

Capacity Remuneration Mechanism

Detailed Info Session 28/02/2025



Disclaimer

This document constitutes a commercial presentation 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 commercial presentation sets out the wide range of principles governing the mechanism as a whole, focusing on the outlook for the operational rollout for the CRM 2025 and further, based on the current regulatory framework 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/bevoorradingserheid/capaciteitsremuneratiemechanis>

The Functioning Rules, as approved by the CREG on 13/09 2024

https://www.elia.be/-/media/project/elia/elia-site/users-group/ug/wg-adequacy/2024/20240913/20240913_crm_functioningrules_en_amended.pdf

The Capacity Contract, as approved by the CREG on 21/08/2024

https://www.elia.be/-/media/project/elia/elia-site/public-consultations/2024/20240402_crm-capacity-contract-for-public-consultation_version_clean_en.pdf

This commercial presentation 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.

All illustrative cases are fictive and are meant as relatable examples. Any similarities with real market parties are coincidental and unintended.



Disclaimer

This presentation represents the current design of the Belgian Capacity Remuneration Mechanism. At this time, the State Aid Decision of the EC (SA114003) is being transposed into the Belgian regulatory framework (Electricity Law, Royal Decrees governing the CRM). At the time of this presentation these changes have not entered into force, but are expected to do so in the coming months.

This presentation is built upon the proposal for the CRM FR submitted by Elia to the CREG on February 1st. In meantime the CREG has launched a public consultation on a set of changes. Where relevant Elia will highlight these during the presentation.

Topic part of
CREG PC

This presentation has been prepared targeting Belgian Market Actors and does not dive into the specificities for the Cross-Border participation to the Belgian CRM. A dedicated session is planned for foreign Market Actors to elaborate on the Cross-Border specificities.



The ‘simplified’ CRM lingo

TERM	EXPLANATION
CMU	Capacity Market Unit, A Capacity (« Individual CMU ») or several associated Capacities (« Aggregated CMU»).
Payback Obligation	The obligation to pay back an amount to Elia is the reference price exceeds the strike price (i.e. the reliability option).
Availability Monitoring	The process under which Elia confirms the contracted capacity is delivering its obligation.
NRP	The maximal nominal power that a capacity can provide to the system at any given moment, as declared by the CRM Candidate or as determined by ELIA or by the DSO the Prequalification Process.
Remaining Maximum Capacity	The part of the NRP of a CMU that remains after taking into account the declaration of Unavailable Capacity from the Capacity Provider
Daily Schedule CMU	A CMU that is also a Scheduling Agent. Its scheduling data is used for the Availability Monitoring process. >< Non-daily Schedule CMU.
Energy Constrained CMU	A CMU that can only delivery energy (or reduce its consumption) for a limited period of time per day, as per its prequalification. >< Non-energy Constrained CMU.
Secondary Market	The possibility for Capacity Providers to trade CRM Obligations.



Today's Detailed Session

Purpose of Today's session

Right to remuneration

Availability Obligation

Availability monitoring

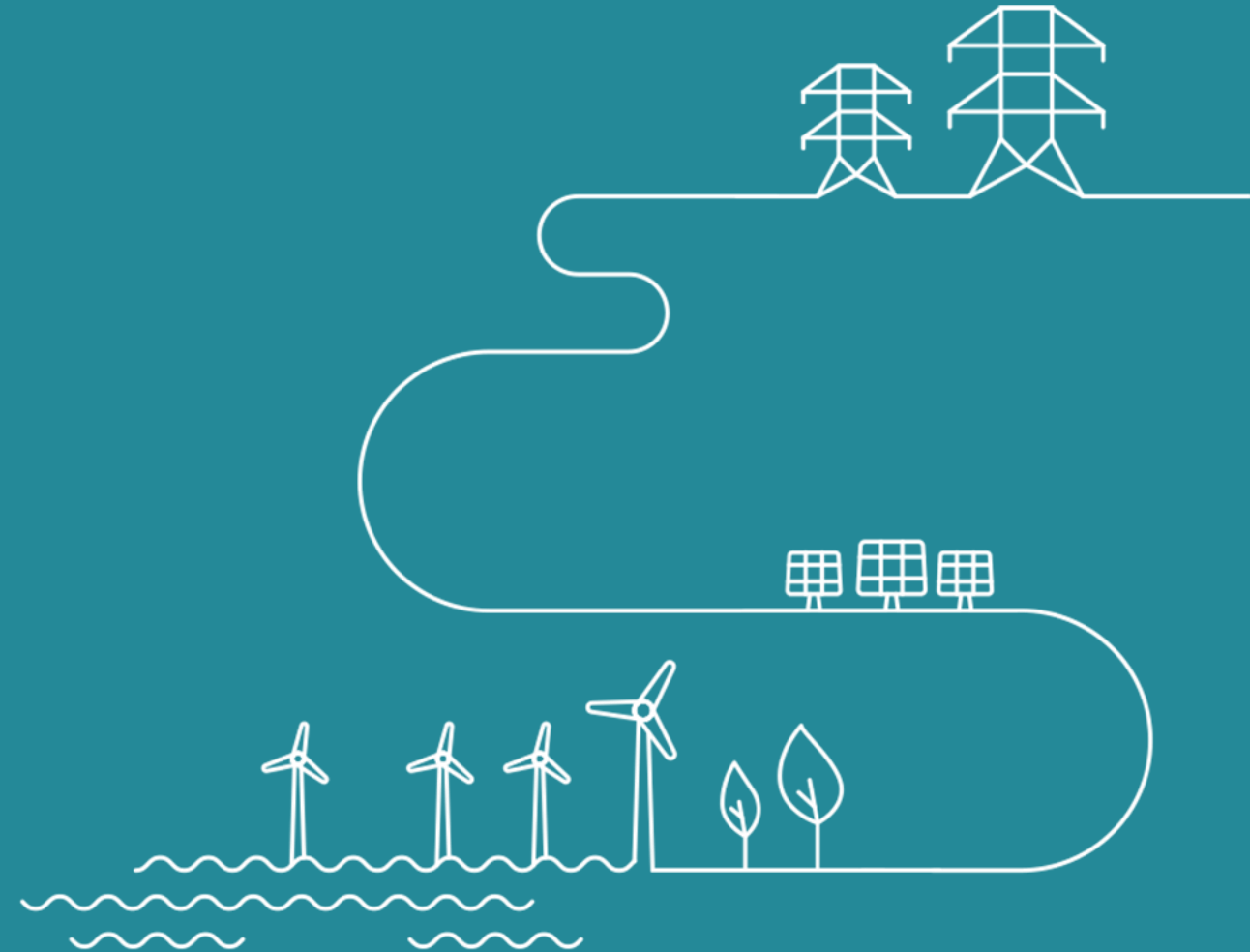
Availability Testing

Unavailability Penalties

Payback Obligation

Secondary Market

Final notes



Purpose of Today's session

Right to remuneration

Availability Obligation

Availability monitoring

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Unavailability Penalties

Payback Obligation

Secondary Market

Final notes



The purpose of Today's session is to provide energy market players with the knowledge required to prepare their participation to the CRM

Today's session is

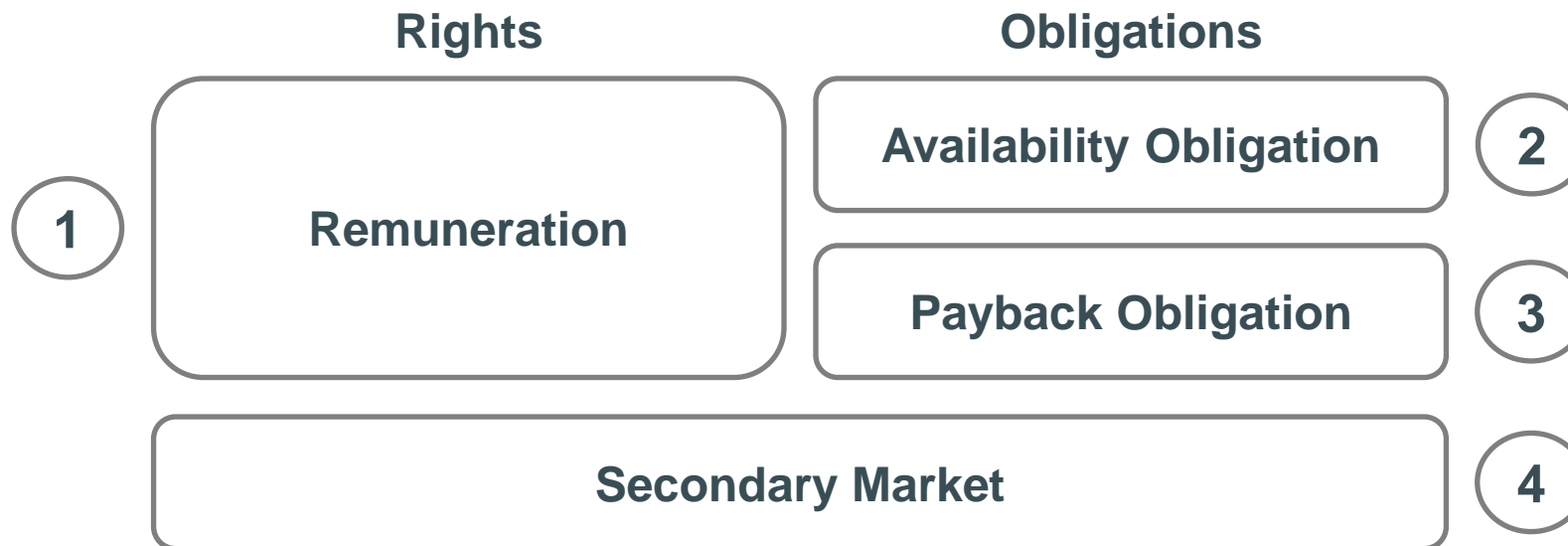
- **In-depth**, the session is focused on more complex subject matter and will go into all details and minutiae needed to prepare your participation.
- **Non-exhaustive**, not all intricacies of the CRM will be covered, as the session will only focus on rights, obligations and risk management for CRM participants
- **Applied**, the session will not only cover theory, but will provide example cases.



In-depth: This session aims at giving a complete understanding of the rights and obligations

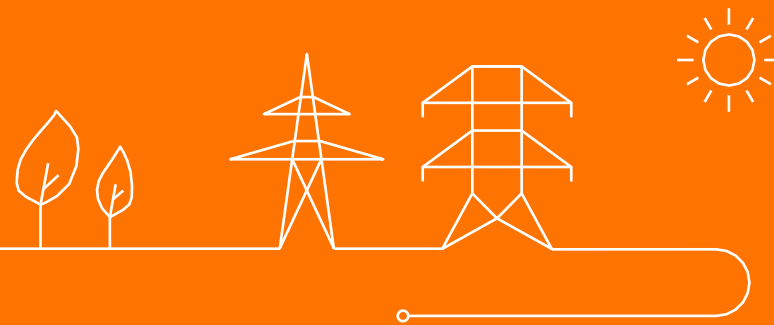
This session is structured as follows:

1. Right to remuneration – glance on the settlement process
2. Availability Obligation – how does Elia determine your availability?
3. Payback Obligation – when and to who does the payback obligation apply?
4. Secondary Market – what volume can be traded and how?



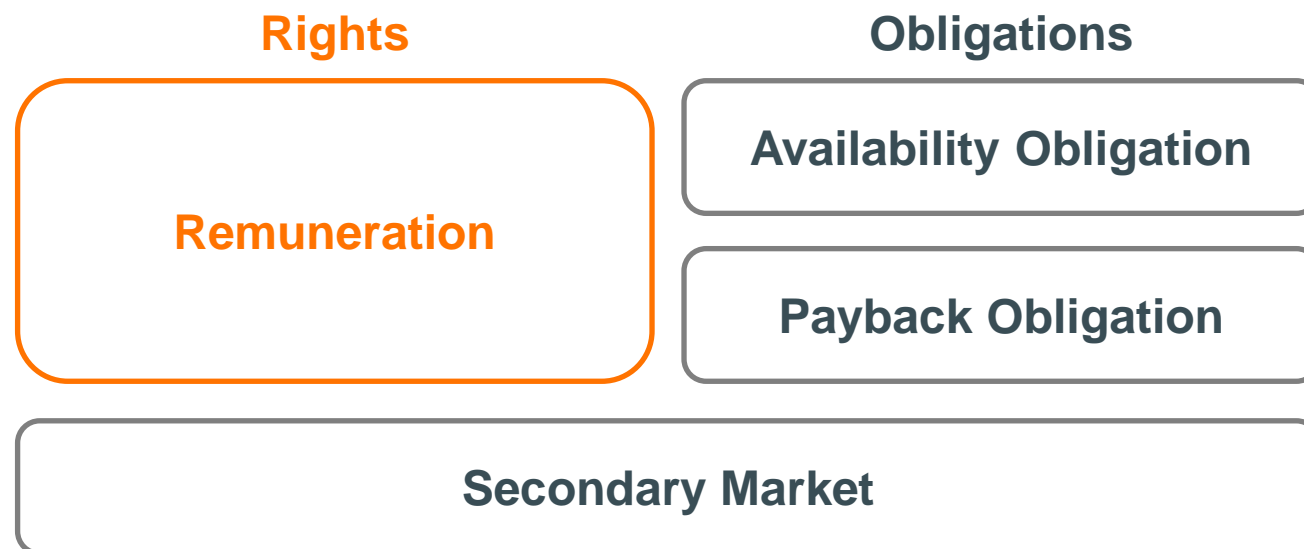
Rights

Right to remuneration



Rights – Right to remuneration

- Signing a CRM contract gives the Capacity Provider the **right to a remuneration**



The remuneration is determined in the Auction Process

The Auction applies a Pay-As-Bid principle: selected CMUs are rewarded their own bid price

- The Bid Price determines the right to remuneration

The total remuneration is then determined as:

$$\text{Remuneration [y]} = \text{Bid Price [Eur/MW/y]} * \text{Contracted Capacity [MW]}$$

(!) The remuneration is **not indexed** between the Auction and the Delivery Period

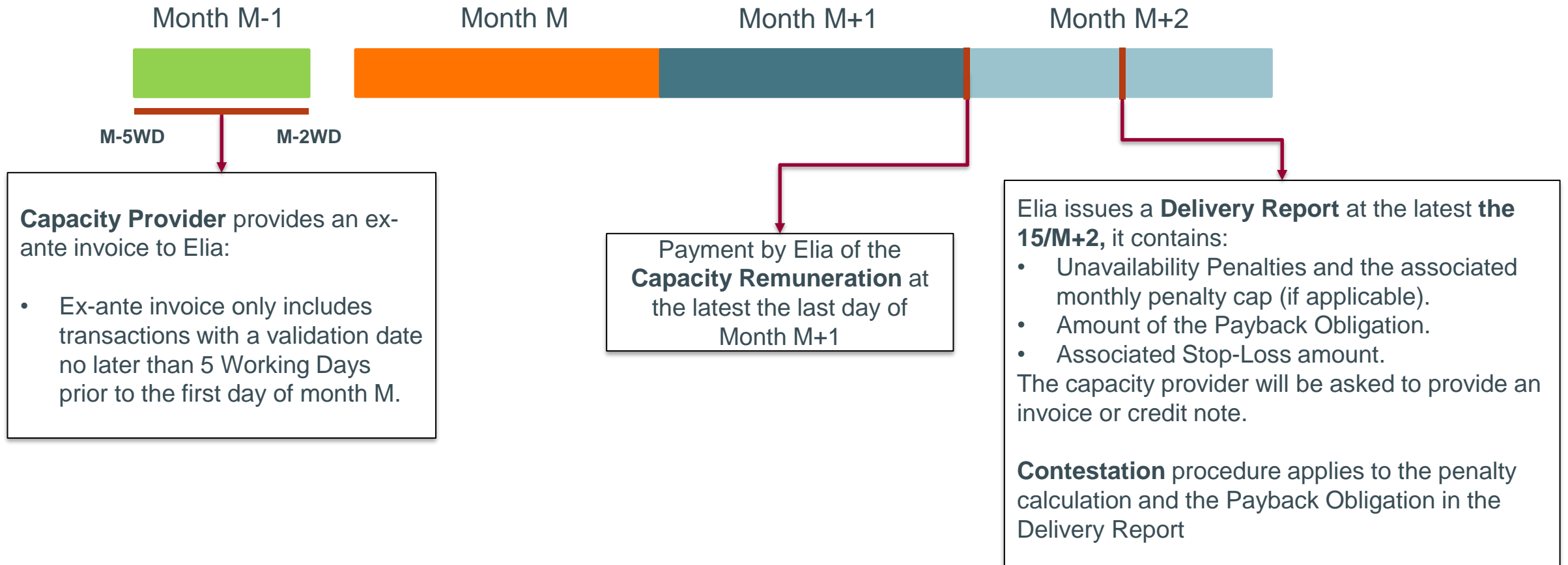


Blocks for the settlement process during the delivery period

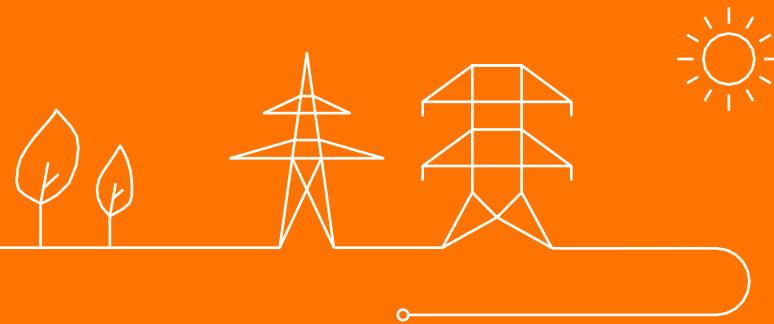
- **Settlement procedure during the delivery period** covers 3 main parameters with each a separate process flow:
 1. **Monthly Remuneration** (in function of Capacity Remuneration as set out in the Capacity Contract) :
 - ✓ At transaction level
 2. **Availability Monitoring**
 - ✓ Settlement of Unavailability Penalties (covering availability monitoring & availability tests), subject to penalty limit (in line with Functioning Rules).
 - ✓ At CMU level
 3. **Payback Obligation**
 - ✓ Settlement of the Payback Obligation, subject to Stop-Loss limit (in line with Functioning Rules).
 - ✓ At Transaction level



Overview of main blocks for the settlement process during the delivery period

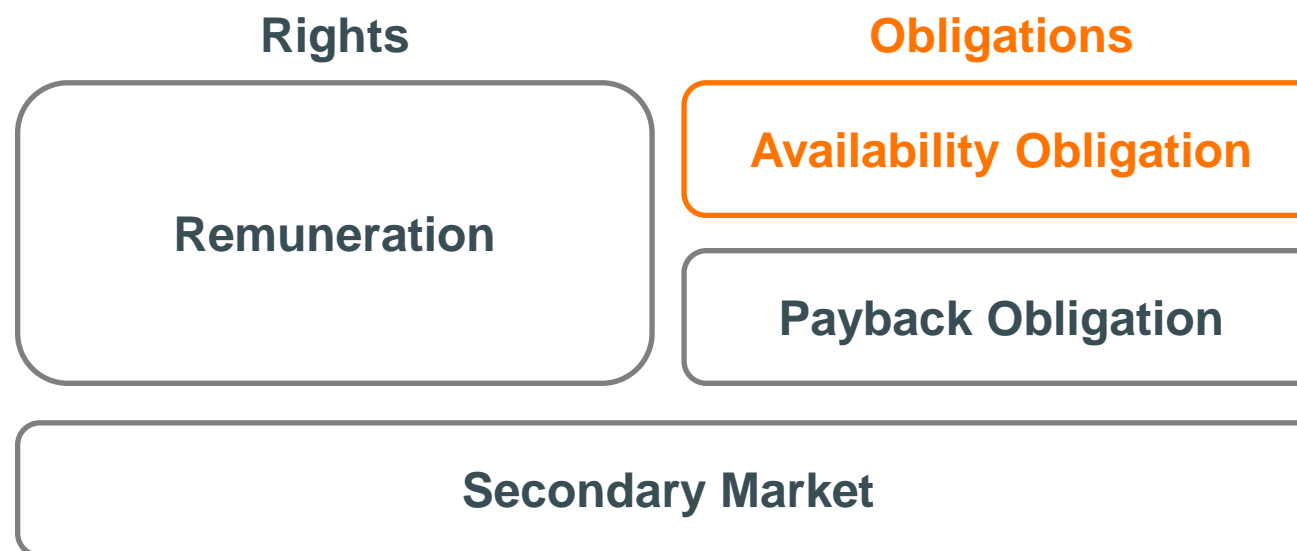


Obligations

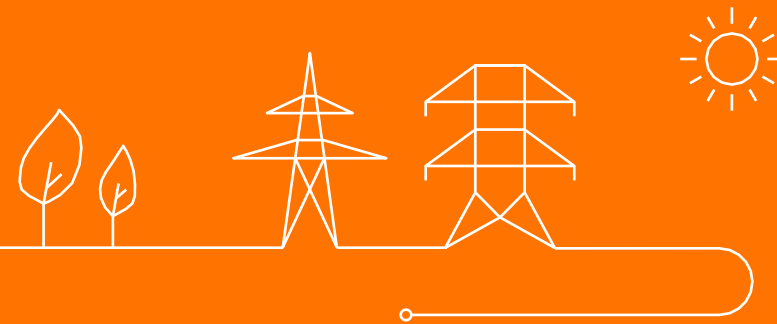


Obligations – Availability Obligation

- Signing a CRM contract also comes with two obligations:
 1. The Availability Obligation
 2. The Payback Obligation



