Prequalification Use Case 4

New Project with two possible configurations

CCGT or 2 OCGT on a site

Task Force Implementation CRM – 05/05/2020

Disclaimer

This document provides different fictive examples, so-called use cases, related to the Capacity Remuneration Mechanism being developed in Belgium. It has, as sole purpose, to explain the Functioning Rules and its Annexes by means of examples.

Given that the CRM process consists of several steps and for each of these steps several layer of information and details are relevant and will be presented sequentially to market parties via the Implementation Task Forces, it is to be understood that this document focuses on most pertinent Prequalification aspects (including Opt-Out consideration).

By no means, the use cases replaces the rules in the relevant laws, royal decrees, and regulatory approved documents.

The choices in the examples are only made for illustrative purposes and do not imply any judgement. All the figures and numbers used for these use cases are purely fictive. These numbers nor the use cases presented should be interpreted as representing a concrete case or a concrete situation of the Belgian Capacity Market or an implied proposal for any CRM parameter.

The use cases developed in this document are based on the section “Prequalification Processes” of the Functioning Rules as known at the moment of writing and shared with market parties on 24/04/2020. It also builds on the proposals related to the minimum threshold and obviously follows the context set by the Electricity Law.

Context

The purposed slide pack has the objective to facilitate the Functioning Rules comprehension for the Prequalification Processes.

The use case slide pack is arranged to correspond to the structure of the updated and informal version of Functioning Rules sent to market parties on 24/04/2020 in preparation of the Implementation Task Force planned on 05/05/2020.

4 specific uses cases are proposed to illustrate 4 possible Capacity Market Unit configuration and by doing so; hopefully increase the understanding of the proposed set of rules.

The use cases are not oriented, fictive and didactic and support purpose only. In case of apparent contradiction with the rule described the Functioning Rules, the Functioning Rules prevail.

ELIA’s objective is to build on these 4 example when approaching the next steps of the CRM process. In this way, the layers related to the auction process, pre-delivery monitoring, secondary market and availability monitoring will be added later on.

Use case structure

The Prequalification Process will be described following the operational & Prequalification Functioning Rules document flow:

1. The customer and its asset(s)
2. Terminology of the prequalification
3. Application form & Prequalification Platform access
4. Prequalification File(s) submission
5. Prequalification File(s) review by ELIA
6. Volume determination
7. Prequalification results notification
8. Evolution in time of the prequalification

Use case structure

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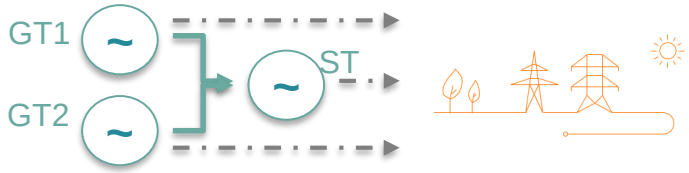
1. The customer and its assets

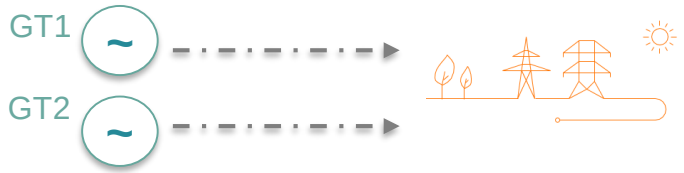
EnergyProducer.SA/NA is owner of a site on which two mutual exclusive projects on the land (located in Belgium) which are currently investigated

New built exclusive CCGT / OCGT project connected to Fluxys grid for the gas supply and ELIA for the electrical connection

- Project 1: CCGT 2on1: 2GT of 350MW each and one ST of 300MW connected to both GT ➔ Total: 1000MW Installed Capacity
  - Operational efficiency expected 60% at normal temperature



- Project 2: OCGT: 2GT of 350MW each (not linked) ➔ Total: 700MW Installed Capacity
  - Operational efficiency expected 40% at normal temperature



Obviously, the 2 different projects represents 2 different business plans in terms of CAPEX and OPEX

1. The customer and its assets

Purely electricity production oriented & a TSO connection required – **2 EOS studies have been received and 2 EDS studies have been requested.** Furthermore:

  - No Existing Access Point is related to the project;
  - The owner of the site is likely to be the Capacity Holder (no Grid User Declaration needed at prequalification file submission);
  - The (future) electricity offtake Access Point is expected to consume up 5MW and to inject up to 1000MW on ELIA Grid;
  - Metering devices on each turbine are an obligation as in both configuration, each turbine excess the threshold related to the individual MW schedule obligation

- **A production license** for the site has been requested to FPS Economy for both exclusive projects

- A **firm gas connection** has been requested to Fluxys for both Project configurations

- All required permits are under the customer's responsibility and these processes started already;

- The customer has the intention to submit **two investment files** to CREG to request contract category higher than 1 year;

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2. CRM terminology applicable to the customer's case

Capacity Holder: the owner of the site, EnergyProducer SA/NV also the projects owner decides to apply to the CRM Prequalification Process directly

- ➔ No willingness to transfer / create another company for the CRM service delivery;
- ➔ No willingness to mandate another entity to offer its assets into the CRM service (hence no need for a Grid User declaration).

