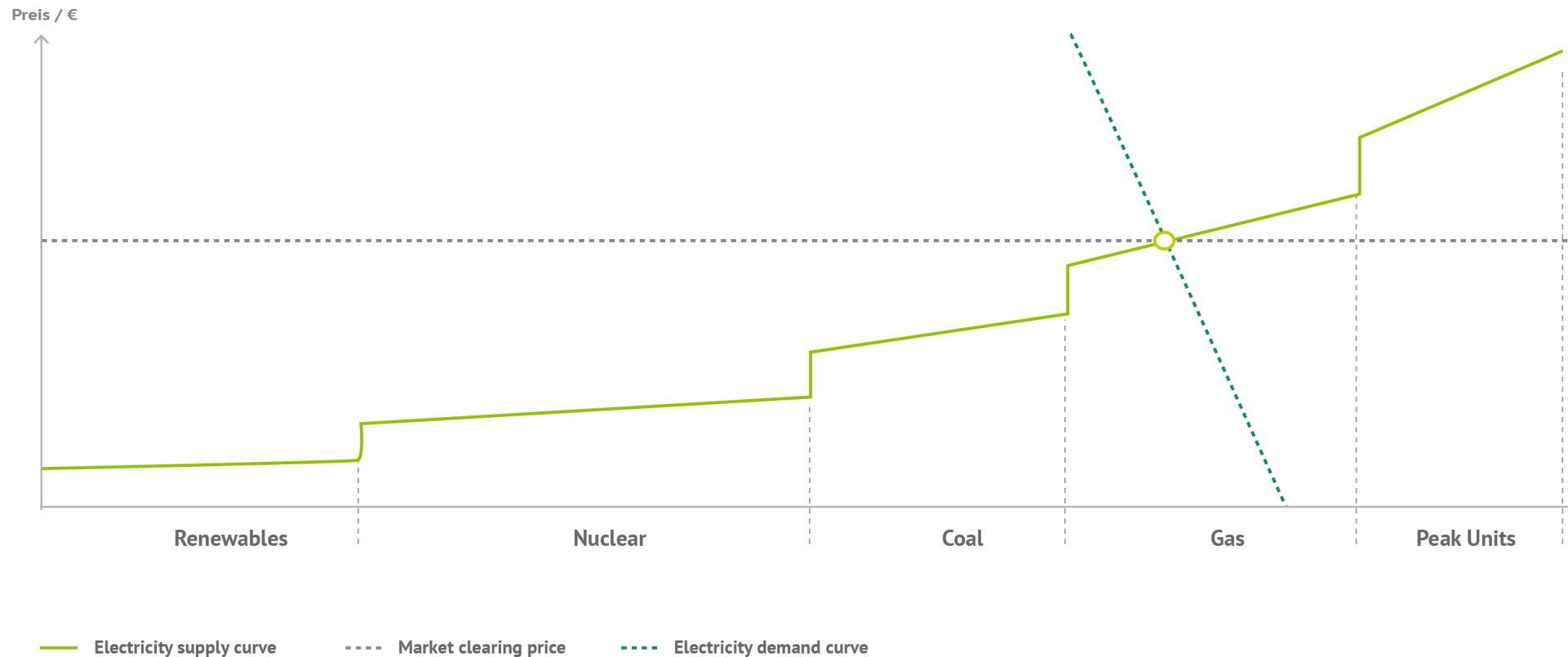
*Online for VEKA*



# Context for CRM

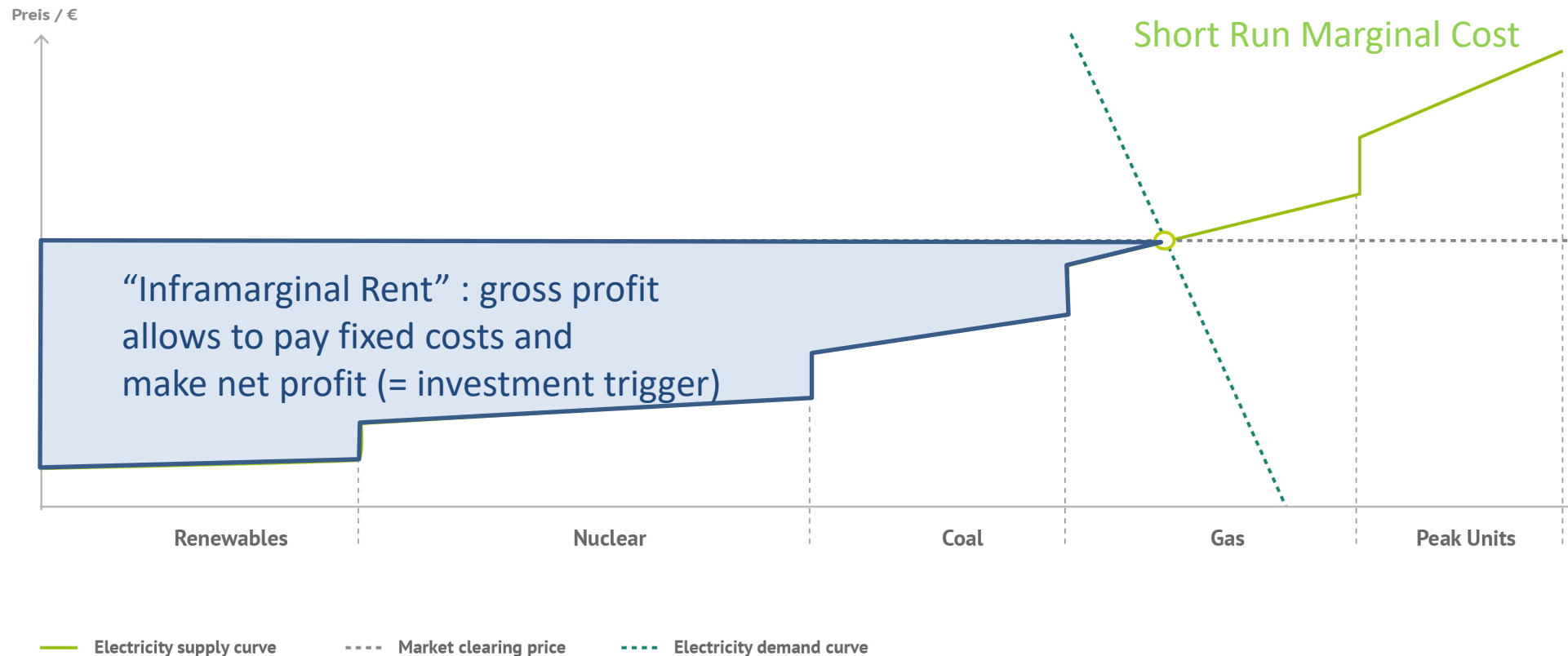
# Energy Only Market : investment triggers ?

## Merit-order-curve



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## Merit-order-curve

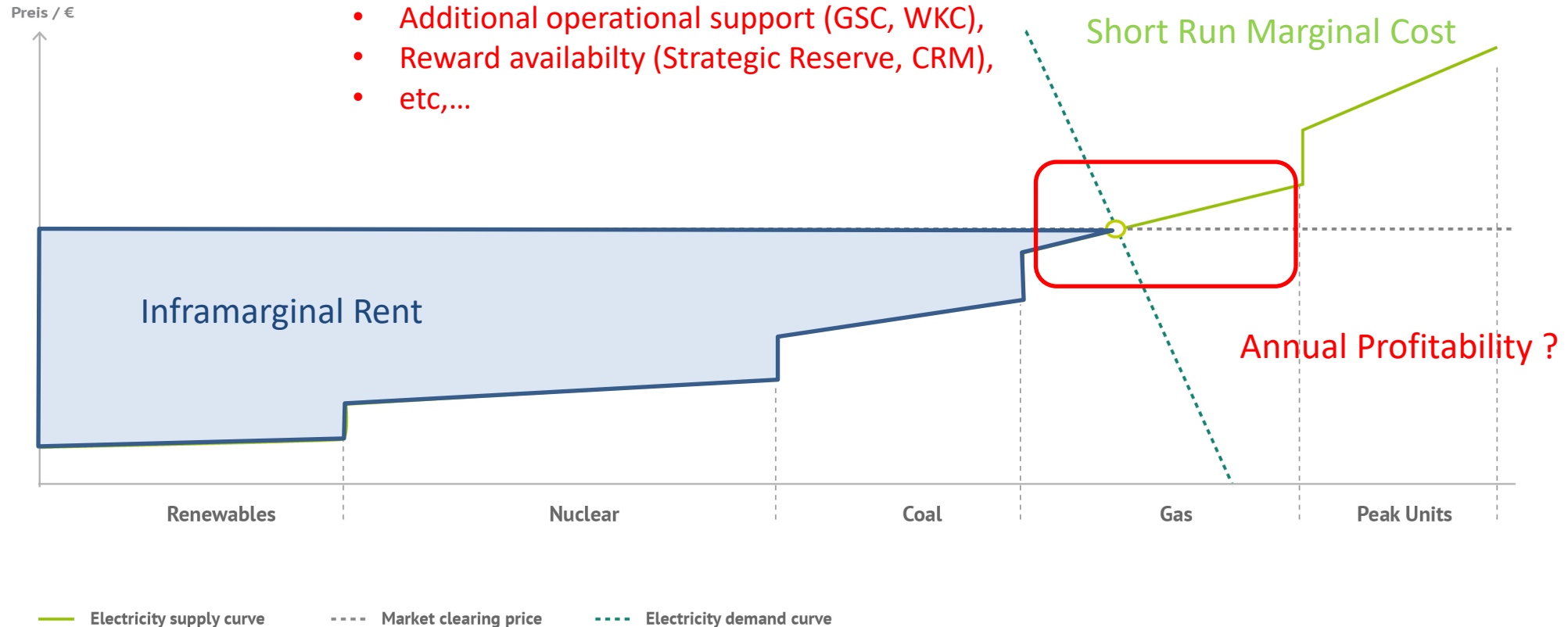


# Energy Only Market : investment triggers ?

## Merit-order-curve

Need to ensure annual revenues beyond the Inframarginal Rent :

- Take-or-pay volumes,
- “scarcity pricing”,...
- Additional operational support (GSC, WKC),
- Reward availability (Strategic Reserve, CRM),
- etc,...



