



iCAROS phase 1 REX

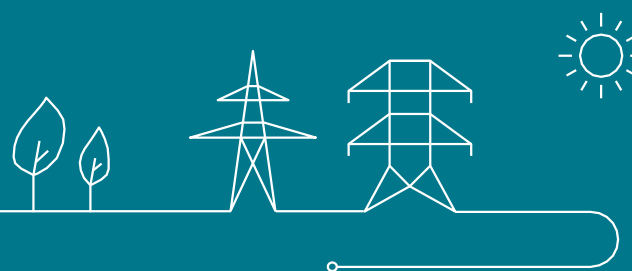
11 December 2024

Agenda

1. Feedback provided by market parties regarding the operational support during the implementation phase, go-live and after go-live
2. Feedback provided by market parties in the survey/bilateral meetings:
 - On design
 - On implementation (including operational feedback from Elia)
3. (anonymized) results of consistency controls
4. Next steps



Feedback provided by market parties regarding the operational support during the implementation phase, go-live and after go-live



Context information

As requested during WG GRID of 4 October 2024, a survey was launched shortly afterwards till beginning of November 2024 that aimed at collecting feedback from the OPA and the SA regarding the design, the operational processes and the IT tools in service since the go live of iCAROS phase 1 as well as the organization of the go-live.

Elia received 7 responses on the survey reflecting 60% of the current OPAs & SAs

Some responses indicated that the feedback was (partially) confidential as such the feedback was anonymized.

Some of the received feedback was not fully clear. Elia will get back in touch bilateral to clarify, but this information is not reflected in the following overview.



Rating of the operational support of Elia during the implementation phase and go-live date



KEEP DOING

1. Fast and detailed response
2. Available to help with issues at side of Market Parties (MPs) (including set-up of ad hoc bilateral meetings)
3. Very good and up-to-date technical documentation – some minor inconsistencies
4. Efficient individual testing – accurate dev/test environment
5. Common testing and support of common testing

PLEASE REVIEW

1. Technical information :

- All relevant information should be stored in a centralized place (today : Technical implementation: [iCAROS and MARI projects](#); design OPA : [Being available for the system](#); design SA & coordination rules : [Alleviating congestion risk](#))
- Additional (more cases explained) and more clear technical documentation including the clear communication of which changes are include in a new version of the technical guide (clear versioning)
- Earlier delivery of the final version of technical guide
- FAQ would be a plus
- More time for the analysis of technical documentation by MPs

2. Testing :

- earlier announcing of testing periods & go-live
- More environments at disposal of MPs for testing
- More possibility for autonomous testing by MPs (activations)

Rating of the operational support of Elia during the implementation phase and go-live date

PLEASE REVIEW

3. Bugs/issues

- Bugs identified by Elia with an impact on MPs should be communicated when detected as well as when they will be corrected
- Response time is very long for complex technical issues – view on follow-up is missing [suggestion by MP a dashboard where MP can check whether an issue is logged and what is the progress]

4. Production:

- The alignment between configuration data in production and demo environment
- The timing of (1) the availability of production environment and (2) the delivery of production data before go-live



Rating of the operational support of Elia after the go-live date



KEEP DOING

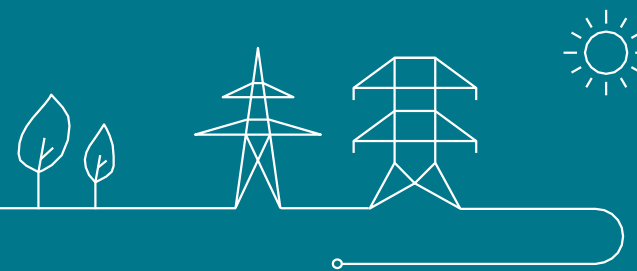
1. Good availability and responsiveness especially for blocking technical issues
2. Proactive to inform changes
3. Offering help with issues of the service provider
4. Open communication on the functioning of features
5. Problem solving attitude (no finger pointing)
6. Email regarding DST change with information on template for delivery of extra hour

