

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 the functioning of the **CRM IT Interface** by means of examples.

The use cases developed in this document are based on the chapters **Prequalification Process** & **Auction Process** of the Functioning Rules of the Capacity Remuneration Mechanism published in **November 2020**.

By no means, the use cases replace 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 **timings** and the dates represented in the use cases are **not realistic**.

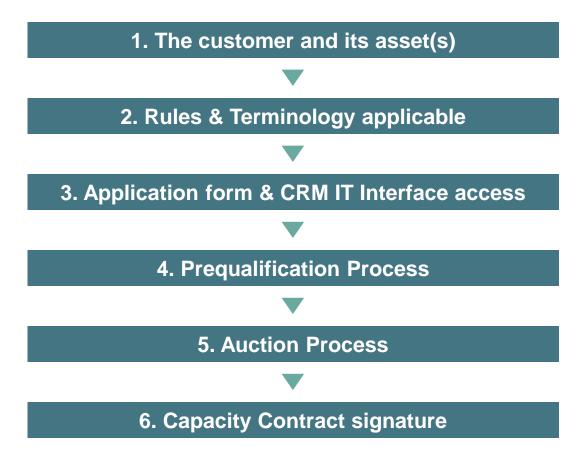
The **tool** is **still under construction**. Therefore, the wording used in the presented screenshots is not definitive (phrasing to review, errors in the use of capital letters, etc.) and some fields are still missing or erroneous. As announced in TF CRM of March 2, 2021, the submitted version of **Functioning Rules** is still being **challenged** by the CREG. This might also lead to minor changes in the Functioning Rules and therefore the CRM IT interface.

In addition to these theoretic use cases, the CRM Candidate is invited to train itself via the **demo platforms** where he will be able to develop tailored use cases in the prequalification **test** module and the auction test module.

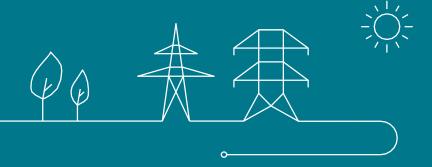
ELIA also also welcomes any feedbacks on the CRM IT Interface → customer.crm@elia.be

USE CASE STRUCTURE





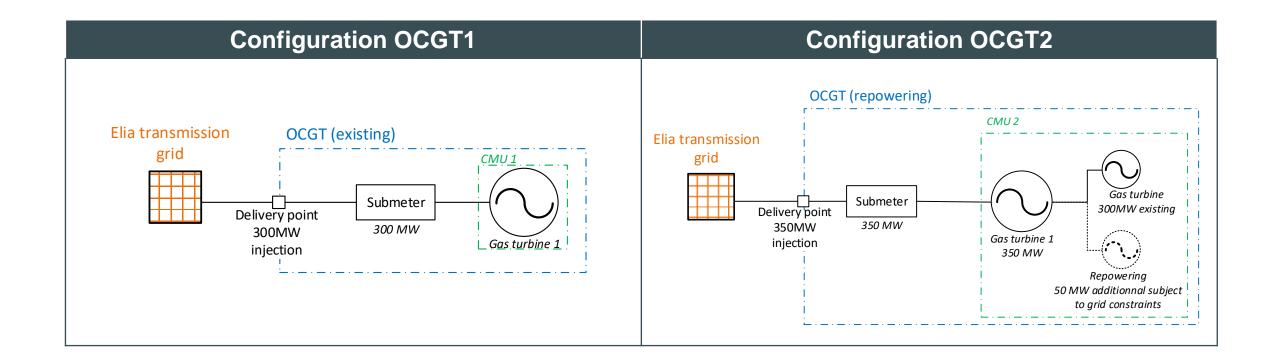






- Repower is owner of an Existing OCGT power plant located in Belgium and connected to the TSO gird
- Repower is the Grid User
- The OCGT produces electricity
- As its gas turbine is old, Repower plans to transform its OCGT
 - → 2 configurations are investigated by Repower:
 - Configuration 1 (no EDS requested) with the Existing CMU1 (old OCGT)
 - Configuration 2 (EDS requested) with the Additional CMU2 (new OCGT)
- Repower has the obligation to prequalify the CMU1 but not the CMU2 (cf. article 7undecies §14 alinea 1^{er} of the Electricity Act)
- Repower decides to prequalify two CMUs to participate in the 2021 Y-4 auction:
 - Existing CMU1 for the configuration 1 (old OCGT)
 - Additional CMU2 for the configuration 2 (new OCGT)







	CMU1 – CMU-2XCWY CMU2 – CMU-2VohF				
Company information:					
	Owner: Repower				
	Location: Belgium				
	Connection: TSO grid				
Prequalification parameters:					
СМИ	Existing CMU1:	Additional CMU2:			
	Existing DP1	 Additional DP2 			
	CMU1: Individual CMU	CMU2: Individual CMU			
Technology	OCGT	OCGT			
Volumes	Expected Nominal reference power of DP1: 300 MW	Declared Nominal reference power of DP2: 350 MW			
Investment file	No investment file foreseen	Investment file foreseen			
Auction parameters:					
Grid constraints	No grid constraints to be taken into account as the load is existing	 The existing connection capacity (300MW) is already acquired for the new OCGT (as long as process of definitive decommissioning specified in art. 4bis of Electricity Act is not initiated) and can therefore not be subject to grid constraints Only 50MW are subject gird constraints 			
Auction	Participate to 2021 Y-4 Auction	Participate to 2021 Y-4 Auction			
Contract duration	Contract duration: 1 year (no investment file submitted to CREG)	Contract duration: 8 years (investment file submitted to CREG)			



- CMU1 is subject to a Daily Schedule obligation (NRP of the DP > 25 MW & TSO-connected)
- CMU1 is not an energy-limited technology
 - → Category II
 - → Sub-category: OCGT
 - → Derating Factor: 90%
- CMU2 is subject to a Daily Schedule obligation (NRP of the DP > 25 MW & TSO-connected)
- CMU2 is not an energy-limited technology
 - → Category II
 - → Sub-category: OCGT
 - → Derating Factor: 90%

Category I: SLA			
Sub-Category	Derating Factor [%]		
SLA-1h	11		
SLA-2h	19		
SLA-3h	28		
SLA-4h	36		
SLA-6h	52		
SLA-8h	65		
SLA unlimited	100		
Category II: Thermal technologi	es with daily schedule		
Sub-Category	Derating Factor [%]		
CCGT	91		
OCGT	90		
Turbojets	96		
IC Gas Engines	95		
IC Diesel Engines	93		
CHP	93		
Biomass	93		
Waste	93		
Nuclear	96		
Coal	90		
Category III: Energy-limited techno	logies with daily schedule		
Sub-Category	Derating Factor [%]		
Large-scale storage	11		
PSP	19		
Category IV: Weather-deper	ndent technologies		
Sub-Category	Derating Factor [%]		

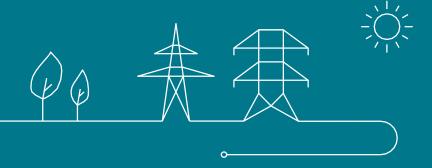
Category III: Energy-limited technologies with daily schedule			
Sub-Category	Derating Factor [%]		
Large-scale storage	n		
DSD	10		

Category IV: Weather-dependent technologies		
Sub-Category	Derating Factor [%]	
Offshore Wind	15	
Onshore Wind	6	
Solar	4	
Hydro Run-of-River	34	
Cotonomia Thomas I DCO on CDC on more described and mission without delivery and		

Category V: Thermal DSO- or CDS- connected technologies without daily schedule			
Sub-Category	Derating Factor [%]		
Aggregated thermal technologiesd	62		



2. Rules & Terminology applicable





2. Rules & Terminology

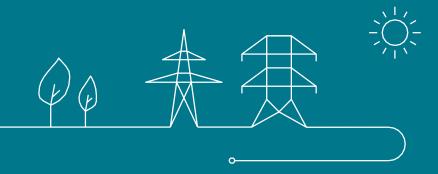


The reference document used by ELIA for the Use Case is the Functioning Rules of the Capacity Remuneration Mechanism published on 13/11/2020