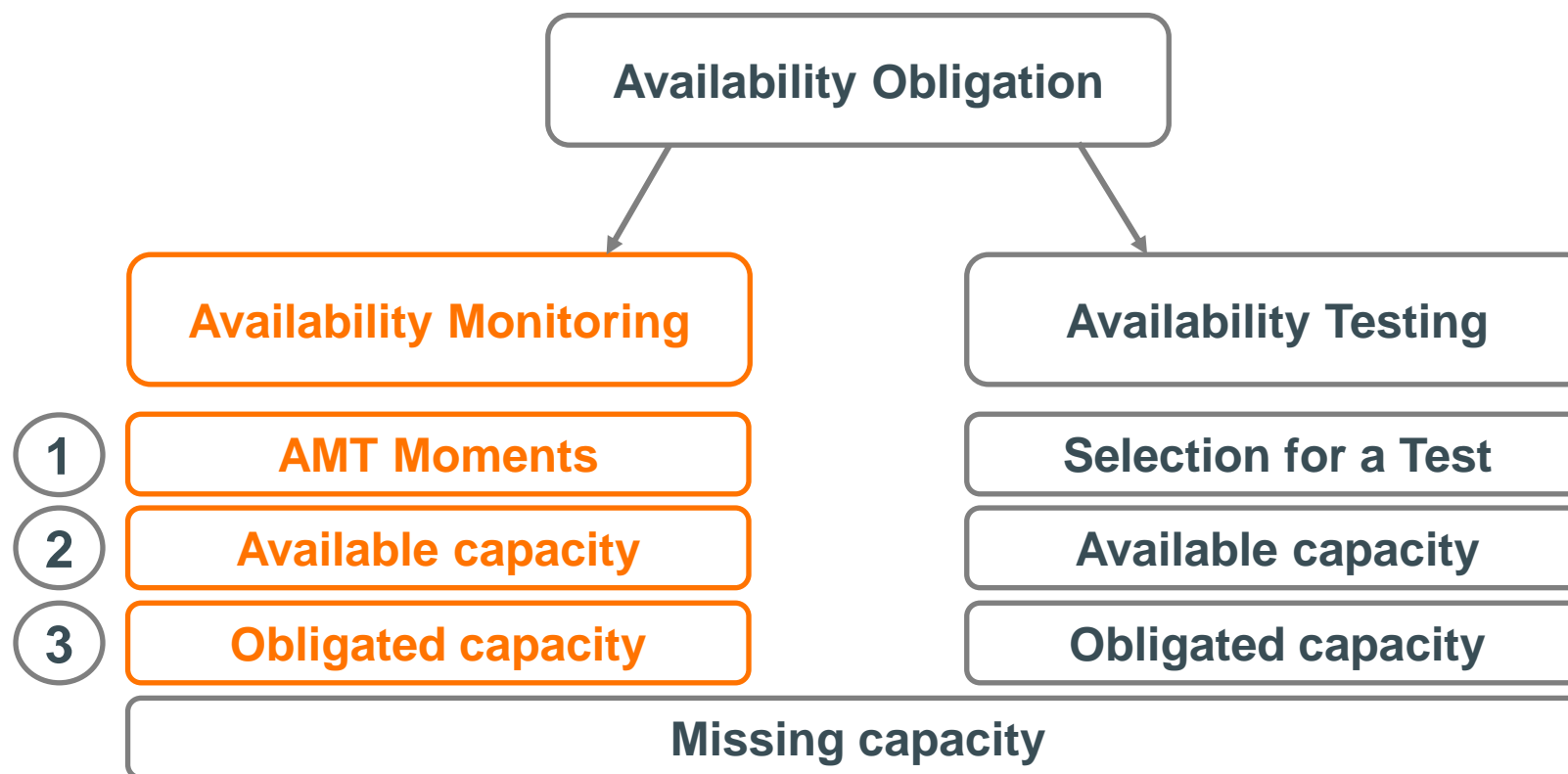
Availability Obligation



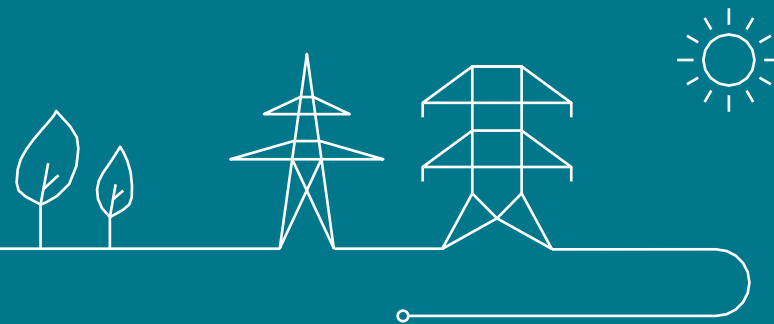
Availability Obligation – structure

The availability obligation consists of two main elements

1. Availability Monitoring – To monitor whether the CMU is present in the market
2. Availability testing – To ensure that CMUs that were not observed can deliver too



1 AMT Moments



The price on the Belgian day-ahead market serves as the Availability Monitoring Trigger

To identify potential adequacy relevant situations, the CRM relies on the Belgian day-ahead market:

When the price on the day-ahead market exceeds the AMT Price, this leads to an Availability Monitoring Trigger

The Availability Monitoring Trigger Price (AMT Price) is determined ex-ante

An MTU during which the day-ahead price exceeds the AMT-Price is called an “**AMT MTU**”

- A set of consecutive AMT MTUs is called an “**AMT Moment**”
- Elia communicates on the occurrence of AMT Moments one day in advance on its website

Elia calculates the AMT-price for the Delivery Period by May 15th of the year where the Delivery Period starts.

- Elia publishes the resulting AMT-price on its website



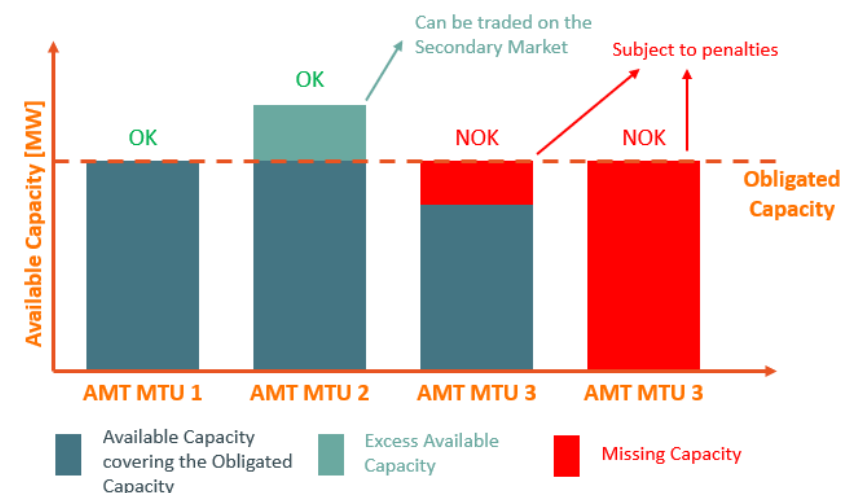
During AMT Moments Elia can monitor availability

It is during AMT Moments that Elia **can** (but does not have to!) monitor all Capacity Providers

- Elia can monitor up to 30 AMT Moments per year
- On average, Elia expects to monitor 15 AMT Moments per year

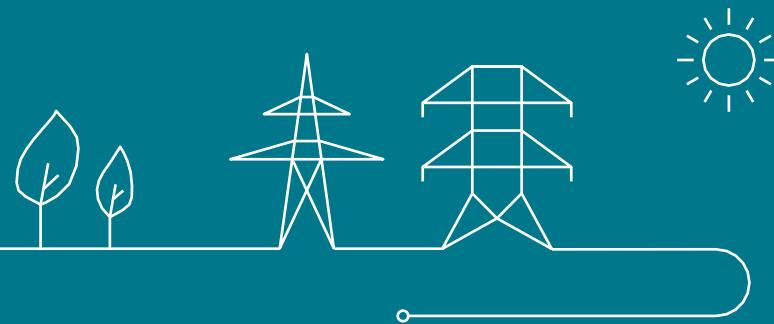
Whenever Elia performs Availability monitoring:

- **all** CMUs are monitored
- Available, Obligated and Missing Capacity are calculated for each individual AMT MTU
- A Missing Capacity Penalty is applied if needed



Elia will report back to the Capacity Provider on the performance of their CMUs by means of the **Monthly Delivery Activity Report (MDAR)** in M+2

2 Available Capacity



During Availability Monitoring Available Capacity is calculated

The Belgian CRM remunerates **availability** of the CMU.

- The CMUs of Capacity Providers are expected to be Available during AMT Moments

Available Capacity is capacity that participates in the energy market & that could activate in case its activation price is exceeded

In the CRM, a further distinction is made between:

- **Proven availability:** Available Capacity that was **observed** to be present on the energy market(s)
- **Unproven availability:** Available Capacity that was **not observed** to be present on the energy market(s)

Lastly, Capacity providers are **obliged to notify Elia of any unavailability** of their CMU

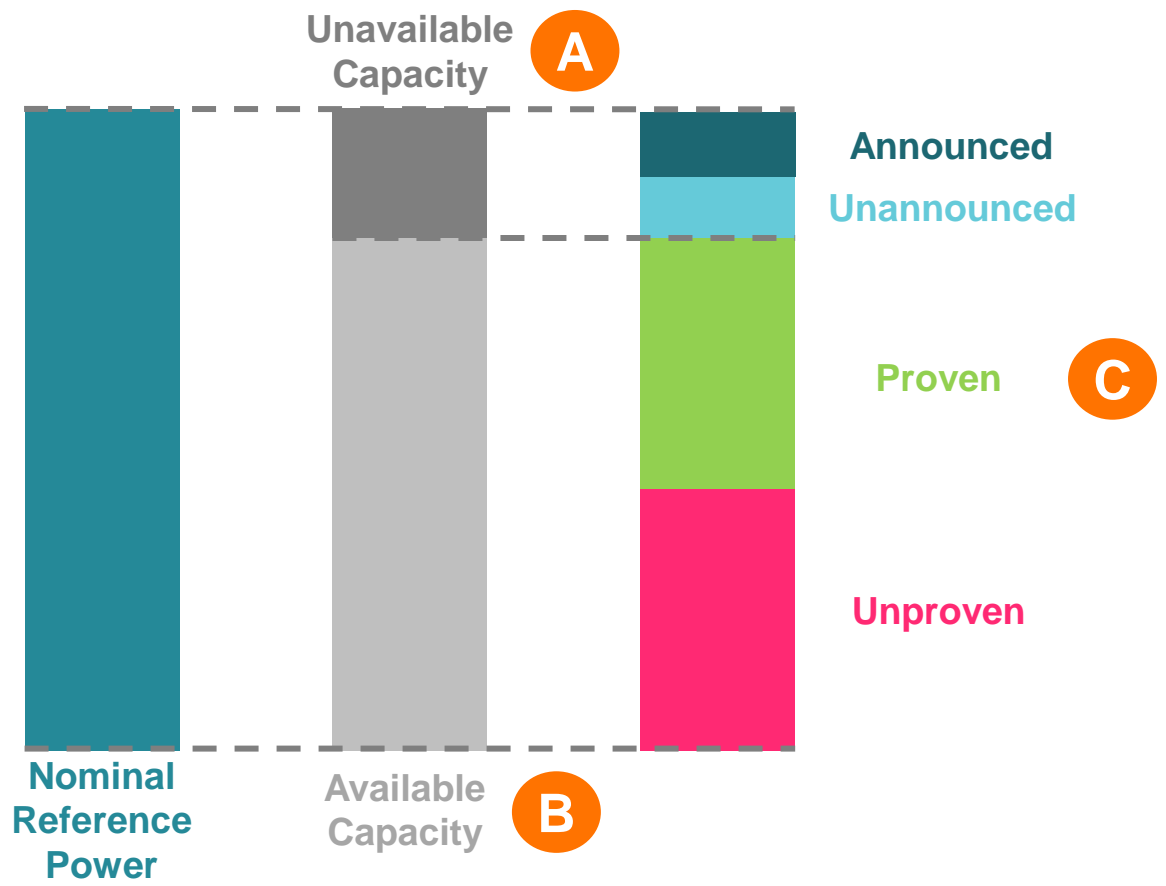
Again, a further distinction is made between:

- **Announced** Unavailable Capacity
- **Unannounced** Unavailable Capacity



Available Capacity – overview

The figure below gives an overview of the most important concepts regarding Availability:



The notification and determination of:

- A. Unavailable Capacity
- B. Available Capacity
- C. Proven Availability

→ Depends on whether the CMU is Daily Schedule or not

A Notifying Elia of Unavailable Capacity

Notifying Unavailable Capacity – concepts

Whenever Capacity Providers are aware of any limitation of their capacity with respect to their NRP, they are obliged to notify Elia

- Capacity Providers notify the “**Remaining Maximum Capacity**” (RMC) of their CMU

Elia calculates the Unavailable Capacity as follows:

$$P_{Unavailable}(CMU, t) = NRP(CMU, t) - P_{Max,Remaining}(CMU, t)$$

In its notification the capacity provider indicates whether the Unavailable Capacity is to be considered as either Announced or Unannounced:

- “Announced” only possible until 11:00 D-1 before the start of the notification period
- Limit of 75 calendar days, of which only 25 during winter, applies to Announced Unavailable Capacity
- Announced/Unannounced Unavailable Capacity **impacts a (potential) unavailability penalty** (see later)

Notifying Unavailable Capacity – in practice

CMU with Daily Schedule

No manual notification

Automatic notification based on Availability Plan

- Information mapped to RMC notification
- Capacity Provider indicates in the CRM IT Interface whether automatically created notification is Announced/Unannounced

CMU without Daily Schedule

No Automatic notification

Manual notification in the CRM IT Interface

- Notification contains:
 - Remaining Maximum Capacity
 - Start / end of limitation
 - Announced / Unannounced
 - Reason for unavailability

(!) CMUs without Daily Schedule that have signed an OPA-contract are allowed to use the process for CMUs with Daily Schedule if Elia is notified in time

Scheduled Maintenance

On top of notifying Elia of any Unavailable Capacity using an RMC notification, Capacity Providers have the option to also notify Elia of any “**Scheduled Maintenance**”

- Scheduled Maintenance are unavailability that are known significantly ahead of time
- No / very limited penalties applied during moments of scheduled maintenance
- Limit: 20 calendar days, of which 0 during the winter period

CMU with Daily Schedule

- Days with scheduled maintenance based on the Availability Plan
- Manually select eligible days in CRM IT Interface
- Deadline: notify days in calendar year Y before 31/12 Y-1

CMU without Daily Schedule

- Manual notification of days with Scheduled maintenance
- Manually select eligible days in CRM IT Interface
- Deadline: 90 calendar days before start of scheduled maintenance

B **C** Available Capacity – CMUs with Daily schedule

Available Capacity – CMUs with Daily Schedule

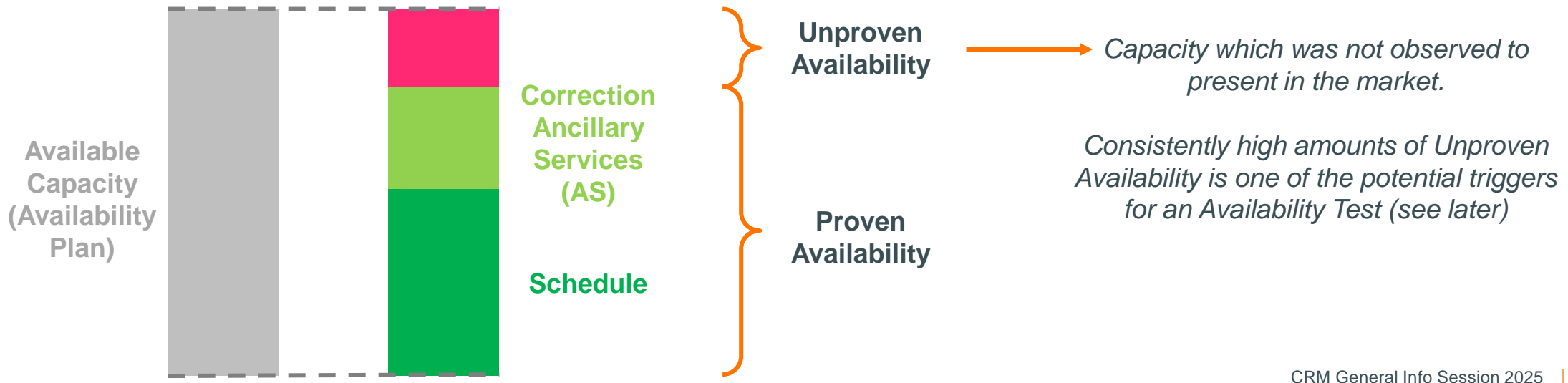
For CMUs with a Daily Schedule the determination of the Available Capacity is straightforward:

Available Capacity is equal to Maximum Available Capacity contained in the Availability Plan of the CMU

In turn, the share of the Available Capacity which is considered as Proven Availability is calculated as:

$$P_{Available,proven}(CMU, t) = MIN(P_{Available}(CMU, t); P_{Schedule}(CMU, t) + V_{correction}(CMU, t))$$

Topic part of CREG PC

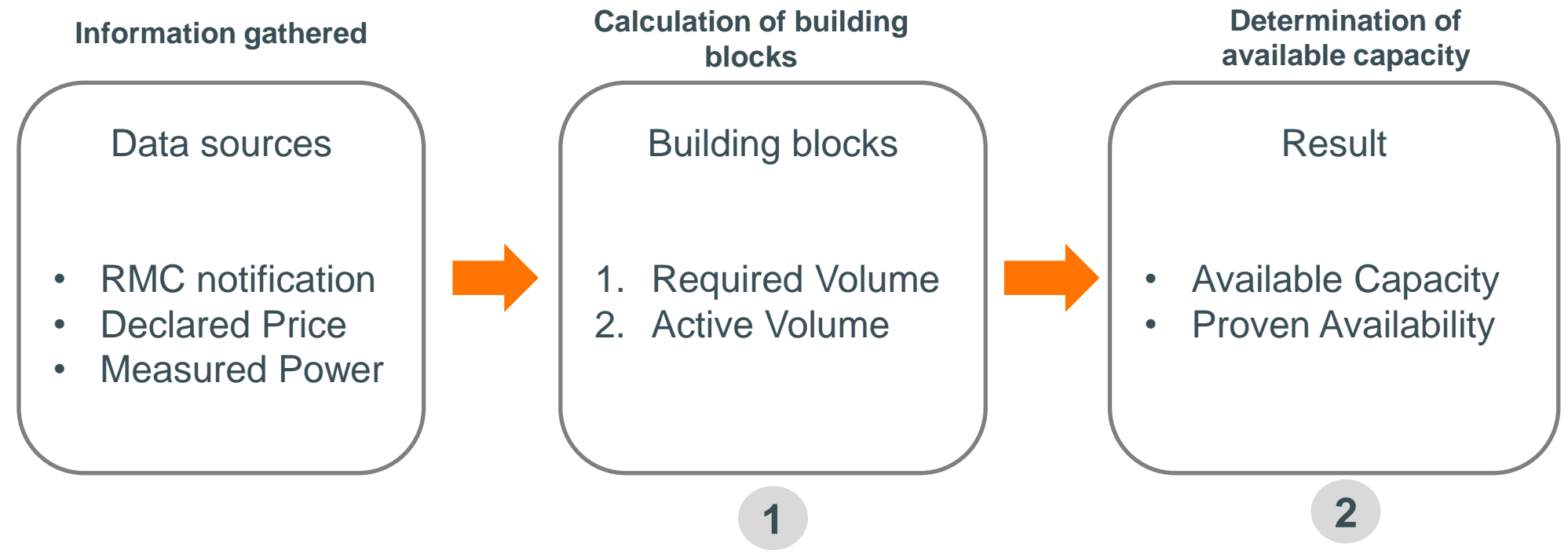


B **C** Available Capacity – CMUs without Daily schedule

Available Capacity – CMUs without Daily Schedule

For CMUs without a Daily Schedule, **no existing source is readily available** to retrieve information regarding their availability.

Instead, Elia relies on a combination of different sources to determine the Available Capacity:



1 Declared prices & Required Volume

CMUs without Daily Schedule can submit Declared Prices and Associated Volumes to Elia.

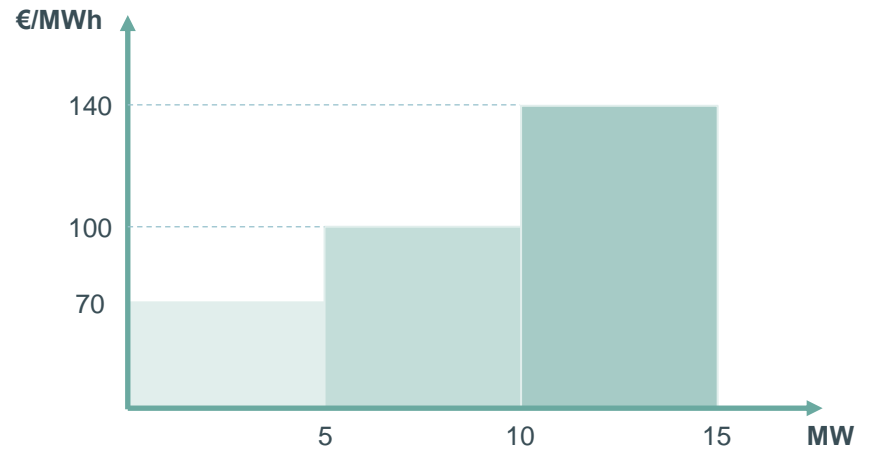
- The Declared Price is the activation price of the unit in a specific market
- The volume associated to the Declared Price is the volume which should be activated in case the declared price is exceeded

Capacity Providers can declare a Day-ahead, Intra-day and Imbalance activation price

- The Declared Prices can vary throughout time, to reflect fluctuating activation costs
- Capacity providers are expected to react according to their declared prices, consistent deviations can trigger a test

CMUs **must** at least declare a single declared price and associated volume for the Day-ahead market before the start of the Delivery Period.