CRM Candidate: EnergyProducer SA/NV shall become a CRM Candidate and receive access to the Prequalification platform once its application form is validated by ELIA.

Prequalified CRM Candidate: If **at least one CMU Prequalification File** of the CRM Candidate "EnergyProducer SA/NV" is considered as **duly prequalified**, the status of the candidate shall be **updated to Prequalified CRM Candidate**

2. CRM terminology applicable to the customer's case

CMU with Daily Schedule: the current threshold of 25MW imposing a daily MW schedule is excessed for each turbine of the project, in both configurations OCGT and CCGT. The CMU are therefore defined **as individual CMUs (one delivery point in each CMU).** Concretely, this gives the following CMUs:

CMU 1 → GT1 (350 MW);
CMU 2 → GT2 (350 MW);
CMU 3 → ST3 (300 MW).

As ELIA requires one prequalification file per CMU, the customer will have to introduce 3 separate prequalification files

Furthermore, considering that these CMUs cannot be measured with certified metering device, they must be prequalified as **"Additional CMU"**

- Customer will have to follow the **Standard Prequalification Process**
- One **project execution plan** shall be joined to the Prequalification Files to detail how and by when the turbines will be connected to TSO grid (in case of selection at Auction).

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3. Application form submission

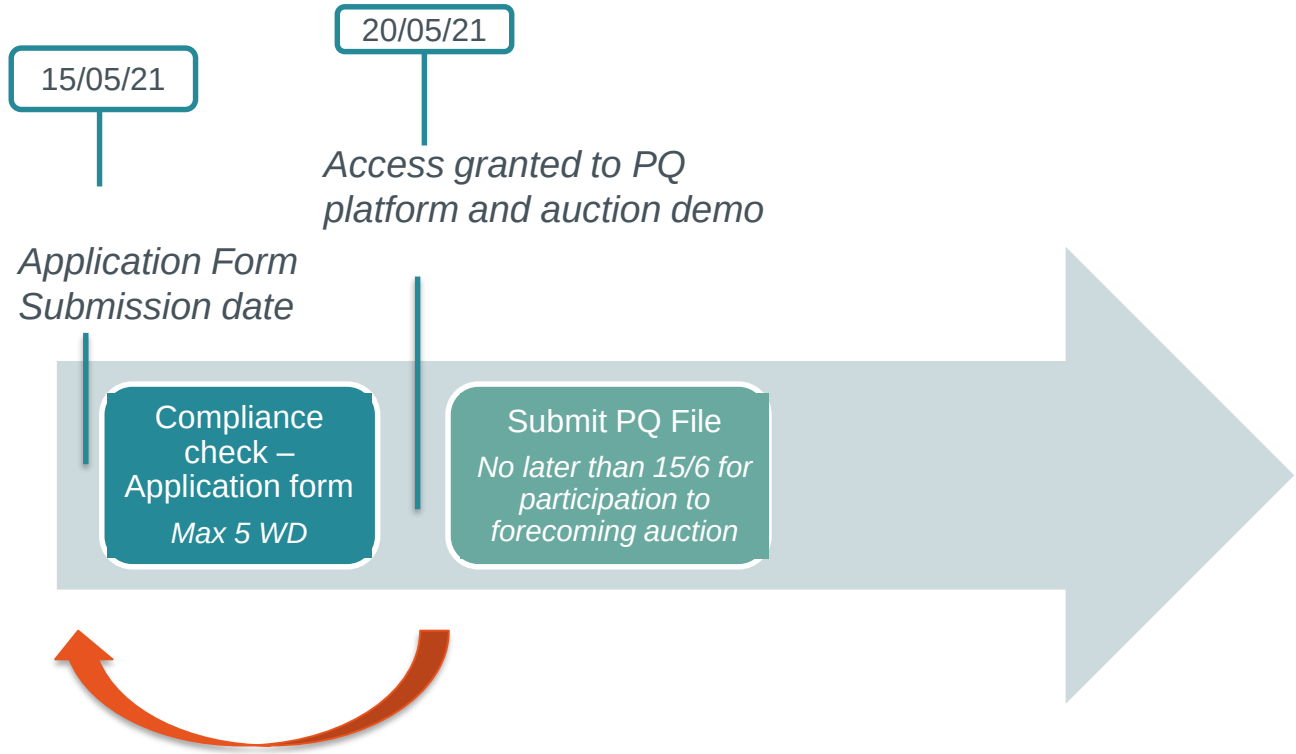
To get the possibility to submit a prequalification file, the customer must first fill in the application form (as a legal entity; following the template provided in the Annexes of Functioning Rules) and by doing so; become **a CRM Candidate**.