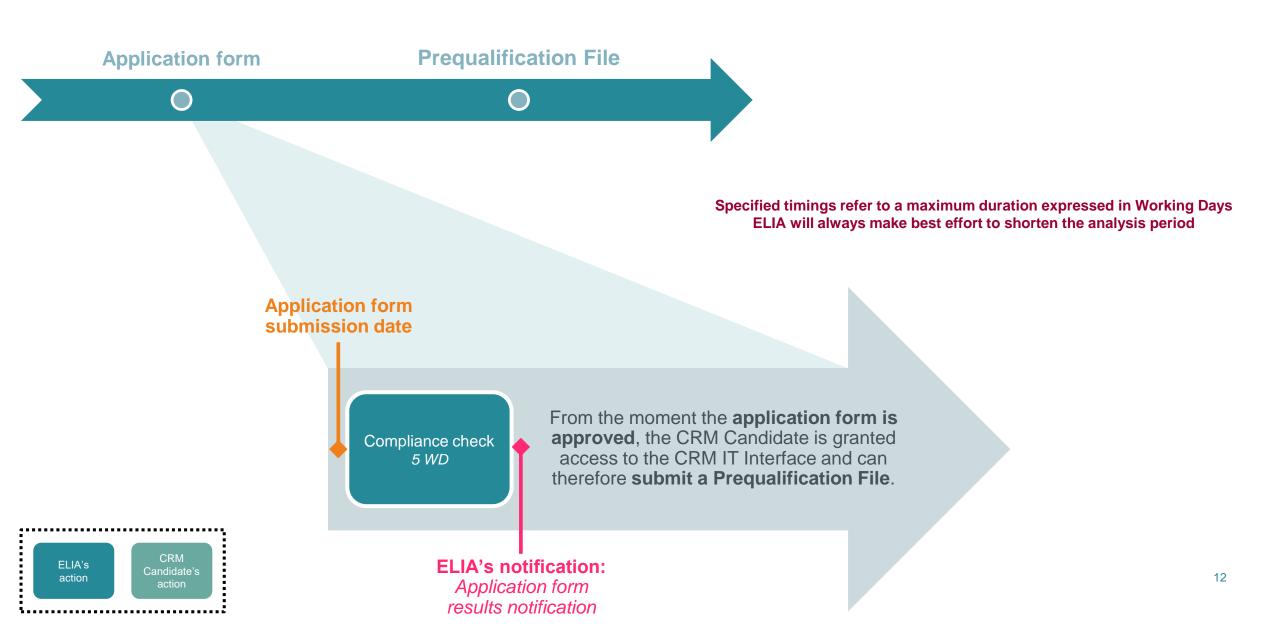
Prequalification Process	Financial Security	Auction Process	Capacity Contract signature
 Terminology: Chapter 3 & section 5.2 Eligibility conditions: Sections 5.3.1 & 5.3.2 Prequalification File requirements: Section 5.4.1.1 Prequalification review process: Sections 5.5.1 & 5.5.2 Volumes determination: Sections 5.6.1.1, 5.6.2, 5.6.3 & 5.6.4.1 Prequalification results notification: Section 5.7.1 	Financial Security: Chapter 10	 Bid: Section 6.3.1 & 6.3.2.1 Bid price: Section 6.3.2.1.1 Bid volume: Section 6.3.2.1.2 Capacity contract duration: Section 6.3.2.1.3 Linked bids: Section 6.3.2.2 Mutually exclusive bids: Section 6.3.2.1.3 Mutually exclusive bids: Section 6.3.1 	Capacity Contract signature: Section 7.2.2



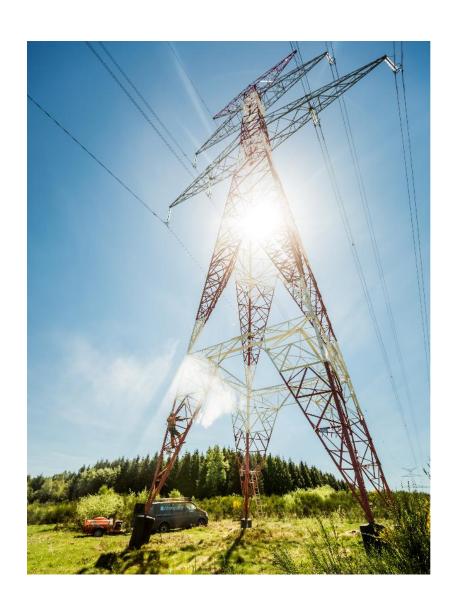
3. Application form & CRM IT Interface access













TODO generic app description EN



Already have an account?

Sign in to AdeMar directly



No account yet?

Submit your information and get an account





1 Company information — 2 Bank	details for invoicing — (3) Contact details	Company information —	2 Bank details for invoicing —	3 Contact details	Company information — 2	Bank details for invoicing — (3) Contact details
STEP 1 Company information		STEP 2 Bank details for invoicing	ı		STEP 3 Contact details	
COMPANY INFO		You shall provide a company name and at a different address than the one pro-			CONTACT 1	
Company name * Repower	Legal Status *	Company Name *	Bank name *		Civil Stat Firstname *	Lastname *
Registration number *	Business number	IBAN *	SWIFT/BIC *	Currency *	Please choose a civil status	Mahila #
Energy Identification Code (EIC)				•	Telephone	Mobile *
Telephone Fax		Street		House Number	Language *	*
		Zip code City	Cour	ntry	Function *	
Email address *				*	Email *	
COMPANY ADDRESS						
Street *	House number *					tion form, ELIA asks for the contact details of at least one xcept for the one needed in case of investment file):
Zip code * City *	Country *	GDPR Conditions By submitting this application form, I agree that the information provided here and in the CRM IT Interface will be used by ELIA for the purpose of the CRM In order to continue you need to agree with the GDPR conditions			☐ Emergency (24h/24h) ☐ Counting and metering ☐ Settlement ☐ Investment file (for submission to	, regulator)
		← BACK		SUBMIT 🗸	☐ Point of contact published on ELI.	



Dear,

Your request was sent on 04/03/2021 15:19. We will now verify and validate it. This will take maximum 5 working days.



Dear,

Your Application Form has been approved. Please find your user ID and password below:

User ID: ISOEXT\CRM000001018

Password: 9dhnhSohJi3jNbySmNohqw==



3. Application form & CRM IT Interface access | Compliance checks



Compliance Checks



Please read and indicate your acknowledgment with the following legal documents before using this application.

You are allowed to go through the standard, the specific and/or the fast track Prequalification Process with your CMU(s)

Compliancy checks for participation to a fast track Pregualification Process:

Functioning Rules for fast track Prequalification Process

Acknowledgment of the Functioning Rules for the Capacity Remuneration Mechanism related to the fast track Pregualification Process

Compliancy checks for participation to a standard or a specific Prequalification Process:

Functioning Rules

- Acknowledgment of the Functioning Rules for the Capacity Remuneration Mechanism (this include the functioning rules related to the fast track.)

Capacity Contract

- Acknowledgment of the Capacity Contract conditions in case of Contracted Capacity for the forthcoming Auction

Eligibility criteria

- The compliance of each Delivery Point with the eligibility criteria, as defined in the Electricity Act (cr. Art 7 undercies \$4, 1*, 2* and 3*) and ...

Production license requirements

- The compliance of each Delivery Point with an Existing status with the production license requirements as defined in article 4 of the Electricity Act

Maximal CO2 mission thresholds

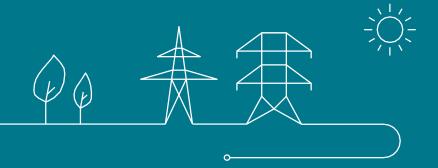
The compliance of each Delivery Point with an Existing status with the maximal CO2 emission thresholds set by the Regulation (EU) 2019/943

Legal and regulatory framework

The compliance of each Delivery Point with any other relevant legal and regulatory framework