Declared Price	Associated Volume
70	5
100	10
140	15



1 Declared prices & Required Volume

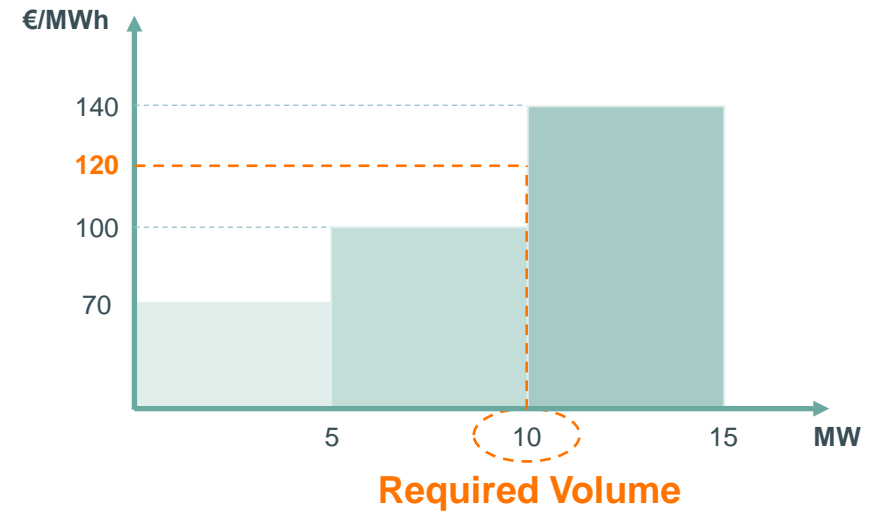
Based on the declared prices, Elia determines the **Required volume**.

The Required Volume is the total volume expected to be delivered in the market when (one of) the Declared Prices is exceeded in the market.

- This is evaluated for all markets for which Declared Prices have been submitted
- The maximum volume retained in any of these markets is the Required Volume

For example, consider the following declared prices for the day-ahead market:

partial Declared Price	Associated Volume
70	5
100	10
140	15



Example – Required Volume in case of multiple price references

DSM

- **NRP: 5MW**
- The highest Associated Volumes for which the Declared Price was surpassed on the different markets:

1 For the same MTU, the maximum is taken between the three references

	BAL	INT	DA
...			
14:00	2	3	3
14:15	4	3	5
14:30	1	2	0
14:45	2	1	3
...			

	BAL	INT	DA
...			
14:00	2	3	3
14:15	4	3	5
14:30	1	2	0
14:45	2	1	3
...			

2 Each maximum is the Required Volume for that MTU

	BAL	INT	DA	Required Volume
...				
14:00	2	3	3	3
14:15	4	3	5	5
14:30	1	2	0	2
14:45	2	1	3	3
...				



1 Measured Power & Active Volume

In parallel to the volume that is expected to be active in the market (i.e., the **Required Volume**), Elia also calculates the volume of the CMU that was observed as active in the market: the **Active Volume**

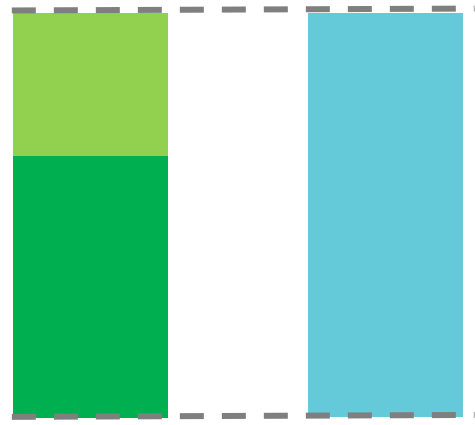
The active Volume consists of two elements: the **initial Active Volume**, and the **Correction Volume**

A correction for the participation to Ancillary Services is applied (see later)

Correction AS

Initial Active Volume

Active Volume



For **Demand Side Management (DSM)**:

- $V_{Act,initial} = P_{Baseline} - P_{Measured}$

For all **other technologies**:

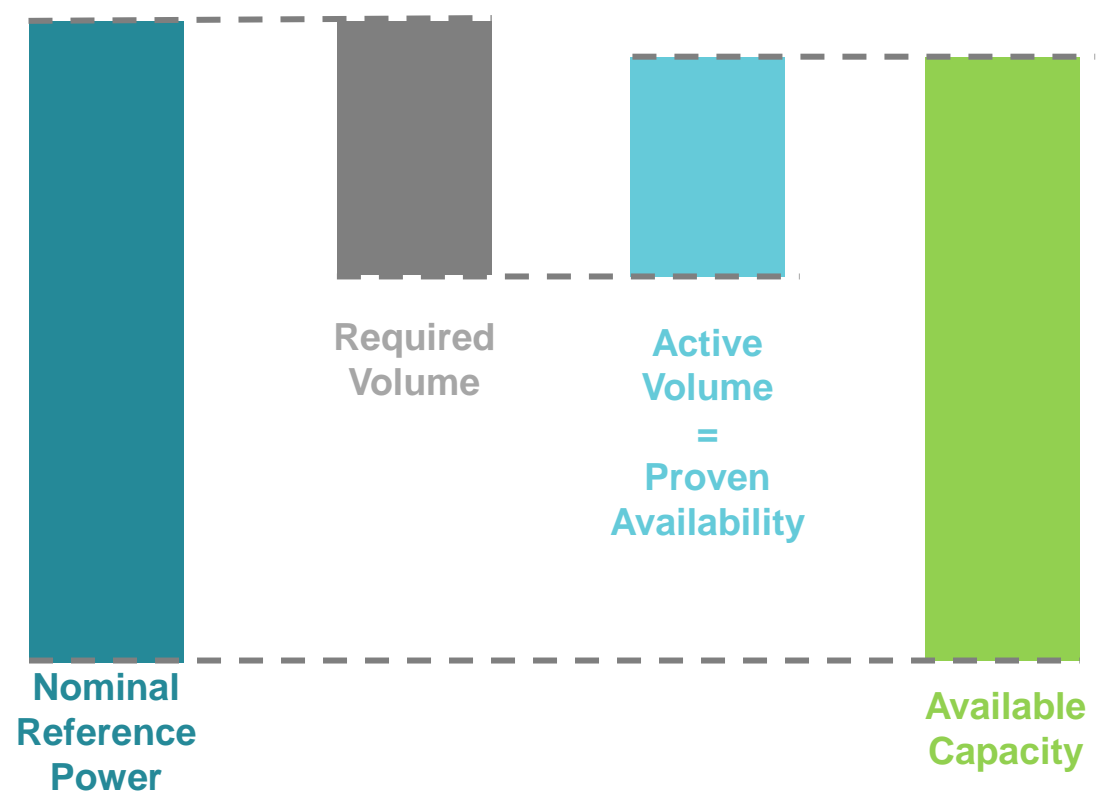
$$V_{Act,initial} = P_{Measured}$$

Available Capacity – CMUs without Daily Schedule

Based on the **Required Volume** and the **Active Volume**, the Available volume of CMUs without Daily Schedule is calculated as follows:

$$P_{Available}(CMU, t) = MIN(NRP(CMU, t) - V_{req}(CMU, t) + V_{act}(CMU, t); P_{max,remaining}(CMU, t))$$

Topic part of
CREG PC



The **Proven Availability** is calculated as the **Active Volume** of the CMU:

$$P_{Available,proven}(CMU, t) = MIN(P_{max,remaining}(CMU, t); V_{Act}(CMU, t))$$

Both the Available Capacity and the Proven Availability are **capped by the Remaining Maximum Capacity**, as these values can naturally not exceed this.

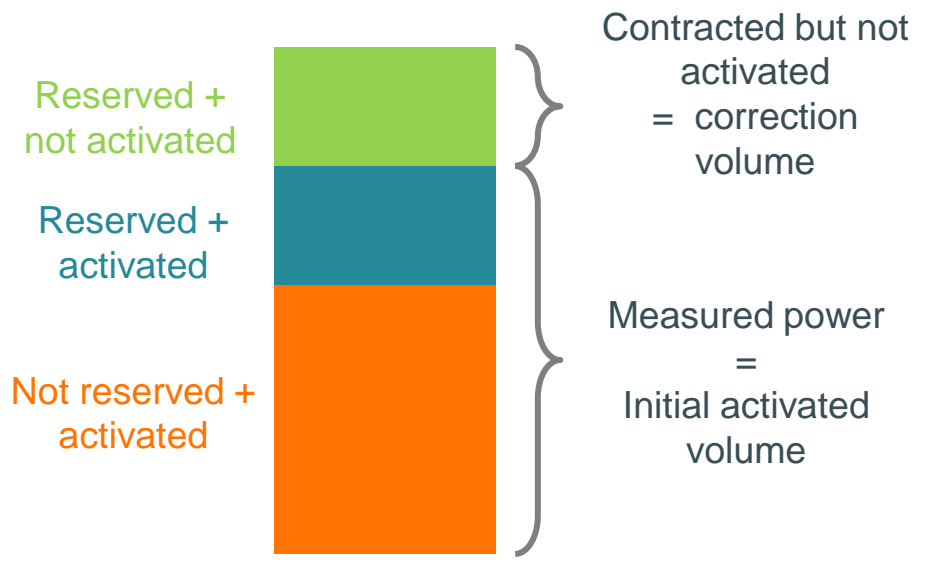
Note – AS corrections

Corrections for the participation to Ancillary Services

Elia foresees a correction for the participation to both **Balancing** and **Redispatching** products:

aFRR/mFRR

$$V_{Correction} = \text{Max}\{0; V_{Reservation,UP} - V_{activation,UP}\} + V_{Activation,DOWN}$$



Redispatching

$$V_{Correction} = V_{RD,DOWN}$$

Only Redispatching activations in the downward direction are accounted for, as these lower the measured power of the CMU

FCR

$$V_{Correction} = V_{FCR}$$

Given that FCR is a symmetrical product, the CRM assumes a worst-case full downward activation, and therefore corrects for the entire contracted FCR volume



Note – Baseline methodology

Baseline methodology

Demand Side Management (DSM) Delivery Points, require the calculation of a baseline to determine the active volume.

There are currently two baseline methodologies foreseen in the CRM:

1. High X of Y Baseline

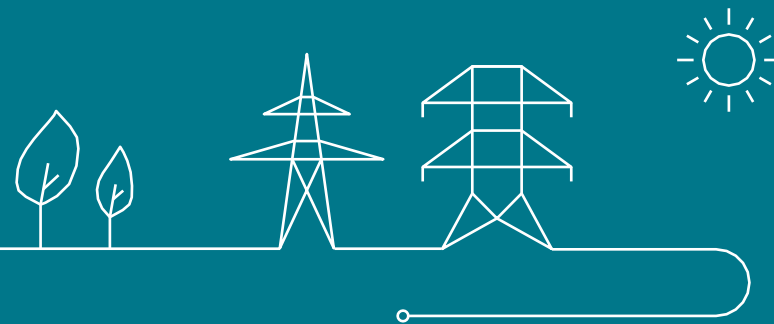
- Baseline method based on historical consumption
- Baseline value at MTU t is equal to average consumption on MTU t over previous similar days

2. Baseline declaration

- The Capacity Provider himself submits a baseline value for his Delivery Points
- If the baseline is accurate with respect to actual consumption (outside of activations) it is applied



3 Obligated Capacity



During AMT Moments Obligated Capacity is calculated

As mentioned before: the CRM remunerates Availability.

The amount of Available Capacity that needs to be delivered is called the **Obligated Capacity**:

Obligated Capacity is the minimum amount of Available Capacity a CMU must deliver to ensure its contracted obligations

In case the CMU is not able to provide available capacity equal to or greater than its obligation this can lead to Missing Capacity.

The calculation of **Obligated Capacity depends on the type of CMU**:

- A. Non-energy constrained CMUs – based on derated capacity
- B. Energy Constrained CMUs – based on non-derated capacity



A **Obligated Capacity for Non-energy
Constrained CMUs**

Obligated Capacity for Non-energy Constrained CMUs

The calculation of the Obligated Capacity for Non-energy Constrained CMUs is straightforward:

Obligated Capacity is equal to the Total Contracted Capacity of the CMU:

$$P_{Obligated}(CMU, t) = Total\ Contracted\ Capacity(CMU, t)$$

(!) On MTUs where the Capacity Provider declared Scheduled Maintenance, the Obligated Capacity is further reduced with the amount of Unavailable Capacity

- Enables to the CMU to avoid penalties at times when the unit is under maintenance.
- This leads to the following complete formula:

$$P_{Obligated}(CMU, t) = Total\ Contracted\ Capacity(CMU, t) - P_{Announced, Unavailable, Maintenance}(CMU, t) \cdot Derating\ Factor(CMU, t)$$



B Obligated Capacity for Energy
Constrained CMUs

Obligated Capacity for Energy Constrained CMUs – **ex-ante transactions**

For Energy Constrained CMUs, the Obligated Capacity **following ex-ante transactions** is determined as follows:

Obligated Capacity is equal to the non-derated **ex-ante** Total Contracted Capacity of the CMU:

$$P_{Obligated}(CMU, t) = \frac{\text{Total Contracted Capacity}_{ex-ante}(CMU, t)}{\text{Derating Factor}(CMU, t)}$$

Several attention points are important for the determination of the obligated capacity:

- The Obligated Capacity is **only imposed during a limited set of MTUs**.

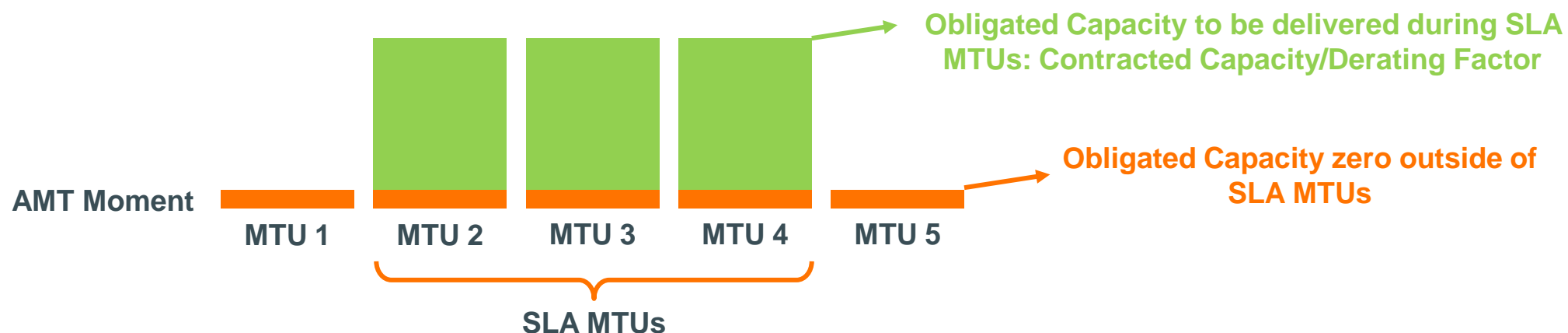


The Obligated Capacity related to **ex-ante** transactions is only imposed on a limited set of MTUs

Energy Constrained CMUs are only required to deliver their Obligated Capacity on a limited set of MTUs

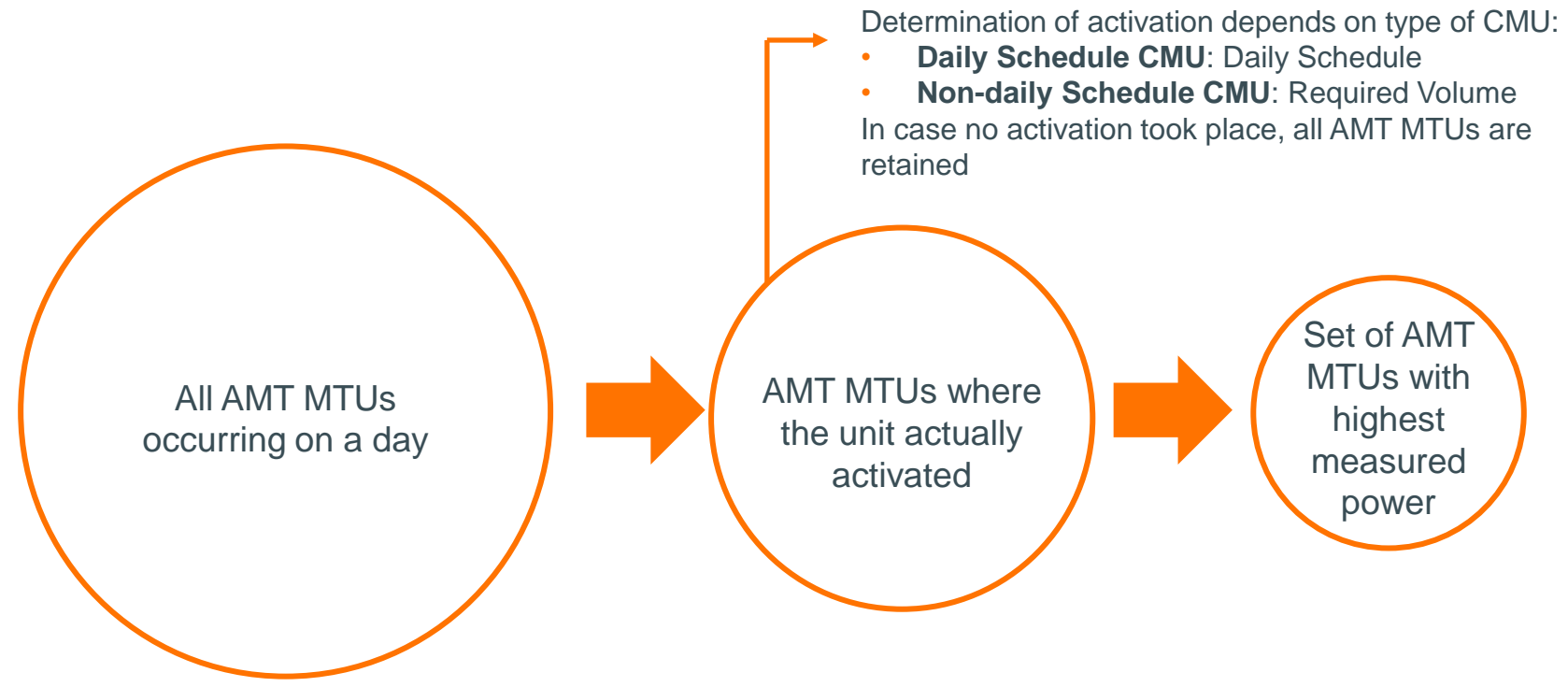
- The amount of MTUs **depends on the SLA-level** chosen for the CMU
- The MTUs during which the Obligated Capacity is required are called **SLA-MTUs**
- Outside of SLA MTUs the Obligated Capacity is equal to zero

Example: Obligated Capacity for an Energy Constrained CMU with an SLA-level of 3



(!) Note – Energy Constrained CMUs are only expected to activate once per day, even if there would be more than one AMT moment occurring on the same day

Note - Selection of SLA MTUs



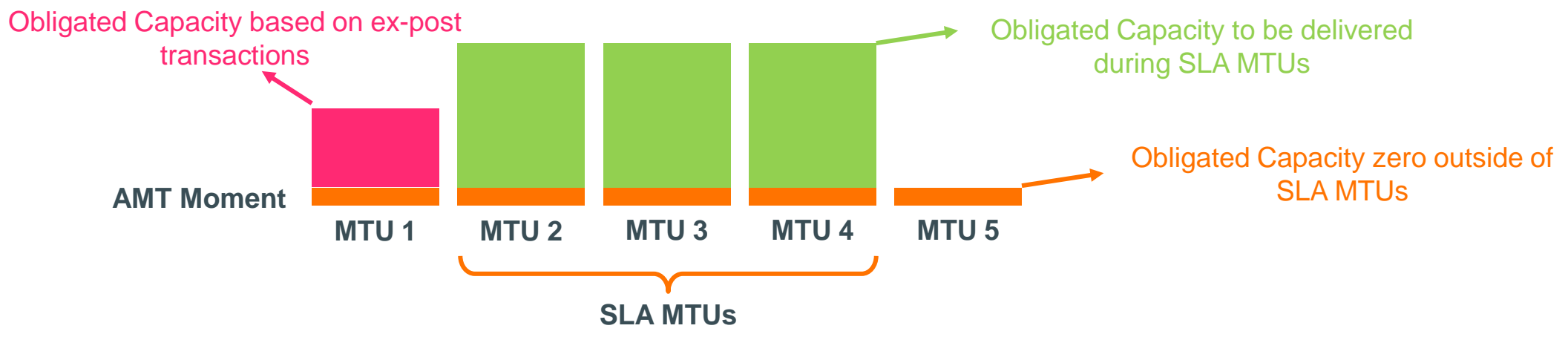
Obligated Capacity for Energy Constrained CMUs – **ex-post transactions**

For obligations acquired on the Secondary Market in an ex-post transaction, the obligated capacity related to this contract is simply the contracted capacity (**not divided** by the derating factor):

Obligated Capacity is equal to the **ex-post** Total Contracted Capacity of the CMU:

$$P_{Obligated}(CMU, t) = Total\ Contracted\ Capacity_{ex-post}(CMU, t)$$

Example: Obligated Capacity for an Energy Constrained CMU with an SLA-level of 3



Obligated Capacity for Energy Constrained CMUs – combined formula

Combining the formulas for both ex-ante and ex-post transactions yields the following resulting Obligated Capacity formula for Energy Constrained CMUs:

$$\begin{aligned} P_{Obligated}(CMU, t) &= \frac{\text{Total Contracted Capacity}_{ex-ante}(CMU, t)}{\text{Derating Factor}(CMU, t)} + \text{Total Contracted Capacity}_{ex-post}(CMU, t) \\ &\quad - P_{Announced, Unavailable, Maintenance}(CMU, t) \cdot \text{Derating Factor}(CMU, t) \end{aligned}$$

