



Implementation modifications & design clarifications coming from iCAROS phase 1 REX

23 January 2025

Disclaimer

The implementation modifications & design clarifications following the return on experience (REX) of iCAROS phase 1 presented in this informal consultation are limited to impacts for the Scheduling Agent.

Not in the scope of this informal public consultation:

- Changes regarding the Outage Planning Agent → these will be part of the formal public consultation dedicated to the Outage Planning Agent
- Modification of the body of the Scheduling Agent (SA) contract



Requested Feedback

In the following slides, 2 design clarifications and 6 implementation issues are presented. These 8 issues result from the implementation of the current design.

Through this informal consultation Elia is looking for feedback whether

- 1. The proposed ways forward to tackle these issues are acceptable for all market parties. These ways forward could be:**
 - A solution proposed by Elia
 - A process to come to a solution
 - A temporary workaround as long as no solution is found
- 2. In case of implementation changes, the proposed timing for implementing the modifications is acceptable for all market parties** (in the slides also information can be found on the time Elia need to develop the solution for the issue)
- 3. In case of limited contractual modifications, market parties agree with the proposal of Elia to only modify the T&C SA annexes for these specific changes**



Legend regarding the text boxes used in the slides

Impact for Elia	Implementation is needed by Elia
Implementation in ...	Timing by when implementation could be possible for Elia
Impact for SA	Implementation is needed by SA/other service provider
Impact on SA contract (Annexes)	Modification of T&C SA –annex is needed



Overview of design clarifications & implementation changes

- Issue 1 : **Design clarification** → Integration of a Pmin for wind parks
- Issue 2 : **Design clarification** → How to react on a simultaneous signal of Return to Schedule (RTS) and FCR in opposite direction
- Issue 3 : **Implementation change*** → RD bidding properties – Minimum Activation Time
- Issue 4 : **Implementation change** → RD bidding properties – Full Activation Time
- Issue 5 : **Implementation change** → RD bidding properties - conditional links specific for start-ups/shut-downs
- Issue 6 : **Implementation change** → RD bid validation rules - Minimum Activation Time
- Issue 7 : **Open implementation issue** → conditional bid link across multiple days
- Issue 8 : **Open implementation issue** → Cancellation of bid time series



*The terminology used for the implementation changes are those that can be found in the technical guide

Design clarification – Integration of a P_{\min} for wind parks

Issue 1

Some wind parks cannot be steered under P_{\min} without jeopardizing their technical lifetime. This impacts the expected flexibility they should provide (as monitored via the consistency controls) and the possibility to return to the schedule if the indicated schedule is below P_{\min} .

Proposed way forward

Concerning the redispatching bidding, Elia proposes that the volume below the P_{\min} is offered via the use of bidding parameters similarly to the bidding used for shut-down activation of thermal units*. This means that for the volume between P_{\min} and zero, an indivisible bid with the P_{\min} volume has to be provided. This bid may be offered with a specific and technically justified price corresponding to the impact on the wind park of an activation request below P_{\min} .

Concerning the impact on return to schedule (RTS), Elia proposes to consider the P_{\min} in the RTS control. This means that, if the last valid schedule provided to Elia has values below P_{\min} and a downward RTS is requested, the Technical Unit is expected to return to its P_{\min} for the relevant quarter hours. This rule will be applied for all types of Technical Facilities

Impact for SA

Impact for Elia

Implementation in Q2 2025

Impact on SA contract (Annexes)



* Information regarding Complex RD Energy Bid submission can be found in the implementation guide available on the elia webpage https://www.elia.be/-/media/project/elia/elia-site/electricity-market-and-system/icaros-and-mari-projects/20240510_implementation-guide_complex-rd-bidding-submission_en.pdf

Design clarification – How to react on a simultaneous signal of Return to Schedule (RTS) and Frequency Containment Reserves (FCR) in opposite direction

Issue 2

Request to clarify how to react when there is at the same time a Return to Schedule (RTS) and an Frequency Containment Reserves (FCR) activation each in opposite direction.

Proposed way forward

Elia is analyzing the possible solutions to avoid negative consequences for the Balancing Service Provider (BSP) considering that the FCR activation is automatic unlike other balancing services. The implementation of a solution may require a modification of the annex of SA contract related to the RTS settlement.

The goal is to present a solution to tackle this issue in WG Grid on 19/02/2025 (During the WG Energy Solutions of 6/02/2025 the members will be informed that the issue will be discussed in WG GRID) .