# On June 28th 2019, Elia published the first biennial Adequacy and Flexibility Study\* as required by Belgian Electricity law

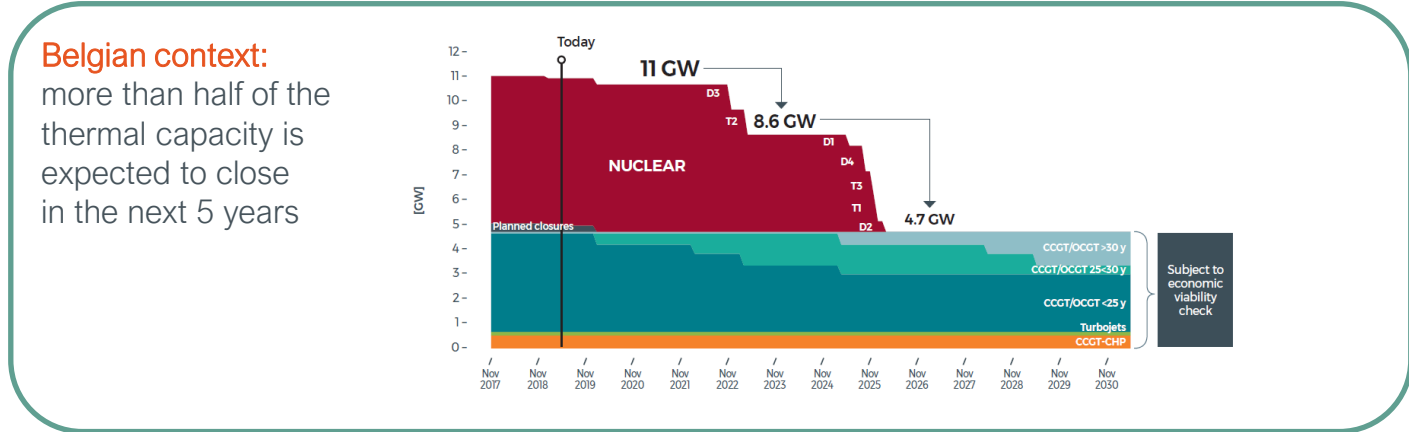


Two-part study over 2020-2030:

Adequacy study
investigates the installed capacity needs to cover peak demand periods
Flexibility study
investigates the technical ability of this capacity to deal with (un)expected demand and supply variations.

Using the most recent public data:

- Current legal framework
- Draft of the National Energy & Climate Plan (NECP)
- Energy pact agreement
- Several sensitivities have been applied on national assumptions



**The study confirmed the adequacy concerns predicted by previous studies and estimated a need of 3,9 GW replacement capacity by 2025**

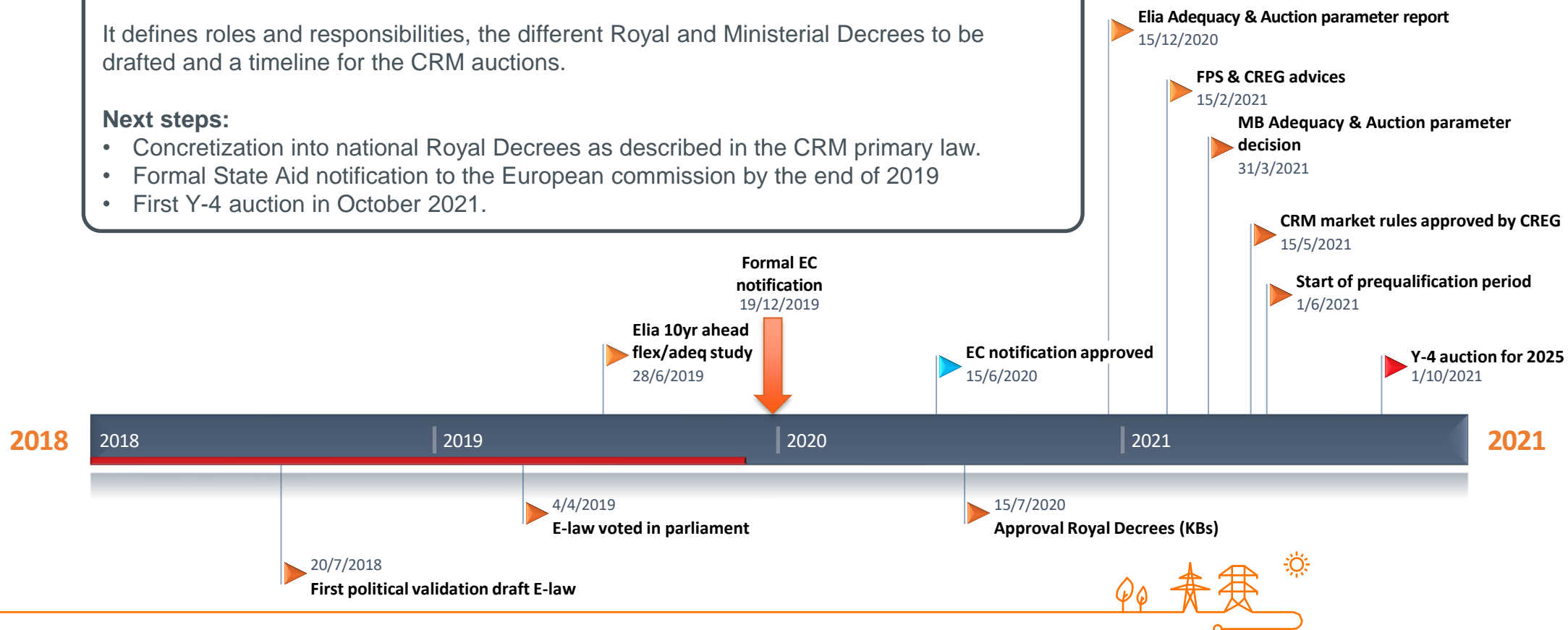
## In order to ensure adequacy, the Belgian Government has put into place a framework law for implementing Capacity Remuneration Mechanism

**CRM-law has been approved on a national level:** On 04/04/2019, Parliament approved the capacity remuneration mechanism in primary legislation

It defines roles and responsibilities, the different Royal and Ministerial Decrees to be drafted and a timeline for the CRM auctions.

### Next steps:

- Concretization into national Royal Decrees as described in the CRM primary law.
- Formal State Aid notification to the European commission by the end of 2019
- First Y-4 auction in October 2021.



# Overview of the Belgian CRM Process:

2021	2022	2023	2024	2025	2026	2027	...
Auction Y-4 2025			Auction Y-1 2025	Delivery Period 2025			
	Auction Y-4 2026			Auction Y-1 2026	Delivery Period 2026		
		Auction Y-4 2027			Auction Y-1 2027	Delivery Period 2027	
			Auction Y-4 2028			Auction Y-1 2028	Delivery Period 2028

Delivery Period : Nov 1st Y till October 31st Y+1

Every year : Minister of Energy decides if an auction should be organised, based on adequacy analysis by Elia

Possibility to bid for multi-year contract : 3, 8 or 15 year contract

- CREG declares the maximum contract period individually, based on investment amount
  - Accepted investments : linked to ability to provide power (MW), i.e. new build, renovation, increase of capacity
  - Not accepted investments : linked to heat supply, reduction of operational costs, exceed environmental performance (CO<sub>2</sub>, NO<sub>x</sub>, Cooling water),...
- Possibility to bid for shorter period than allowed.





## Who can participate in the CRM (1/2)?

Technology neutral by design, the CRM is open to any technology contributing adequacy:

- Generation, storage and demand response.
- New, refurbished and existing capacity
- Individual participation (above the MW-threshold, cf. infra) and aggregation (for units up to 25 MW)

Technology-specific derating is applied to ensure that they valued at their contribution to adequacy

- Derating = a technology's contribution to matching supply and demand during 'Near-Scarcity Hours'
- Derating determines the volume a unit can offer into the CRM auction

**A unit successfully passing through prequalification can participate to the Capacity Auction up to its derated maximum power**

## Who can participate in the CRM (2/2)?

A minimum threshold for (individual) participation : 1 MW derated capacity

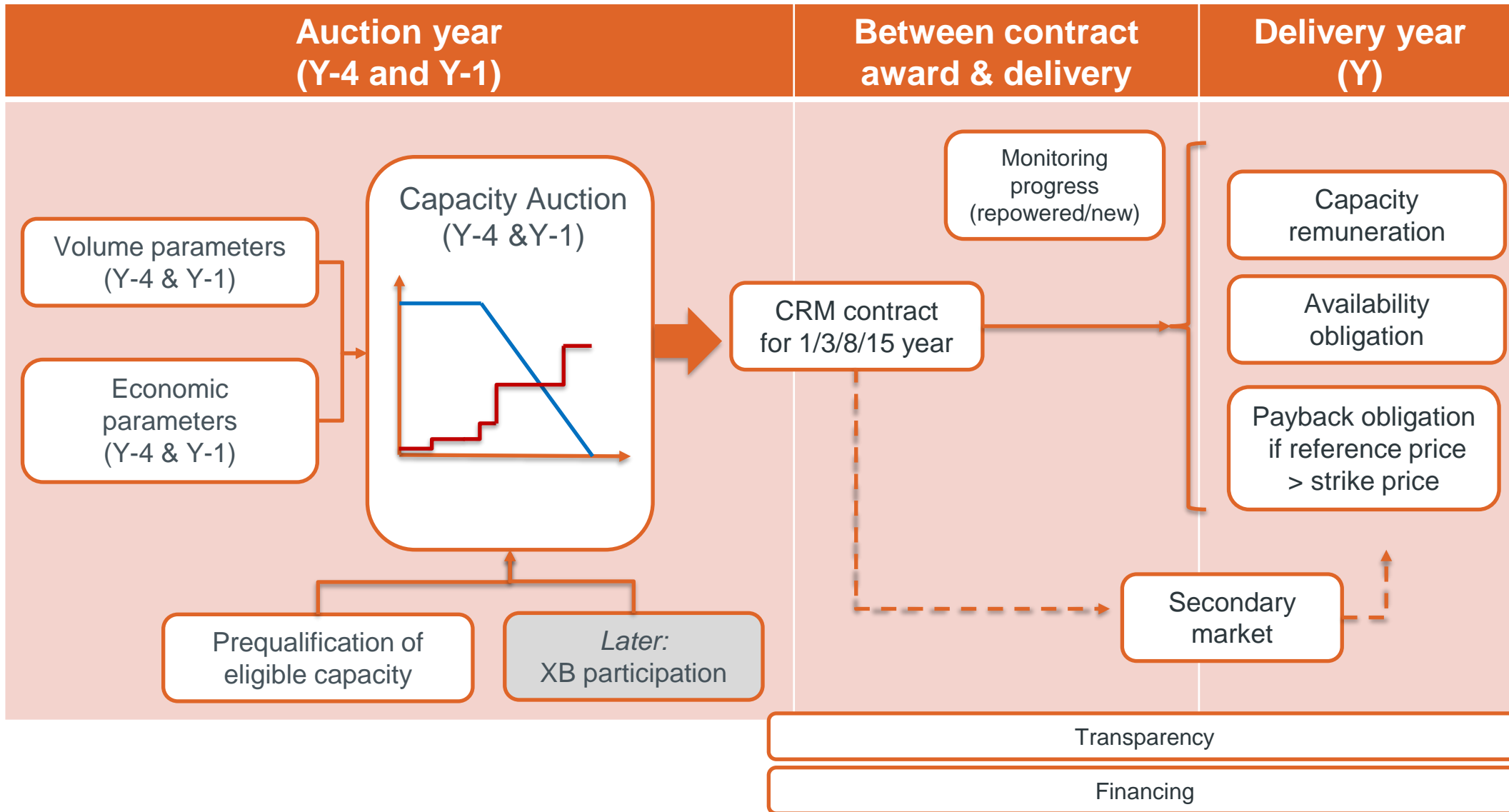
- “Eligible Units” below this threshold can still participate, but through an aggregation of at least this threshold
- “Eligible Units” above this threshold have **an obligation** to prequalify, but not to offer in the auction  
=> To facilitate this obligation, a ‘fast-track prequalification’ is foreseen for units not wanting to offer their capacity

Rules related to the cumulating of different state aid (subsidy) regimes will be foreseen by Royal Decree