The application form is submitted to Elia on May 15th 2021

The application form is approved by Elia on May 20th 2021

- The CRM Candidate receives access to the PQ platform;
- The CRM Candidate shall mark his commitment with the eligibility conditions (next step);

3. Application form submission



The details related to the access to the auction demo and the interaction with the Prequalification process will be illustrated in the Implementation Task Force on auction principles; foreseen on 28/05/2021

3. Eligibility conditions

Prequalification platform access

The CRM Candidate receives a notification by email to create a password for a preliminary access to the Prequalification Platform

At first connection, the CRM Candidate shall endorse:

- (1) Functioning Rules and (2) Capacity Contract Conditions
- The compliance of each Delivery Point with Electricity Act and related Royal Decrees regarding (3) Eligibility and (4) License requirement
- (5) The compliance of each Delivery Point with EU Regulation 2019/943 on CO2 emissions
- (6) The compliance of each Delivery Point with relevant Legal and Regulatory Framework

Therefore, the CRM Candidate firstly shall verify all compliances to them prior of their endorsement, among others the following elements.

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4. Prequalification file submission

Project ID request to ELIA

Prior to the introduction of the Prequalification File(s), the CRM Candidate must obtain Project IDs for his 2 different and mutual exclusive investment projects

Those 2 project IDs are required for a submission towards CREG of the 2 investment files.

- 2 projects IDs are requested on the ELIA Prequalification Platform on May 26th 2021
- 2 projects IDs are transmitted to the CRM Candidate on May 27th 2021:
  - CCGT config: “EnergyProducer1.projectID”
  - OCGT config: “EnergyProducer2.projectID”

Investment file(s) are sent to CREG with the project IDs (from ELIA):

- In the following case, 2 investments files representing the CCGT (2GT + 1ST) and the OCGT (2 GT) configurations of the site are officially submitted towards CREG on May 28th 2021 in order to be able to bid in the CRM for a multi-years contract with the 2 projects ID. CRM Candidate requests 15 years for both configurations of the project

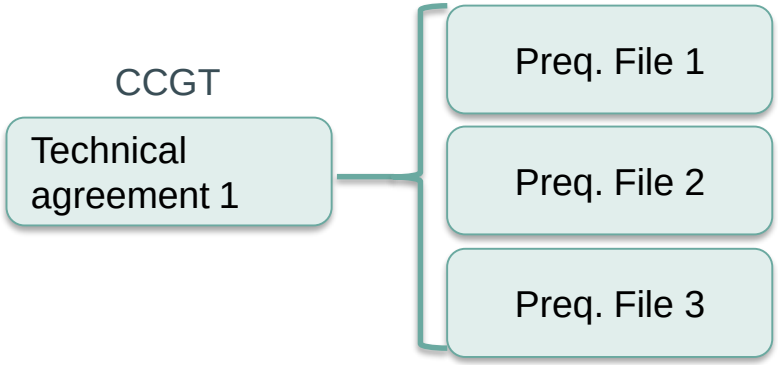
4. Prequalification file submission – technical agreement

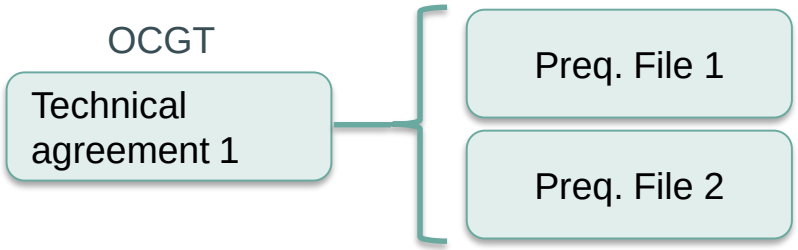
EnergyProducer.SA/NV as a CRM Candidate plans to introduce all possible elements to perform a successful participation for both his mutually exclusive projects in the CRM

Given that 3 Delivery Points are considered as in three individual CMUs; 3 separate Prequalification files are requested.