Impact for SA/FCR service provider

Impact for Elia

Impact on SA contract (Annexes)

Implementation in Q3 2025



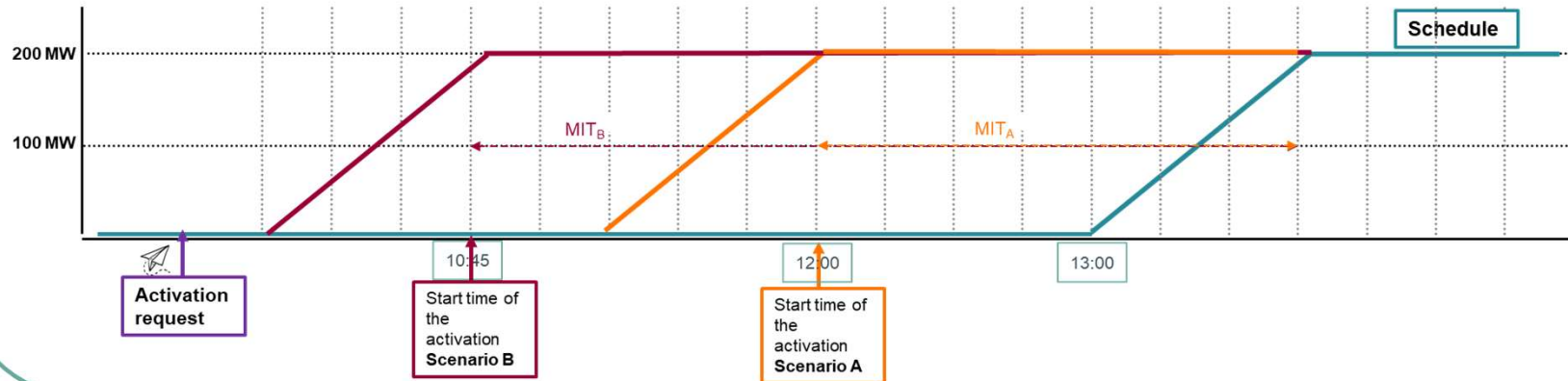
Implementation changes – RD bidding properties – Minimum Activation Time

Issue 3

Issue with Minimum Activation Time (MIT) currently defined at the timeseries level
During start-up / shut-down, no easy way with the current properties to offer the full flexibility

Illustration:

- Unit schedule starts-up at 13:00
- For congestion issue, Elia needs to start-up the unit earlier:
 - Scenario A at 12:00 => Minimum Activation Time = 1h
 - Scenario B at 10:45 => Minimum Activation Time = 2h15



Proposed way forward

→ Definition of MIT properties at bid level with a 15min granularity (similar as Maximum Energy Level (MEL))

Impact for SA

Impact for Elia

Implementation
in Q2/Q3 2025

Implementation changes – RD bidding properties – Minimum Activation Time

Issue 3

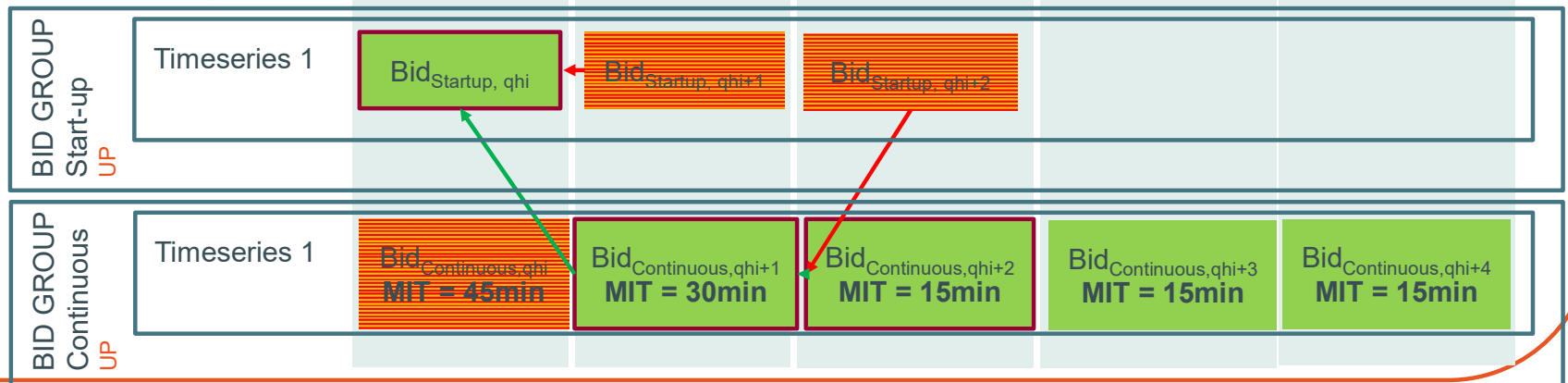
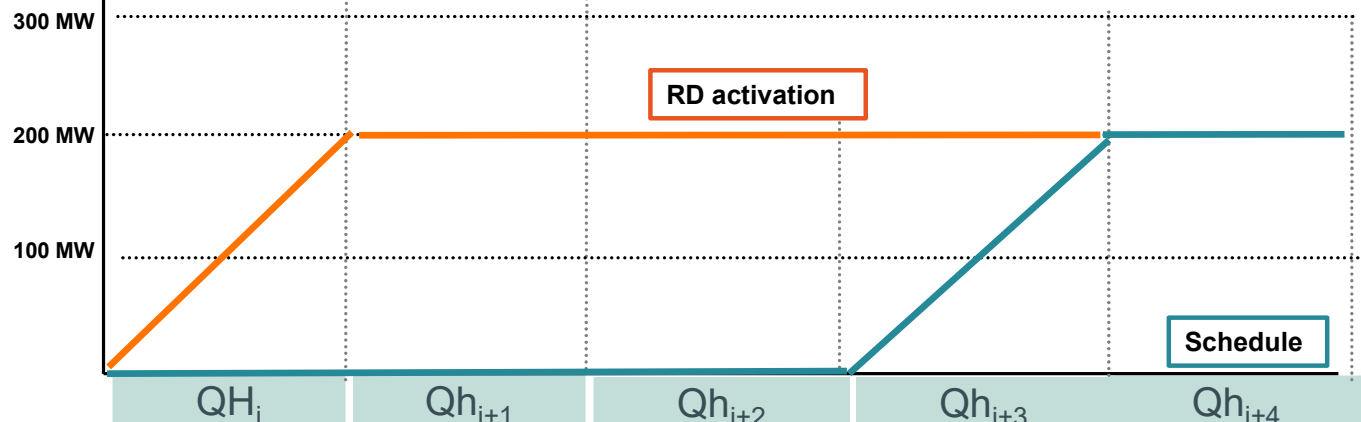
Proposed way forward