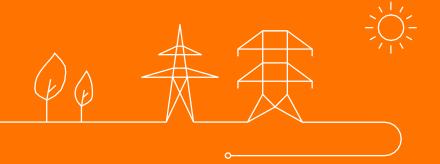


4. Prequalification Process

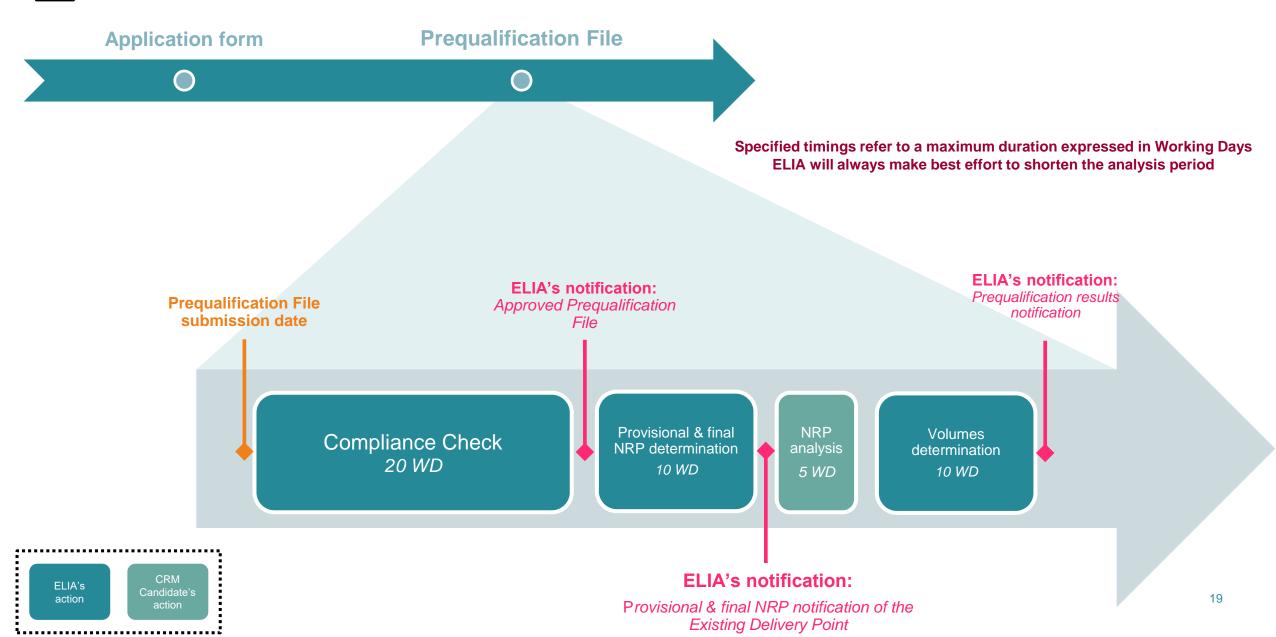




CMU1 – Existing CMU

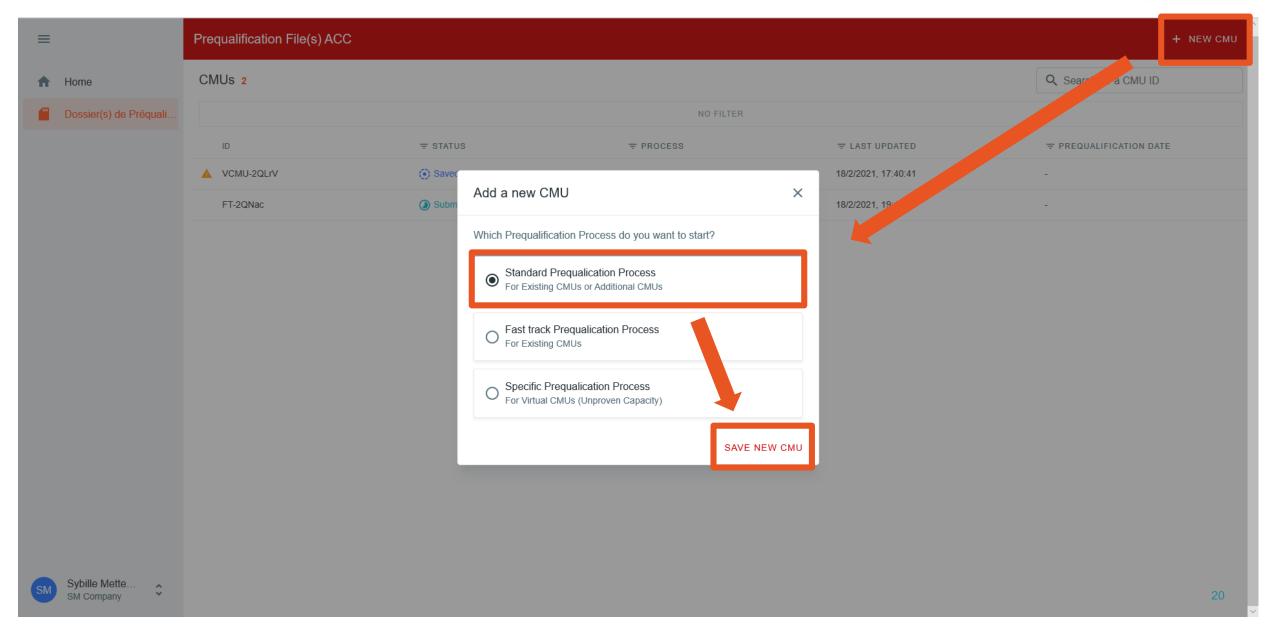


4. Prequalification Process | Timeline





4. Prequalification Process | Prequalification File creation

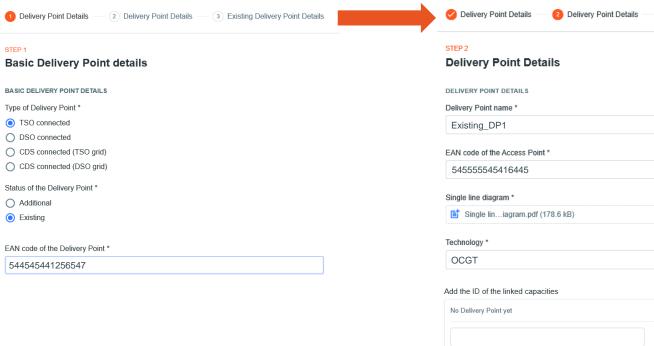


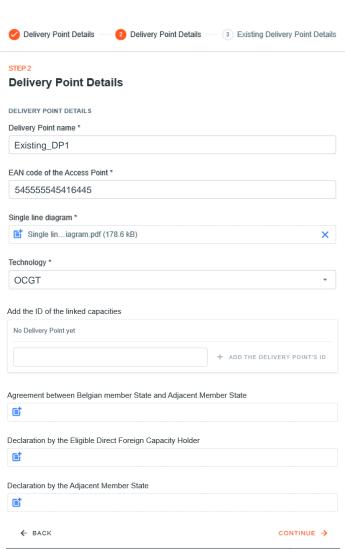
4. Prequalification Process | Prequalification File creation

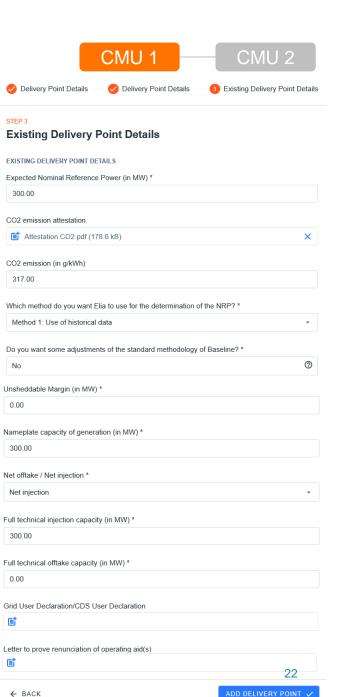




4. Prequalification Process | Delivery Point creation

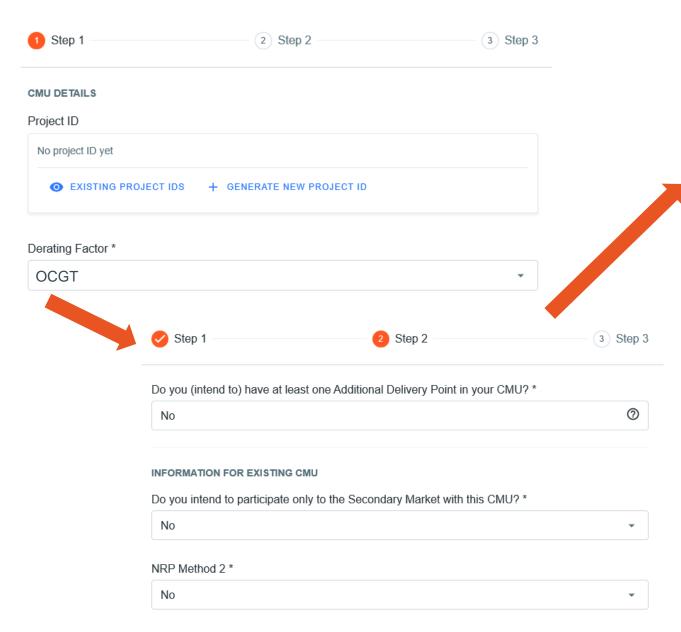


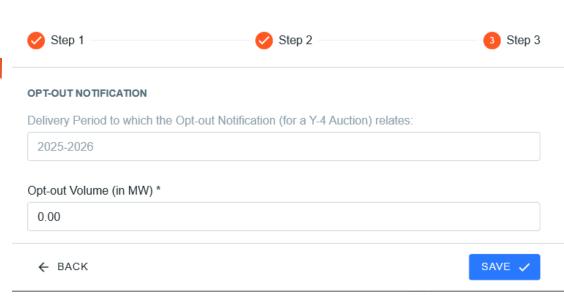






4. Prequalification Process | CMU creation





4. Prequalification Process | Financial Security submission

- As Repower prequalifies an Existing CMU with its actual OCGT and an Additional CMU with the OCGT renovated, it is not mandatory to provide 2 Financial Securities.
- Only one Financial Security is sufficient
- The Financial Security is to cover the highest Secured Amount among the two concerned CMUs (CMU1 & CMU2)