- ➔ Prequalification File 1 relates to CMU1 = GT1 350MW
- ➔ Prequalification File 2 relates to CMU2 = GT2 350MW
- ➔ Prequalification File 3 relates to CMU3 = ST 300MW

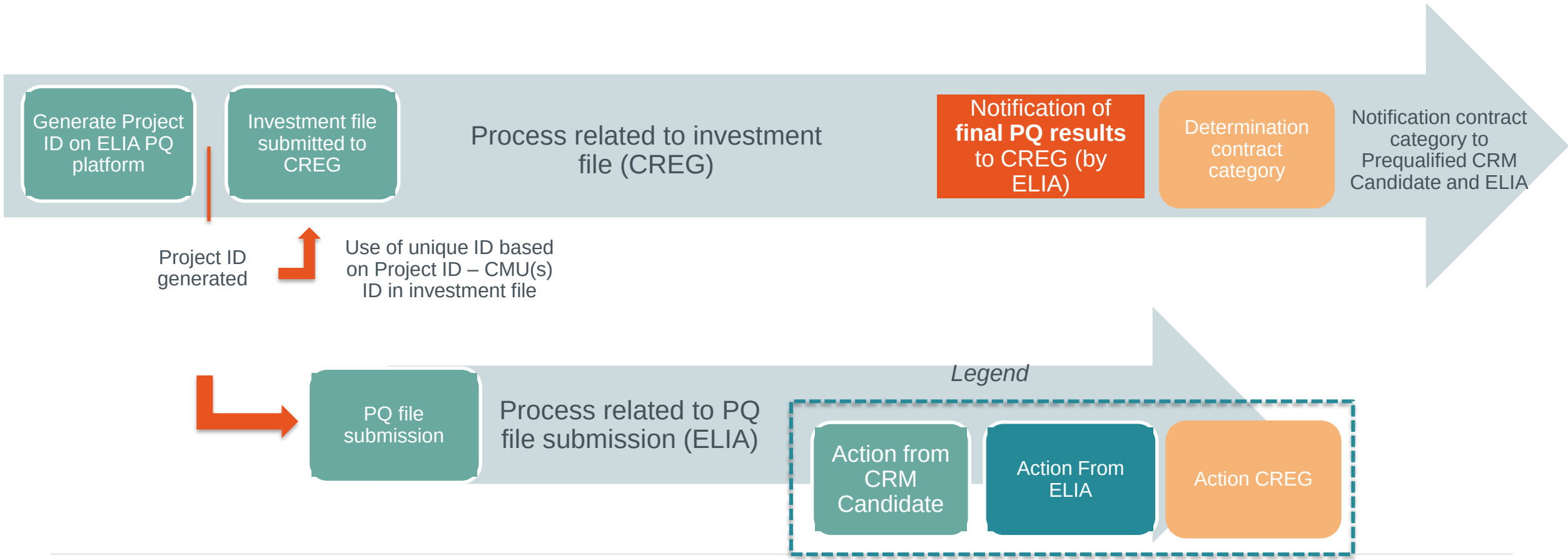
To reflect the two possible configurations (CCGT and OCGT), two technical agreements are linked to these Prequalification files.





4. Prequalification file submission

As illustrated in the Annex of the Functioning Rules (version sent on 24/04/2020 to market parties for indicative purposes), the following timing is foreseen when looking at a capacity for which at least **one investment file is sent to CREG**



4. Prequalification file submission – Data on delivery point level

As the Delivery Points are considered as **Additional** and then go through the **Standard Prequalification Process**, the following information shall be provided by the CRM Candidate according to the details of the *Functioning Rules (section 4)*

Requirements	***Type of data***	**GT1**	**GT2**	**ST**
Delivery Point's status	*Name*	Additional	Additional	Additional
Type of Delivery Point	*Name*	TSO	TSO	TSO
Delivery Point's name	*Name*	projectY – GT1	projectY – GT2	projectY – ST
Single line diagram	*Diagram (pdf)*	projectY CCGT diagram & projectY OCGT diagram	projectY CCGT diagram & projectY OCGT diagram	projectY CCGT diagram
Technology	*Name*	(projectID 0004) CCGT & (projectID 0005) OCGT	(projectID 0004) CCGT & (projectID 0005) OCGT	(projectID 0004) CCGT
List of Delivery Points located on the same geographical site	*Number*	3 (CCGT mode) 2 (OCGT mode)	3 (CCGT mode) 2 (OCGT mode)	3 (CCGT mode)