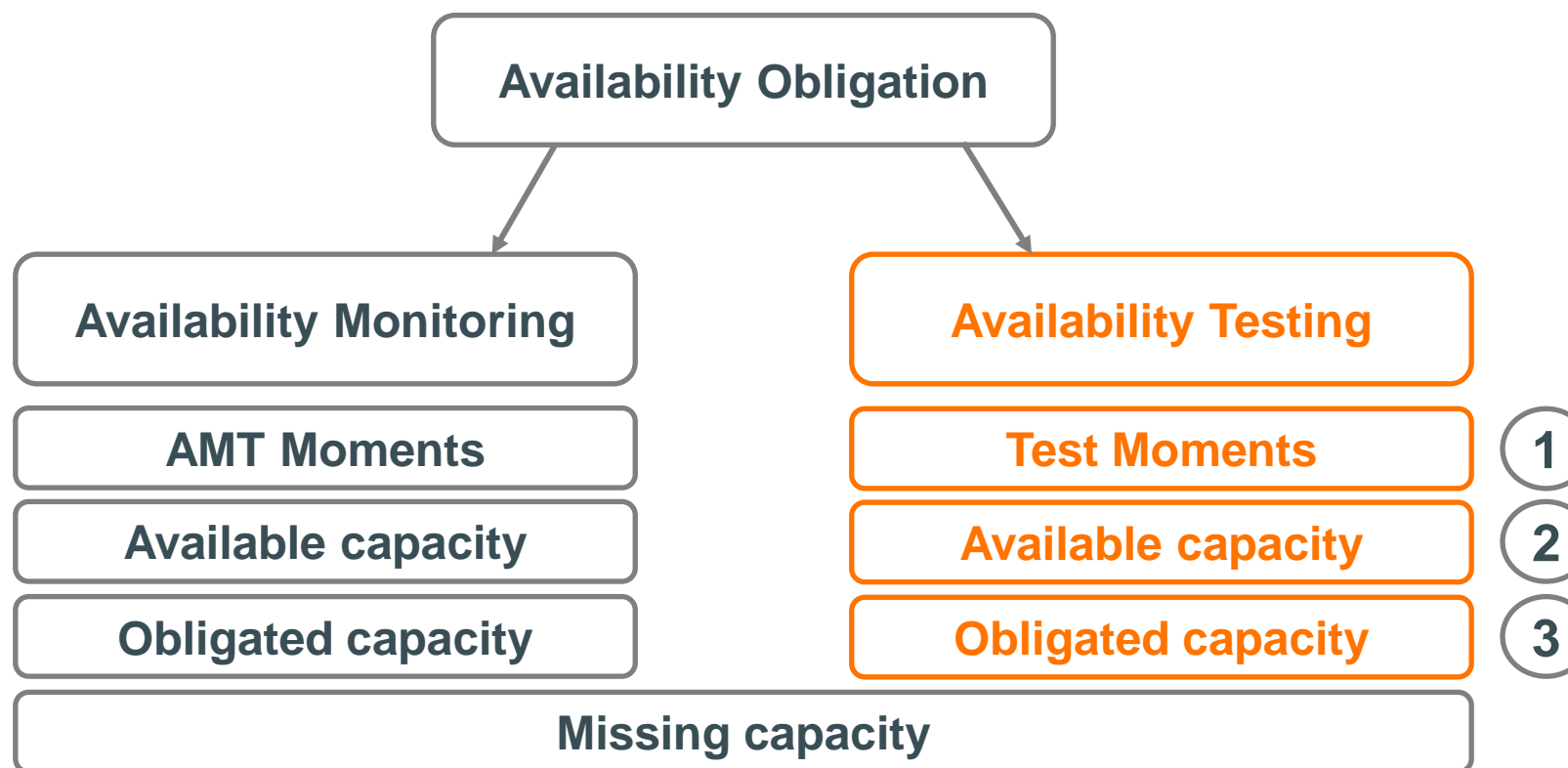
(!) Simillar to non-energy constrained CMUs, on MTUs where the Capacity Provider declared Scheduled Maintenance, the Obligated Capacity is further reduced with the amount of Unavailable Capacity



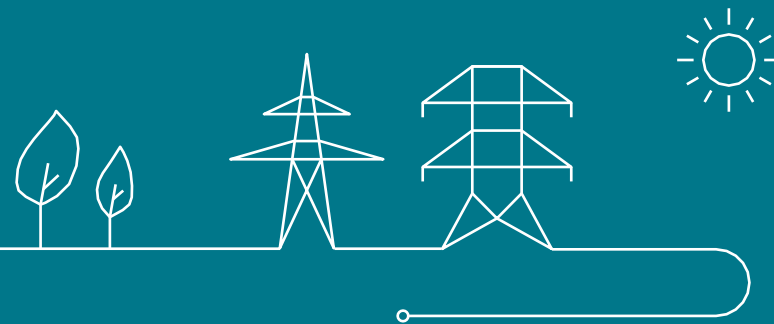
Availability Obligation – structure

The availability obligation consists of two main elements

1. Availability Monitoring – To monitor whether the CMU contributes to adequacy
2. Availability testing – To ensure that CMUs that were not observed can deliver too



1 Test Moments



Availability Monitoring alone is not enough

- The distinction between Proven and Unproven Availability allows CMUs to be considered as available when their variable costs are not covered
- Hypothetically, a Non-daily Schedule CMU could consistently declare very high prices
 - This results in a Required Volume = 0
 - The CMU then always has an Available Capacity equal to its NRP, but all of this is Unproven Availability
- The Capacity Provider would then receive remuneration without ever proving that he is really available
- Need for a complimentary mechanism

Availability Testing is used when Availability cannot be directly monitored



Objective of Availability Tests:

- ✓ Complementary to Availability Monitoring
- ✓ For “Unproven” capacity
- ✓ Capability to react to surprise signal in day-ahead



Principles for selection:

- ✓ Low Proven Availability in monitoring
- ✓ Previously failed Availability Tests
- ✓ Missing Capacity in monitoring
- ✓ Poor correlation between (Partial) Declared Prices and measured output in the delivery Point
- ✓ Avoid days with particularly low risk on adequacy

From Availability Obligation introduction:

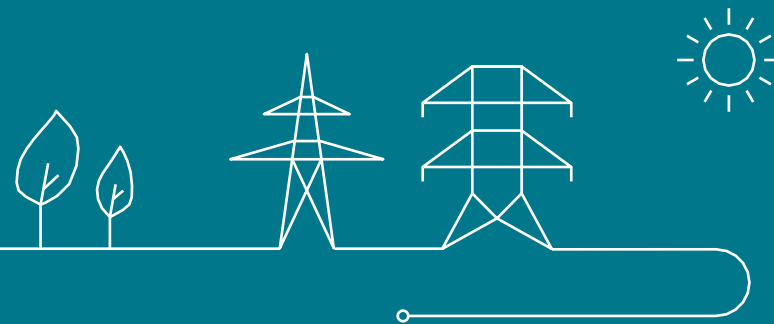
“Section 9.5 describes the Availability Tests, as a complementary tool to the Availability Monitoring to verify whether the Capacity Provider has committed to the obligation.”

→ Availability testing is not meant to be “on top of” monitoring, but rather as a **last resort**.

The final selection procedure for testing moments is designed to accurately measure availability, but is not disclosed publically to ensure market parties cannot specifically prepare for them

2 Available Capacity

3 Obligated Capacity



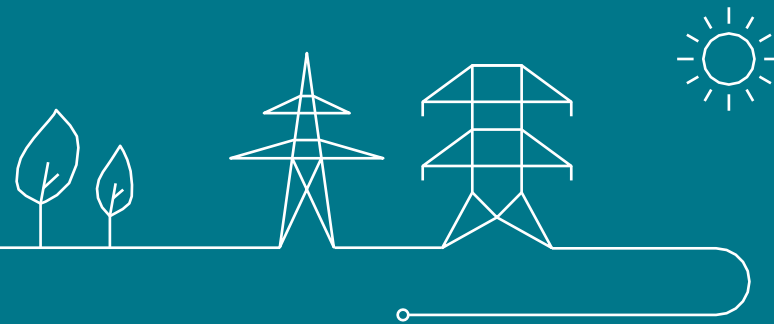
Principles of Availability Testing

- A Capacity Provider is notified on day D-1 between 09:00 and 09:30 that he will be tested
 - The notification includes the start and end time of the Availability Test
 - The duration of the Test is either one quarter hour, or the full SLA in case a previous Test failed
- On day D, the Capacity Provider must provide Available Capacity equal to at least its Obligated Capacity during the Test moment
- The **Available Capacity** is based on the Measured Power
 - Not based on nominations or Unproven Availability: Elia wants solid proof
 - Is still adapted for Ancillary Services and Redispatching
- The **Obligated Capacity** is equal to

$$\text{MIN}(NRP(CMU, t) - P_{Unavailable, Announced}(CMU, t); \frac{\text{Total Contracted Capacity}(CMU, t)}{\text{Derating Factor}(CMU, t)})$$

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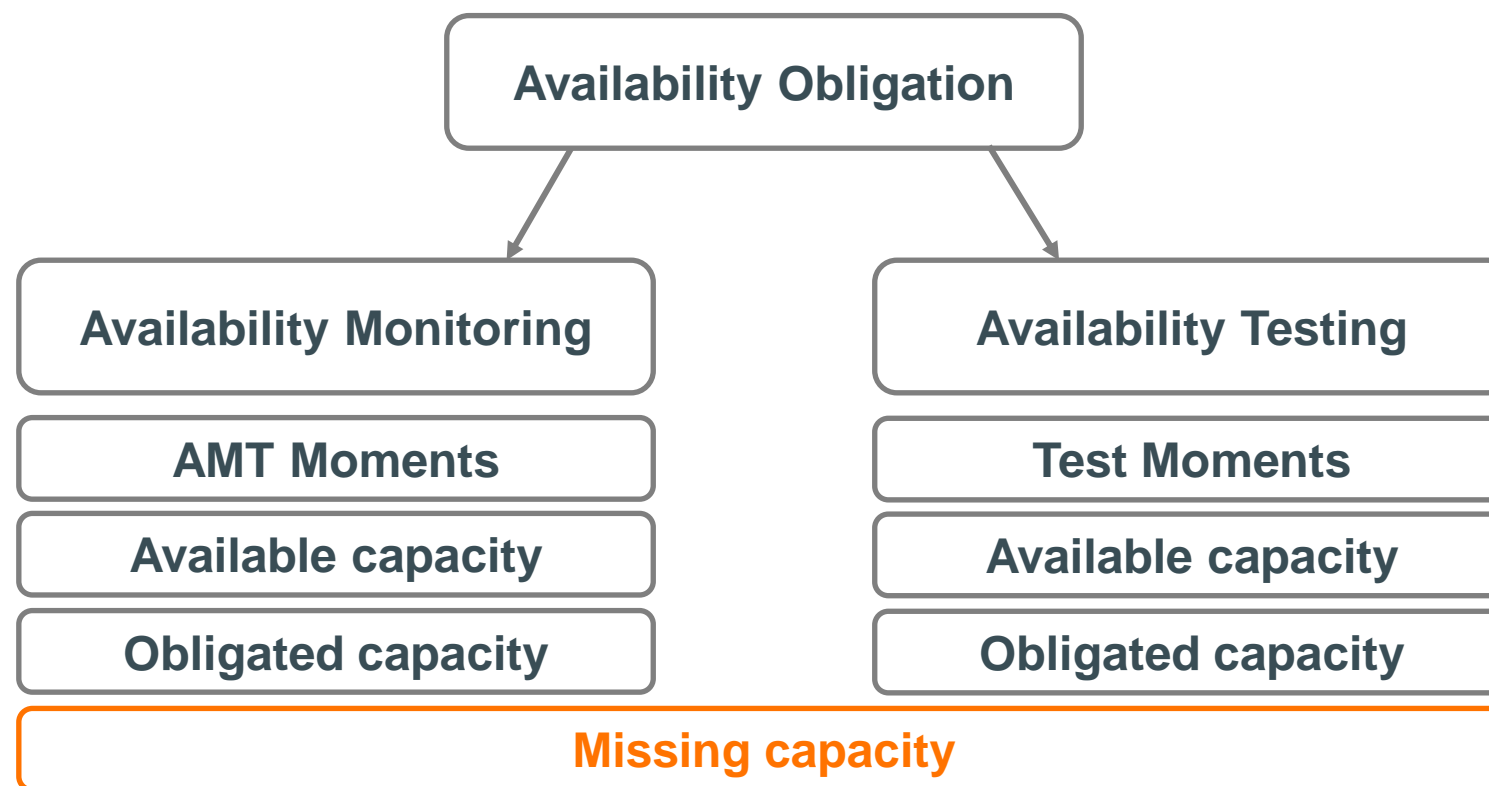
Missing Capacity



Availability Obligation – structure

The availability obligation consists of two main elements

1. Availability Monitoring – To monitor whether the CMU contributes to adequacy
2. Availability testing – To ensure that CMUs that were not observed can deliver too



When a CMU fails to cover its Obligated Capacity, Missing Capacity is detected

Missing Capacity can be determined in two ways:

- Not enough **Available Capacity** to cover the **Obligated Capacity**: $Max(P_{Obligated} - P_{Available}; 0)$ 1
- Not enough **Proven Availability** to cover the **ex-post Contracted Capacity**: $Max(Contracted Capacity_{ex-post} - P_{Proven}; 0)$ 2

This is combined in the general formula for Missing Capacity:

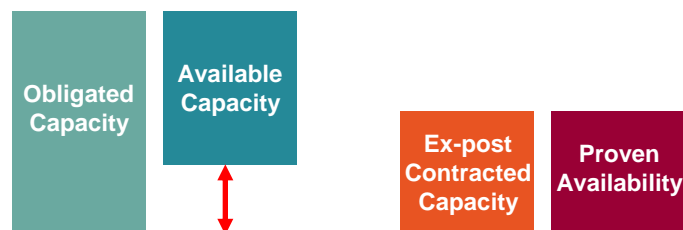
$$Missing\ Capacity = Max(P_{Obligated} - P_{Available}; Contracted\ Capacity_{ex-post} - P_{proven}; 0)$$



Missing Capacity

practical examples

1



Obligated Capacity is not covered by Available Capacity; Ex-post Contracted Capacity is covered by Proven Availability

- The difference between $P_{Obligated}$ and $P_{Available}$ sets the Missing Capacity

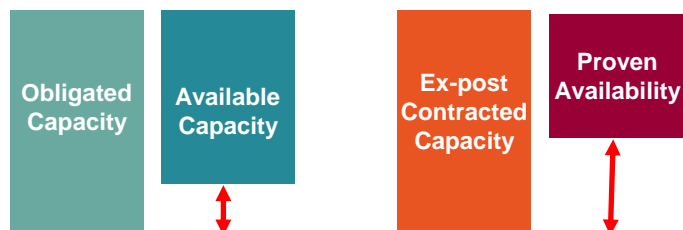
2



Obligated Capacity is covered by Available Capacity; Ex-post Contracted Capacity is not covered by Proven Availability

- The difference between $CC_{ex-post}$ and P_{Proven} sets the Missing Capacity

3



Both the Obligated Capacity and the Ex-post Contracted Capacity are not covered by either Available Capacity or Proven Availability

- The maximum between the two sets the Missing Capacity

4



Both the Obligated Capacity and the Ex-post Contracted Capacity are covered

- No Missing Capacity 😊

Elements of the Unavailability Penalty

- Unannounced Missing Capacity & Announced Missing Capacity
- Penalty Factor X
- Weighted contract value



The Missing Capacity can either be Announced or Unannounced

- The classification takes place based on the notifications of Announced Unavailabilities
- Announced Missing Capacity is penalized less severely; as such Capacity Providers have an incentive to accurately notify this
- **Announced Missing Capacity** is the amount of Missing Capacity covered by the Announced Unavailabilities

$$AMC = \text{Min}(P_{\text{Unavailable, Announced}}; MC)$$

- **Unannounced Missing Capacity** is the remaining proportion of the Missing Capacity

$$UMC = \text{max}(MC - AMC)$$

- ! **Missing Capacity during Scheduled Maintenance is always considered as Unannounced**



The Penalty Factor reflects the severity of the Missing Capacity

	Winter Period 01/11/20xx – 31/03/20xx	Summer Period 01/04/20xx – 31/10/20xx
Announced Missing Capacity	0,9	0
Unannounced Missing Capacity	1,4	0,5



A CMU's Unavailability Penalty varies in function of its remuneration

- A CMU's penalty depends on its remuneration. But what happens when a CMU has multiple contracts with different remunerations?
- We calculate the volume-weighted average of all contracts:

$$\frac{\sum_N (\text{Capacity Remuneration}_i * \text{Contracted Capacity}_i)}{\sum_N \text{Contracted Capacity}_i}$$

Where:

- N is the number of transactions (Primary or Secondary) with a Transaction Period covering the moment for which the penalty is calculated
- $\text{Capacity Remuneration}_i$ is the Capacity Remuneration from the Contract for Transaction i
- $\text{Contracted Capacity}_i$ is the Contracted Capacity from the Contract for Transaction i



Weighted contract value

Practical example

- A CMU has 2 contracts that cover an MTU t for which a penalty is calculated
 - Transaction 1: 100 MW @ 30 000 €/MW/y
 - Transaction 2: 10 MW @ 10 000 €/MW/y

- Weighted contract value is calculated as

$$\frac{(100 * 30\,000) + (10 * 10\,000)}{(100 + 10)} = 28\,180$$



The Unavailability Penalty formula

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$$\frac{1}{Q * UP} \left[\sum_{t \in T} (1 + X) * \text{weighted contract value}_t * UMC_t + \sum_{t=1}^T (1 + X) * \text{weighted contract value}_t * AMC_t \right]$$

1 2 3

- 1 Q is the amount of MTUs of the AMT Moment for which a penalty is calculated
- 2 UP is a fixed value, always equal to 15
- 3 T is the set of MTUs of the AMT Moment for which a penalty is calculated



Example – Unavailability Penalty

Practical example 1

- Weighted contract value = 28 180 €/MW
- AMT Moment took place during winter
- AMT Moment spanning 2 MTUs with the following Missing Capacities:

	MTU 1	MTU 2
AMC	20	30
UMC	0	0

- Unavailability Penalty is calculated as

$$\frac{1}{2 * 15} [(1 + 0,9) * 28\ 180 * 20 + (1 + 0,9) * 28\ 180 * 30 + 0 + 0]$$

$$= 74\ 037 \text{ €}$$



Example – Unavailability Penalty

Practical example 2

- Weighted contract value = 28 180 €/MW
- AMT Moment took place during summer
- AMT Moment spanning 3 MTUs with the following Missing Capacities:

	MTU 1	MTU 2	MTU 3
AMC	20	0	0
UMC	0	0	50

- Unavailability Penalty is calculated as

$$\frac{1}{3 * 15} [(1 + 0) * 28\ 180 * 20 + 0 + 0 + 0 + 0 + (1 + 0,5) * 28\ 180 * 50]$$

$$= 46\ 157 \text{ €}$$



Penalty Cap

- Yearly cap:
 - The total amount of applied Unavailability Penalties over one Delivery Year cannot exceed the total amount of Capacity remuneration received by the CMU over the entire Delivery Year
- Monthly cap:
 - The total amount of applied Unavailability Penalties over one month cannot exceed 20% of the total amount of Capacity Remuneration received by the CMU over the entire Delivery Year
- **This only applies to Transactions on the Primary Market, or a Secondary Market Transaction covering the entire Delivery Period**
- The caps are calculated for each CMU at the start of the Delivery Period

Notification of the Unavailability Penalties

- The Capacity Provider receives a monthly activity report that includes information on the CMU's performance during AMT Moments and Availability Tests

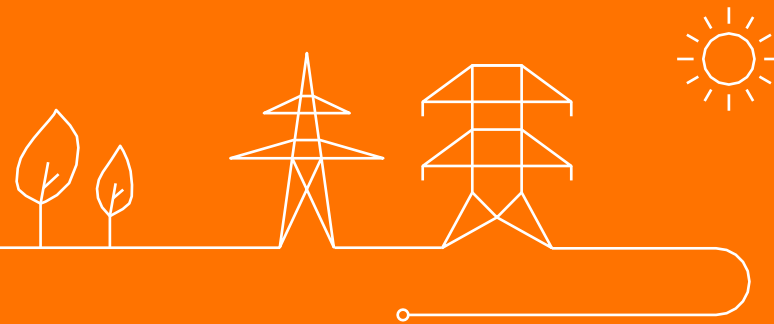


- 1 AMT Moments and/or Availability Tests take place during a certain month M
- 2 The measuring data is validated, which can take until the end of month $M + 1$
- 3 The Activity report is sent on the 15th of month $M + 2$

Escalation procedure

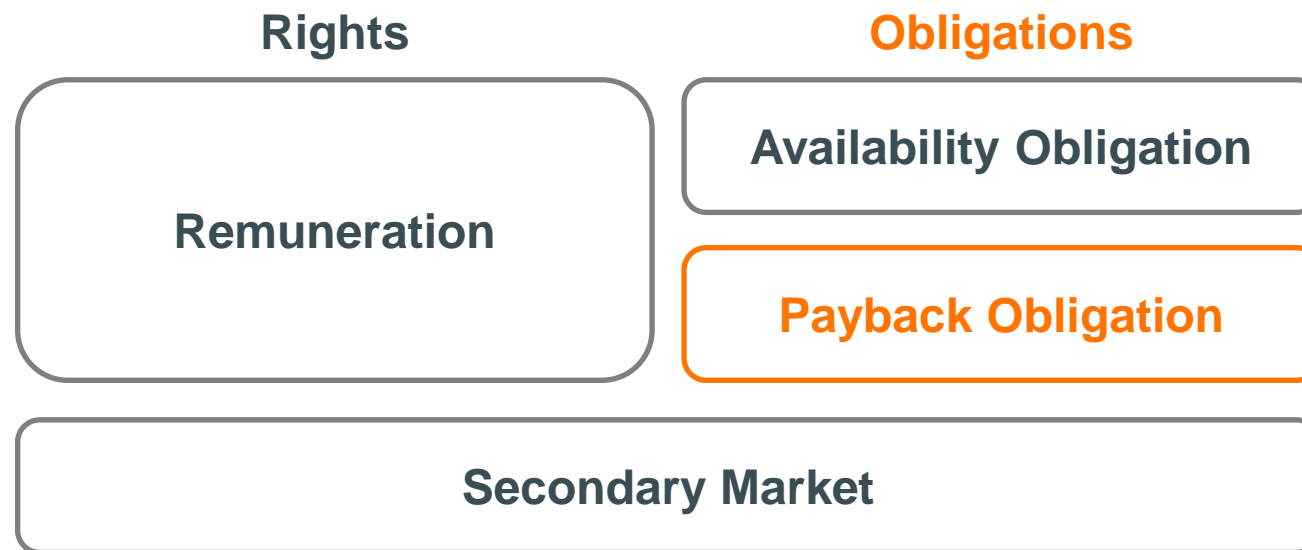
- In case of repeated determinations of Missing Capacity, the CMU will incur a downwards revision of its Monthly Remuneration
- This happens when **Missing Capacity** has been determined **on three separate occasions** throughout the same Delivery Period
 - The Missing Capacity **must exceed 20%** of the Obligated Capacity
- For practical reasons, the CMU will continue receiving its original remuneration at the end of the month. The Downwards Revision is added as an extra penalty in the monthly report
- Despite its lower remuneration, the CMU is still subject to the same Availability Obligation (i.e. Obligated Capacity does not change)
- The downwards revision is equal to the maximum ratio of the three concerned Missing Capacities and the Obligated Capacities
- The Capacity Provider can **reinstate** the original Monthly Remuneration by successfully providing its Obligated Capacity **on 3 consecutive occasions**

Payback Obligation



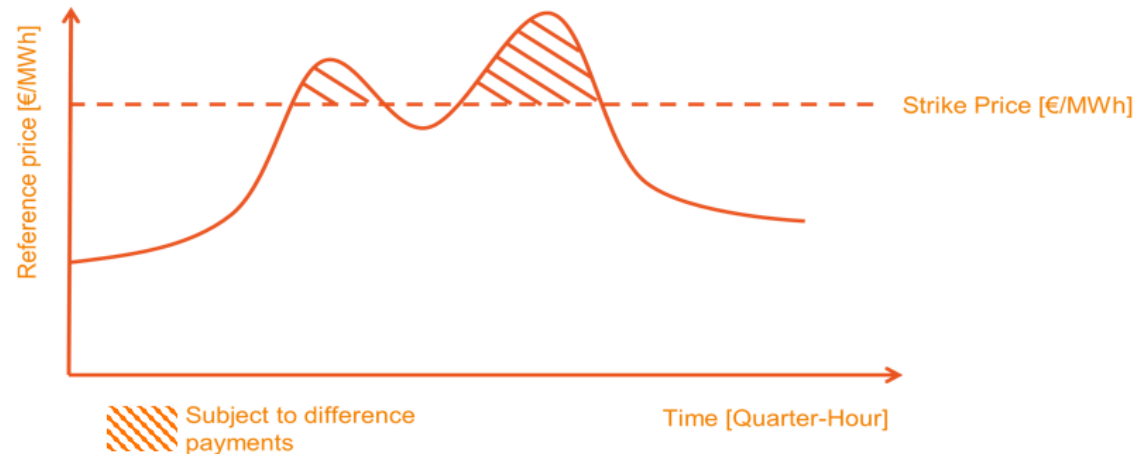
Obligations – Payback Obligation

- Signing a CRM contract also comes with two obligations:
 1. The Availability Obligation
 2. The Payback Obligation ← next



Payback Obligation

In a mechanism with a reliability option, the capacity provider receives a capacity remuneration but is obliged to payback money to society whenever the reference energy spot price (e.g. day-ahead price) exceeds a pre-defined strike price.