 $= Max(Secured\ amount_{CMU1}; Secured\ amount_{CMU2})$

$$= Max(10.000 \frac{EUR}{MW} \times 300MW \times 0, 9; 20. \frac{000EUR}{MW} \times 350MW \times 0, 9)$$
$$= Max(270.000 EUR; 6.300.000 EUR)$$
$$= 6.300.000 EUR$$

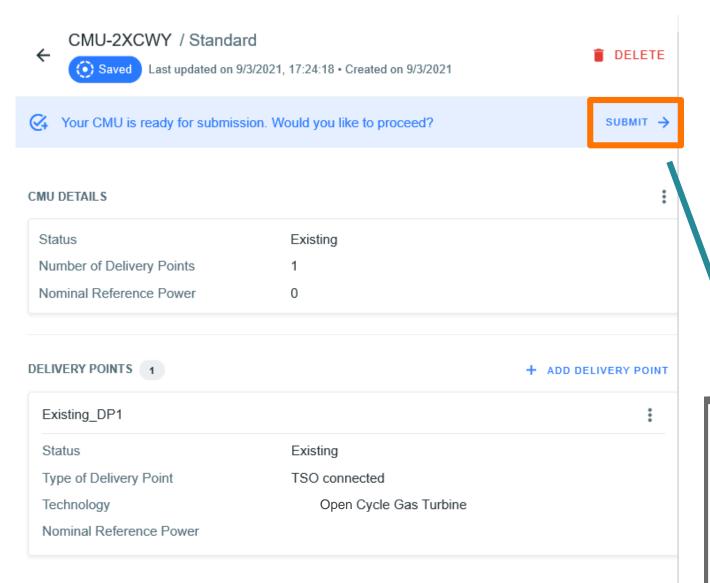
The Financial Security is therefore provided for the Additional CMU only (cf. slides on the Prequalification Process of CMU2)



4. Prequalification Process | Prequalification File submission

CMU 1

CMU 2



Submit CMU CMU-2XCWY? You are about to submit this CMU, are you sure you want to proceed? CANCEL CONFIRM

Your CMU with ID CMU-2XCWY has been submitted.

Elia will inform you within the next 20 working days whether the CMU is

approved or rejected.

King regards, The CRM team.

Dear.

4. Prequalification Process | Prequalification review process

CMU 1

CMU 2

Dear,

Your CMU with ID CMU-2XCWY has been approved.

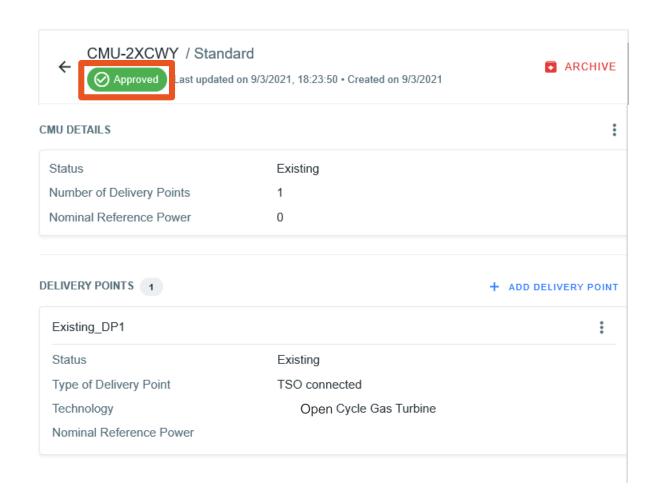
The process of Nominal Reference Power determination will now start.

An e-mail will follow with the results of this determination within maximum 10 working days starting from this notification.

CMU-2XCWY

King regards,

The CRM team.

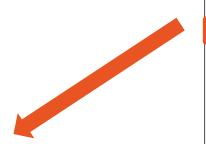




Standard Prequalication Process

4. Prequalification Process | NRP notification

CMU₂



Dear,

The Nominal Reference Power of your CMU with ID CMU-2V4Q5 has been determined by ELIA and is equal to 10,4 MW.

You have 5 working days to contest this result via the CRM IT Interface.

If no reaction is received within these 5 working days, the Nominal Reference Power will be considered as approved.

King regards,

The CRM team.



CMU-2XCWY / Standard

Last updated on 9/3/2021, 18:23:50 • Created on 9/3/2021

ARCHIVE

▶ EDIT OPT-OUT

CMU DETAILS

Status

Existing

Number of Delivery Points

Nominal Reference Power 300

DELIVERY POINTS 1

Willebrugge-Oven1

Status Existing

Type of Delivery Point TSO connected

Open Cycle Gas Turbine Technology

Nominal Reference Power 300

Nominal Reference Power Status

pending



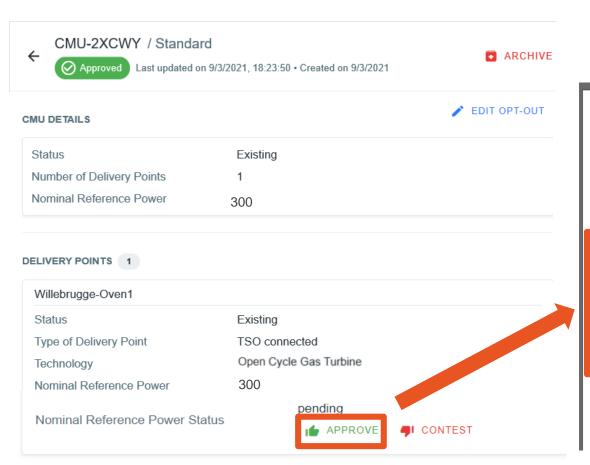
CONTEST



4. Prequalification Process | Prequalification results notification

CMU₁

CMU 2



Dear.

Your Existing CMU with CMU ID CMU-2XCWY has been prequalified on 08/03/2021 22:37:57. It corresponds to your Prequalification File approval date.

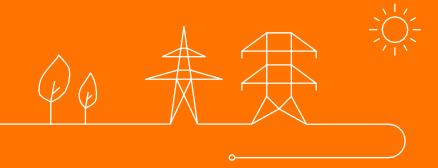
Please find the prequalification results below:

- Nominal Reference Power: 300 MW
- Reference Power: 300 MW
- Opt-out Volume: 0 MW
- Eligible Volume: 270 MW

King regards, The CRM team.