PLEASE REVIEW

1. More proactivity in communication of issues relevant for Market Parties (MPs)
2. Changes impacting MPs should be clearly and in advanced communicated to MPs before actual release
3. Non-blocking issues were not solved by Elia, MPs needed to refer to suboptimal workaround solutions : logging and tracking of these issues should be addressed
4. Request to have a structural way to follow up open questions of MP's including when a design is in operations
5. Celebration with MPs of go-live



Feedback provided by market parties in the survey/bilateral meetings

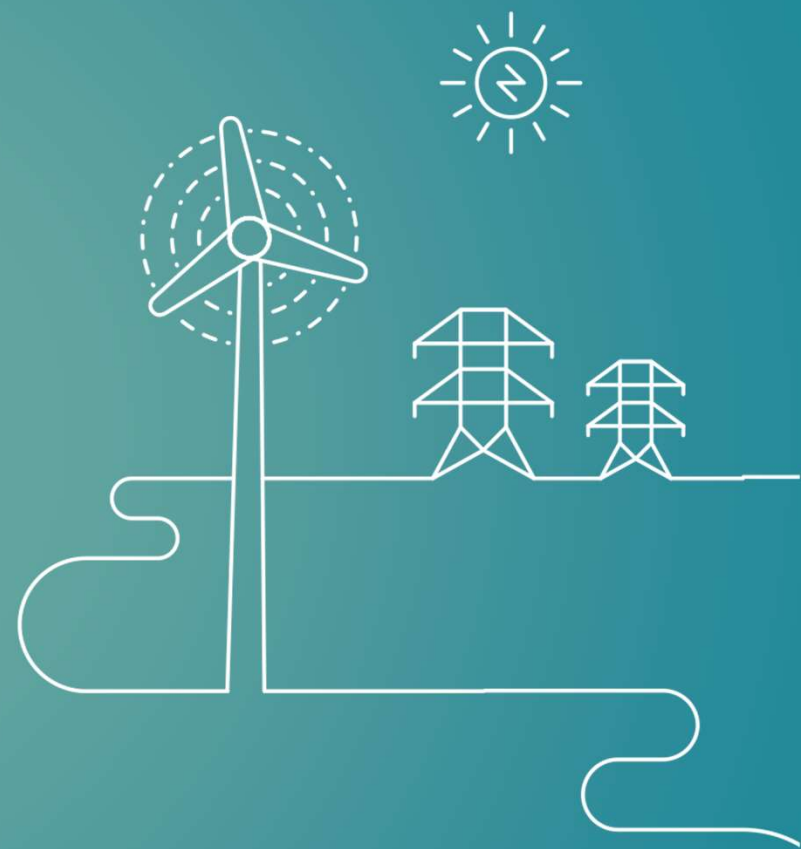


Feedback provided by market parties in the survey/bilateral meetings:

1. Disclaimer : not all feedback/comments will be shared during this workshop, the focus will be on comments/feedback that has a value added for all market parties
2. This section reflects feedback regarding:
 - design
 - implementation (including operational feedback from Elia)



OPA



Feedback provided by market parties in the survey/bilateral meetings: OPA

1. Request to include all longer-term OPA procedures (Listed, Revision, Stand-by, Ready-to-Run) in OptiFlex
2. Feedback regarding the validation process of availability plans by Elia:
 - A rejection by Elia should contain the reason of rejection as well as the moment(s) for which Elia identifies a risk for the security of the grid
 - How to handle the cases of maintenances longer or shorter than foreseen?
 - Is it possible to auto-accept some availability plan updates?