4. Prequalification file submission – Data on delivery point level

As the Delivery Points are considered as **Additional** and then go through the **Standard Prequalification Process**, the following information shall be provided by the CRM Candidate according to the details of the *Functioning Rules (section 4)*

Requirements	*Type of data*	GT1	GT2	ST
Technical dependency with other Delivery Points	*ID of related Delivery Points (?) & CMU*	NA	NA	GT1 & GT2
The Opt Out Volume repartition per Delivery Point	*Number*	50%	50%	0%
CDSO Declaration	*Signed letter*	NA	NA	NA
EAN code of the Access Point	*Number*	NA	NA	NA
EAN code(s) of the Delivery Point	*Number*	NA	NA	NA
Expected Nominal Reference Power	*Number (in MW)*	NA	NA	NA

4. Prequalification file submission – Data on delivery point level

As the Delivery Points are considered as **Additional** and then go through the **Standard Prequalification Process**, the following information shall be provided by the CRM Candidate according to the details of the *Functioning Rules (section 4)*

Requirements	*Type of data*	GT1	GT2	ST
CO_2 emission attestation	*Signed letter*	NA	NA	NA
CO_2 emission	*Number (in g/kWh)*	NA	NA	NA
Preferred Nominal Reference Power calculation methodology	*Name (drop-down list)*	NA	NA	NA
Prequalification test profile for method 3	*Date (in D/MM/YY) and hours (in H:MM)*	NA	NA	NA
Baseline adjustment	*Name (drop-down list)*	NA	NA	NA
Unsheddable Margin	*Number (in kW/MW)*	NA	NA	NA
Net offtake/net injection	*Data*	NA	NA	NA

4. Prequalification file submission – Data on delivery point level

As the Delivery Points are considered as **Additional** and then go through the **Standard Prequalification Process**, the following information shall be provided by the CRM Candidate according to the details of the *Functioning Rules (section 4)*

Requirements	*Type of data*	GT1	GT2	ST
Full technical injection Capacity	*Number (in MW)*	NA	NA	NA
Full technical offtake Capacity	*Number (in MW)*	NA	NA	NA
Grid User Declaration	*Signed letter*	NA	NA	NA
Renouncing the operating aid	*Signed letter*	NA	NA	NA
Declared Nominal Reference Power	*Number (in MW)*	350	350	300
Existing connection volume	*Number (in MW)*	0	0	0
Information related to production license	*list of information*	In process	In process	In process

4. Prequalification file submission – Data on CMU level

As the Delivery Points are considered as **Additional** and then go through the **Standard Prequalification Process**, the following information shall be provided by the CRM Candidate according to the details of the *Functioning Rules (section 4)*

Requirements	*Type of data*	GT1	GT2	ST
Information linked to Financial Security	*NA*	7 000 000€; BANK ABC	7 000 000€; BANK ABC	6 000 000€; BANK ABC
Opt-out Notification Volume	*Number (MW)*	0MW	0MW	0MW
Project ID	*Number*	ProjectID0004(CCGT) & ProjectID0005(OCGT)	ProjectID0004(CCGT) & ProjectID0005(OCGT)	ProjectID0004(CCGT)
Choice of a Derating Factor	*Number*	0,9 (CCGT); 0,92 (OCGT)	0,9 (CCGT); 0,92 (OCGT)	0,9 (CCGT)
Project execution plan	*Document*	Detailed Plan CCGT.pdf & Detailed Plan OCGT.pdf	Detailed Plan CCGT.pdf & Detailed Plan OCGT.pdf	Detailed Plan CCGT.pdf & Detailed Plan OCGT.pdf
Expected start date of the project	*Date (in D/MM/YY)*	20/11/2021	20/11/2021	20/11/2021
Expected end date of the project	*Date (in D/MM/YY)*	01/09/2025	01/09/2025	01/09/2025
Declared Eligible Volume	*Number (in MW)*			
Information for method 2 (for Nominal Reference Power determination)	*Date (in D/MM/YY) & Number*			
ID of the technical agreement	*Number*	EDS in process	EDS in process	EDS in process

4. Prequalification file submission – Data on CMU level

As the Delivery Points are considered as **Additional** and then go through the **Standard Prequalification Process**, the following information shall be provided by the CRM Candidate according to the details of the *Functioning Rules (section 4)*

Requirements	*Type of data*	GT1	GT2	ST
Declared Day-Ahead Price (optional at this stage)	*Number (in €/MWh)*	NA	NA	NA
NEMO (optional at this stage)	*Name*	EPEX	EPEX	EPEX