Such approach has two advantages for society:

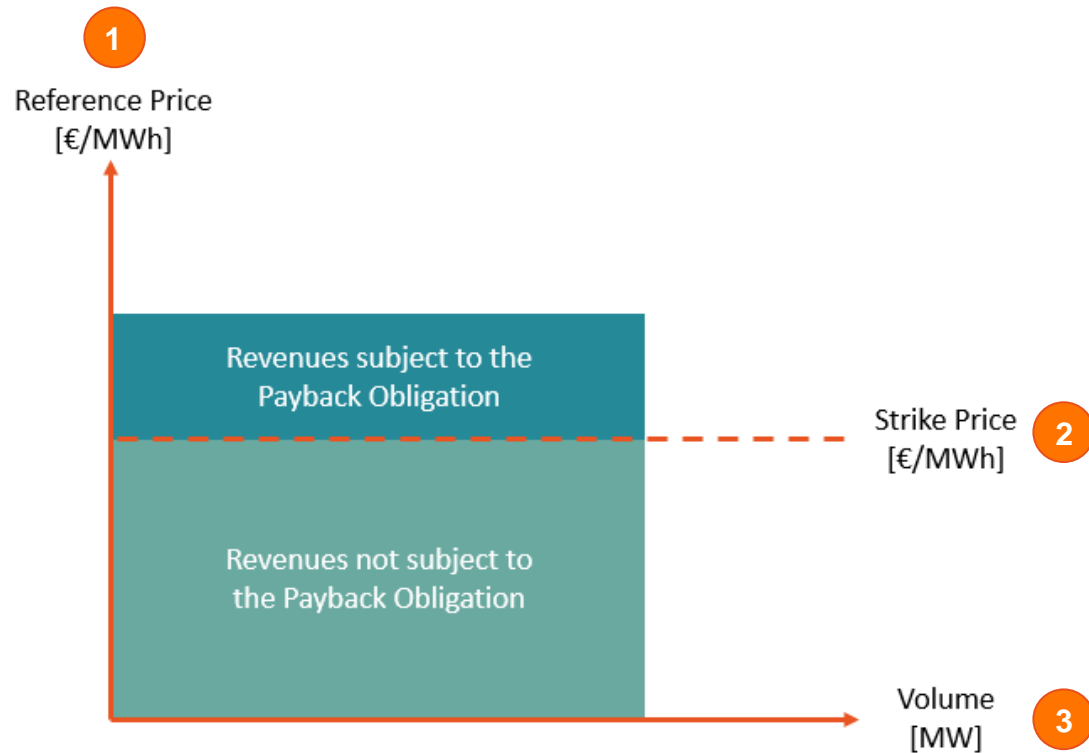
- **Avoiding windfall profits:** as the capacity provider already receives a capacity remuneration on top of its 'normal' energy market revenues (which should cover all its fixed costs), extreme energy prices would provide him with an extra, double remuneration. This would constitute a windfall profit.
- **Strengthening incentive to deliver on SoS-obligations:** as capacity providers are obliged to payback when the energy price exceeds the strike price and those moments are strongly correlated with moment of (near-)scarcity, there is an extra incentive for capacity providers to be available for the system at such moments.



Elements of the Payback Obligation

In a simplified view, the total Payback is equal to

$$\max((Reference\ Price - Strike\ Price); 0) \times Volume\ subject\ to\ Payback\ Obligation$$

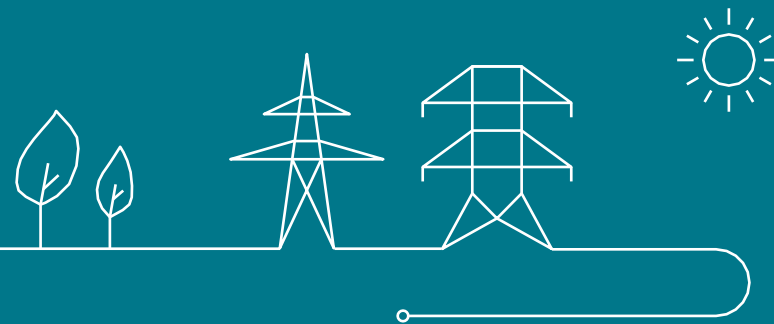


We'll have a look at each element of this formula:

- 1 The Reference Price
- 2 The Strike Price
- 3 The volume that is subject to the Payback Obligation



1 Reference Price

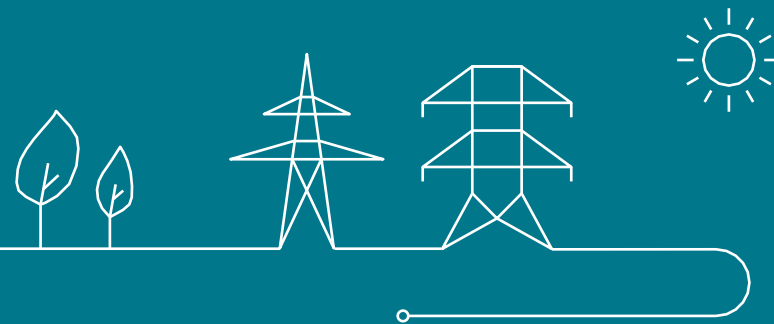


An accurate metric is needed that reflects a unit's revenues

- The **Day-Ahead price** is used for this purpose:
 - Relevant signal related to adequacy
 - Liquid and transparent market
 - Technology neutral
- The Day-Ahead price faced by a unit depends on its choice of NEMO. In the CRM IT Interface, the Capacity Provider can select the NEMO he wishes to use



2 Strike Price



Characteristics of the Strike Price

- The Strike Price represents the price threshold [€/MWh] above which revenues are deemed excessive
- Based on historical Day-Ahead prices
- Crucial Auction parameter: Capacity Providers need to know its value to be able to submit accurate bids
- Long lead time between (e.g. Y-4) Auction and Delivery Period: prices might structurally change between calibration and delivery
- The **Strike Price** is set by the Minister as an Auction parameter
- An actualization process takes place, resulting in the **Actualized Strike Price** during the Delivery Period



Actualization of the Strike Price

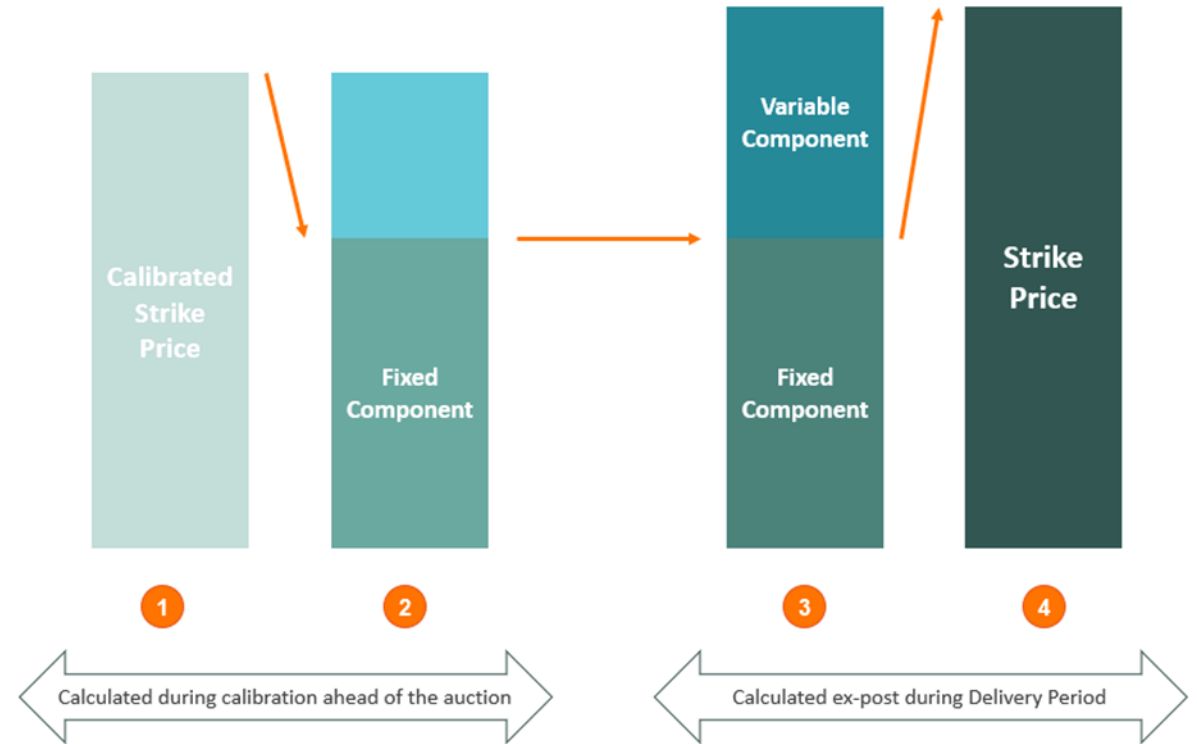
- A **monthly** ex-post actualization of the strike price based on monthly DA prices (i.e. strike price of September is set by DA prices of September).
- This actualization would apply from **the first delivery year** and to **single & pluriannual contracts**.

At the time of the auction

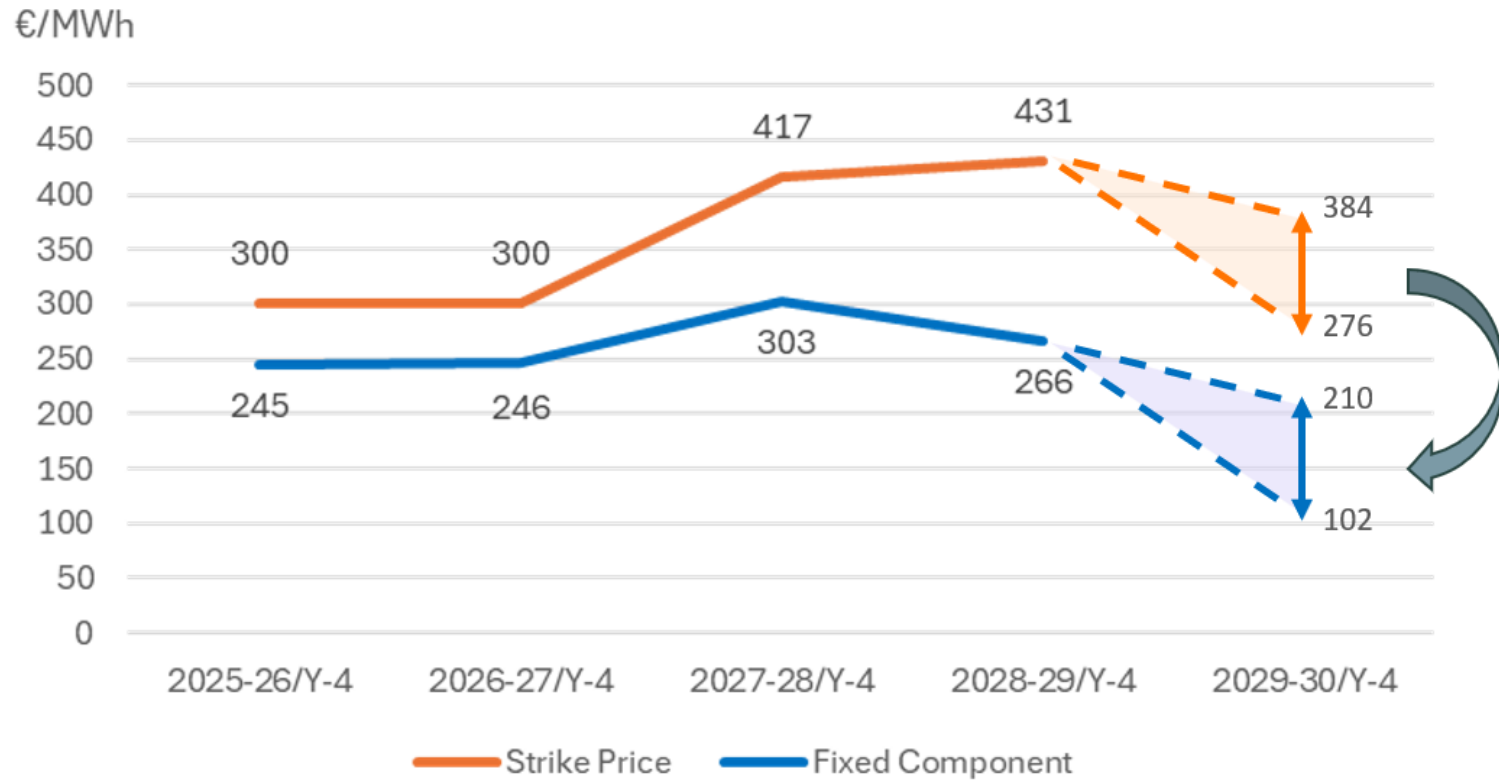
Fixed component
 = calibrated strike price
 – average DA prices for the calibration period

During delivery

Variable component
 = average DA prices for month *m*



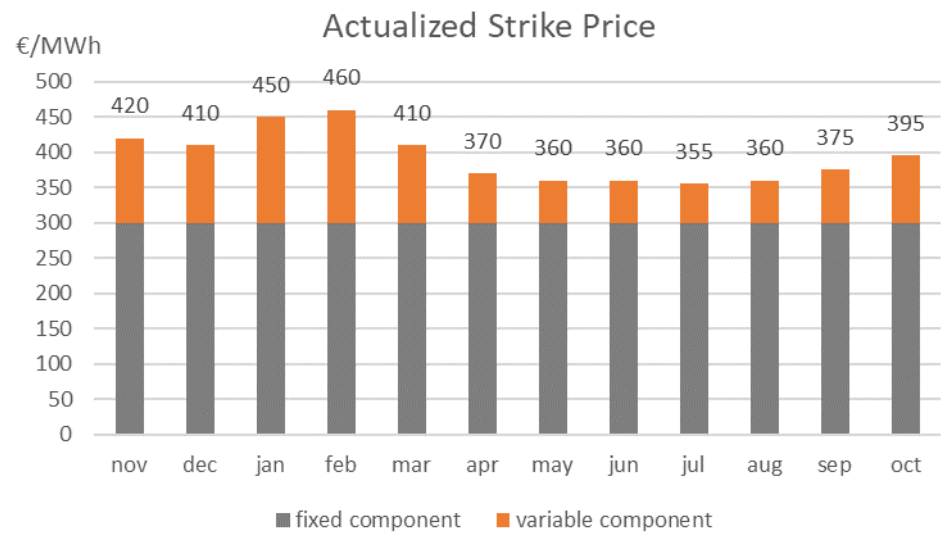
Evolution of Strike Price and fixed component



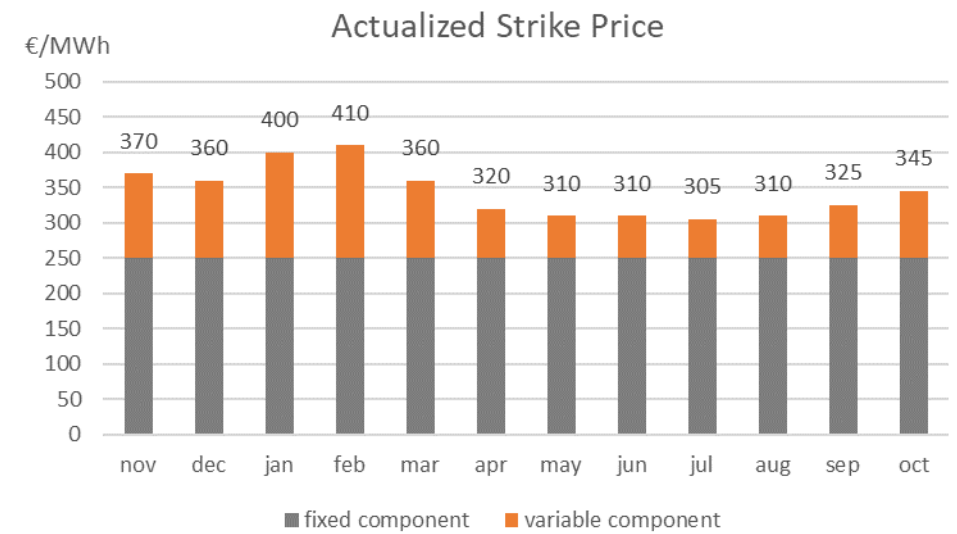
- The fixed component should remain relatively stable throughout time
- For the upcoming auctions it will be set by MD on 31/03 (within the range shown on slide)

Example – Actualization of the Strike Price

- A CMU has a Transaction with Strike Price 400 €/MWh
- The resulting fixed component is equal to **300 €/MWh**
- The variable component varies throughout the year
- The resulting Actualized Strike Price is as follows



- The same CMU obtains a second Transaction, this time with a Strike Price of 390 €/MWh
- The resulting fixed component is equal to **250 €/MWh**
- The variable component varies throughout the year
- The resulting Actualized Strike Price is as follows

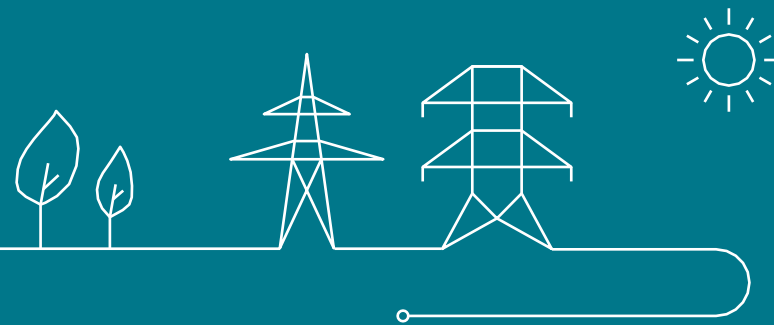


Practical considerations for the Strike Price

- The variable component, and as such the Actualized Strike Price, is only know ex-post
- In the monthly delivery activity report, the final value for that month's Actualized Strike Price is included
- For each Transaction separately, when its Actualized Strike Price is exceeded the Payback Obligation is applied based on the Contracted Capacity of that Transaction



3 Volume



The volume subject to the Payback Obligation depends on the Contracted Capacity

- Similar to the (Actualized) Strike Price, it is evaluated for each Transaction separately
- Both Transactions from the Primary and the Secondary Market are taken into account
- In some cases, not all Contracted Capacity subject to the Payback Obligation:
 - Unavailable Capacity is taken into account via the Availability Ratio
 - Exemptions apply for DSM and storage capacity
- Elia makes the distinction between
 - A. Non-energy Constrained CMUs
 - B. Energy Constrained CMUs: ex-ante Transactions
 - C. Energy Constrained CMUs: ex-post Transactions



Payback Exemption

The Volume subject to the PBO depends on the Primary Market transaction Date and the technology of the CMU

Primary Market Transaction year	Payback exemption
2021	Not Applicable
2022	Not Applicable
2023	Not Applicable
2024	DSM only
2025	Storage* & DSM

*Payback exemption for storage subject to update of legal framework-



The volume depends on the type of CMU

- For Non-energy Constrained CMUs, the Payback Obligation is based on the **(derated)** Contracted Capacity
- This includes Contracted Capacity
 - Primary Transactions
 - Secondary Transactions, both ex-ante and ex-post
- This is simply equal to the Contracted Capacity included in the Capacity Contract