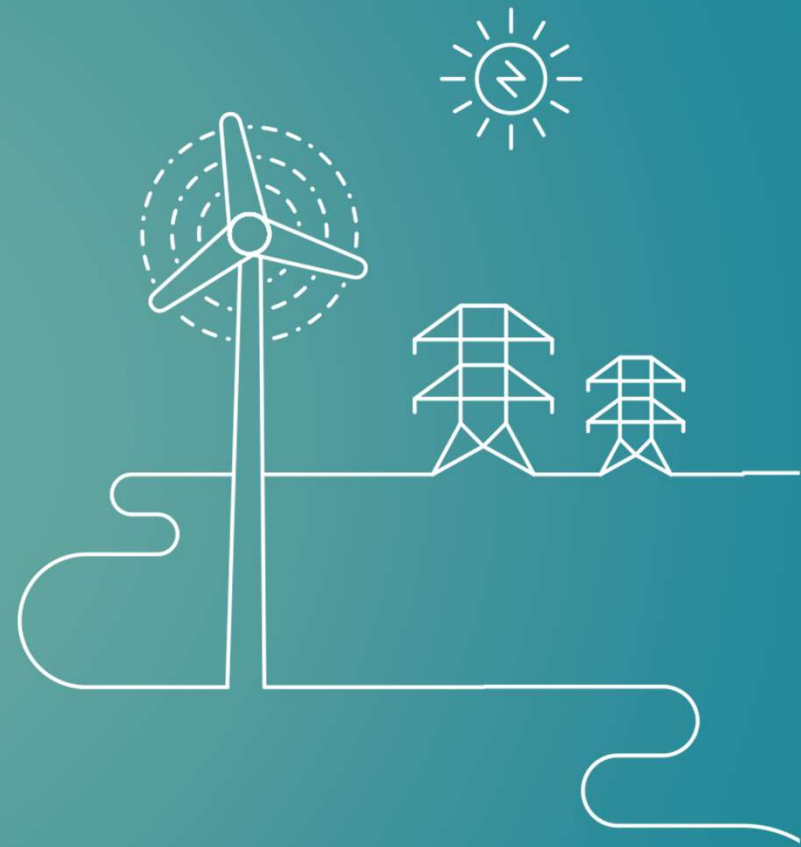
Elia's answer: these points are addressed in the framework of the evolution of outage planning foreseen in the phase 2.1 (**release 1 extension of time frame for units ≥ 25 MW**) of iCAROS project (target go-live end June 2025)

3. Many assets cannot reach their technical Pmax upon request because of external factors (e.g. outside temperature), while not being technically limited. How to communicate that the asset is fully available but not at Pmax as it impacts the offered flexibility?

Elia's answer: External factors influencing the Pmax such as the temperature should not be considered in the Pmax available provided by the OPA.



SA



Feedback provided by market parties in the survey/bilateral meetings: SA design (1/2)

1. Some wind parks cannot be steered under Pmin without jeopardizing their technical lifetime. This impacts the expected flexibility they should provide (as monitored via the consistency controls)
 - **Elia's answer:** Elia would like to better understand this limitation and if a solution cannot be found via the use of bidding parameters (similarly to shut-down activation of thermal units). If technically justified, Elia will take into account the Pmin of wind parks in the consistency controls between the provision of availability plan and the provision of RD bids (target date : Q2 2025)
2. Request to reduce the RD GCT and possibly align with BAL GCT
 - **Elia's answer:** This evolution is well considered by Elia but requires some important operational improvements to ensure the security of the grid. The analysis and timing will be discussed in the framework of the discussion about the 30 min XB ID GCT (follow-up will take place in WG Grid)
3. Request to clarify how to react when there is at the same time a return to schedule and a FCR activation in opposite direction
 - **Elia's answer:** Elia is analyzing the possible solutions to avoid negative consequences for the BSP considering that the FCR activation is automatic unlike other balancing services. Feedback on this point is foreseen in WG Grid on 19/02/2025.
4. Request to evolve to market-based redispatching
 - **Elia's answer:** Elia reminds that the cost-based remuneration has been introduced in combination with the freedom of dispatch as part of the package deal. As explained in the last workshop about flexible access:
 - Market-based redispatching is not compatible with the current design due to a risk of market distortion → derogation approved by CREG and VREG
 - CREG and VREG requested to regularly reassess the derogation need
 - In its target vision, Elia considers reevaluating the remuneration for congestion management but this an extensive and challenging exercise that needs to be part of a consistent design where other aspects may also need to evolve