At this stage, the CRM Candidate gathered all elements of the 3 CMU Prequalification File(s) and feels ready for a submission in the Prequalification Platform to ELIA

4. Prequalification file submission

Legend

Action from CRM Candidate

Action from ELIA

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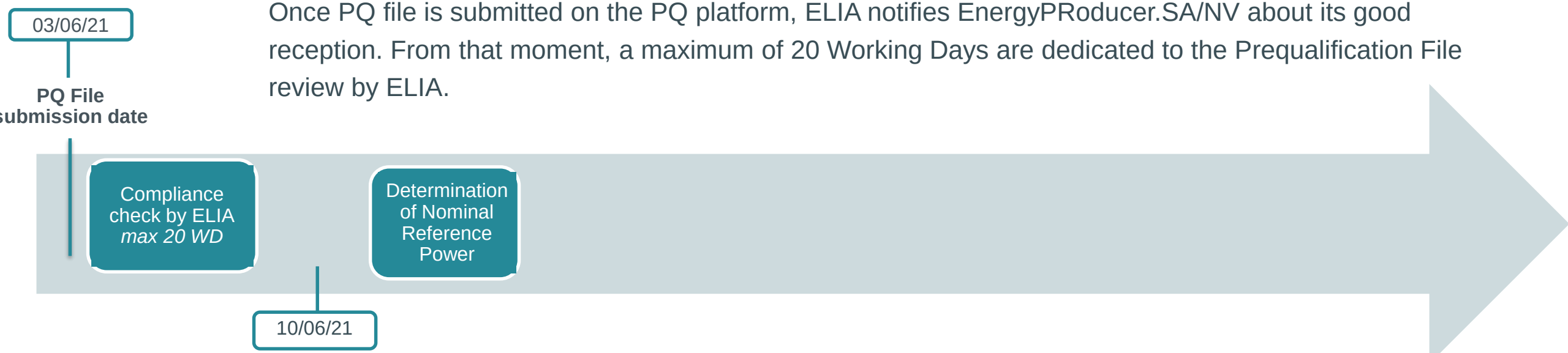
5. Prequalification File review process

Compliance check

Once PQ file is submitted on the PQ platform, ELIA notifies EnergyPRoducer.SA/NV about its good reception. From that moment, a maximum of 20 Working Days are dedicated to the Prequalification File review by ELIA.



On 10/06/2021; ELIA finalizes its review of the three prequalification files. As no additional information is required; ELIA notifies CRM Candidate that the prequalification files are complete.

In consequence, the next step **(determination of Nominal Reference Power)** can start.

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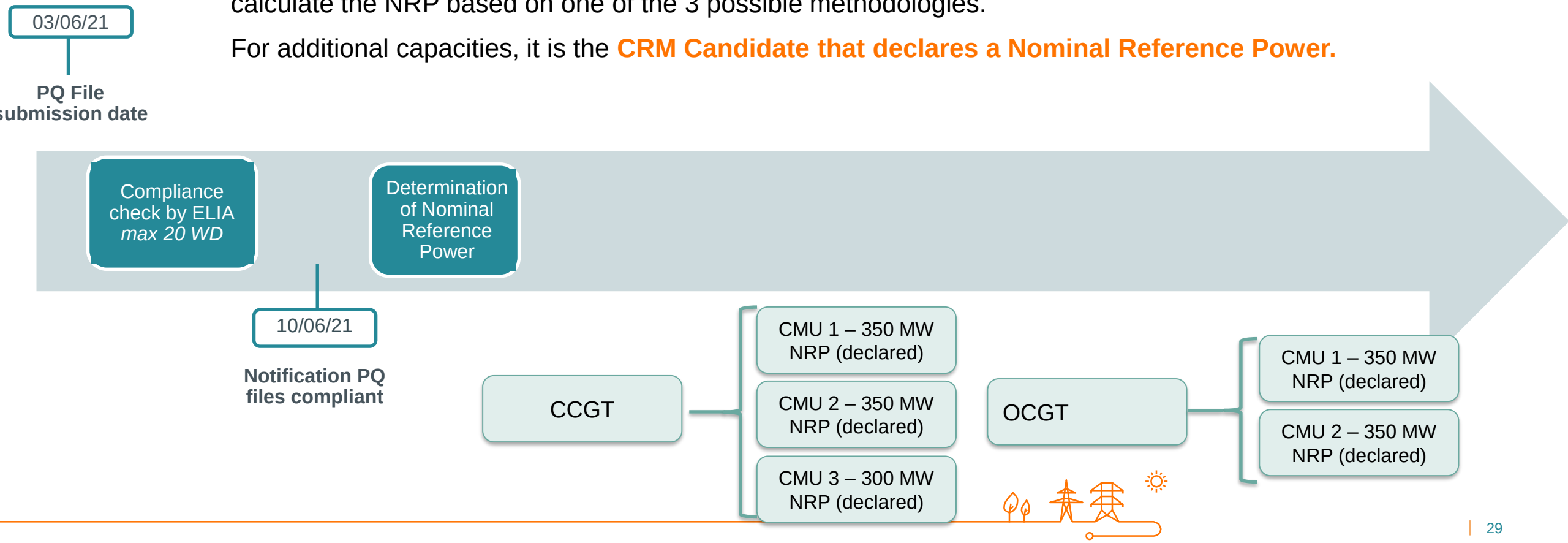
6. Volume determination – Nominal Reference Power