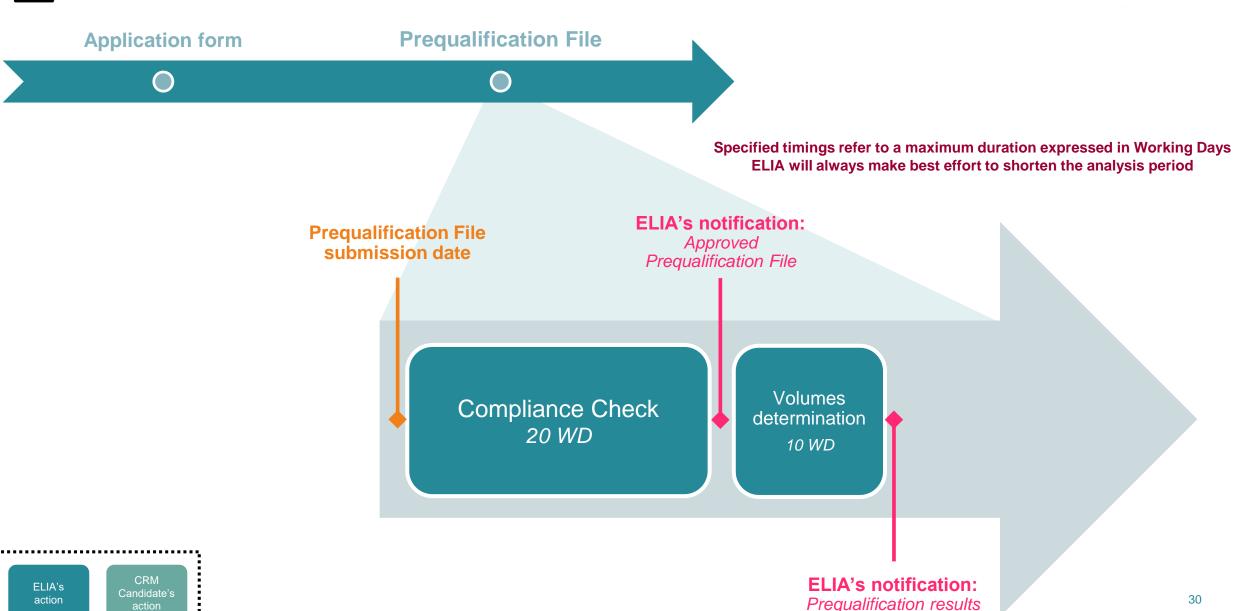
CMU2 – Additional CMU



4. Prequalification Process | Timeline

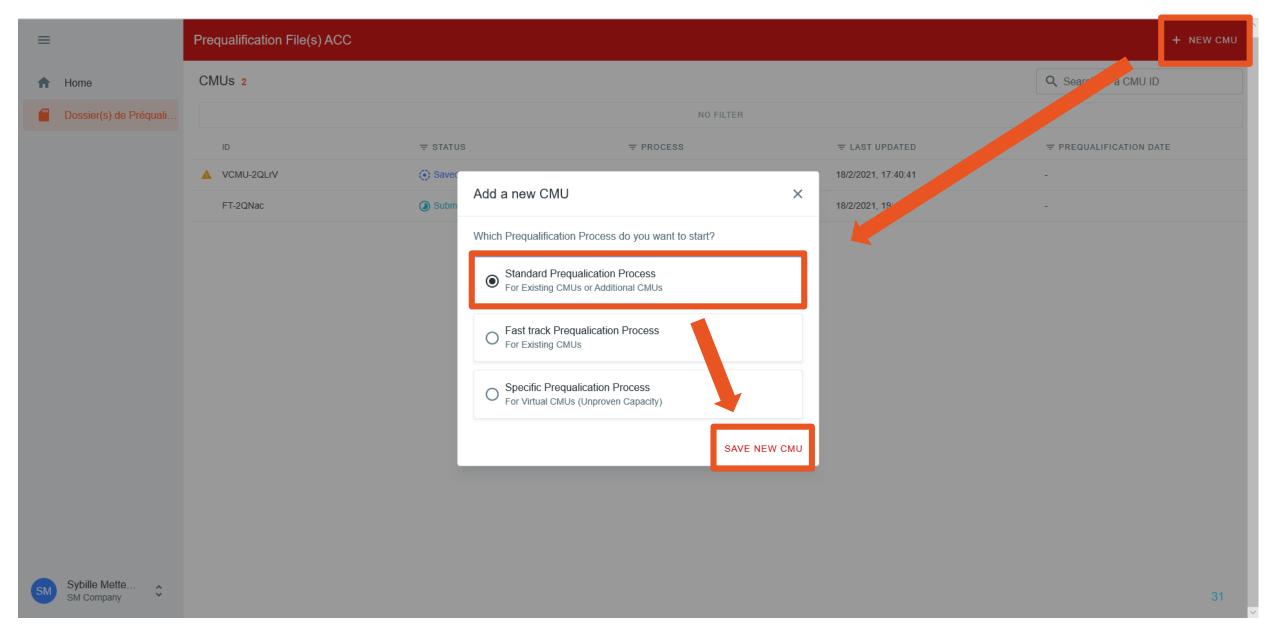
CMU 1 CMU 2

notification

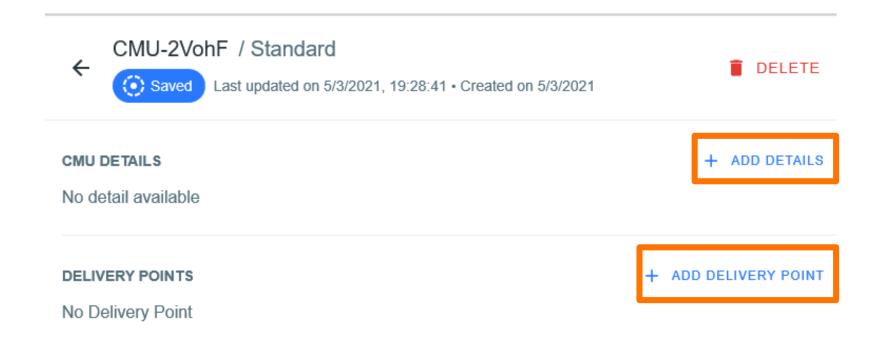




4. Prequalification Process | Prequalification File creation



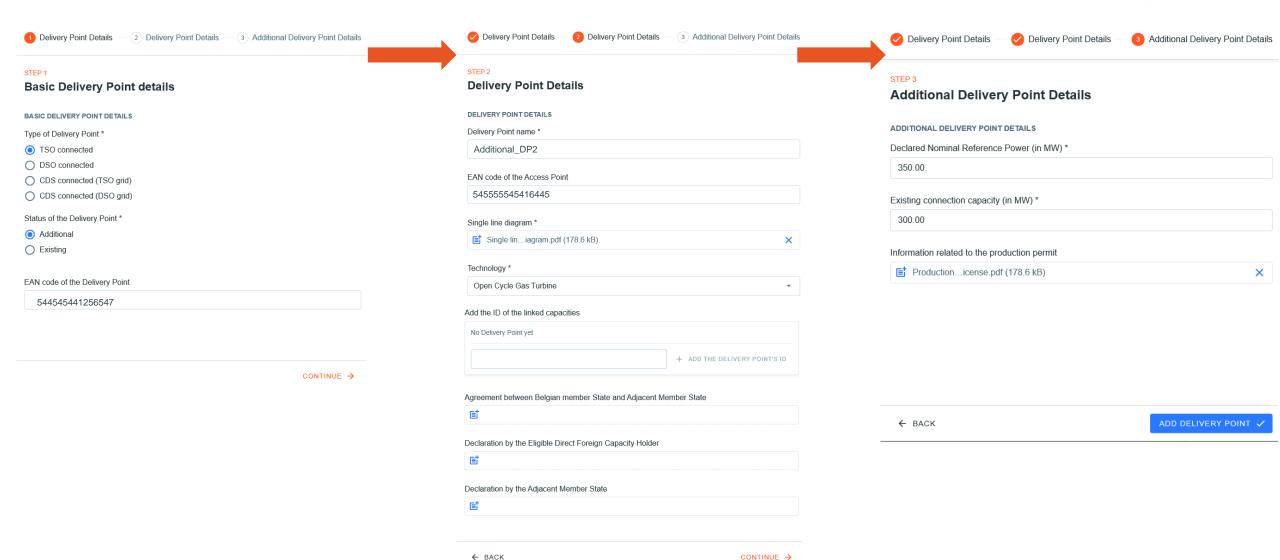
4. Prequalification Process | Prequalification File creation





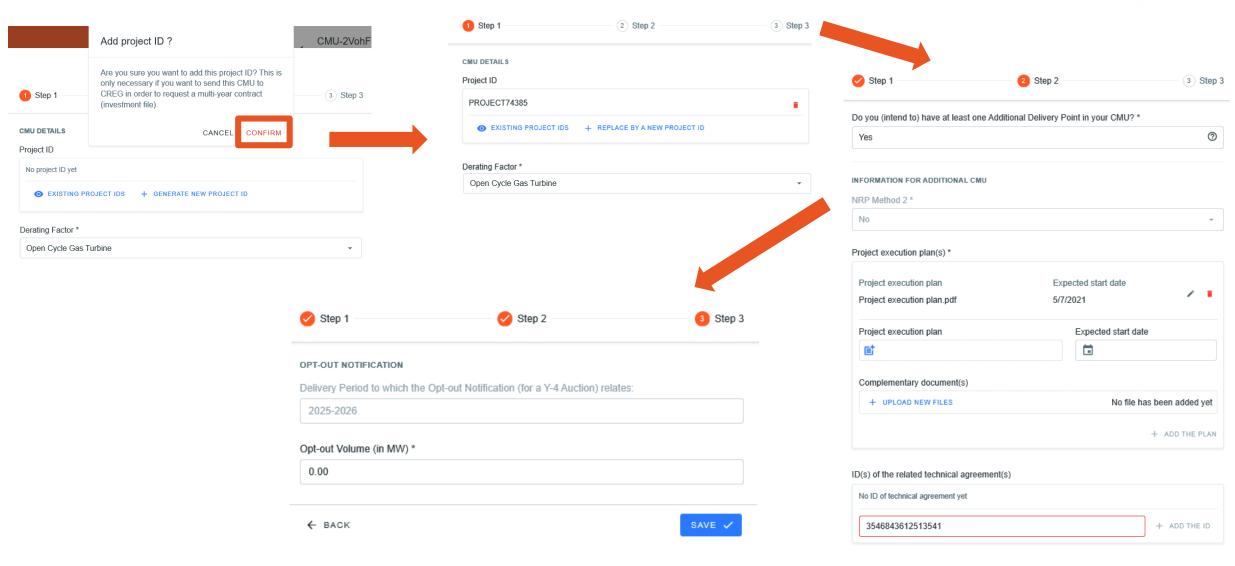
4. Prequalification Process | Delivery Point creation







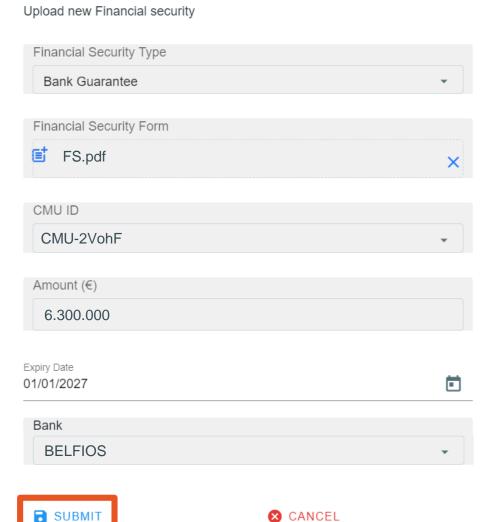
4. Prequalification Process | CMU creation





4. Prequalification Process | Financial Security submission

For ELIA to approve your Prequalification File, a Financial Security is to be submitted before the submission of the Prequalification File itself.