Feedback provided by market parties in the survey/bilateral meetings: SA design (2/2)

5. Request to support a cost reimbursement for lost production to the BRP for RTS activations in order to not jeopardize the business case of renewable assets
 - **Elia's answer:** A cost reimbursement is neither in line with the legal framework of RTS nor give the correct incentive to respect the schedule. Elia will however analyze the possibility to reduce the GCT to provide the schedule in order to reduce the possible forecast error for renewable assets. This point could also be impacted by the analysis of alternative baselines for RES units as requested by the CREG in point 66 of the decision 2750.
6. Request to allow updates of schedules and bids even if a RD activation was requested (i.e. if wind speed changes, SA should have the right to update schedules & RD bids)
 - **Elia's answer:** Allowing these updates (in the opposite direction of the activation request) is highly complex to manage from an operational point of view. However, in the framework of GUFlex, Elia will pursue discussions with market parties on baselines used in case of Gflex activation. For the particular case of wind, Elia will analyze the applicability of the baseline used for GFlex to redispatching.
7. Only a subset of assets are **contributing to** the grid security (injection units $\geq 25\text{MW}$), more technical facilities should participate to the scheduling and availability planning services to ensure grid security.
 - **Elia's answer:** the extension of the obligation to deliver information to smaller production and storage facilities as well as demand sites is in the scope of the phase 2 of iCAROS project (starting with the availability planning **release 3**)



Implementation changes – RD bidding properties

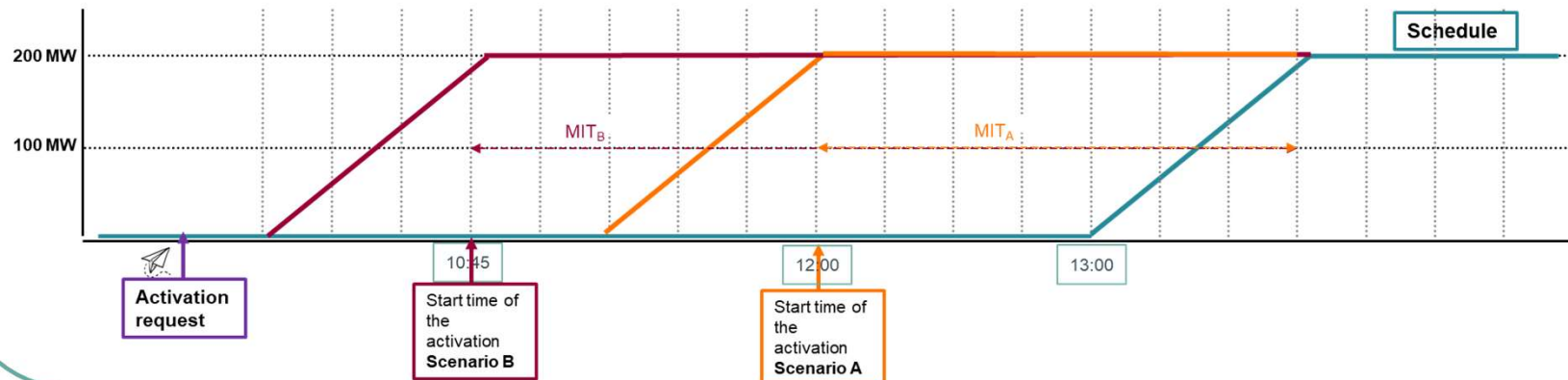
Issue 1

Issue with Minimum Activation Time (MIT) 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-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 Solution