- Past subsidies (investment or operational support) do not prohibit CRM participation : eligible unit
- Ongoing and future operational subsidies (e.g. GSC, WKC, CV)
  - non eligible unit (no obligation to prequalify)
  - Possibility to become eligible : need to forsake to operational subsidies during the contracted period

**A unit successfully passing through prequalification can participate to the Capacity Auction up to its derated maximum power**

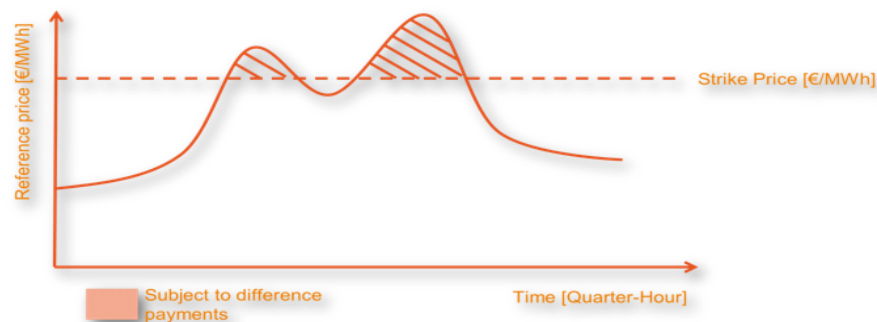
# Overview of the Belgian CRM Process:



# A Capacity Market Unit (CMU) selected in the Capacity Auction will receive a Capacity Contract and be held to the obligations therein

**Predelivery Period Obligations** ensure the timely development of new/refurbished capacity

**Payback Obligation** is part of the 'Reliability Option' (cf. electricity law) the Capacity Provider engages in



- A payback obligation is due when the Reference Price (Day-Ahead Price) surpasses the strike price
- Capacity provider gives up (uncertain) exceptional market revenues for (certain) capacity remuneration (i.e. no 'wind-fall profit')
- The current design links the payback obligation to 'declared market price' if it is higher than the Strike Price, to ensure a correct definition of 'windfall profits' for all technologies

**Availability Obligations** enforces system adequacy through individual obligations

- **Availability Monitoring** takes place at system stress, defined at high day-ahead market prices (~top 100 hours over the year)
- **For units with a full schedule (i.e. 'CIPU')**: monitored through the communicated schedules
- **For units without full schedule**: monitoring based on declared market price(s) from the Capacity Provider
  - If electricity price(s) below declared market price(s): monitor availability through outage indication by Capacity Provider
  - If electricity price(s) above declared market price(s): monitor availability through delivery of energy
- **Availability tests** can complement monitoring on units exhibiting little Proven Availability or illogical behavior

**Failure to meet obligations or communicating wrong information (e.g. declared market price) is liable to penalties**  
**Exposure to unmet obligations can be covered on the Secondary Market**

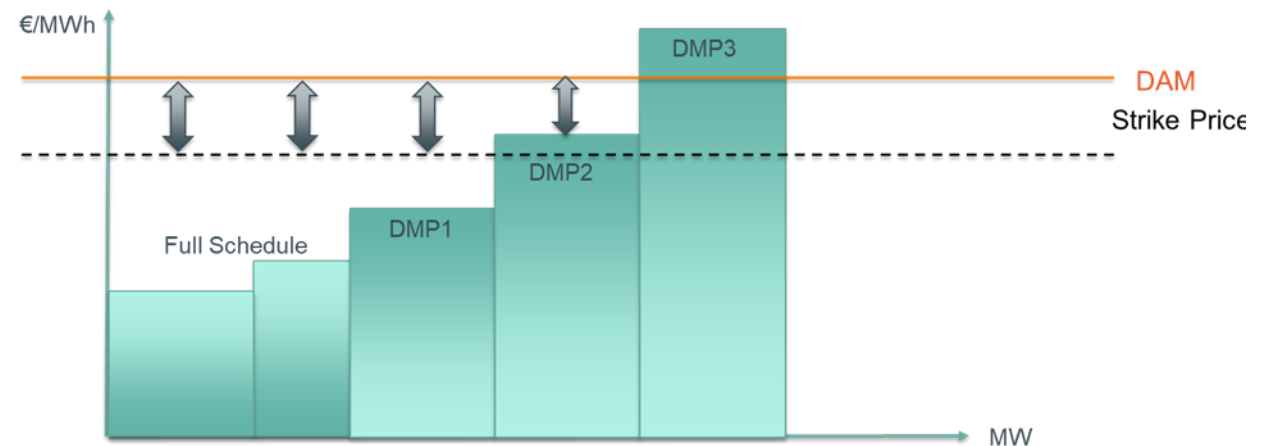
## Payback Obligation: example

### Context:

One hour on the Day-Ahead Market clears at 700 €/MWh

The Strike Price for this year is 300 €/MWh

**=> Every Capacity provider pays back the difference on 300 €/MWh unless their Declared Market Price (DMP) is higher**



All 'full schedule' CMU's pay back  $700\text{€/MWh} - 300\text{ €/MWh} = 400\text{ €/MWh}$

**CMU 1** has a DMP of 250 €/MWh and pays back  $700\text{€/MWh} - 300\text{ €/MWh} = 400\text{ €/MWh}$

**CMU 2** has a DMP of 550 €/MWh and pays back  $700\text{€/MWh} - 550\text{ €/MWh} = 150\text{ €/MWh}$

**CMU 3** has a DMP of 800 €/MWh and would not have sold its energy so **no payback applies**

**A correct declaration of the DMP will be verified in the Availability Monitoring**

# The Declared Market Prices (DMP) allow any CMU to communicate how the capacity will be dispatched to Elia

A Capacity Provider has to declare a Day-Ahead Price and can declare prices for other markets and volumes:



DA

ID

BAL

**Full activation** Declared Day-Ahead Price = Obligated

Declared Intra-Day Price

Declared Balancing Price

**Partial activation** Partial Day-Ahead Price

Partial Intra-Day Price

Partial Balancing Price

If the Declared Day-Ahead Price is surpassed on the Day-Ahead market:

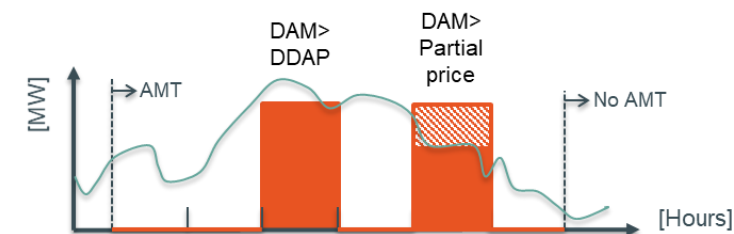
- Full delivery of energy is verified

Any other Availability Monitoring Trigger Hour (AMT Hour) outside of payback obligation:

- The CMU is considered available unless otherwise communicated by the Capacity Provider

AMT Hours during payback obligation:

- Delivery will be checked according to the surpassed declared prices
- A margin is to be retained if the CMU had indicated it would not deliver (part of its) energy



- Obligated Capacity
- Delivery
- ▨ Margin to be retained
- Energy to be delivered

## This methodology:

- Obliges availability, backed by delivery of energy when the Capacity Provider indicates (through DMP) that the market is favorable
- Considers Ancillary Services reserved capacity as available
- Verifies the correct declaration of prices during payback
- Perform availability tests on units that (almost) never back availability with delivery of energy

# Participating capacities : Derating

Catégorie I : catégories d'accords de niveau de service (SLA) / Categorie I : categorieën met overeenkomsten inzake dienstverleningsniveau (SLA)	
Sous-catégorie (durée de disponibilité en heures) / Subcategorie (beschikbaarheidstijd in uren)	facteur de réduction/reductiefactor (%)
1	11
2	19
3	28
4	36
6	52
8	65
illimité/onbeperkt	100

Catégorie II : technologies thermiques avec programme journalier / Categorie II: thermische technologieën met dagelijks programma	
Sous-catégorie / Subcategorie	facteur de réduction/reductiefactor (%)
turbine à gaz cycle combiné/gasturbine gecombineerde cyclus	91
turbine à gaz cycle ouvert/gasturbine met open cyclus	90
turbojets/turbojets	96
moteurs à gaz / gasmotoren	95
moteurs à diesel/ dieselmotoren	93
centrale de cogénération/warmtekrachtkoppeliningsinstallatie	93
biomasse/biomassa	93
déchets/afval	93
nucléaire/kernenergie	96
charbon/steenkool	90

Catégorie III: technologies à énergie limitée avec programme journalier / Categorie III : technologieën met beperkte energie met dagelijks programma	
Sous-catégorie (durée de disponibilité en heures) / Subcategorie (beschikbaarheidstijd in uren)	facteur de réduction/reductiefactor (%)
1	11
2	19
3	28
4	36
5-6	52
7-8	65

Catégorie IV : technologies dépendantes des conditions climatiques / Categorie IV: van de weersomstandigheden afhankelijke technologieën	
Sous-catégorie / Subcategorie	facteur de réduction/reductiefactor (%)
éolien offshore / offshore wind	15
éolien onshore / onshore wind	6
solaire/zonne-energie	4
hydraulique / hydro run-of-river	34

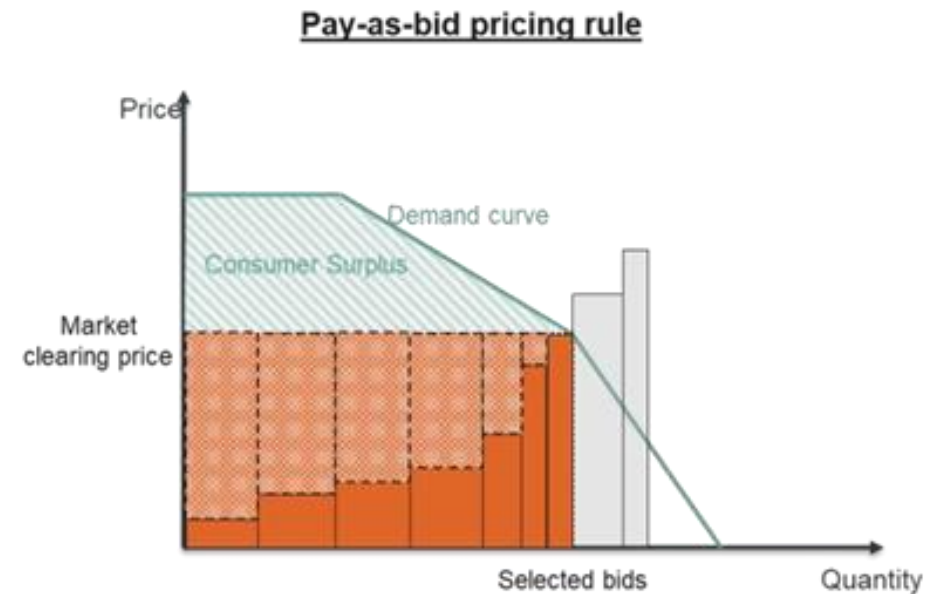
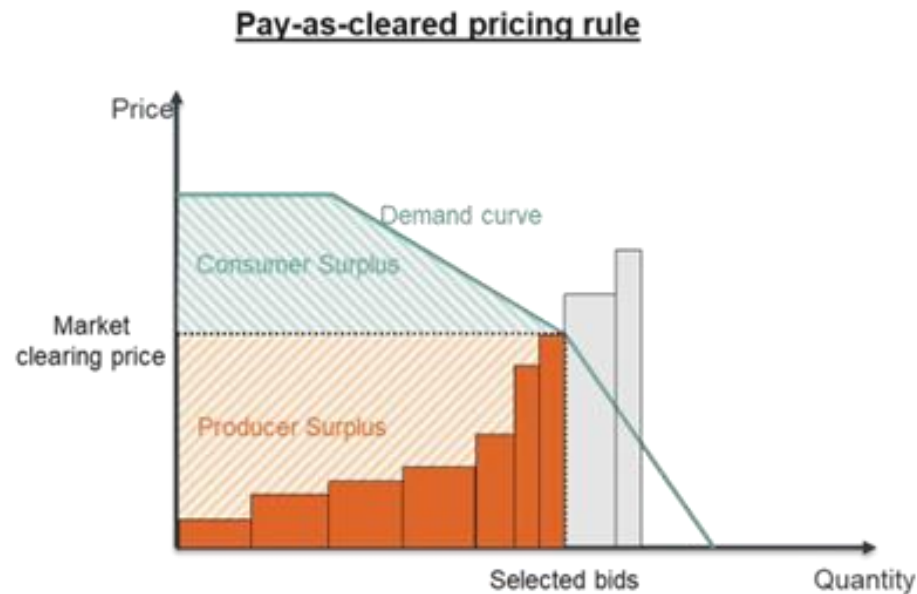
Catégorie V : Technologies thermiques sans programme journalier / Categorie V: Thermische technologieën zonder dagelijks programma	
Sous-catégorie / Subcategorie	facteur de réduction/reductiefactor (%)
technologies thermiques agrégées / geaggregeerde thermische technologieën	62