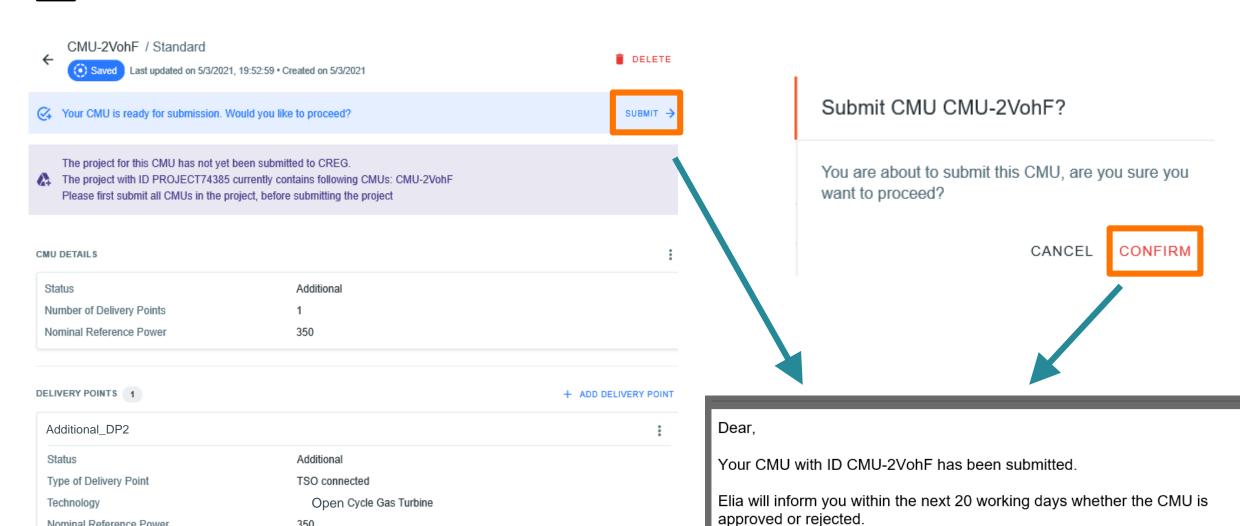
Nominal Reference Power

350

4. Prequalification Process | Prequalification File submission

CMU 1

CMU₂

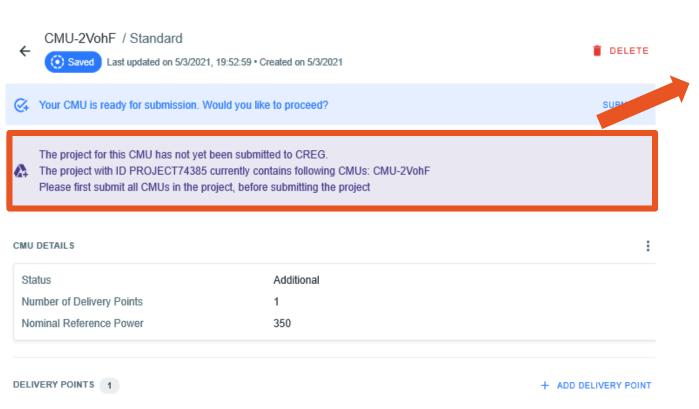


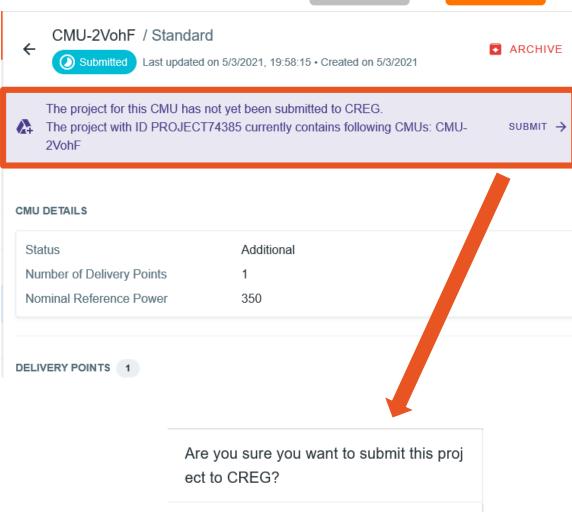
King regards, The CRM team.



4. Prequalification Process | Investment file

CMU 1 CMU 2





Please note that once submitted to CREG, no CMU can be added to the project, but the CMUs itself can

CANCEL

still be updated.

CONFIRM



4. Prequalification Process | Prequalification review process

CMU₁

CMU₂

Dear.

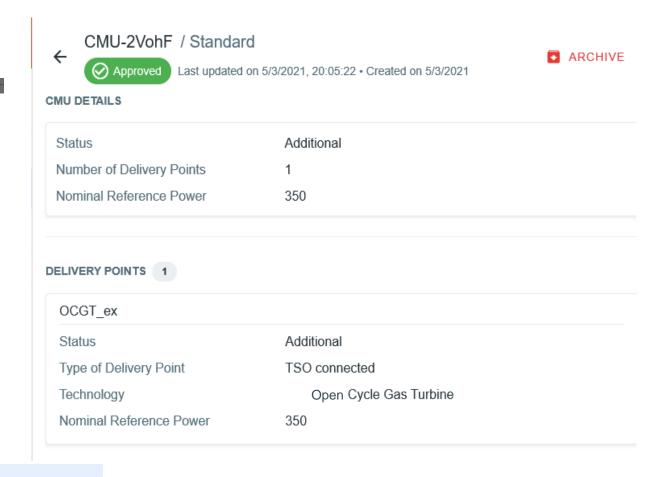
Your CMU with ID CMU-2VohF has been approved.

The volume(s) determination process will now start.

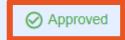
An e-mail will follow with the results of this determination within maximum 10 working days starting from this notification.

King regards,

The CRM team.



CMU-2VohF



Standard Prequalication Process

CMU₂



4. Prequalification Process | Prequalification results notification

Dear,

Your Additional CMU with CMU ID CMU-2VohF has been prequalified on 05/03/2021 20:11:26. It corresponds to your Prequalification File approval date.

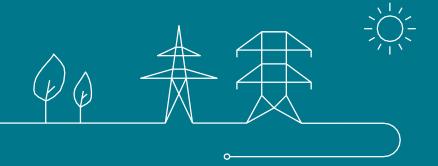
Please find the prequalification results below:

- Nominal Reference Power: 350 MW
- Reference Power: 350 MW
- Opt-out Volume: 0 MW
- Eligible Volume: 315 MW
- Due date for the first quarterly report that is to be sent to Elia (in case of awarded volume at forthcoming Auction): 01/10/2021 02:00:00

King regards, The CRM team.