At this stage, ELIA determines the **Eligible Volume**. To do so, the first step is to **calculate the Nominal Reference Power.**

However, the 3 CMUs of this use case are with the status of “additional”. This means that ELIA is not able to calculate the NRP based on one of the 3 possible methodologies.

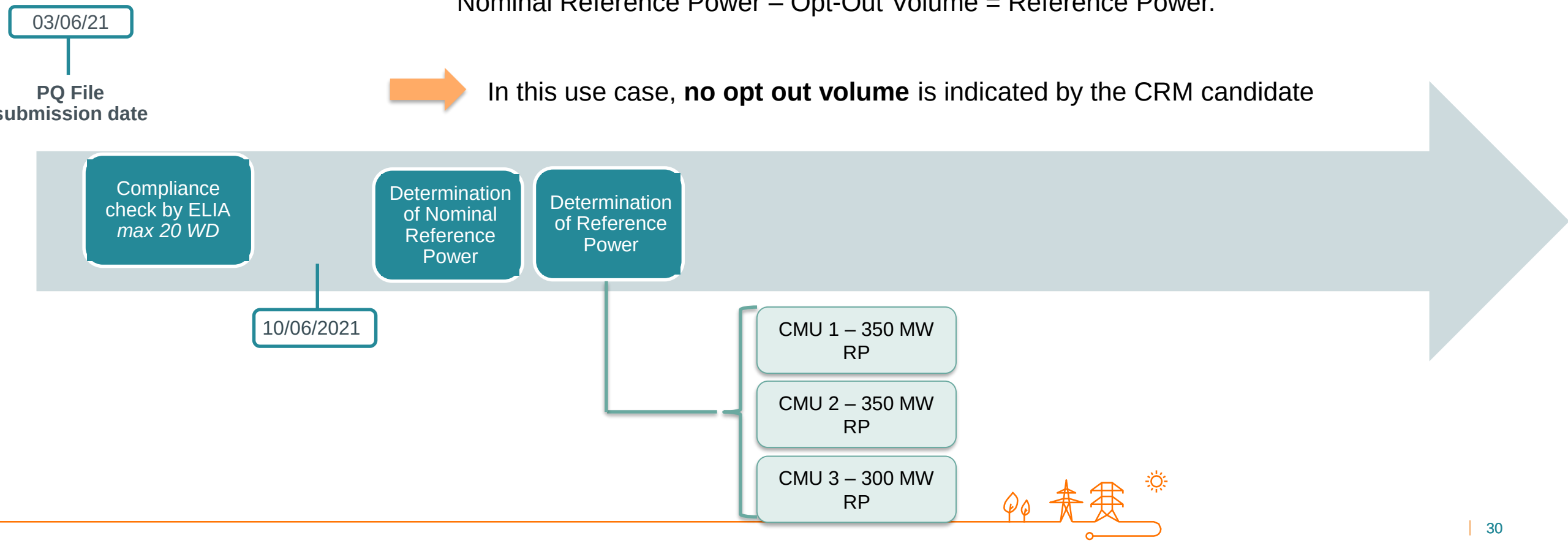
For additional capacities, it is the **CRM Candidate that declares a Nominal Reference Power.**



6. Volume determination – Reference Power

In case an Opt-Out volume is notified within the PQ file, ELIA determines the Reference Power as:

Nominal Reference Power – Opt-Out Volume = Reference Power.