“non-CIPU”

“CIPU”

# Auction principle

- “Single Round, Sealed Bid” logic (vs “multi-round, decending clock”)
- “Pay-as-bid” principle for the first auctions, then evaluation if “pay as cleared” would be improvement (reduced auction volume – simplify participation)





# Auction principle

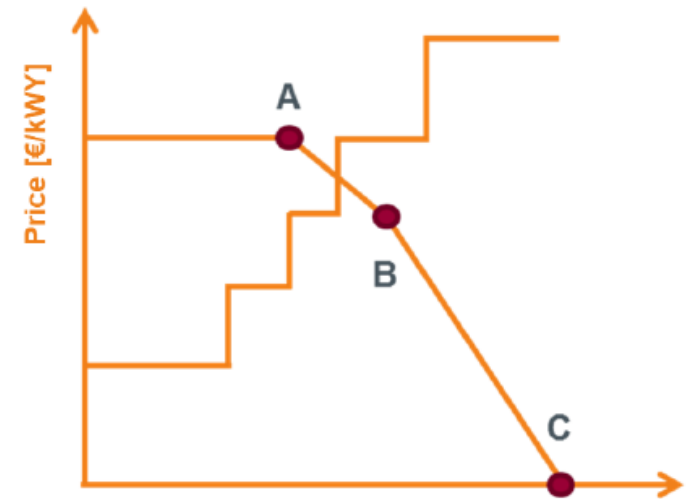
- “Single Round, Sealed Bid” logic (vs “multi-round, decending clock”)
- “Pay-as-bid” principle for the first auctions, then evaluation if “pay as cleared” would be improvement (reduced auction volume – simplify participation)
- Demand curve

## X-axis (capacity):

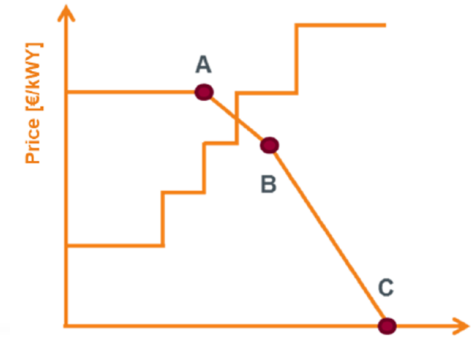
- **A:** Lower limit  
Lesser volumes are cleared at price cap
- **B:** Target procured capacity  
Typically: meet legal SoS requirement (e.g.: LOLE = 3h/Y)
- **C:** Upper limit  
Maximally procured capacity

## Y-axis (price):

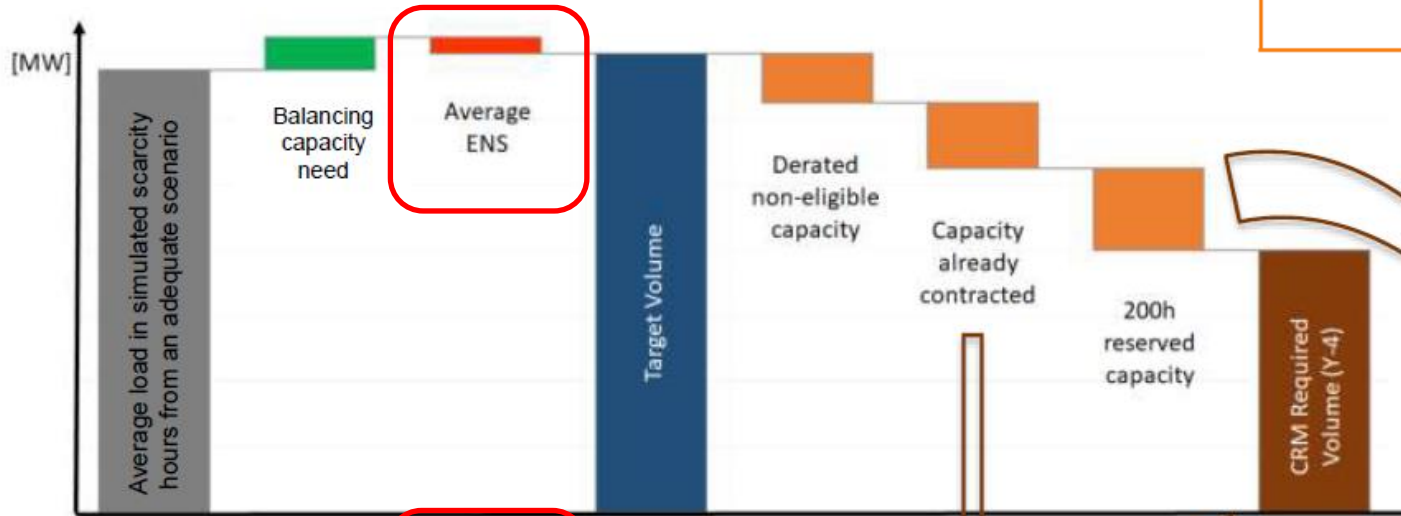
- **A:** Global Auction Price Cap  
Multiple price caps/bid caps focus on limiting windfall profits and market power abuse and are treated as a separate subject
- **B:** Price offered by Best New Entrant capacity (see next slide)
- **C:** X-axis intersect (0 €/kWY)



# Auction Demand Curve – X axis



Y-4 auction



Y-1 auction



# Auction Demand Curve – Y axis

→ The expected bid (**Point B**) of the new entrant with the lowest missing money per MW at that volume of capacity:

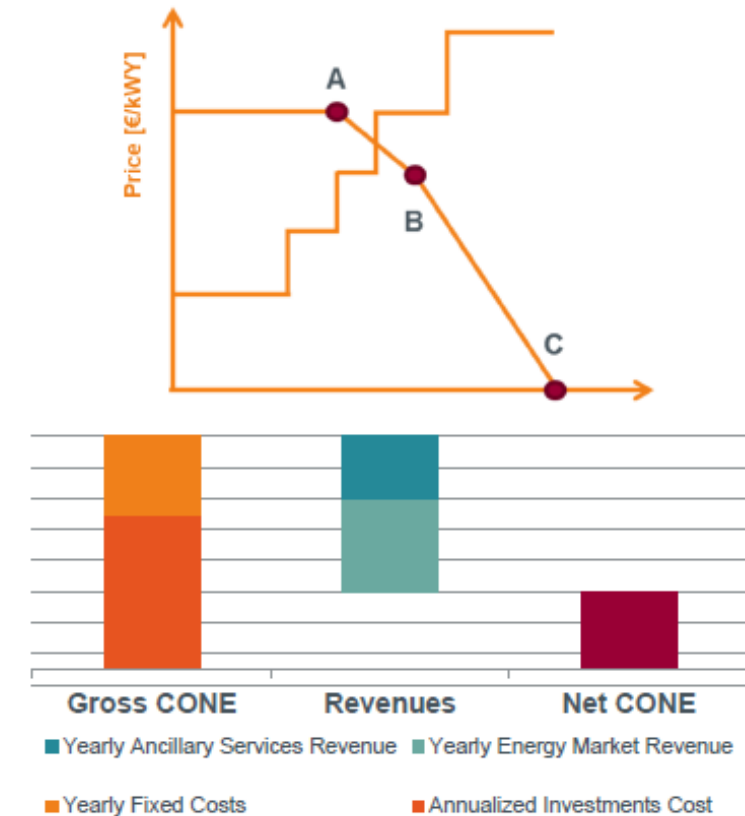
$$\text{Gross Cost Of New Entry (Gross CONE)} - \text{Revenues} = \text{Net Cost Of New Entry (Net CONE)}$$

Uncertainties persist in estimating the net CONE:

- Technology choice
- Assumptions on costs
- Assumptions on revenues

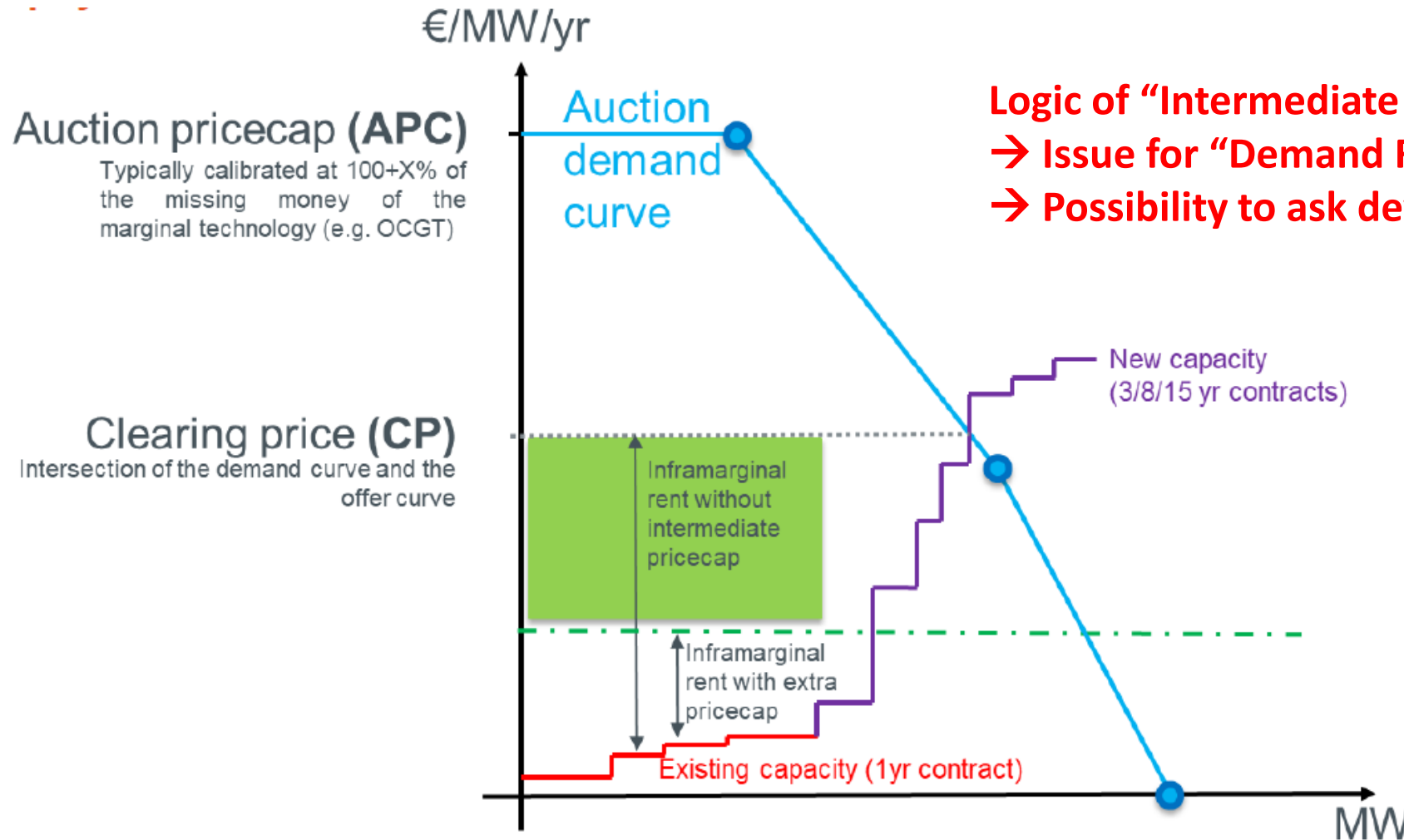
→ The maximum price (**Point A**) should allow variations that account for these uncertainties: **Sensitivities on Net CONE calculation**