→ Definition of MIT properties at bid level with a 15min granularity - example

RD activation will take into consideration the MIT of the first activated bid in the timeseries
By default MIT = 15'

Legend:

Bid available for selection and activation	Bid selected / activated	Bid unavailable for selection and activation
--	--------------------------	--



Implementation changes – RD bidding properties – Full Activation Time

Issue 4

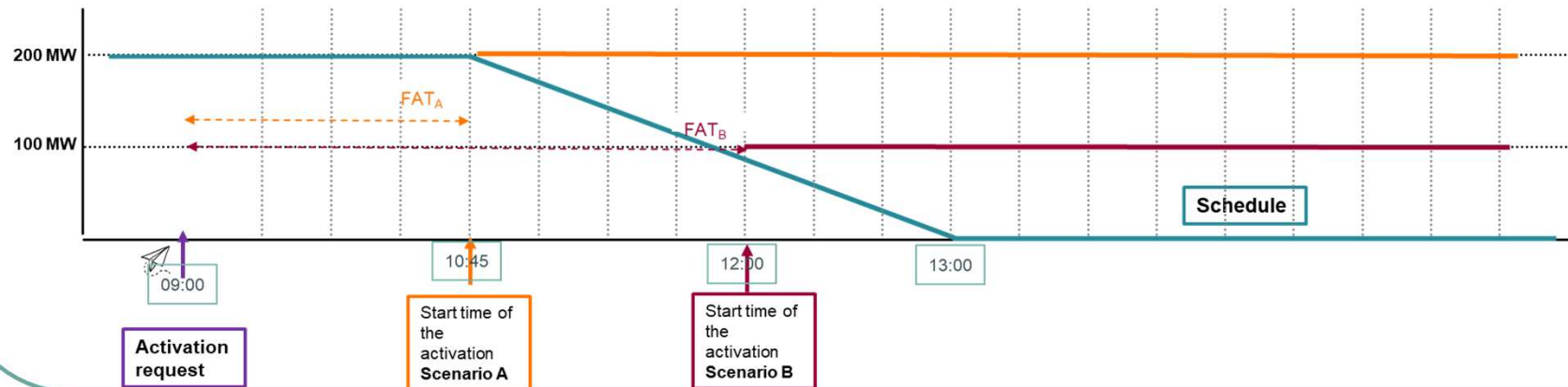
Issue with Full Activation Time (FAT) currently defined at the timeseries level

During start-up / shut-down, not possible/easy way with the current properties to offer the full flexibility

Illustration:

- Unit schedule starts a slow shut-down at 10:45
- At 9am, for congestion issue, Elia needs avoid the shut-down
 - Scenario A when the unit start the ramp-down to keep at Pmax
 - Scenario B when the unit has already started the ramp-down to keep the unit at Pmin