6. Volume determination – Eligible Volume

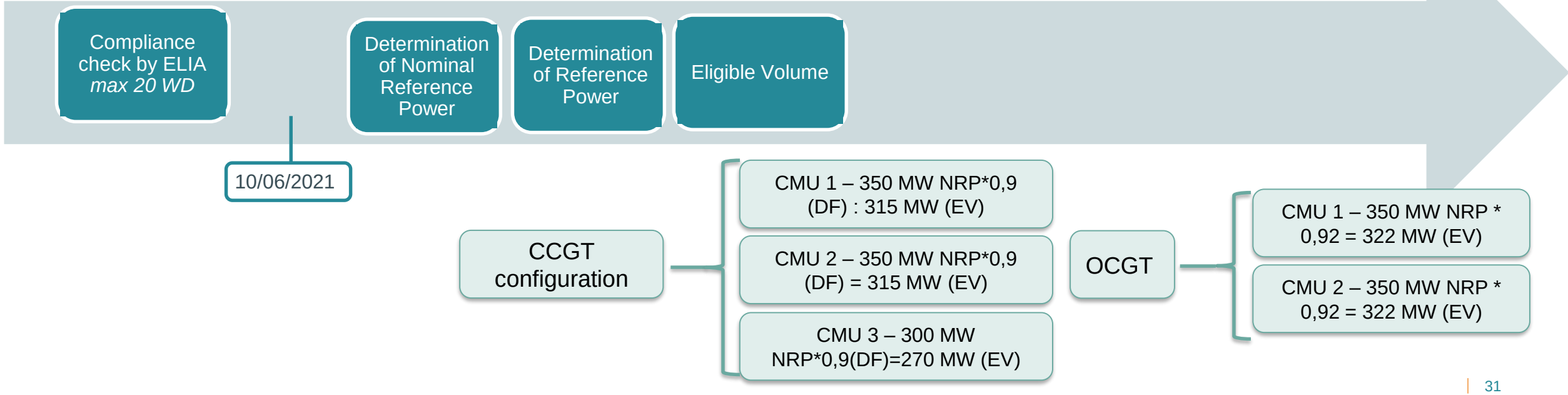
In case an Opt-Out volume is notified within the PQ file, ELIA determines the Reference Power as:

Nominal Reference Power – Opt-Out Volume = Reference Power.

03/06/21

PQ File submission date

In this use case, **no opt out volume** is indicated by the CRM candidate



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7. Prequalification results notification

ELIA shall communicate within the 70 Working Days towards EnergyProducer.SA/NV:

	Status of the CMU		
	CMU1=GT1	CMU2= GT2	CMU3= ST1
The Nominal Reference Power of the Delivery Point(s) part of the CMU	350 MW	350MW	300MW
The Opt-Out Volume of the Delivery Point (s)	0	0	0
The Opt-Out Volume of the CMU	0	0	0
The Eligible Volume of the CMU	315 (under ProjectID0004) / 322 (under ProjectID0005)	315 (under ProjectID0004) / 322 (under ProjectID0005)	270 (under ProjectID0004)
The Secondary Market Eligible Volume of the CMU	NA	NA	NA
The date of the first quarterly report that shall be sent to ELIA (in case of awarded volume at forthcoming Auction)	01/04/2022	01/04/2022	01/04/2022

In order to participate to the Auction of October 2021, as an investment file has been submitted for both projects, **the Prequalified status is to be obtained by 01/09/2021**

No Opt-Out Volume has been notified prior to 5 WD after September 15th 2021 for the Auction October 2021

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8. Evolution in time

Evolution of the Derating Factor in time:

Independently from the CMU Contracted Capacity of the Primary Market Auction of October 2021, the evolution in time of the Derating Factor could influence the:

- ➔ Remaining Eligible Volume for the Primary Market (“REV”)
- ➔ Secondary Market Remaining Eligible Volume for the Secondary Market (“SMREV”)

Indeed, if the Derating Factor is increasing from 0,9 in CCGT configuration to 0,92 (if that configuration was selected by the Auction), it will increase the CMU capability by:

- ➔ REV(CMU1 in CCGT config) = max[0; (350,00 MW * 0,92 – Opt-Out Volume – Total Contracted Capacity)]
- ➔ If all previous EV was awarded, it means Total Contracted Capacity = 315MW so that REV = 322 – 0 – 315 = 7MW still available for the next Auction Y-1 on the Delivery Period

A contrario, if the Derating Factor is decreasing from 0,9 in CCGT configuration to 0,88 and that all previous EV was awarded in Contracted Capacity= 315MW

➔ REV(CMU1 in CCGT config) = max[0; (350,00 MW * 0,88 – Opt-Out Volume – Total Contracted Capacity)] = 0MW

Standard Prequalification Process timeline

As illustrated in the Annex of the Functioning Rules (version sent on 24/04/2020 to market parties for indicative purposes), the following timing is foreseen when looking at a **capacity following the standard prequalification process**