$$\text{Price Cap} = 1, X * \text{Net CONE}$$



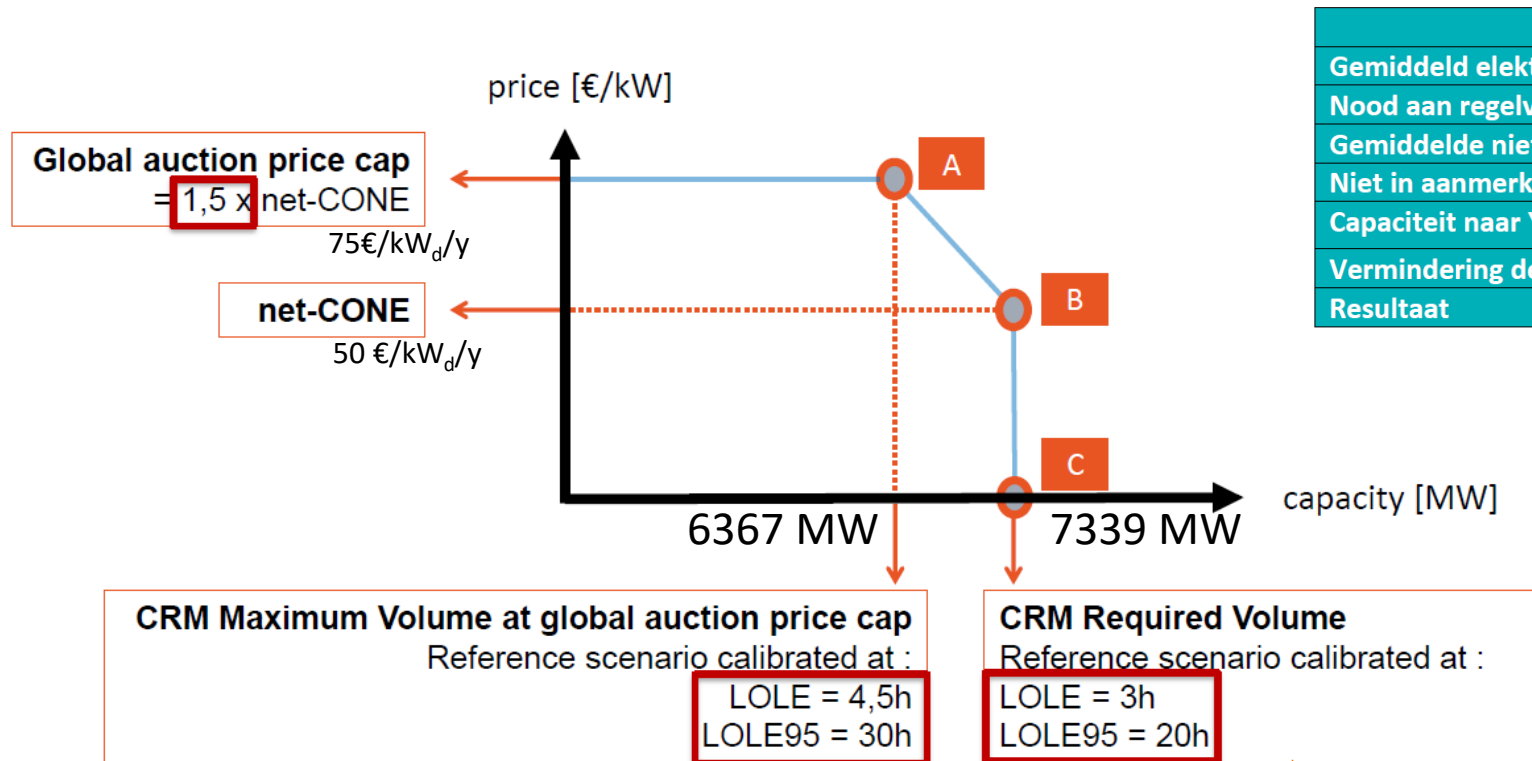
# Auction Demand Curve – Y axis

**Need for an Intermediate Price Cap (minimise cost → reduce max bid price)**



# Ministerieel Besluit 30 april 2021

- Minister takes, based on economic study by Elia and advice from CREG, decision to organise a T-4 auction. All units potentially entitled to operational support are “non-eligible by default”
- Minister decides parameter “strikeprice” (300 €/MWh) and “intermediate price cap” (20€/kW/jaar)
- Minister decides all elements to define demand curve.



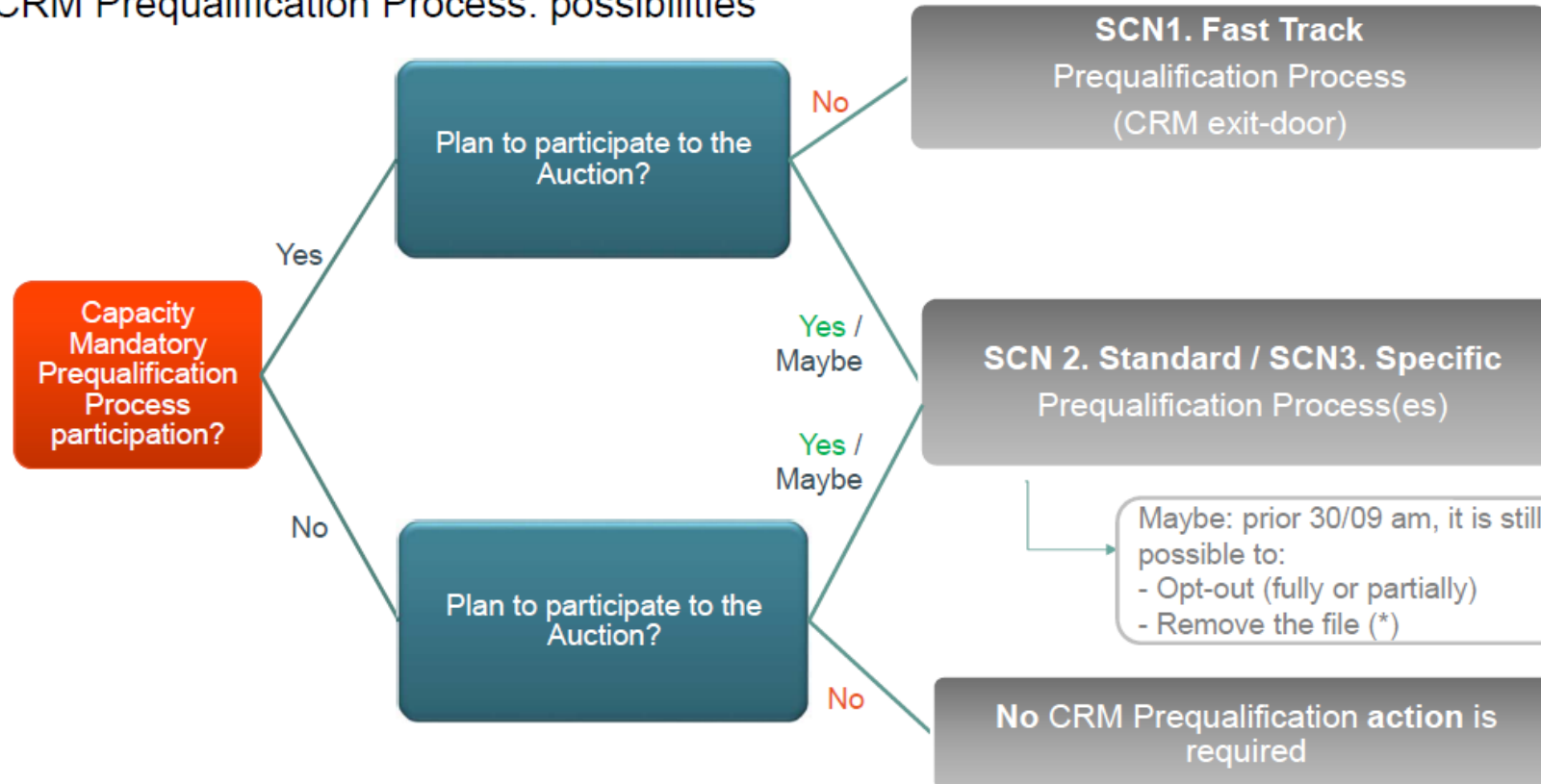
	Referentie	Punt A	Punt B en C
Gemiddeld elektriciteitsverbruik bij tekort	6.2.1.	13 332 MW	13 591 MW
Nood aan regelvermogen	6.2.2.	+ 985 MW	
Gemiddelde niet geleverde energie bij tekort	6.2.3.	- 1 522 MW	- 809 MW
Niet in aanmerking komende capaciteit	6.2.4.	- 1 088 MW	
Capaciteit naar Y-1 veiling	6.2.5.	- 1 467 MW	
Vermindering deelname buitenlandse capaciteit	6.2.6.	-1 935 MW	
<b>Resultaat</b>		8 305 MW	9 277 MW

Note :

- Elia economic study assumed all large cogenerations, biomass and waste (1938 MW) as “eligible”
- Minister assumes them as “non eligible” because of possibly entitled to subsidies