5. Auction Process



5. Auction | Bidding strategy

Repower chooses to offer the 3 following **combinations** of bids:

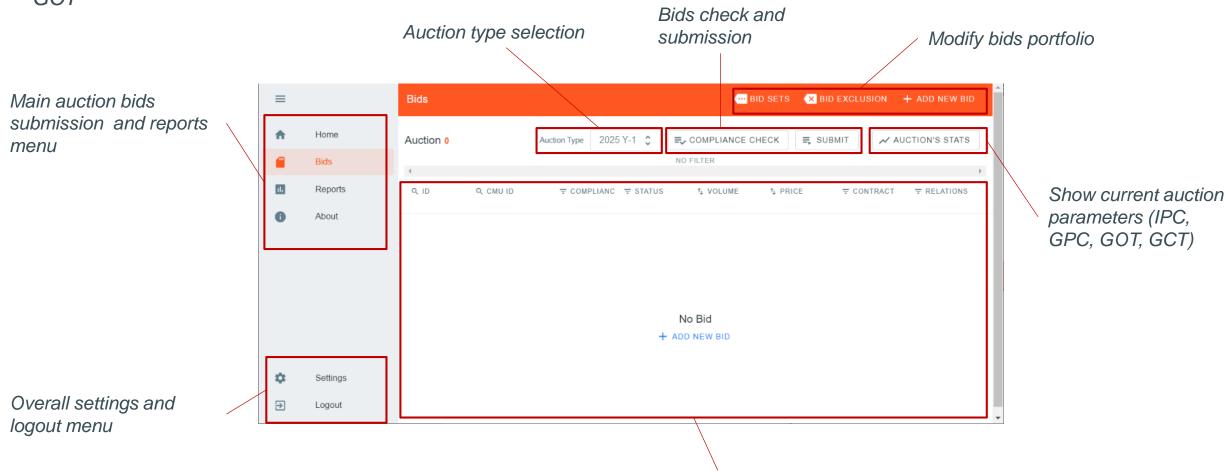
- Combination 1: OCGT1 with its Eligible Volume of 270MW
- Combination 2: OCGT1 with 250MW instead of 270MW
- Combination 3: OCGT2 for 8 years Capacity Contract Duration
- Bidding strategy

Bid #1 Bid #3 Bid #2 CMU 1 (existing) CMU 1 (existing) CMU 1 (existing) Price: 18 EUR/kW/year Price: 19 EUR/kW/year Price: 40 EUR/kW/year Volume: 270 MW Volume: 250 MW Volume: 315 MW Contract duration: 1 year Contract duration: 1 year Contract duration: 8 year Linked set: NO Linked set: NO Linked set: NO Exclusive bids: 1:2 Exclusive bids: 2:3 Exclusive bids: 1:3

Intermediate Price Cap = 20€/kW/year
Global Auction Price Cap=70€/kW/year

5. Auction | Bid submission User interface main screen

After successful login and prequalification, CRM candidate can access auction submission interface between GOT and GCT



Overview of bids portfolio

(including sorting & filtering features)

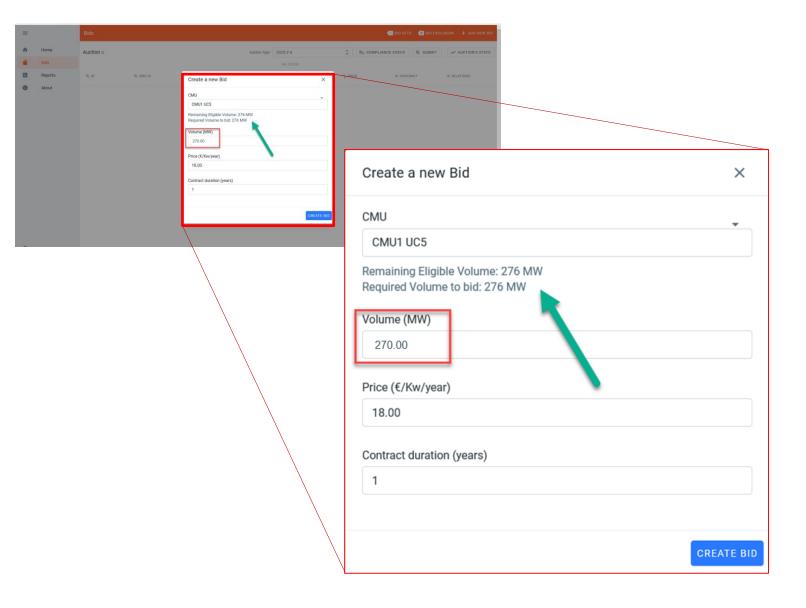
5. Auction | Bid submission Bid creation



- New bids can be added via the "Add new bid" menu
- Bid creation feature is accessible any time between GOT and GCT
- New bids need to be linked to successfully prequalified CMUs for the current auction



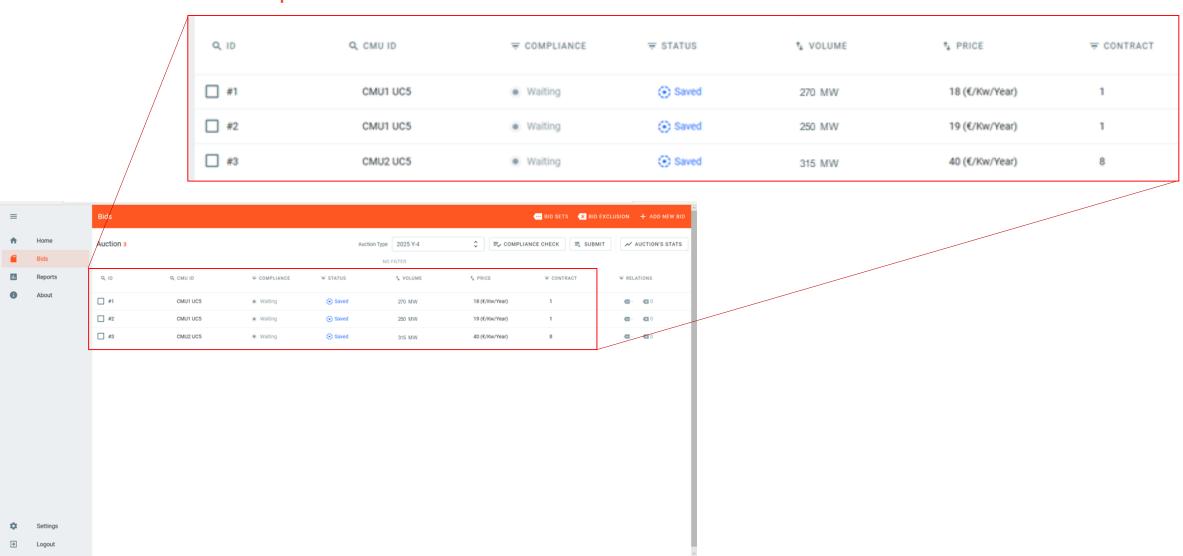
Creating the first bid

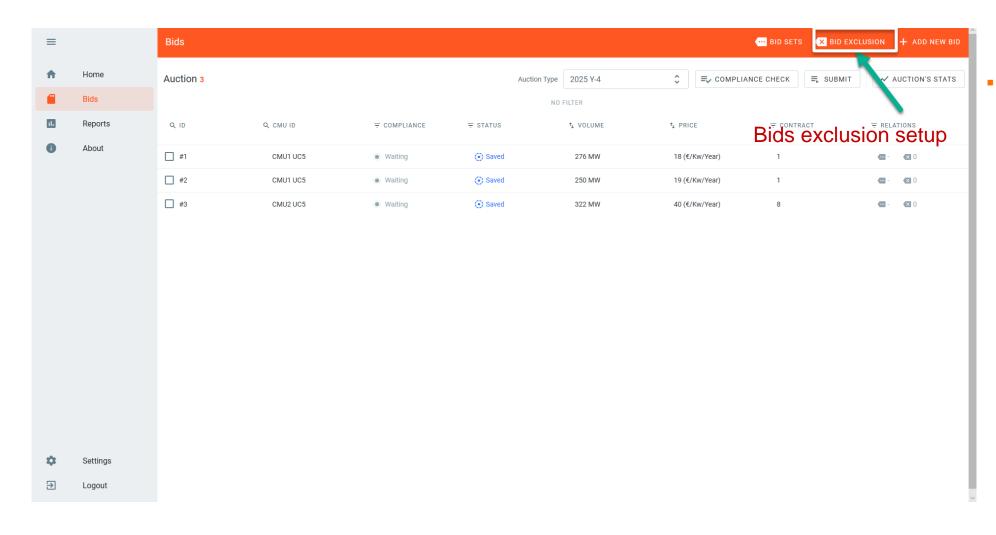


- User has to chose a CMU in drop list of prequalified CMUs belonging to the CRM candidate
- Required volume to bid is dynamically computed for information
- Remaining eligible volume based on previous auctions is provided for information
- No compliancy check is performed at bid creation stage
- "Create bid" leads to bid with status "Saved"