Volume subject to the Payback Obligation = Contracted Capacity



Volume for an ex-ante Transaction of an Energy Constrained CMU

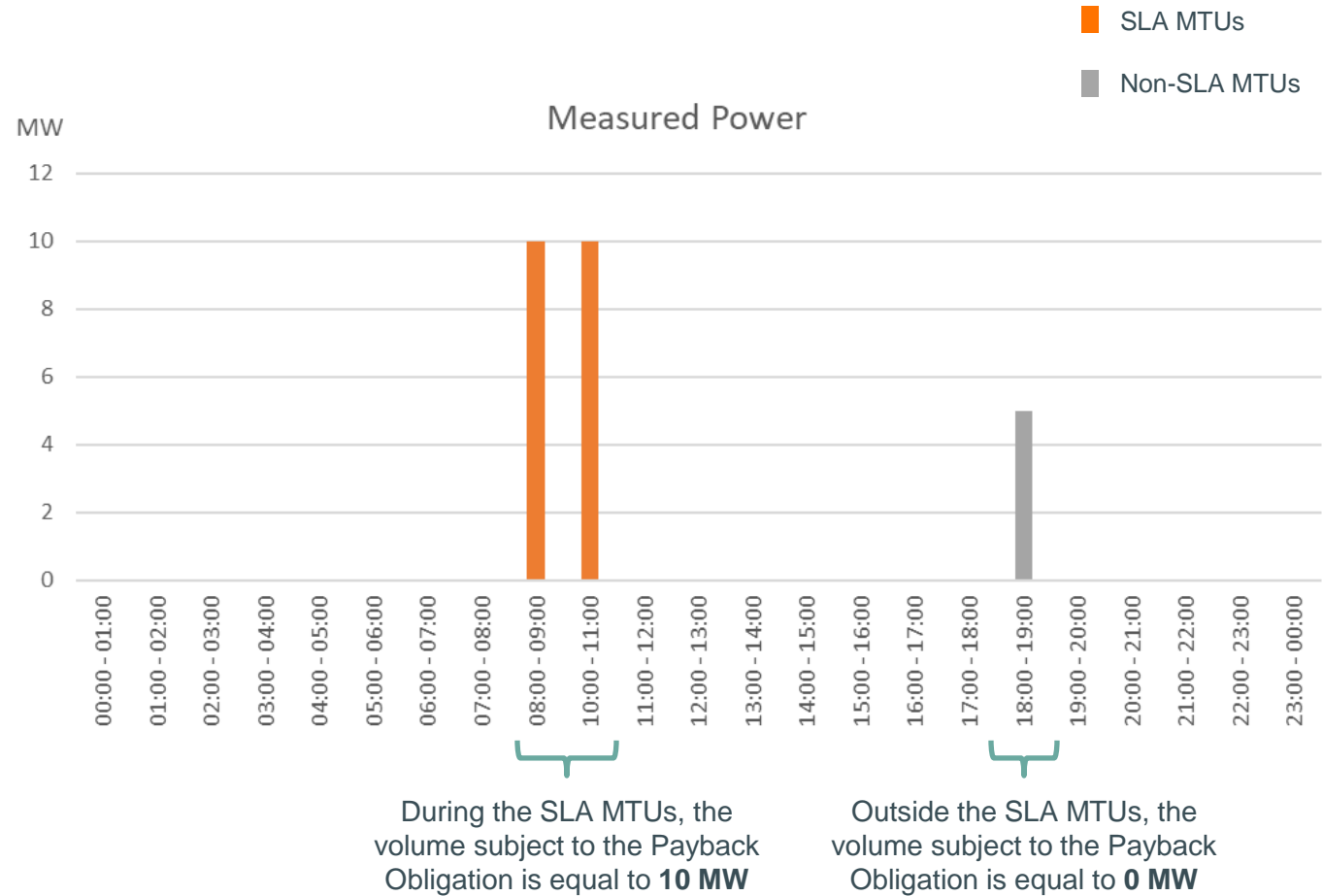
- Ex-ante Transactions include
 - Primary Transactions
 - Ex-ante Secondary Market Transactions
- Remember from the Availability Obligation:
 - Energy Constrained CMUs are limited in the duration of their delivery by their **Service Level Agreement (SLA)**
 - This results in the **SLA MTUs**: a subset of MTUs that respects their constraints and demands only one activation per day
- The SLA MTUs also come into play for the Payback Obligation
- Considering their technological constraints, the Payback Obligation for ex-ante Transactions is only applied during the SLA MTUs
- During these SLA MTUs, the volume subject to the Payback Obligation is the **non-derated** Contracted Capacity

$$\text{Volume subject to the Payback Obligation} = \frac{\text{Contracted Capacity}}{\text{Derating Factor}}$$

- The Derating Factor used is the one included in the Capacity Contract for that Transaction

Example for an Energy Constrained ex-ante Transaction

- Energy Constrained, SLA 2
 - NRP = 10 MW
 - One ex-ante Transaction with a Contracted Capacity = 3 MW
 - Derating Factor = 30%
- Volume subject to the Payback Obligation during SLA MTUs = **10MW**
- Volume subject to the Payback Obligation outside SLA MTUs = **0 MW**



Volume for an ex-post Transaction of an Energy Constrained CMU

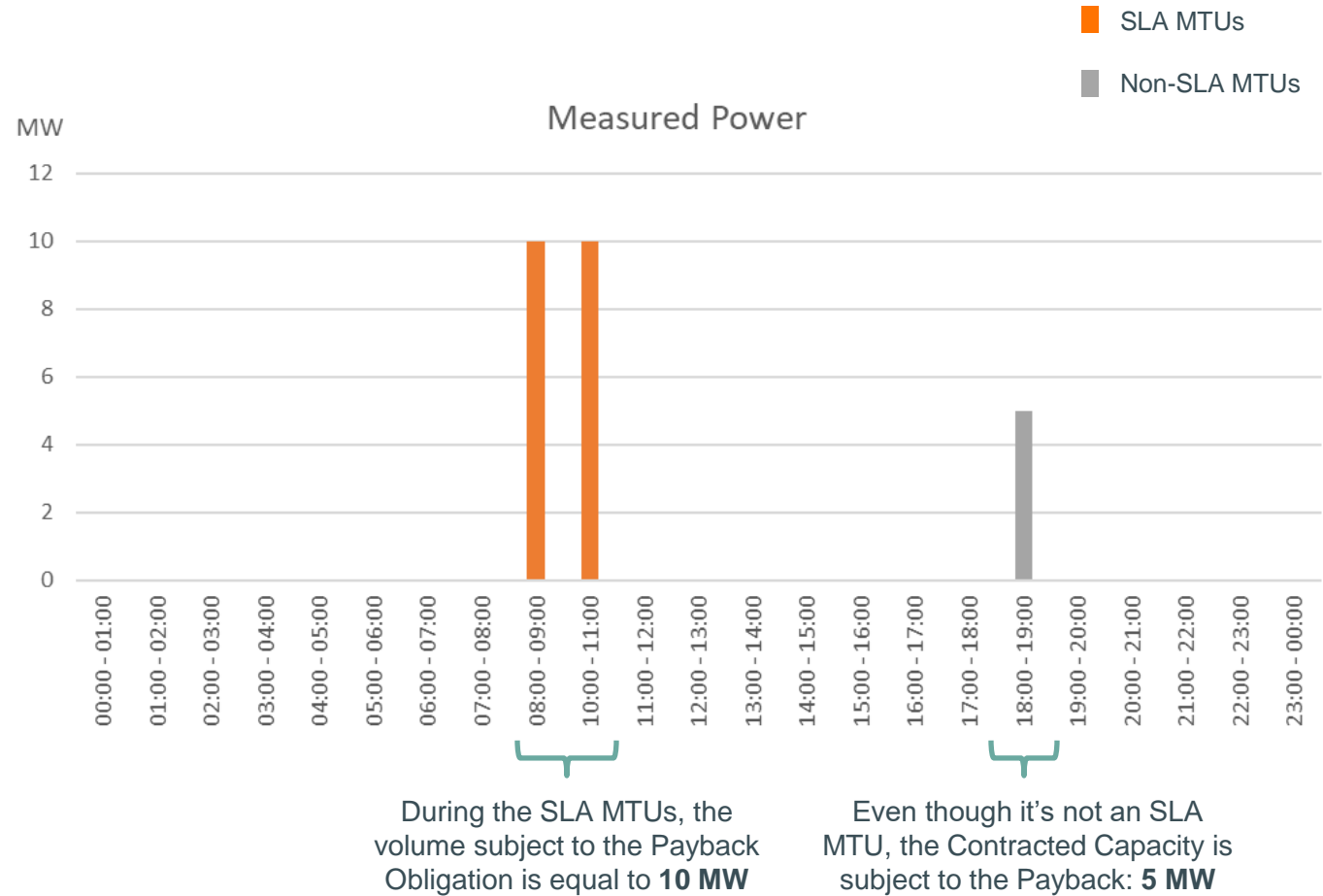
- Energy Constrained CMUs can engage in ex-post Secondary Market Transactions
- These Obligations can occur on top of ex-ante Transactions
- Not limited to SLA MTUs: for ex-post Secondary Market Transactions, the Payback Obligation is always applied
- The Payback Obligation for ex-post Transactions is based on the **(derated)** Contracted Capacity:

Volume subject to the Payback Obligation = Contracted Capacity



Example for an Energy Constrained ex-post Transaction

- Energy Constrained, SLA 2
- NRP = 10 MW
- One ex-ante Transaction with a Contracted Capacity = 3 MW
- Derating Factor = 30%
- Ex-post Transaction between 18:00 and 19:00 with Contracted Capacity = 5 MW
- For the Transaction Period of this Transaction, the Contracted Capacity is also subject to the Payback Obligation, regardless of SLA MTUs



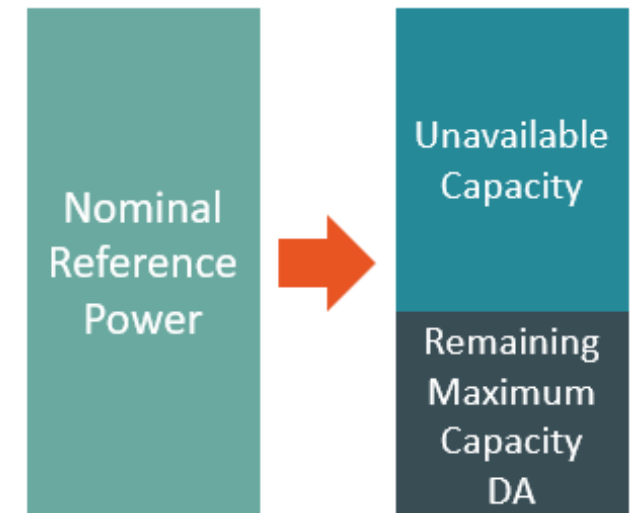
The Volume for the Payback Obligation is influenced by other factors

- Not all capacity identified previously is always subject to the Payback Obligation
- Elia identifies two adaptations:
 - Unavailable Capacity (e.g. forced outage) via the Availability Ratio
 - Payback exemption for DSM and storage



Availability Ratio

- The Availability Ratio takes into account the amount of capacity that was not present due to e.g. forced outages or maintenance
 - This capacity was not capable to capture excessive profits in the first place, hence it is logical to remove them from the Payback Obligation
- The identification of Unavailable Capacity is based on the Capacity Provider's declaration of Remaining Maximum Capacity
 - To prevent gaming after the publication of the Day-Ahead prices, only notifications until 11:00 D-1 are taken into account
 - This results in the Remaining Maximum Capacity DA
 - Both Announced Unavailable Capacity and Unannounced Unavailable Capacity is taken into account



Availability Ratio

- Based on the Remaining Maximum Capacity DA, a ratio can be established for every MTU t that represents the fraction of capacity that was present:

$$\frac{\text{Min}(\text{total volume subject to Payback Obligation}; \text{Remaining Maximum Capacity DA})}{\text{total volume subject to Payback Obligation}}$$

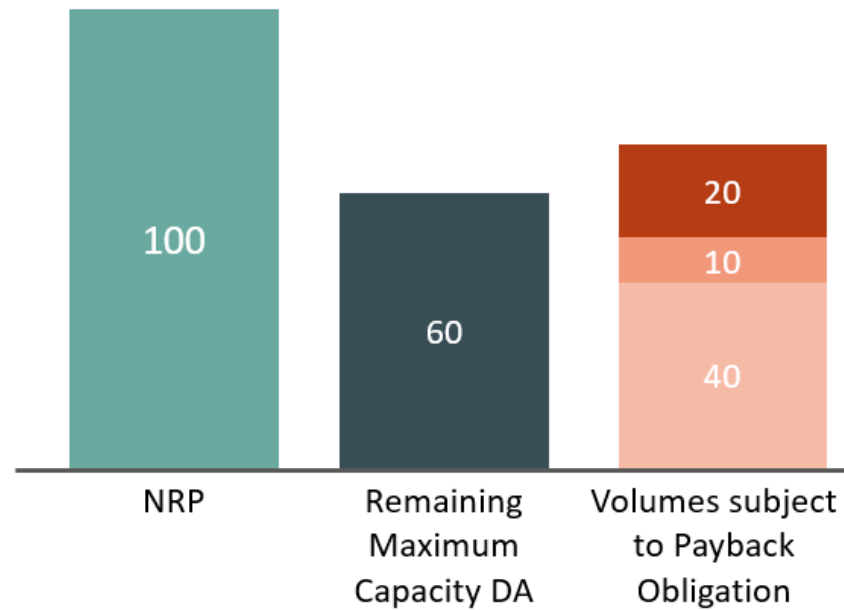
- The total volume subject to the Payback Obligation is the sum over all the Transactions that the CMU has that cover the MTU t



Example on the Availability Ratio

- NRP = 100 MW
- Unavailable Capacity = 40 MW
- Remaining Maximum Capacity DA = 60 MW

- 3 Transactions covering the same MTU t, each with their own volume subject to the Payback Obligation
 - 40 MW
 - 10 MW
 - 20 MW



Availability Ratio = $\frac{\text{Min}(70; 60)}{70} = 86\%$



DSM and storage

- DSM and storage capacities are no longer subject to the Payback Obligation
- When a CMU consists solely of DSM and/or storage, the Payback Obligation is simply always equal to 0
- An aggregated CMU can consist of some DSM and/or storage Delivery Points, and some thermal Delivery Points
- In that case, the Payback Obligation is calculated *pro-rata* the DSM and/or storage capacity in the total NRP:

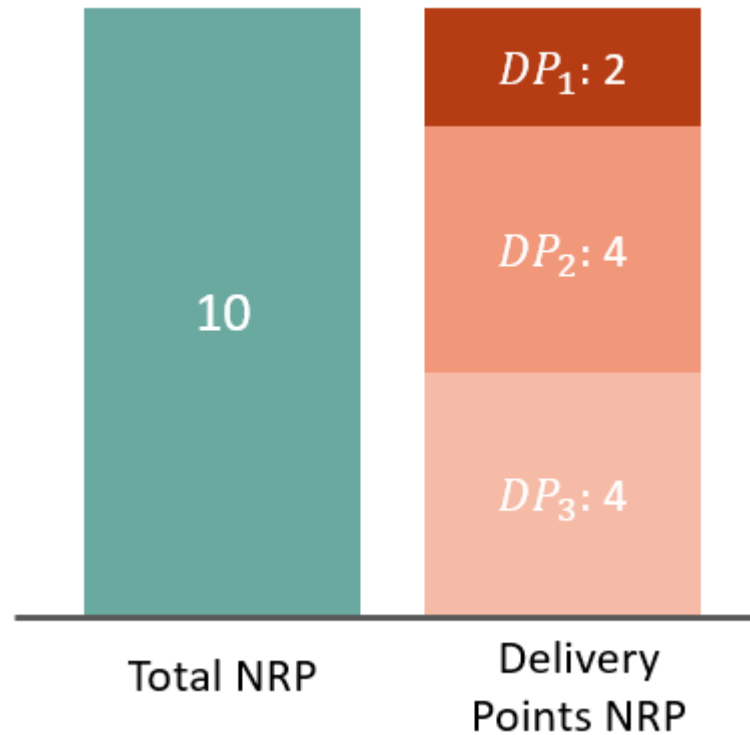
$$\frac{NRP(CMU, Transaction) - \sum_i \text{DSM or storage } NRP_i(CMU, Transaction)}{NRP(CMU, Transaction)}$$

- i represent the Delivery Points part of the CMU
- For each Transaction, the NRP and DSM/storage volumes that were relevant at the time of contract signature are used. This prevents gaming by adding more DSM/storage Delivery Points after conclusion of the Transaction



Example on DSM and storage

- NRP = 10 MW
- 3 Delivery Points:
 - DP1 (battery): 2 MW
 - DP2 (DSM): 4 MW
 - DP3 (thermal): 4 MW



Proportion of NRP that is not DSM or storage =

$$\frac{10 - 6}{10} = 40\%$$



Complete Payback Obligation formula

- Having identified all elements of the Payback Obligation, the complete formula can be established

$$\begin{aligned} & \text{Payback Obligation}(CMU, Transaction, t) = \\ & (\text{Reference Price}(CMU, t) - \text{Actualized Strike Price}(CMU, Transaction, t)) \\ & \quad \times \\ & \text{Volume subject to the Payback Obligation}(CMU, Transaction, t) \\ & \quad \times \\ & \text{Availability Ratio}(CMU, t) \\ & \quad \times \\ & \frac{\text{NRP}(CMU, Transaction) - \sum_i \text{DSM or storage NRP}_i(CMU, Transaction)}{\text{NRP}(CMU, Transaction)} \end{aligned}$$



The Payback Obligation is calculated for each Transaction separately

- Transactions are characterized by their own parameters:
 - Contracted Capacity
 - Actualized Strike Price
 - DSM and storage NRP
- Some other parameters are still calculated for the CMU as a whole
 - Reference Price
 - Availability Ratio



Stop-Loss

- Hypothetically, in case of structural high prices that even the Actualization mechanism can't cope with, a Capacity Provider could be faced with excessive amounts of Payback
- The risk of excessive Payback could discourage Capacity Providers from participation in the Auction
- The Stop-Loss mechanism establishes a cap equal to the total yearly Capacity Remuneration
- From the moment this cap is reached, no more Payback Obligation is applied
- **The Stop-Loss is applied for every Transaction individually**
- **This only applies to Transactions on the Primary Market, or a Secondary Market Transaction covering the entire Delivery Period**



Payback Obligation and retro-activity

- The Payback Obligation has undergone a couple of changes since the first CRM Auction in 2021
- Some of these changes could have impacted the bid price of participants, and are as such not applicable retro-actively
 - Payback Exemption
 - Activation Ratio
 - Declared Market Price

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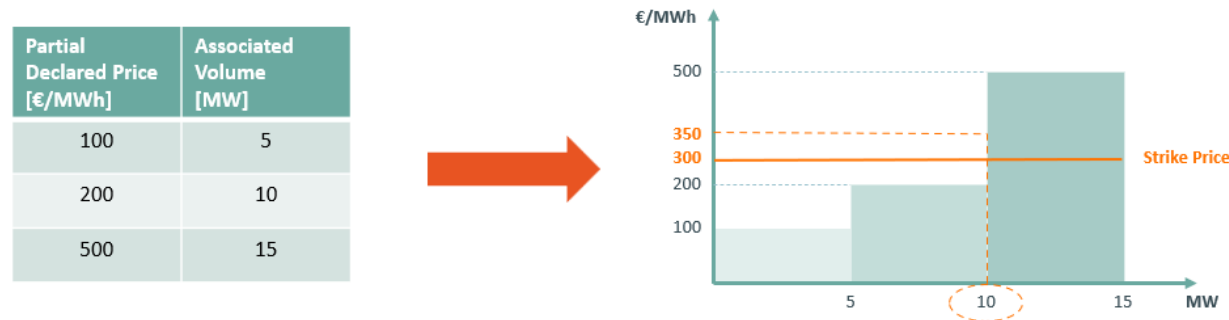
Retro-activity: Payback Exemption

- The Payback Exemption applies differently for different technologies
- DSM: contracts signed in 2024 or later
- Storage: contracts signed in 2025 or later
- For Aggregated CMUs that partly consist of DSM/storage:
 - The ratio only takes into account DSM for contracts signed in 2024
 - The ratio takes into account both DSM and storage from 2025 onwards



Retro-activity: Activation Ratio

- Remember from the Availability obligation for Non-daily Schedule CMUs: based on the Declared Prices, we establish a Required Volume that is expected to react based on the price signal
- During Payback Events, this Required Volume might not be able to react with its full NRP



- The Volume subject to the Payback Obligation is based on the full Contracted Capacity. But if not all this Contracted Capacity was in-the-money, this is taken into account via the Activation Ratio:

$$\frac{\text{MIN}(\text{volume subject to the Payback Obligation}; \text{Required Volume})}{\text{volume subject to the Payback Obligation}}$$

- Only applicable to contracts signed in the 2024 Auction



Retro-activity: Declared Market Price (DMP)

- The Declared Market Price allowed the participation of Non-daily Schedule CMUs in the CRM who had a variable cost that exceeds the Actualized Strike Price
- This was particularly relevant for DSM units. Seeing as they are now exempted from the Payback Obligation, it has been removed
- From the Auction of 2025 onwards, the DMP no longer applies



Retro-activity and Secondary Market Transactions

- When selling/buying obligations on the Secondary Market, it is important to know which rules apply
- The modalities that apply are determined by the Auction year of the original Transaction
- Examples
 - When a Transaction originally concluded in 2024 is sold, the Payback Exemption applies if the Buyer is DSM
 - When a Transaction originally concluded in 2025 is sold, the Payback Exemption applies if the Buyer is DSM or storage
 - When a Transaction originally concluded in 2023 is sold, the Payback Exemption never applies



Retro-activity: overview

Auction Year	Payback Exemption	Activation Ratio	Declared Market Price
2021	No	No	Yes
2022	No	No	Yes
2023	No	No	Yes
2024	DSM	Yes	Yes
2025 and onwards	DSM and storage	No	No