$FAT_A \neq FAT_B$



Proposed way forward

- Definition of FAT properties at bid level with a 15min granularity (similar as Maximum Energy Level (MEL))

Impact for SA

Impact for Elia

Implementation in Q2/Q3 2025

Implementation changes – RD bidding properties - conditional links specific for start-ups/shut-downs (p27 of the Technical Guide (section 5.2 Complex RD submission))

Issue 5

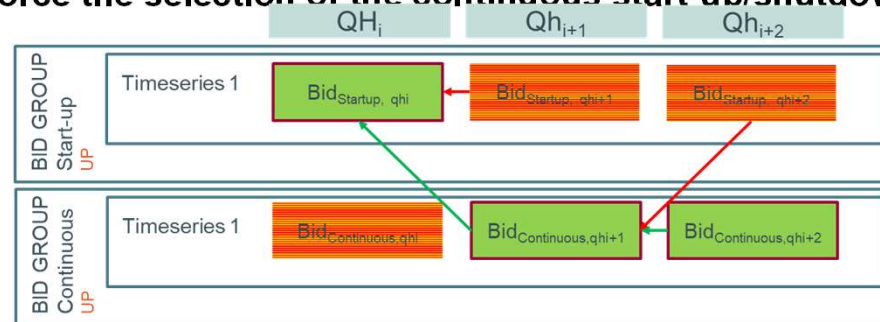
Issue with start-up / shut-down to force the selection of the continuous start-up/shutdown bids with MIT

DP is not running

2 Bid Groups to reflect start-ups:

- **Start-up bids**
 - initially **available**
 - Becomes **unavailable** if Bid_{Startup, qh-1} is activated: **A55 link**
 - Becomes **unavailable** if Bid_{Continuous, qh-1} is activated: **A55 link**
- **Continuous bid**
 - is initially **unavailable**
 - **Has a MIT**
 - Becomes available if Bid_{Startup, qh-1} is activated: **A67 link**
 - Or Becomes available if Bid_{Continuous, qh-1} is activated: **A67 link**

Legend:



Elia guarantees that the continuous bid will always be activated if the start bid is activated



3) Bid Group_{continuous, A95, 1}

Proposed way forward

→ Creation of new conditional links specific for start-ups/shut-downs (ie A95 to use additionally for the start-up bid in order to guarantee that the continuous bid is always activated if the start-up bid is activated)

A95: bid (start-up) initially available,

- becomes unavailable if linked bid (Continuous) is not activated in qh+1

Impact for SA

Impact for Elia

Impact on SA contract (Annexes)

Implementation in Q2/Q3 2025

Implementation changes – RD bid validation rules* - Minimum Activation Time

Issue 6

Issue with MIT validation rule to offer full flexibility

BID_072 – Bids with a Minimum Activation Time (MIT) can be used only if a condition A67 as conditional link is included

A bid can only have a Minimum Activation Time greater than zero if the bid also has a conditional link with the condition A67. This means the bid needs to have a linked bid timeseries using the status A67 either in level 1 or level 2. If a message contains a timeseries with a Minimum Activation Time greater than zero without a conditional link with the condition A67, the message will be rejected.

BID_073 – Bids cannot have both a Minimum Activation Time (MIT) and a Full Activation Time (FAT) higher than default value

A bid can either have a Minimum Activation Time greater than zero or either a Full Activation Time greater than the default value of 12,5 minutes but never both at the same time, in the same timeseries. If a message contains a timeseries with both a Minimum Activation Time greater than zero and a Full Activation Time greater than the default value of 12,5 minutes, the message will be rejected.

Proposed way forward

→ Remove these validation rules

Impact for Elia

Implementation in Q1 2025

* RD BID validation rules can be found in the technical guide – last version available on Elia website : <https://www.elia.be/en/electricity-market-and-system/icaros-and-mari-projects>

Open implementation issue : conditional bid link across multiple days

Issue 7

Bid_01: Conditional bid links across multiple delivery days are not fully accepted

Proposed way forward

Under analysis => no solutions found yet.

Operational work around till solution is found: bid is accepted with warning.



Open implementation issue – Cancellation of bid time series

Issue 8

Bid_02: Cancellation of full bid time series with conditional links of energy bids after D-1 submission due to validation rule BID_77*

Proposed way forward

Under analysis => no solutions found yet.

Operational work around till solution is found: 2 steps approach:

1. Update the market document with version x+1 where the conditional links are removed and new bid groups can be created
2. Update the market document with version x+2 where the timeseries can be canceled.



* RD BID validation rules can be found in the technical guide – last version available on Elia website : <https://www.elia.be/en/electricity-market-and-system/system-services/technical-documentation-concerning-the-provision-of-ancillary-services>