# Prequalification process

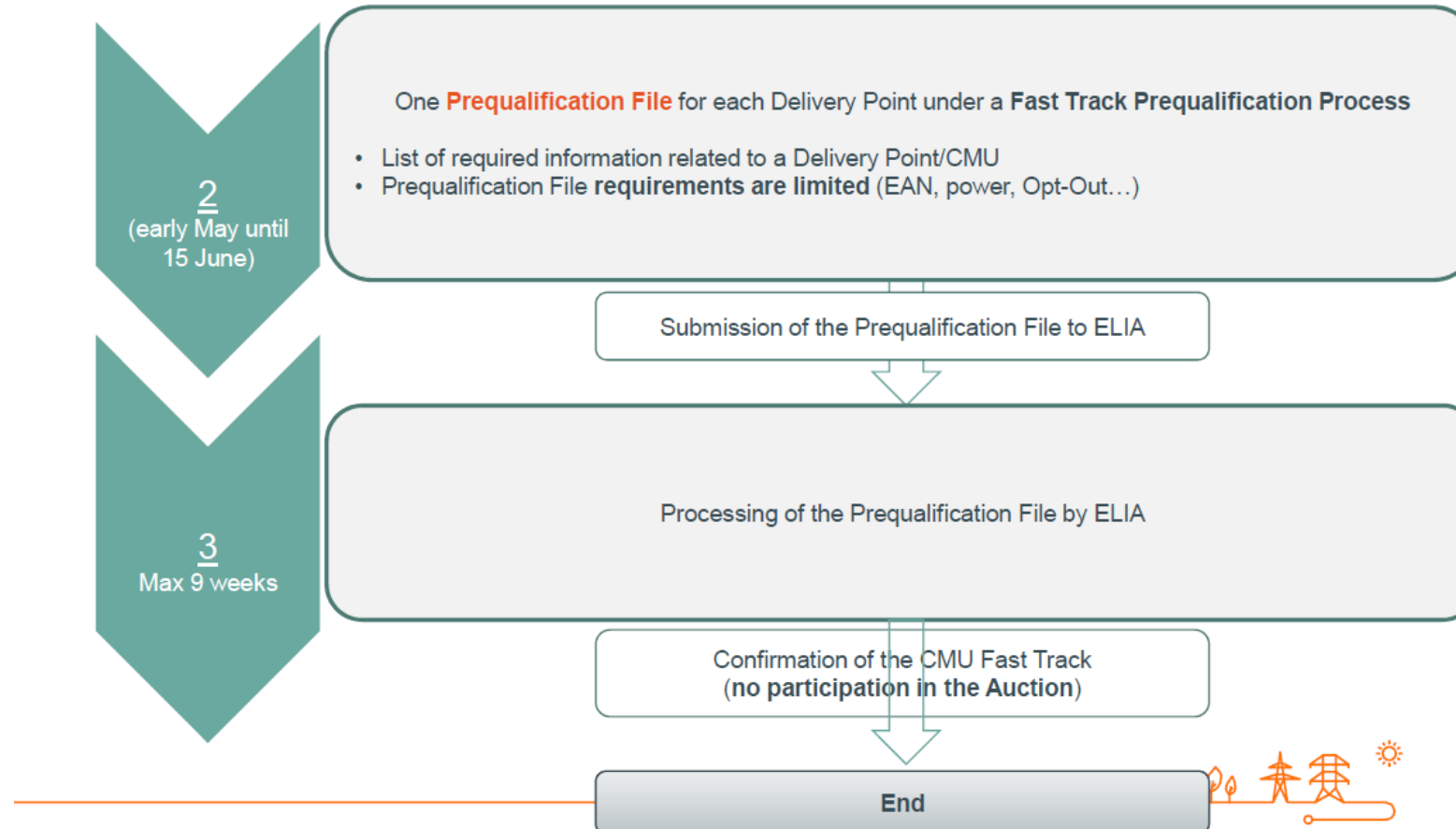
CRM Prequalification Process: possibilities



# Prequalification process

## SCN1. Fast Track Prequalification File

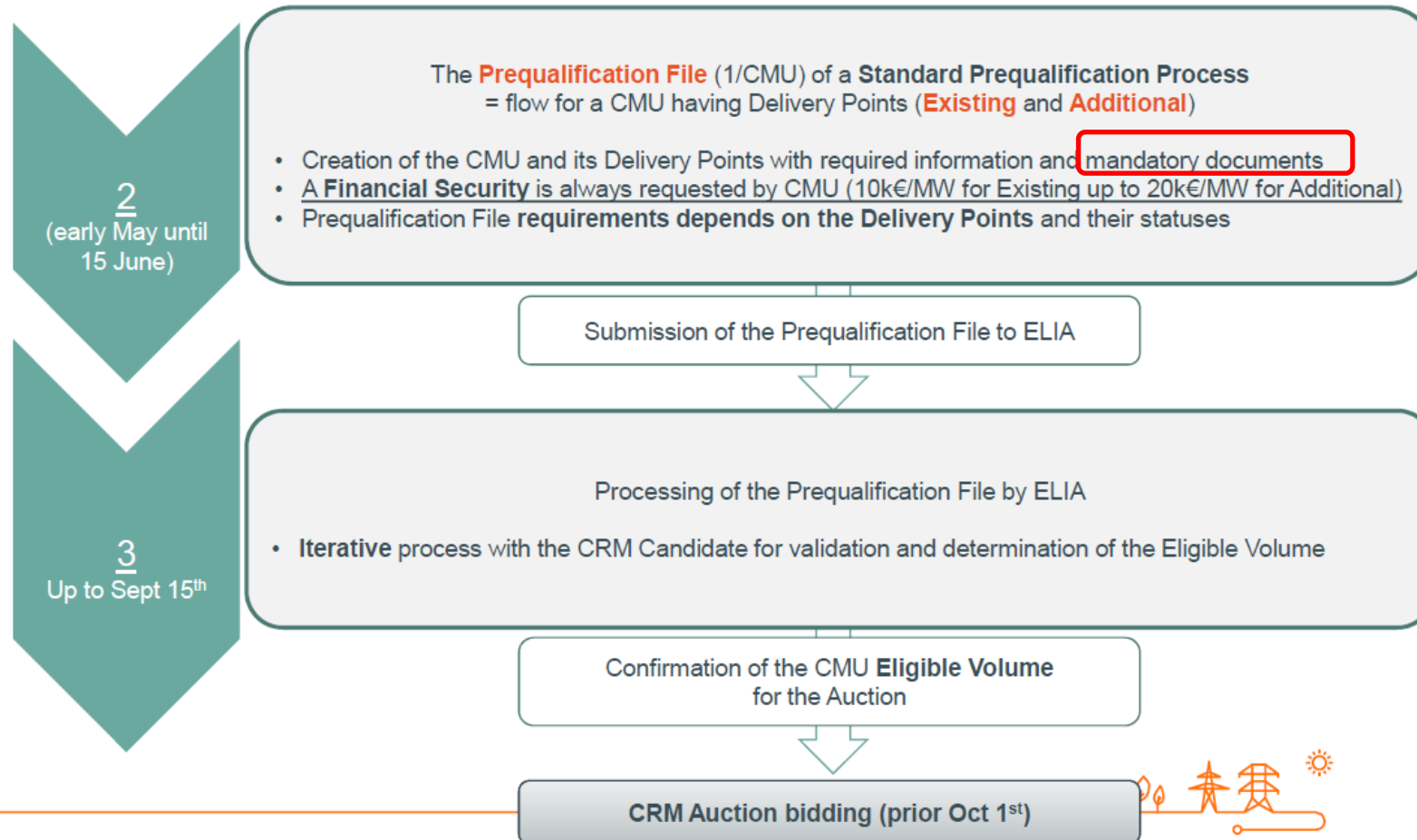
In this Framework, the CRM actor **has no plan to offer** volume in the Auction: the operational **effort is limited**.



# Prequalification process

## SCN 2. Standard Prequalification Process

In this Framework, the CRM actor plans to offer volume in the Auction with determined Delivery Points: operational effort in function of CMU



CHP : Declaration to forsake to operational support in case of successful bid

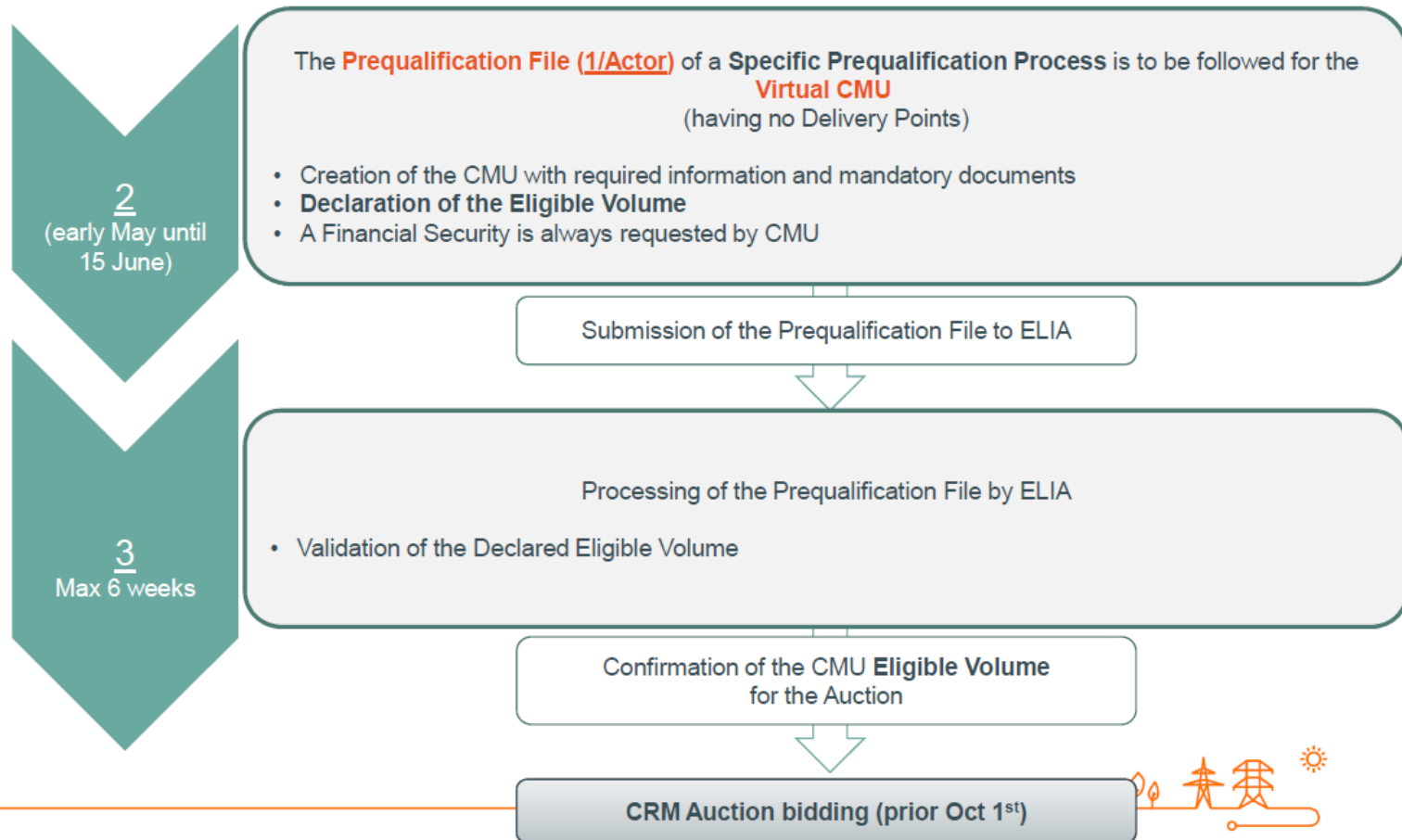
DSO : “Flex sensibility study”