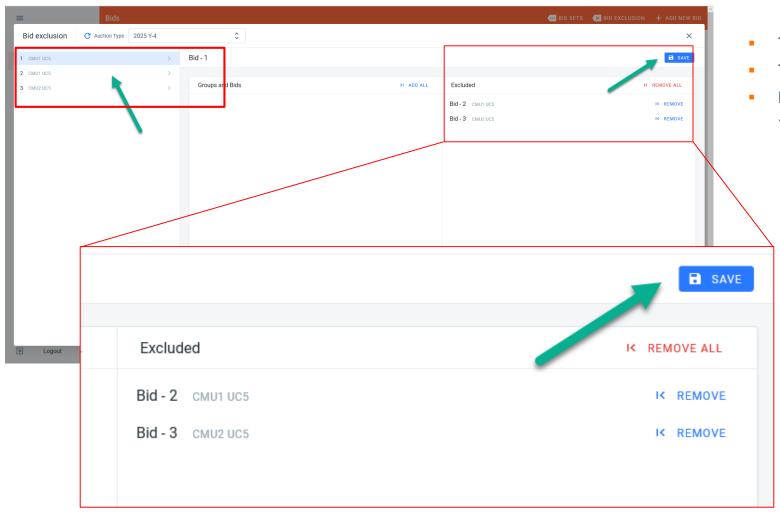
Overview of bids portfolio





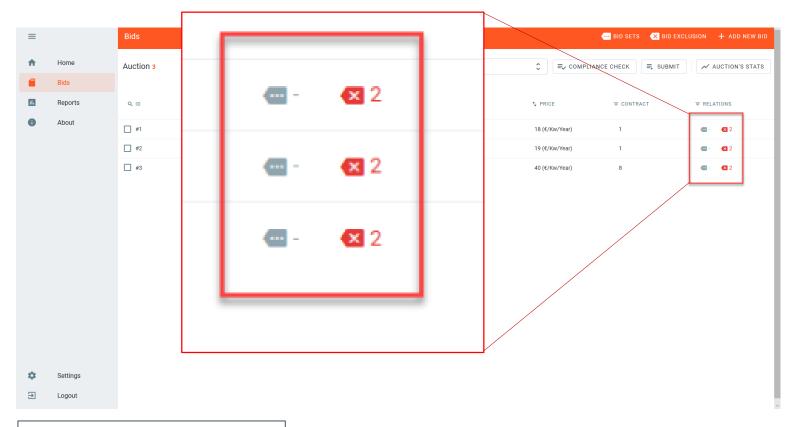
Bid exclusion menu may be used once the bids are created and visible in user dashboard



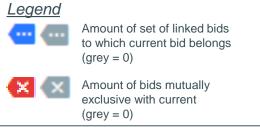


- The bid exclusion properties can be added to each of the bids
- The bid exclusion can be added one by one or with *Add all* button.
- Bids # 1 is mutually exclusive with Bids #2 and 3 (cf slide Bidding strategy)



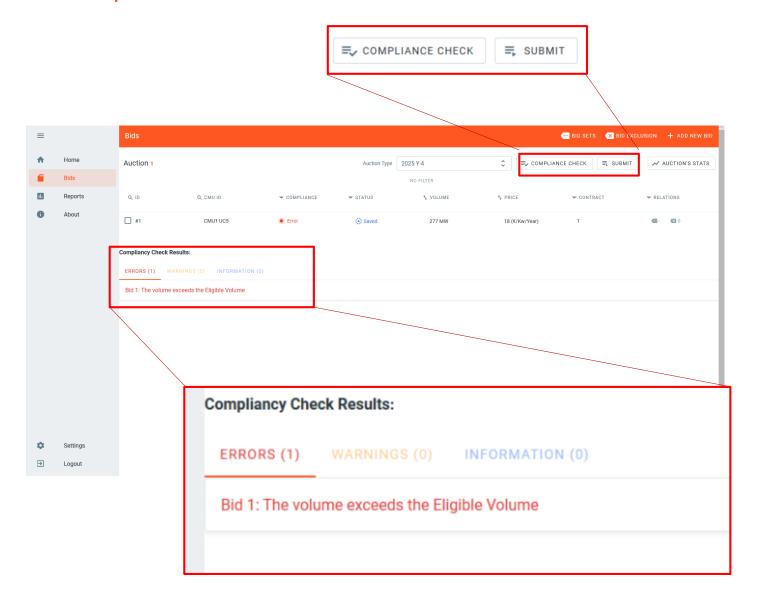


- Bids relationships overview is available in the main dashboard
- Amount of mutually exclusive bids for each bid is visible
- Amount linked bids in each set is visible, in this case none
- In this Use case, all bids are exclusive with 2 others



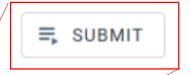


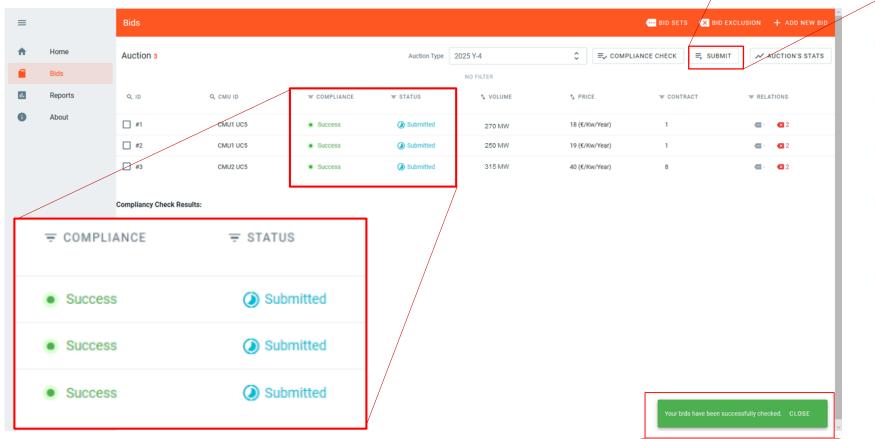
Compliance check



- "Compliance check" of "Submit" triggers a check on data provided by the user against FR and prequalified data.
- Any error or warning is sent to user via the error log ("Compliancy check results")
- In this use case, the Eligible volume is 270 MW → 0 < Volume_{bid} ≤ 270 MW → bid #1 is non compliant
- Bid #1 stays in status "saved" as long as the user has not solved the error.
- Bid #1 cannot be submitted as long as the error has not been solved.







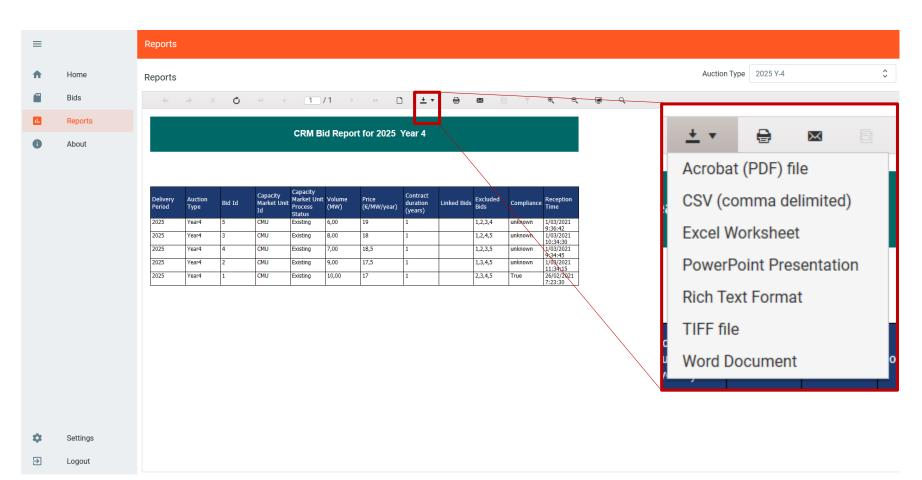
- Successfully submitted & compliant bids get status "Submitted"
- Successful submission popup will appear on the main screen
- Tool won't check that a bid has been created for all prequalified CMU's
- Any modification of prequalification data of a CMU will bring back all related bids to status "saved"
- Bids related to deleted prequalified CMU will get status "Cancelled"

Your bids have been successfully checked. CLOSE



Bidding session auction report





- Every user may generate bidding report for internal use
- Bidding report gathers all bids and related information created by CRM candidate (all bids statuses are reported)
- Report may be printed, exported or send
- Report format may be exported on a tailored format to meet user's preferences

5. Auction | Results publication

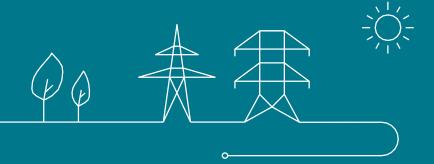
Bid #1
CMU 1 (existing)
Price: 18 EUR/kW/year
Volume: 270 MW
Contract duration: 1 year
Linked set: NO
Exclusive bids: 2;3

Auction results		
Selected bids		
	Selected Bid volumes	CMU1: 270 MW
	Related Price	18€/kW/year
	Capacity contract duration	1 year
Remaining Eligible Volume		0 MW¹
Issuance date of the 1st quarterly report		/

- Bids 1 (representing the existing OCGT) is selected in the Auction after global optimization
- Result validation according to modalities set by Royal Decree Control
- Result communication to Repower the latest on 31/10/2021



6. Capacity Contract signature





6. Capacity Contract signature



- To officially become a Capacity Provider, Repower shall sign the Capacity Contract
- Once the Capacity Contract is signed, Repower enters the Pre-delivery Period