Purpose of Today's session

Right to remuneration

Financial Security Obligation

Availability Obligation

Availability monitoring

Availability Testing

Unavailability Penalties

Payback Obligation

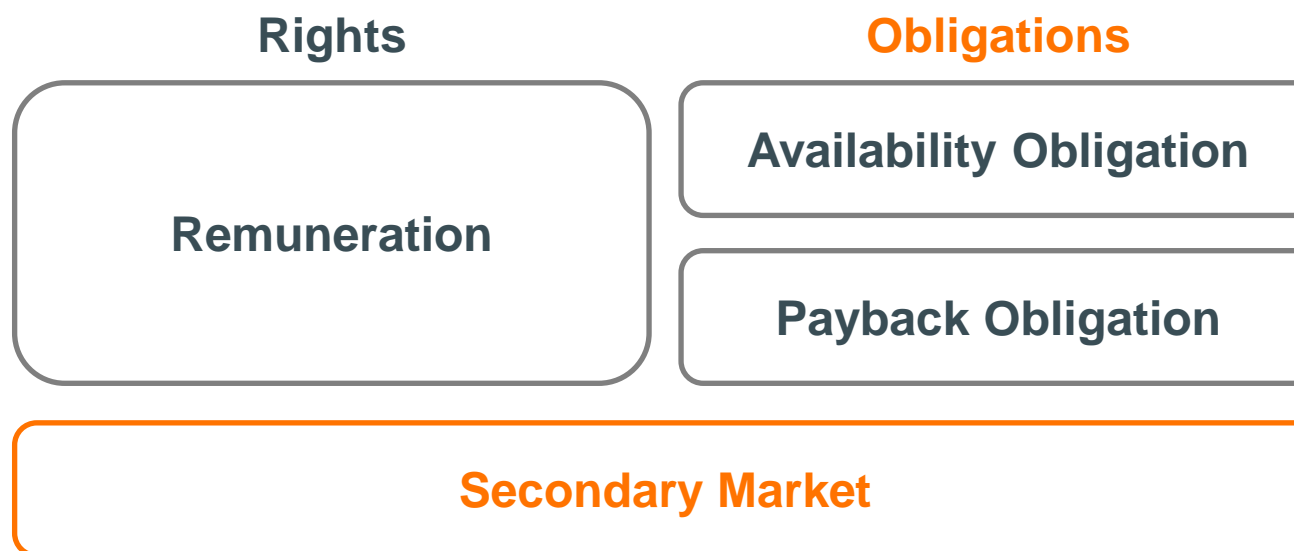
Secondary Market

Final notes



Obligations – Payback Obligation

- Signing a CRM contract also comes with two obligations:
 1. The Availability Obligation
 2. The Payback Obligation



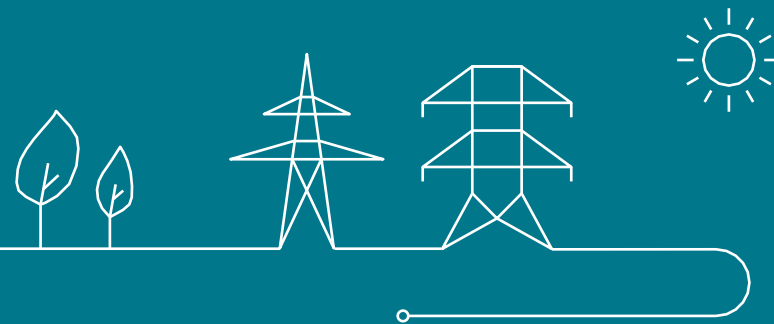
Secondary market – content

In this detailed info session, the following four questions related to the secondary market will be answered:

1. What is the secondary market?
2. What volume is available on the secondary market?
3. How is a secondary market transaction processed?
4. What are the rights and obligations following a secondary market transaction?



What is the secondary market?



What is the Secondary Market & why does it exist?

Capacity Providers can trade capacity obligations on the Secondary Market. This allows CMUs to sell their excess capacity or to cover their capacity shortages.

The purpose of a Secondary Market is:

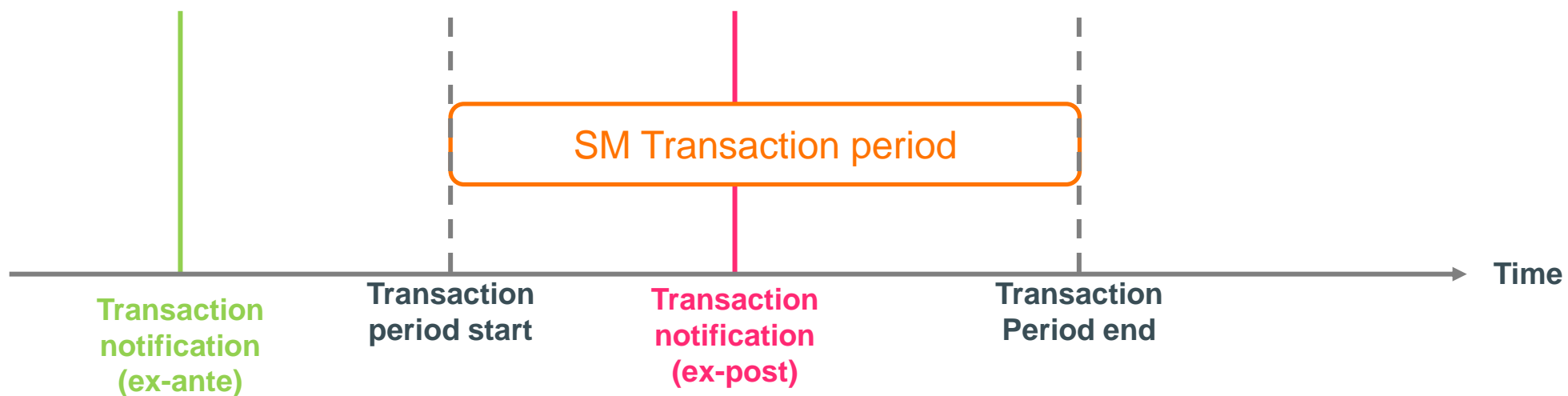
- To allow Capacity Providers to be able to **transfer** their CMU Contracted Capacities and related obligations to another CMU in order to allow them to **manage their risks** better.
- To contribute to **enhance competition** in the Primary Market (Auction) of all participating technologies ensuring SoS within the CRM.
- To **decrease the risk** of the Auction bidders, and therefore **decrease the overall CRM cost**.



Secondary Market transactions – key parameters

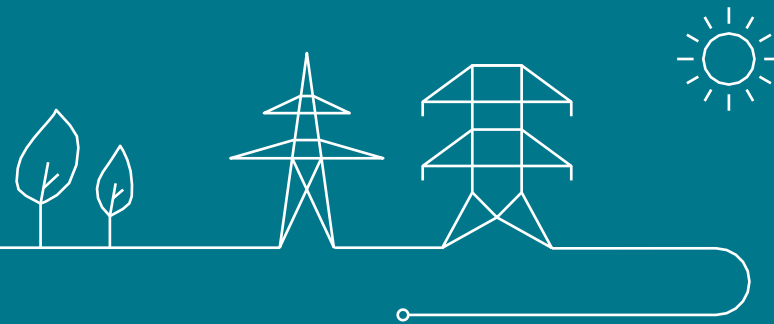
A Secondary Market transaction has the following key parameters (non-exhaustive):

- CMU of the seller
 - CMU of the buyer
 - Secondary Market Capacity
- Transaction period start
 - Transaction period end
 - Type (see later):
 - Ex-ante when transaction date < period start
 - Ex-post when transaction date > period start



What volume is available on the secondary market?

As a seller / as a buyer



Volume available on the secondary market – **sellers**

The volume that can be sold (or bought) on the secondary market is called the “**Secondary Market Capacity**”

For the seller of a transaction, its calculation is straightforward:

A CMU cannot sell more than its contracted capacity:

Secondary market capacity \leq Contracted Capacity



Volume available on the secondary market – buyers

The Secondary Market Capacity available to buyers on the secondary market is limited by the “**Secondary Market Remaining Eligible Volume**” or SMREV:

$$\text{Secondary Market Capacity} \leq \text{SMREV}$$

The following key-principle applies when calculating the SMREV:

Volumes which have already been considered towards adequacy cannot be used anymore on the Secondary Market

The following volumes are already considered towards adequacy:

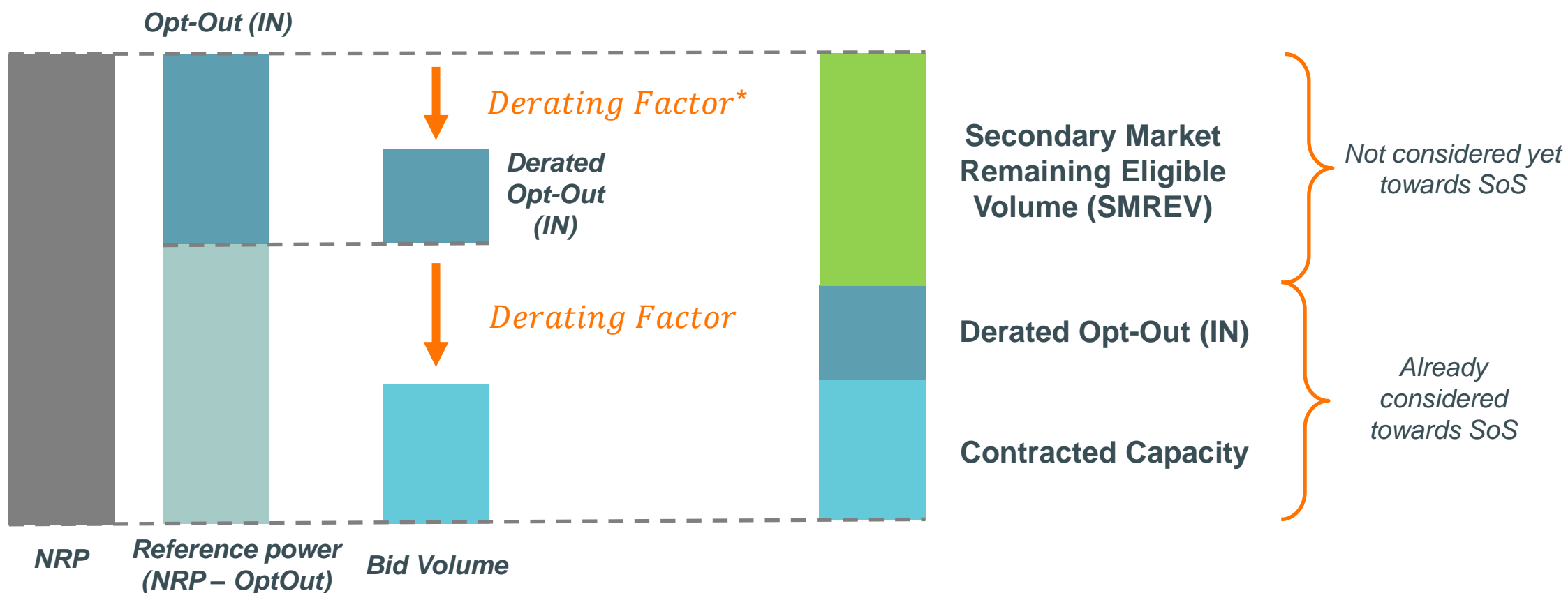
- Any contracted volume
- Any Opt-out volume that is classified as IN

For energy-constrained CMUs the volume also depends on whether the transaction is ex-ante or ex-post

- See following slides

Volume available on the secondary market – buyers

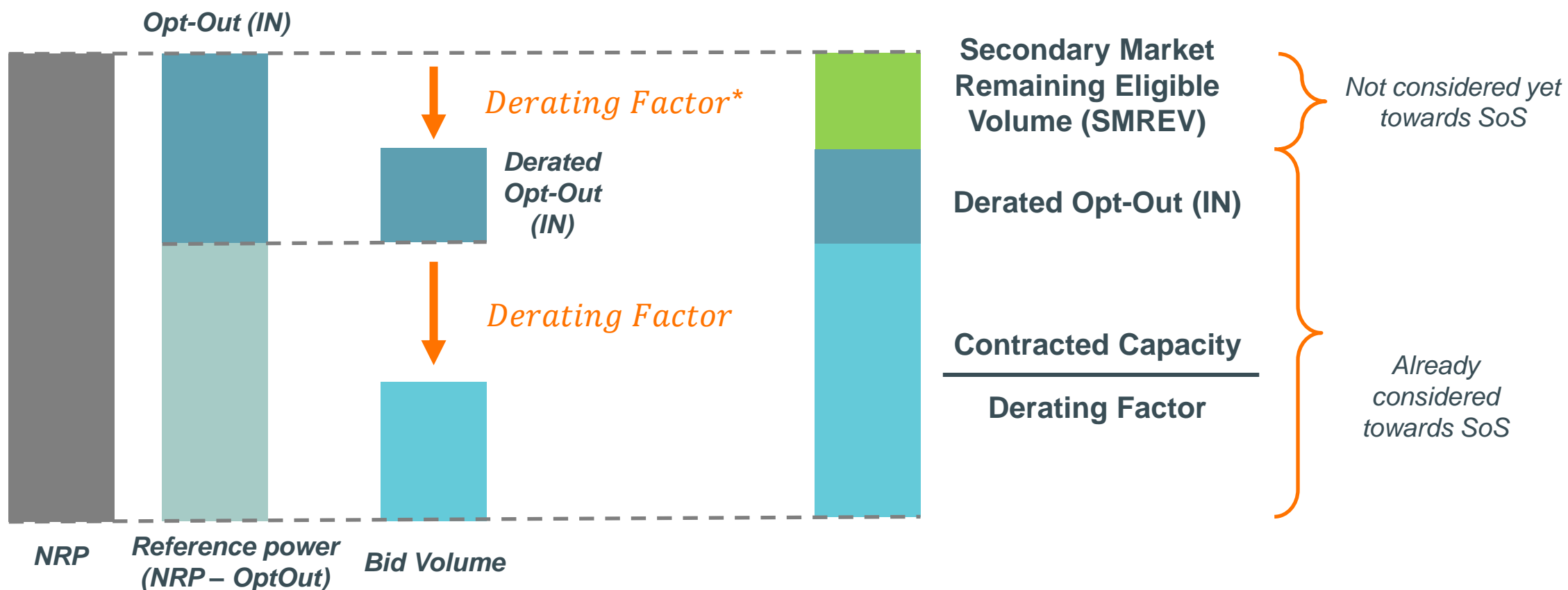
Example: **Non-energy constrained** CMU for both **ex-ante** & **ex-post** transactions



* The last published Derating Factor

Volume available on the secondary market – buyers

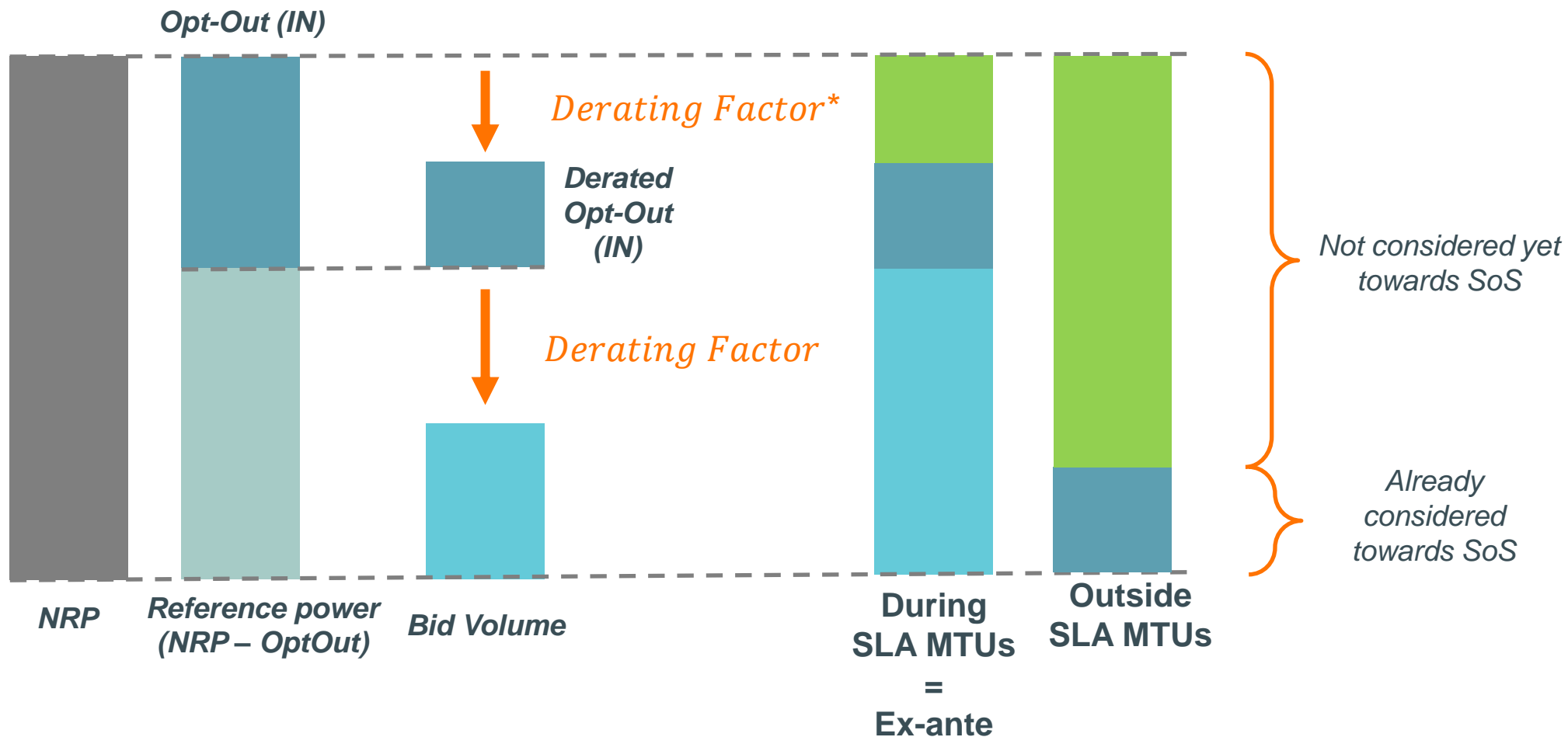
Example: **Energy constrained** CMU for an **ex-ante** transaction



* The last published Derating Factor

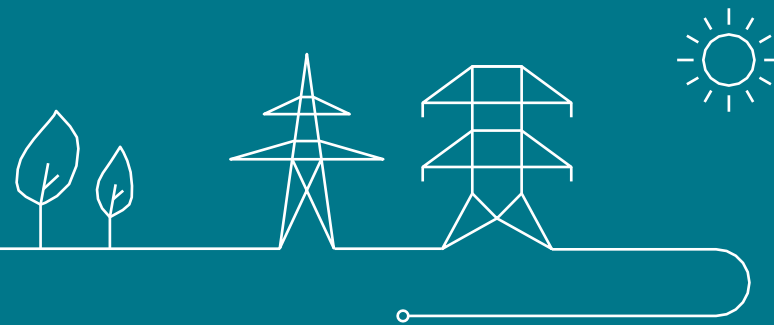
Volume available on the secondary market – buyers

Example: **Energy constrained** CMU for an **ex-post** transaction



* The last published Derating Factor

How is a secondary market transaction processed?

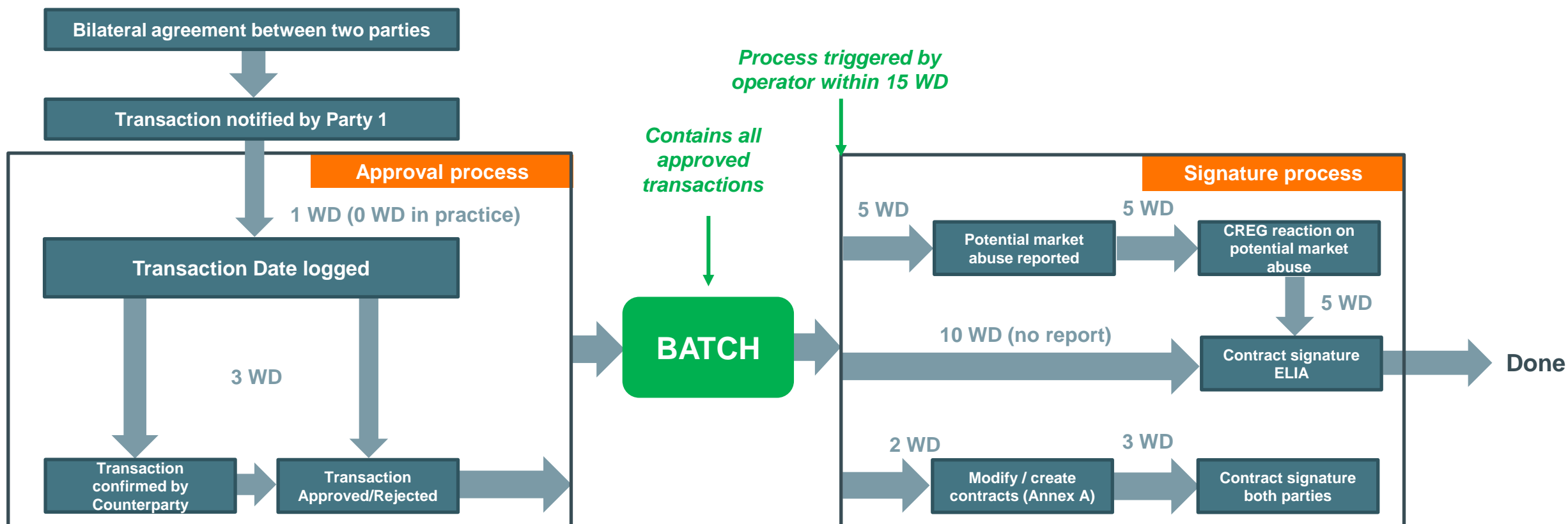


SM transaction process* – overview

The current process generally consists of two phases:

1. Approval
2. Signature

➤ To process transactions in parallel, a batch is introduced between the approval and signature processes



*The process is subject to the final version of the Functioning Rules v5 published by the CREG on 15/05/2025

1

A Secondary Market Transaction is a bilateral agreement between market parties

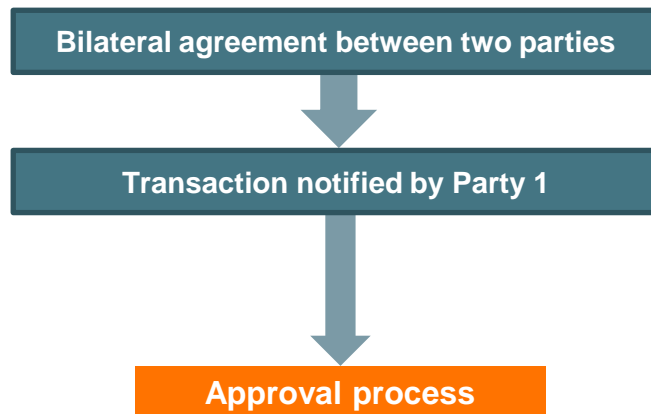
Elia does not provide a platform to match potential buyers to potential sellers.