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

Implementation
in Q2/Q3 2025

Impact for SA

Impact for Elia

Implementation changes – RD bidding properties

Issue 2

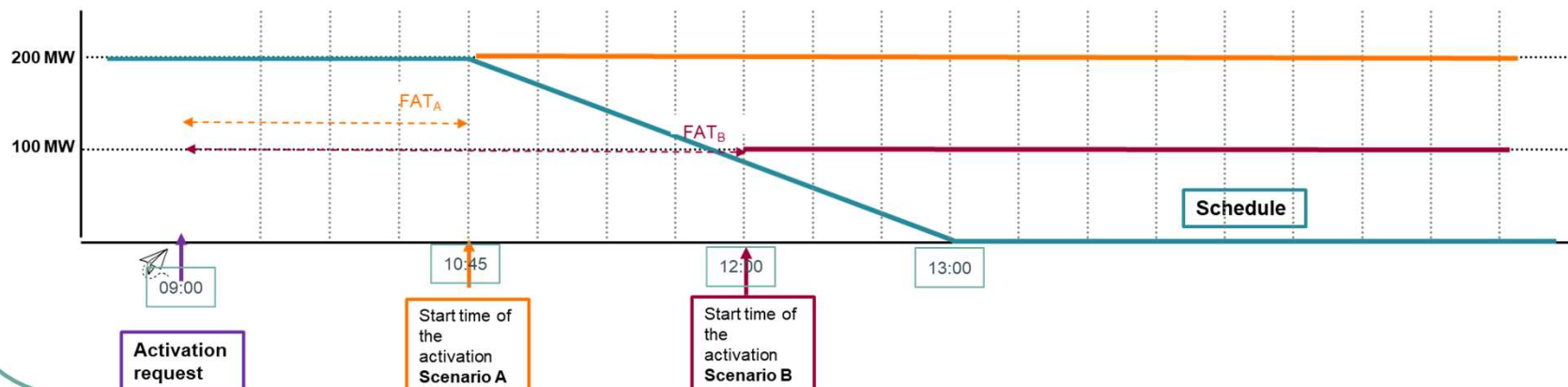
Issue with Full Activation Time (FAT) currently defined at the timeseries level

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 Solution

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

Implementation
in Q2/Q3 2025

Impact for SA

Impact for Elia

Implementation changes – RD bidding properties

Issue 3

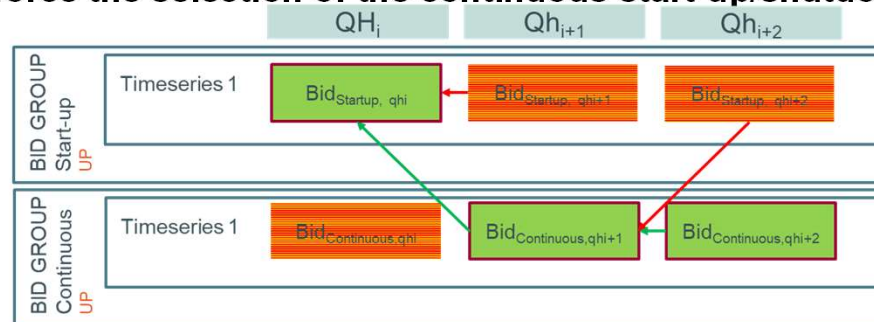
Issue with start-up / shut-down to force the selection of the continuous start-up/shutdown bids with MIT

DP is not running

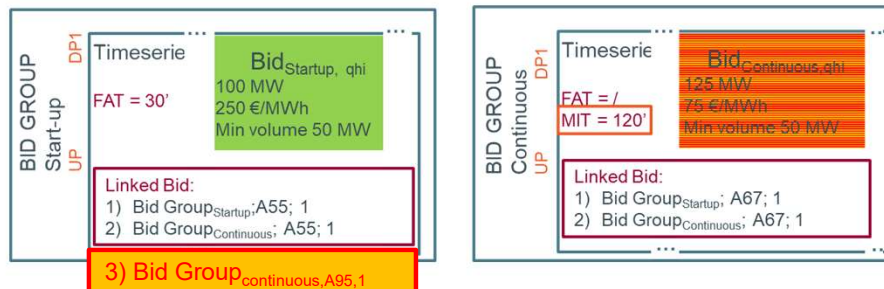
2 Bid Groups to reflect start-ups:

- **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



Proposed Solution

→ Creation of new conditional links specific for start-ups/shut-downs (ie A95 to use additionally for the start-up bid)

A95: bid (start-up) initially available,

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

Implementation in Q2/Q3 2025

- Impact for SA
- Impact for Elia
- Impact on SA contract (Annexes)

Implementation changes – RD bid validation rules*

Issue 4

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 Solution

→ Remove these validation rules

Implementation
in Q1 2025

Impact for Elia

* 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>

Implementation: Other open issues

- Bid_01: Conditional bid links across multiple delivery days are not fully accepted
- Bid_02: Cancellation of bid time series of energy bids after D-1 submission

Under analysis => no solutions found yet.



Monitoring of CRI levels



CRI Statistic

Direction UP from go-live to 30/11/2024

Electrical Zone	High	Medium	Low
380kV	0%	0%	100%
Hainaut East	1%	2%	96%
Hainaut West	1%	1%	98%
Langerbrugge East	1%	1%	98%
Langerbrugge West	2%	1%	97%
Liège	0%	1%	99%
Merksem	0%	0%	100%
Ruien	0%	0%	100%
Schaerbeek / Brussels	0%	0%	100%
Stalen	0%	0%	100%

Comparison btw Parallel Run Results (CRI) and Red-Zones

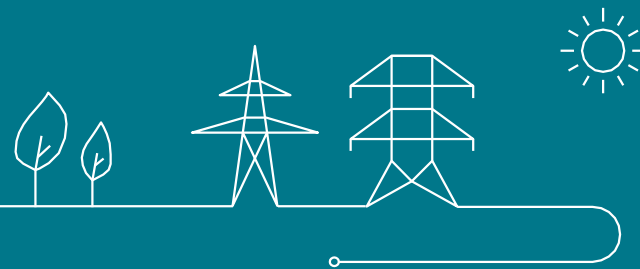
Direction UP from 27/11/2021 to 28/02/2022

Electrical Zone	CRI (/run)		Red Zones (Production)	
	High	Medium	Red	With MWCap
Center	0%	0%	0%	0%
Hainaut East	1%	1%	0%	0%
Hainaut West	1%	1%	0%	0%
LBE	4%	10%	6%	8%
LBW	2%	4%	7%	1%
Liège	0%	1%	0%	0%
Merksem	0%	0%	0%	0%
Ruien	0%	0%	0%	0%
Stalen	0%	0%	0%	0%
380kV	0%	0%	0%	0%

*Presented in WG BAL May 2022



(anonymized) results of consistency controls



Reminder - Data consistency and completeness controls

Consistency control between				Reason
Data 1	from	Data 2	from	
Availability status/P_{max} available	OPA	Schedule	SA	<p>The Availability Status given by the OPA has to be coherent with the schedule provided by the SA i.e.</p> <ul style="list-style-type: none"> In case the Availability Status is Unavailable the Daily Schedule must be equal to zero In case the Availability Status is Available the Daily Schedule must be lower than or equal to the P_{max} Available
Availability status	OPA	RD Energy Bids	SA	<p>The submission of redispatching energy bids by the SA has to be consistent with the Availability Status given by the OPA i.e.</p> <ul style="list-style-type: none"> At least one RD energy bid is submitted if the Availability Status is set to Available No RD energy bid is submitted if the Availability Status is set to Unavailable