# Prequalification process

## SCN3. Specific Prequalification Process for VIRTUAL CMU

In this Framework, the CRM actor **plans to offer volume in the Auction with No Delivery Points (yet)**: operational effort is very limited



**A maximum of 200 MW** of Virtual CMUs shall be selected in the 2021 Y-4 Auction (parameter)



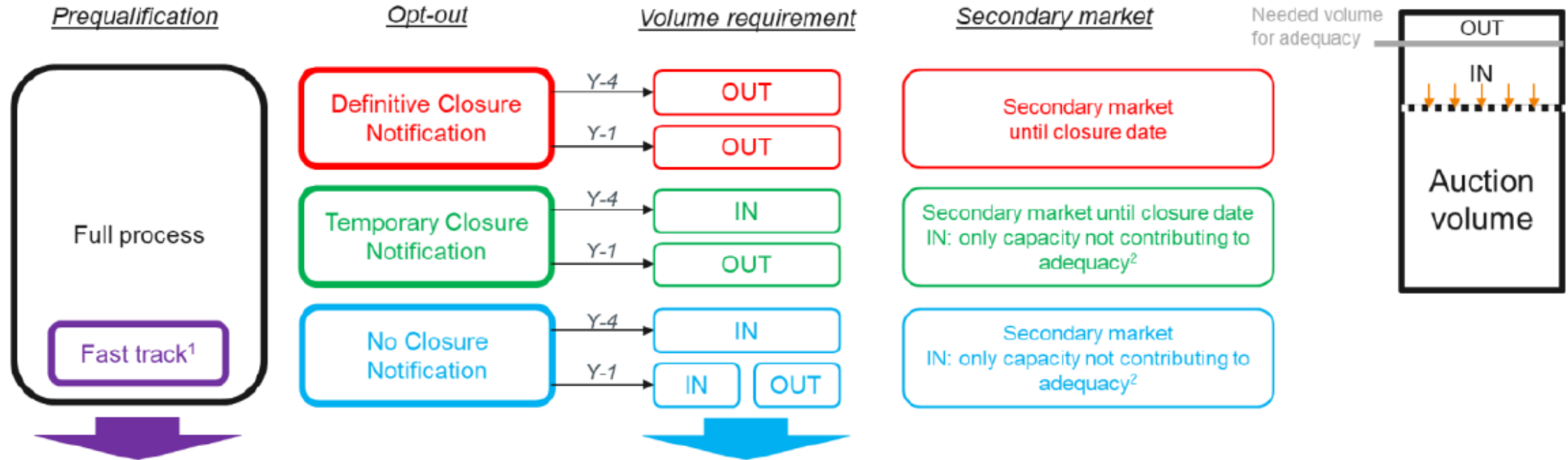
# CRM Auction

## CRM Auction

- The **access to the Auction** is granted to the CRM Prequalified Candidates CMUs
  - The CRM actor enters one or more offers related to each prequalified CMUs to bid in the Eligible Volume as determined in the Prequalification Process
  - Each offer consists of a volume, a chosen price and a contract duration
  - The Price is limited to an Intermediate Price Cap ( for the 1 year capacity contract duration (unless he has an IPC derogation)
  - The maximal capacity contract duration of a bid is determined by CREG (investment file of the CMU)
- Prior the Auction:
  - 1- The CRM Candidate can still reduce (partially or entirely) its Eligible Volume through Opt-Out (up to Gate Closure Time (30/09 9am))
    - The CRM Candidate adapts its bids in the Auction accordingly
  - 2 - If by Law, there is no mandatory prequalification participation on the capacity, the CRM Candidate can still remove its Prequalification File without legal consequence - (up to Gate Closure Time (30/09 9am))
- Auction algorithm selects the bids that maximize the global welfare considering the Grid Constraints
- The selected offers are listed in a Capacity Contract under 'transactions'

Note : "Standard Capacity Contract" (by CREG approved T&C) enters automatically into force

# “Opt-Out” decision : consequences



<sup>1</sup>Fast track leads **by default to opt-out** (potentially also with closure notification), **but never gives the right to participate in the secondary market** (hence only impact on volume requirement)

In Y-1, **opt-out (no closure notification)** has to make a choice:

- **IN:** contribution to adequacy, but no CRM → No secondary market (for capacity considered contributing to adequacy, i.e. taking into account derating)
- **OUT:** no contribution to adequacy → Secondary market
  - **OUT choice has to be supported by signed motivation letter**

<sup>2</sup>Assume 100MW opt-out option IN (technology with 90% derating), then 90MW is considered contributing to adequacy and 10MW may participate in secondary market

# Auction 31 oktober 2021 (T-4) : Results

## 3. Samenvatting van de finale resultaten voor de Y-4 Veiling voor Periode van Capaciteitslevering 2025 – 2026

De volgende tabel geeft de belangrijkste prijs-en volumeresultaten weer van de Y-4 Veiling voor de Periode van Capaciteitslevering 2025 – 2026 georganiseerd in oktober 2021. De op basis van het biedingsvolume van de weerhouden biedingen gewogen gemiddelde Biedprijs is gelijk aan **31.671,57 €/MW/jaar**. De hoogste Biedprijs van de weerhouden biedingen, zoals beoogd in § 932 van de Werkingsregels, is gelijk aan **49.993,18 €/MW/jaar**.

Gezien het “pay-as-bid” clearing algoritme in de veiling, zal elke weerhouden CMU zijn eigen Biedprijs ontvangen als Capaciteitsvergoeding.

De totale hoeveelheid capaciteit (in gereduceerde MW) geselecteerd in de Veiling bedraagt **4.447,7 MW**, gespreid over **40 geselecteerde Eenheden** in de Capaciteitsmarkt.

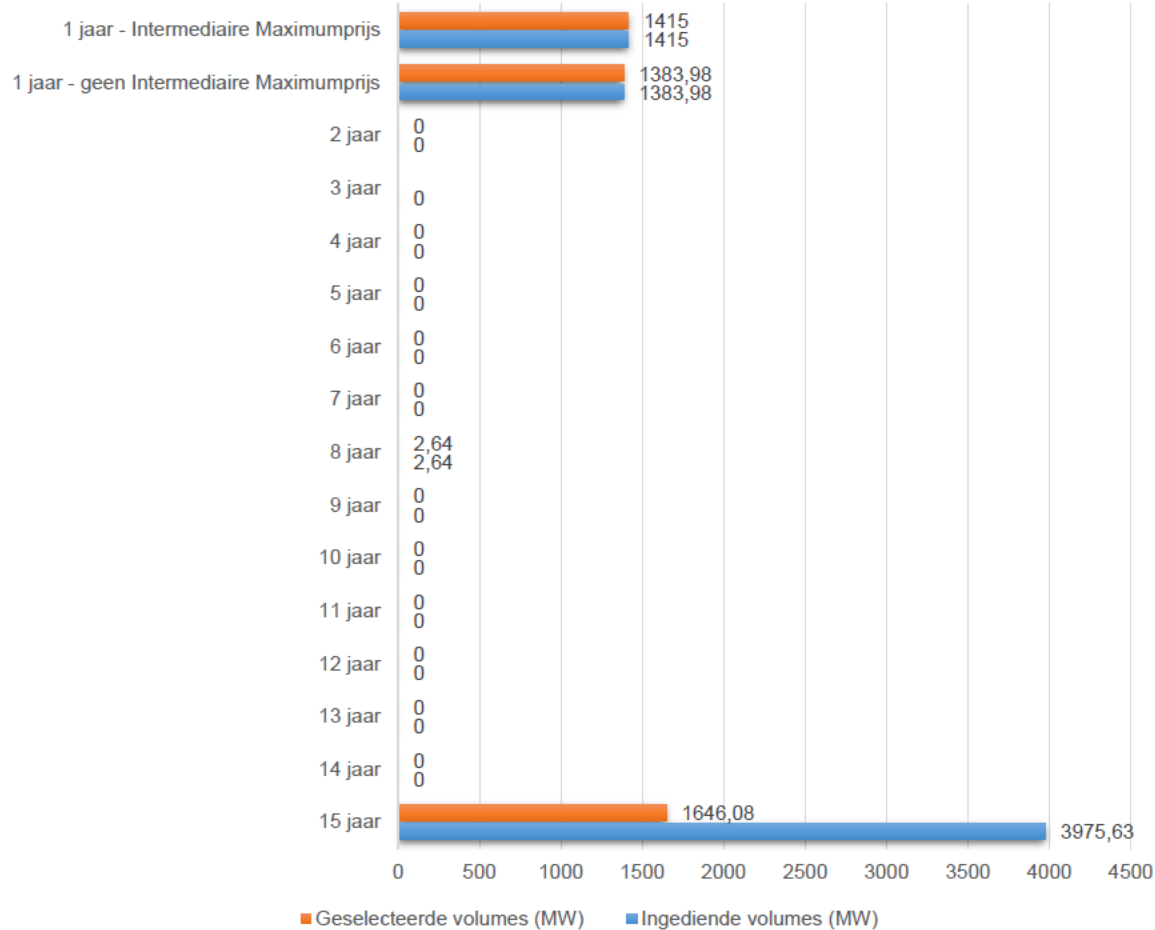
Veiling en Periode van Capaciteitslevering	Y-4 Veiling georganiseerd in oktober 2021, voor Periode van Capaciteitslevering 2025 – 2026
Gewogen gemiddelde Biedprijs (in EUR/MW/jaar)	31.671,57
Hoogste Biedprijs (in EUR/MW/jaar)	49.993,18
Totaal geselecteerde capaciteit (in MW)	4.447,7*
Aantal geselecteerde Eenheden in de Capaciteitsmarkt (CMUs)	40