- Another party can take up the role of exchange (none have done so yet)

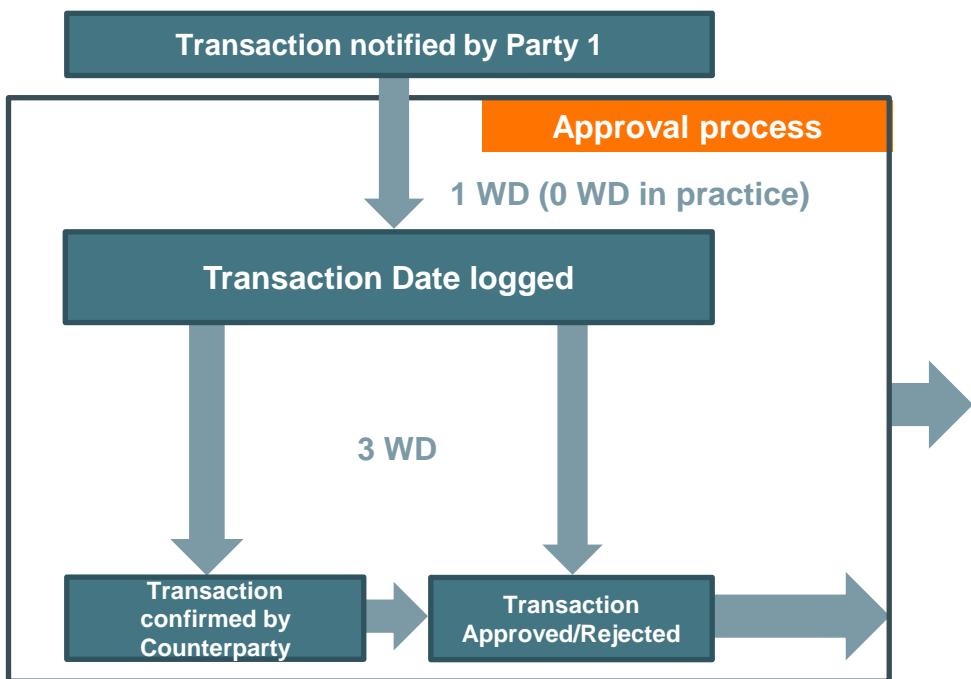
Instead, market parties are expected to enter into a **bilateral agreement** themselves

- To this end, Elia publishes a list of all prequalified CRM actors and their contact details on its website

Once a bilateral agreement is found, **one of the parties notifies Elia** of the transaction, starting the secondary market process



2 After notifying the secondary market transaction, the approval process starts



After receiving the notification, Elia will log the **Transaction Date**

- The Transaction Date determines the ex-ante / ex-post status of the transaction
- Elia has 1 WD to log the Transaction Date

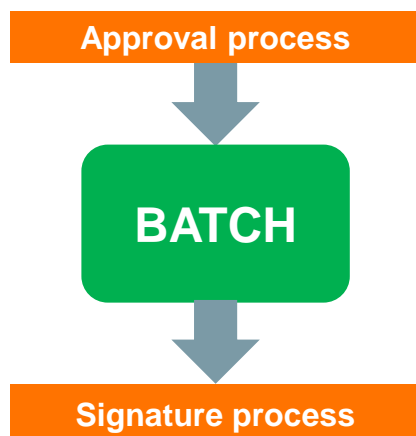
Following the logging of the transaction date:

1. Elia has **3 Working Days** to either **approve or reject** the transaction
2. The transaction **counterparty has 3 Working Days to confirm** the transaction
 - If no confirmation is received, the transaction is rejected by Elia

(!) In case Elia receives multiple transactions relating to the same CMU, the approval process of these transactions will happen sequentially and in order of the notification date.

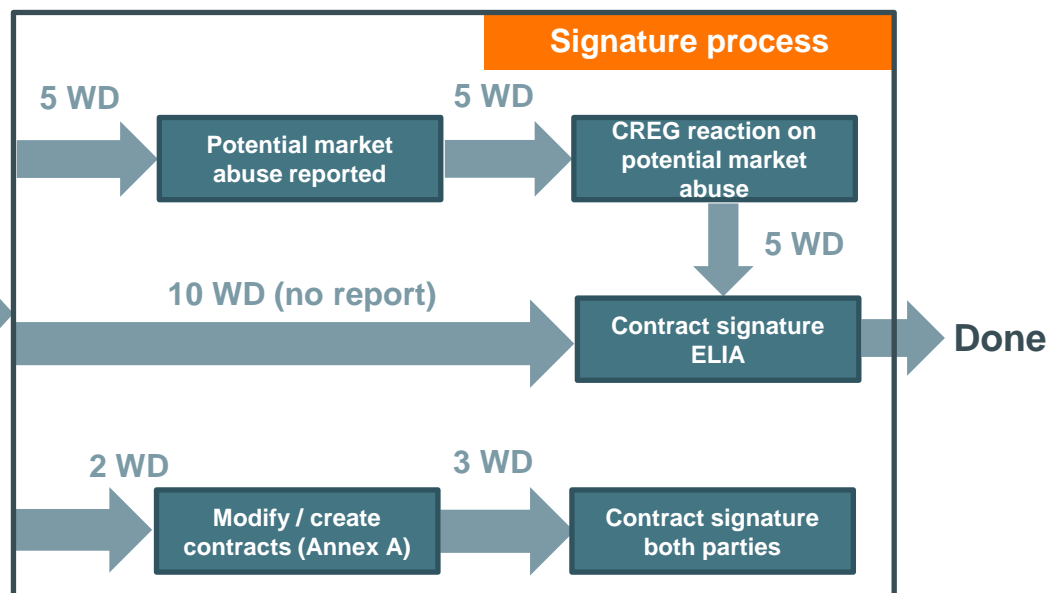


3 Before starting the contractual implementation, Elia gathers all approved transactions*



- To avoid repeating the contractual implementation (creating / signing contracts) several times in a row for different transactions related to the same CMU, Elia first **gathers all approved transaction in a “batch”** when relevant.
- Once all transactions related to the same CMU have been approved, Elia will **launch the signature process for multiple transactions at the same time.**
- This enables the **creation and signature of a single contract** (including annexes)

4 Finally, the secondary market transaction is implemented in the contract



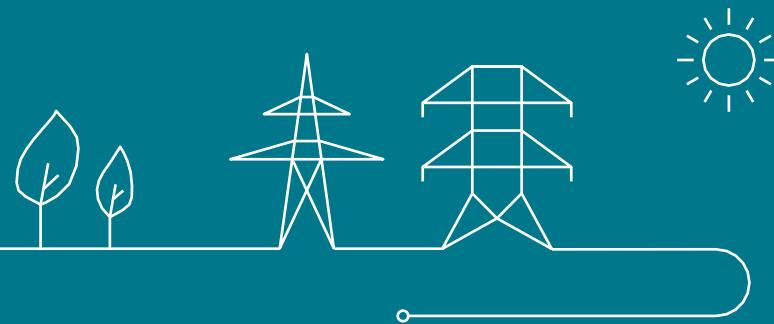
Once the signature process is initiated by Elia, Elia has **two Working Days** to create all contracts / annexes.

After the creation of the contract, both **parties have 3 Working Days** to sign.

Elia has the option to notify the CREG of any potential market abuse when relevant.

- The CREG can reject the transaction if they conclude it constitutes anti-competitive or market abuse behavior.

What are the rights and obligations following a secondary market transaction?



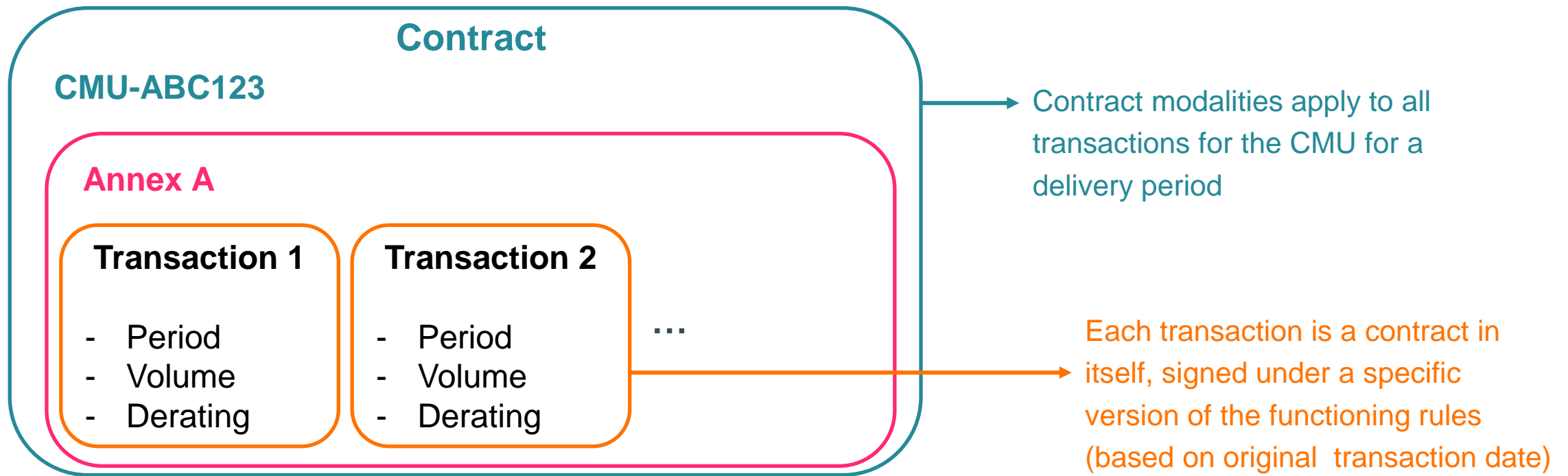
Note – CRM contract structure

Contract: describes relation between ELIA and Capacity Provider: a framework agreement

- One contract is signed per CMU per delivery period

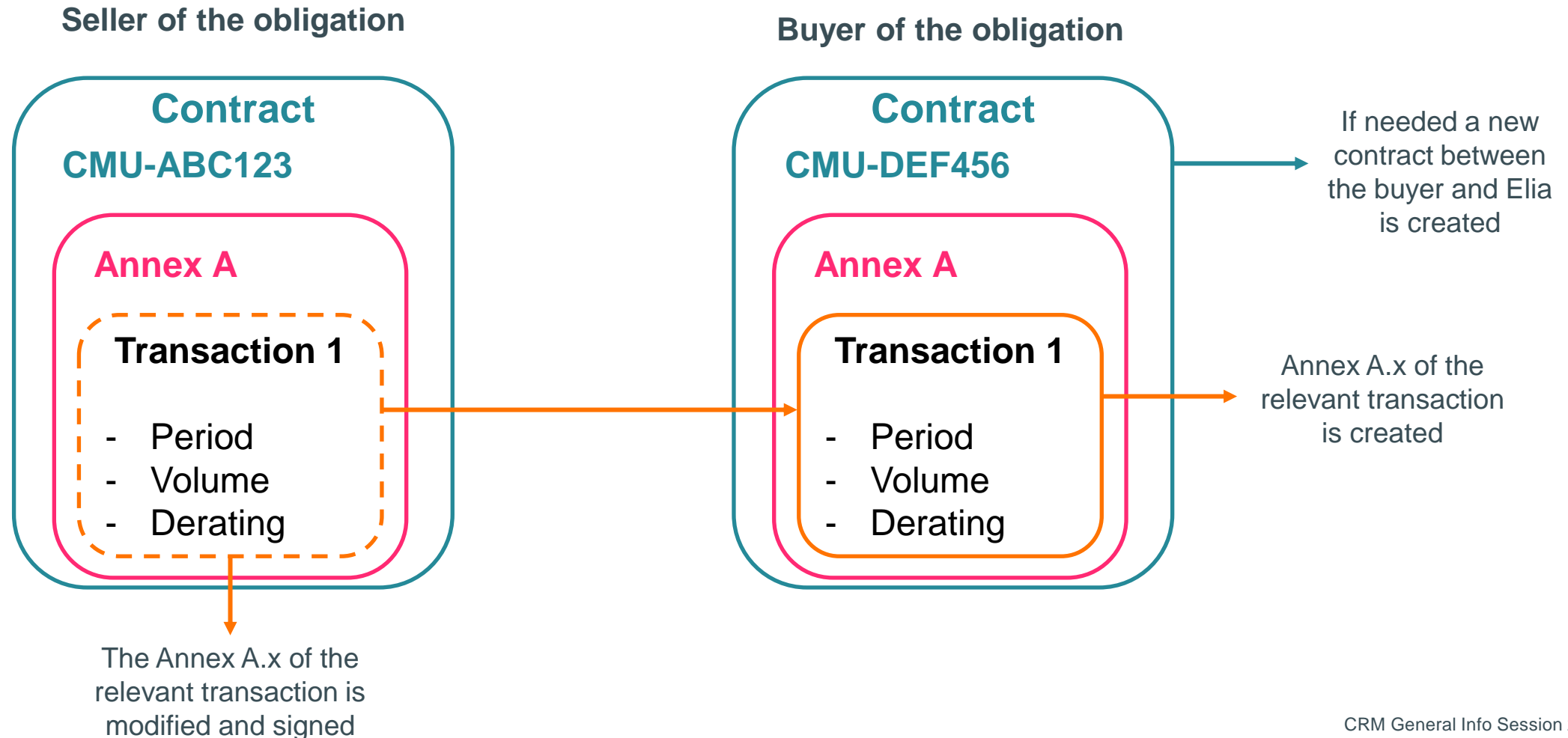
Annex A: section of the contract where the information for each transaction is stored

Annex A.x (Transaction): describes the contract parameters relevant to each transaction (period, volume, strike price, etc.)



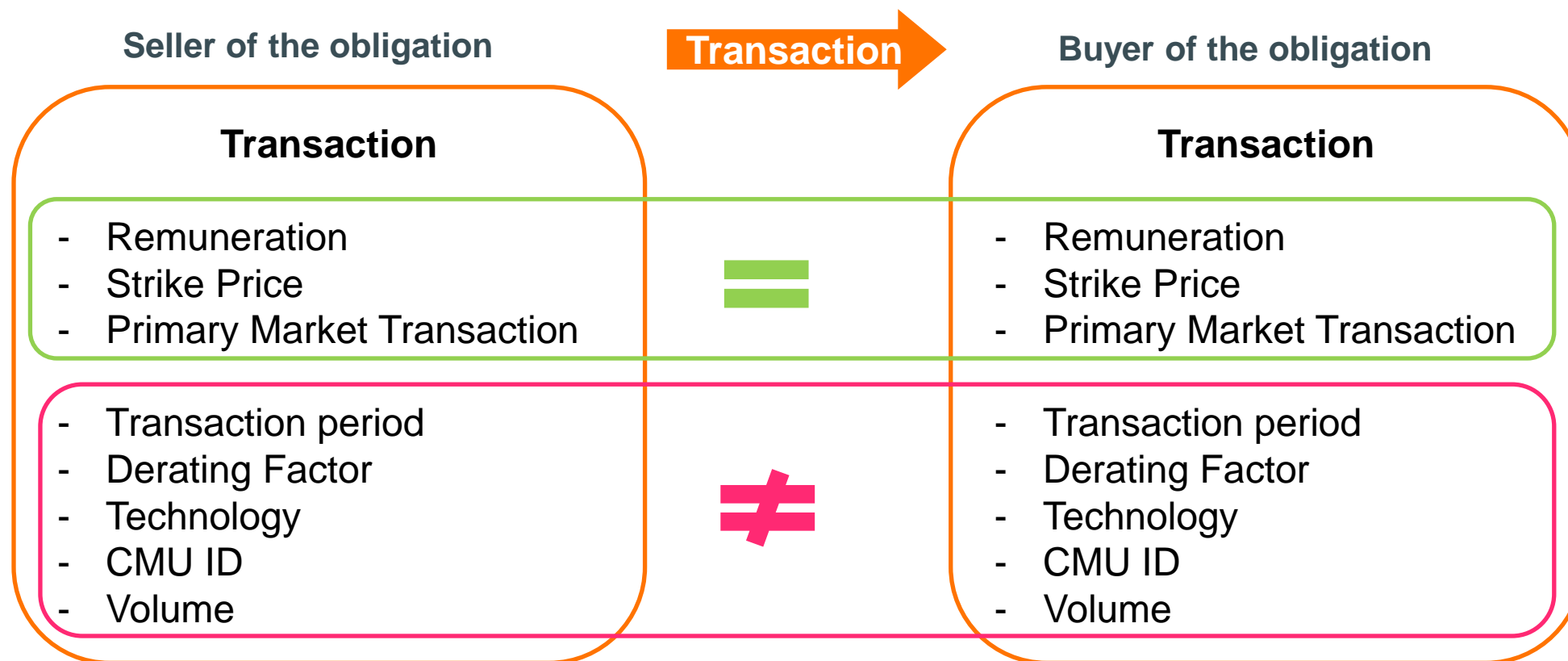
Secondary Market – contractual impact

When a secondary market transaction is signed, a new contract (when needed) and a new Annex A.x are signed:



(Some of) The parameters of the transaction are modified during a secondary market transaction

- The parameters related to the **rights (remuneration)** and **payback obligation (strike price,..)** are **not adapted**
- The parameters related to the **availability obligation** are **adapted**, as these are specific to the CMU that delivers the obligation



Note – version of the functioning rules applicable to a transaction

The Functioning Rules are updated every year on May 15, these rules exhaustively stipulate the rights and obligations of capacity providers

- important to know what version is applicable when acquiring an obligation on the secondary market

The following principles apply:

- 1. The latest version of the functioning rules apply to all transactions (primary & secondary market) except for the provisions included in Annex 18.8 (H)**
- 2. For the rules that are not applied retro-actively (contained in Annex 18.8 (H)), the date of signature of the original Primary Market transaction is used to determine the applicable version of the FR.**



Purpose of Today's session

Right to remuneration

Financial Security Obligation

Availability Obligation

Availability monitoring

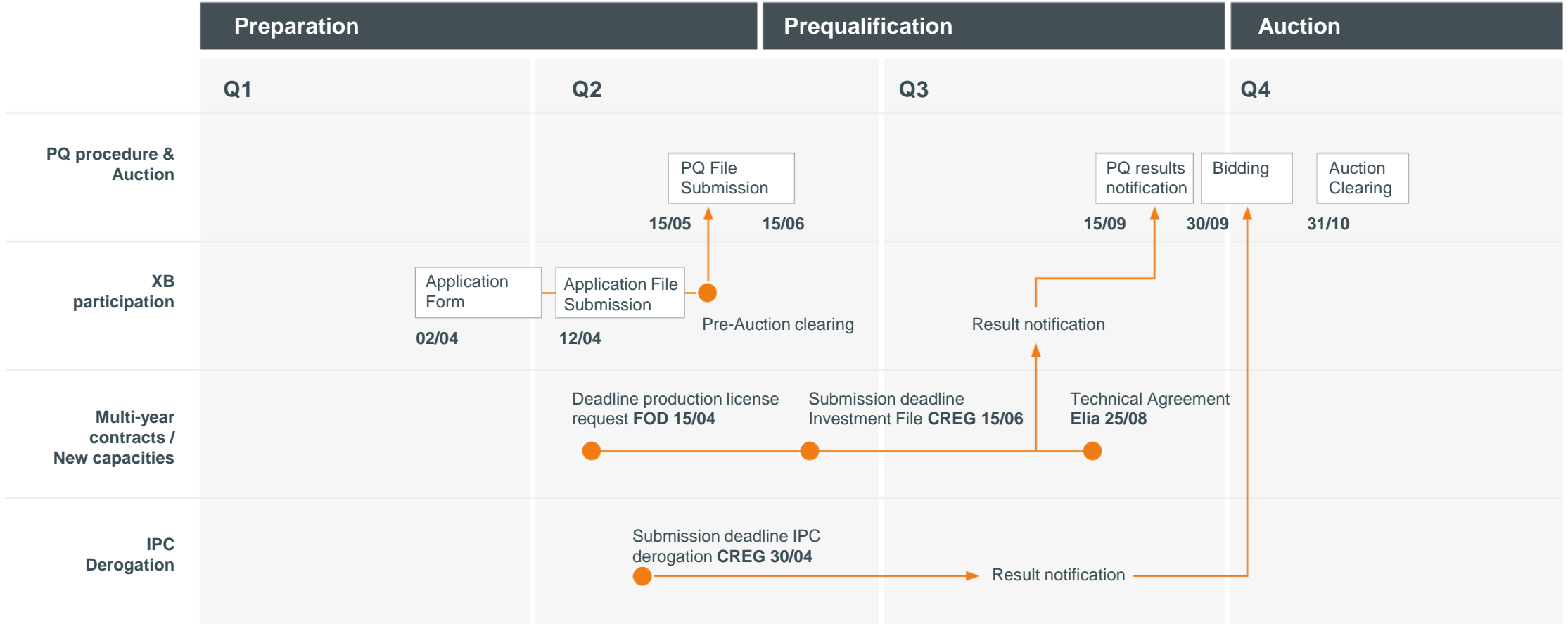
Availability Testing

Payback Obligation

Final notes



High level view on the CRM process



Your participation in the Y-1 / Y-4 Auction



Your Elia KAM guides you through your flexibility valorization supported by:

CRM dedicated support (customer.crm@elia.be)

Balancing products dedicated support (contracting_AS@elia.be)

You can also find [here](#) the list of "Balancing Services Providers"



Thank you