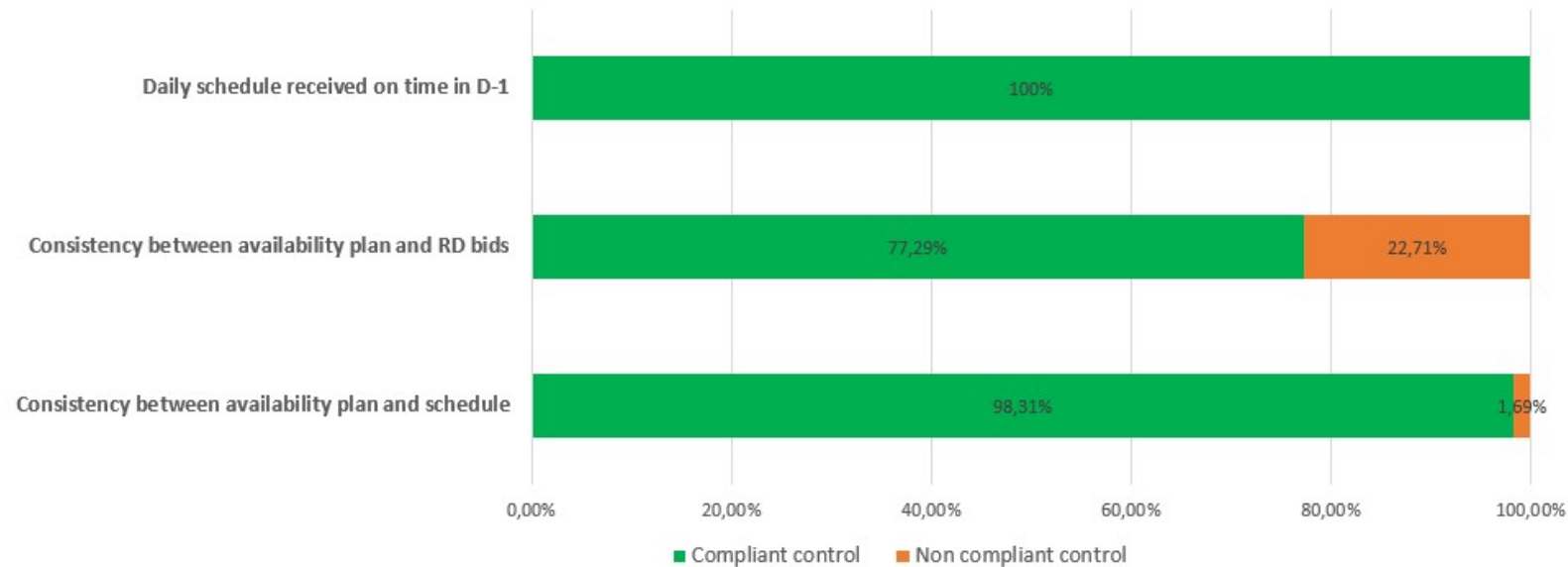
Data completeness control:

- Control of the on-time provision of the Schedule in D-1 at 15:00



Consistency and completeness Controls - Results

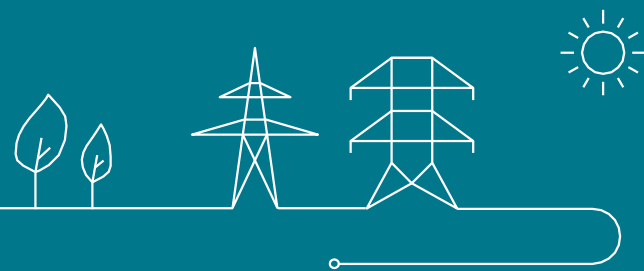
Aggregated results of data consistency and data completeness controls (from go-live to end November)



Main causes of inconsistencies

- For the control between daily schedule and availability plan:
 - Daily schedules with higher values than Pmax available (sometimes higher than the technical Pmax)
- For the control between the provision of RD bids and availability plan:
 - Absence of start-up/shutdown bids (also during ramping up/ramping down periods)
 - Absence of RD bids for some wind parks in case of low wind
 - Absence of RD bids for many onshore wind parks
 - Bids submitted while delivery points have a status “unavailable”

Next steps



Next steps

1. Assess the possibilities of a dashboard to follow up the open tickets of OPA/SAs (not related to design only operational issues – design issues will be discussed in workshops)
2. Launch S1 2025 the dashboard for open tickets OPA/SAs (not related to design only operational issues) with if possible, indication of a timing when included in the technical guide, in demo, in prod.



Thank you