140,87 mio EUR in  
Periode nov'25-oct'26

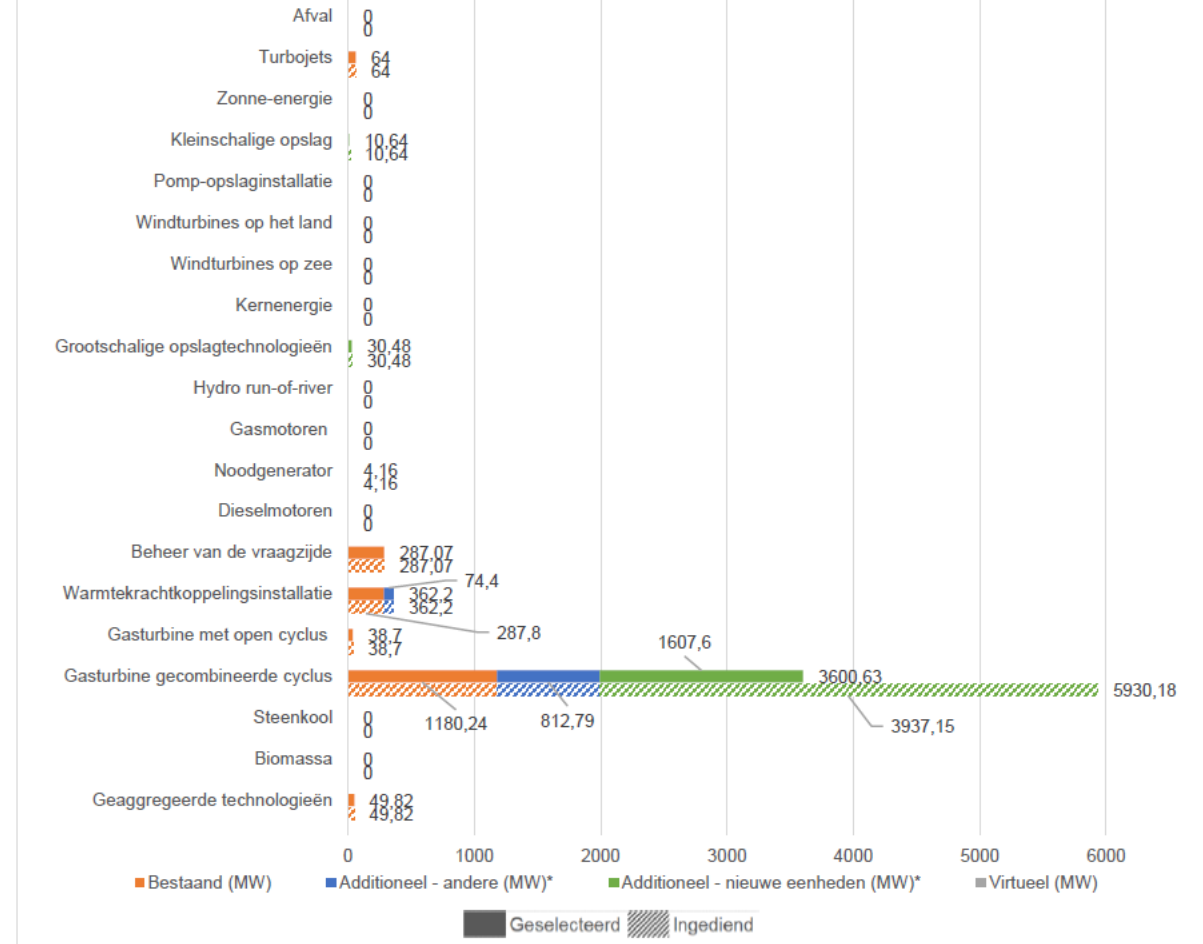
\*Noteer dat deze capaciteit, net als alle andere capaciteitsvolumes vermeld in het vervolg van dit Verslag, capaciteiten na toepassing van de reductiefactor betreffen.

# Auction 31 oktober 2021 (T-4) : Results

## Capaciteitsvolumes per duur van het capaciteitscontract



## Capaciteitsvolumes per technologie en status



\*Noteer dat het totale volume aan additionele capaciteit wordt bepaald door de som van de categorieën "Additioneel - nieuwe eenheden" en "Additioneel - andere".

# Auction 31 oktober 2021 (T-4) : Results

## 3.5 Individuele informatie over de geselecteerde Eenheden in de Capaciteitsmarkt

De onderstaande tabel geeft, zoals beoogd in § 926 van de Werkingsregels, informatie weer over de individuele geselecteerde Biedingen in de Veiling.

Geprekwalificeerde CRM-kandidaat	CMU-id	Reductiefactor	Technologie van leveringspunt	Status van de CMU	Link met andere Biedingen ("Gekoppelde biedingen")	Duur van het Capaciteitscontract (in jaar/jaren)	Maximum ingediende volume voor CMU in de Veiling (in MW)	Geselecteerd volume van de Bieding (in MW)
Alco Bio Fuel	CMU-34ZUx	SLA Onbeperkt	Warmtekrachtkoppelingen-installatie	Bestaand		1	12,5	12,5
ArcelorMittal Belgium	CMU-36kwQ	SLA Onbeperkt	Gasturbine gecombineerde cyclus	Additioneel – nieuwe eenheid		15	6	6
Centrica Business Solutions Belgium	CMU-349dt	SLA 1u	Kleinschalige opslag	Additioneel – nieuwe eenheid		8	2,64	2,64
Centrica Business Solutions Belgium	CMU-33llu	SLA 8u	Beheer van de vraagzijde	Bestaand		1	64,47	64,47
Electrabel	CMU-2xKYy	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Bestaand	1	1	263,74	263,74
Electrabel	CMU-2xL66	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Bestaand	1	1	143,29	143,29
Electrabel	CMU-2wq8W	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel – nieuwe eenheid	2	15	528,71	528,71
Electrabel	CMU-2wsfO	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel – nieuwe eenheid	2	15	276,64	276,64
Electrabel	CMU-2xLC6	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Bestaand	3	1	133,95	133,95
Electrabel	CMU-2xLEV	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Bestaand	3	1	133,95	133,95
Electrabel	CMU-2xLQV	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Bestaand	3	1	150,7	150,7
Electrabel	CMU-2xM11	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel - andere	4	1	139,5	139,5
Electrabel	CMU-2xM6M	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel - andere	4	1	139,5	139,5
Electrabel	CMU-2xM89	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel - andere	4	1	139,59	139,59
Electrabel	CMU-2wws0	Gasturbine met open cyclus	Gasturbine met open cyclus	Bestaand		1	38,7	38,7
Electrabel	CMU-2wUnW	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel – nieuwe eenheid	5	15	526,89	526,89
Electrabel	CMU-2wV30	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel – nieuwe eenheid	5	15	269,36	269,36
Electrabel	CMU-2xcO5	SLA Onbeperkt	Turbojets	Bestaand		1	64	64
Electrabel	CMU-2zTy0	Warmtekrachtkoppelingen-installatie	Warmtekrachtkoppelingen-installatie	Bestaand		1	37,06	37,06

# Auction 31 oktober 2021 (T-4) : Results

## 3.5 Individuele informatie over de geselecteerde Eenheden in de Capaciteitsmarkt

De onderstaande tabel geeft, zoals beoogd in § 926 van de Werkingsregels, informatie weer over de individuele geselecteerde Biedingen in de Veiling.

Geprekwalificeerde CRM-kandidaat	CMU-id	Reductiefactor	Technologie van leveringspunt	Status van de CMU	Link met andere Biedingen ("Gekoppelde biedingen")	Duur van het Capaciteitscontract (in jaar/jaren)	Maximum ingediende volume voor CMU in de Veiling (in MW)	Geselecteerd volume van de Bieding (in MW)
ExxonMobil Petroleum & Chemical	CMU-2z8Y5	Warmtekrachtkoppelingsinstallatie	Warmtekrachtkoppelingsinstallatie	Bestaand		1	106	21,2
ExxonMobil Petroleum & Chemical	CMU-2z8Y5	Warmtekrachtkoppelingsinstallatie	Warmtekrachtkoppelingsinstallatie	Bestaand		1	106	21,2
ExxonMobil Petroleum & Chemical	CMU-2z8Y5	Warmtekrachtkoppelingsinstallatie	Warmtekrachtkoppelingsinstallatie	Bestaand		1	106	21,2
ExxonMobil Petroleum & Chemical	CMU-2z8Y5	Warmtekrachtkoppelingsinstallatie	Warmtekrachtkoppelingsinstallatie	Bestaand		1	106	21,2
ExxonMobil Petroleum & Chemical	CMU-2z8Y5	Warmtekrachtkoppelingsinstallatie	Warmtekrachtkoppelingsinstallatie	Bestaand		1	106	21,2
Flexcity Belgium	CMU-2zPoD	SLA Onbeperkt	Geaggregeerde technologieën	Bestaand		1	4	4
Flexcity Belgium	CMU-34vtN	SLA 8u	Noodgenerator & Beheer van de vraagzijde	Bestaand		1	4,16	4,16
Flexcity Belgium	CMU-33owX	SLA Onbeperkt	Geaggregeerde technologieën	Bestaand		1	8	8
Flexcity Belgium	CMU-2wUZ1	SLA 8u	Noodgenerator	Additioneel - andere		1	4,16	4,16
Flexcity Belgium	CMU-2xJuf	SLA 8u	Geaggregeerde technologieën	Bestaand		1	5,46	5,46
Flexcity Belgium	CMU-32JMP	Warmtekrachtkoppelingsinstallatie	Warmtekrachtkoppelingsinstallatie	Additioneel - andere		1	37,2	37,2
Flexcity Belgium	CMU-32JJK	Warmtekrachtkoppelingsinstallatie	Warmtekrachtkoppelingsinstallatie	Additioneel - andere		1	37,2	37,2
Flexcity Belgium	CMU-2znKC	SLA Onbeperkt	Beheer van de vraagzijde	Bestaand		1	132,6	132,6
Flexcity Belgium	CMU-2xgpb	SLA Onbeperkt	Geaggregeerde technologieën	Bestaand		1	6,2	6,2
Flexcity Belgium	CMU-2z2PN	SLA Onbeperkt	Beheer van de vraagzijde	Bestaand		1	90	90
Flexcity Belgium	CMU-2znKH	SLA Onbeperkt	Warmtekrachtkoppelingsinstallatie & Beheer van de vraagzijde	Bestaand		1	22	22

# Auction 31 oktober 2021 (T-4) : Results

## 3.5 Individuele informatie over de geselecteerde Eenheden in de Capaciteitsmarkt

De onderstaande tabel geeft, zoals beoogd in § 926 van de Werkingsregels, informatie weer over de individuele geselecteerde Biedingen in de Veiling.

Geprekwalificeerde CRM-kandidaat	CMU-id	Reductiefactor	Technologie van leveringspunt	Status van de CMU	Link met andere Biedingen ("Gekoppelde biedingen")	Duur van het Capaciteitscontract (in jaar/jaren)	Maximum ingediende volume voor CMU in de Veiling (in MW)	Geselecteerd volume van de Bieding (in MW)
INEOS Oxide Utilities	CMU-34alb	Warmtekrachtkoppelings-installatie	Warmtekrachtkoppelings-installatie	Bestaand	6	1	42,87	42,87
INEOS Oxide Utilities	CMU-34aIW	Warmtekrachtkoppelings-installatie	Warmtekrachtkoppelings-installatie	Bestaand	6	1	42,87	42,87
INEOS Oxide Utilities	CMU-34XPB	Warmtekrachtkoppelings-installatie	Warmtekrachtkoppelings-installatie	Bestaand	6	1	46,5	46,5
Nala Renewables Belgium BV	CMU-36LFD	SLA 4u	Kleinschalige opslag	Additioneel – nieuwe eenheid		15	8	8
Ruien Energy Storage	CMU-2xDYX	Beperkte energie met dagelijks programma 4u	Grootschalige opslagtechnologieën	Additioneel – nieuwe eenheid		15	5,28	5,28
RWE Generation Nederland B.V.	CMU-307ED	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Additioneel - andere		1	382,2	382,2
Storm 67	CMU-36KCI	Beperkte energie met dagelijks programma 4u	Grootschalige opslagtechnologieën	Additioneel – nieuwe eenheid		15	25,2	25,2
Tessengerlo Group	CMU-308di	SLA Onbeperkt	Gasturbine gecombineerde cyclus	Additioneel - andere		1	12	12
Zandvliet Power	CMU-2zjll	Gasturbine gecombineerde cyclus	Gasturbine gecombineerde cyclus	Bestaand		1	354,61	354,61



# Auction 31 october 2021 (T-4) : Results

## Opt-out IN (3805,9 MW) repartition per technology

Opt out IN repartition per technology

