

GC0166 Soak Phase Key Observations & Solutions

Observation: MDO/MDB submission volumes have been higher than anticipated. This appears to be driven primarily by duplicate submissions, or submissions that could potentially be consolidated. Optimisers have worked proactively with NESO to make the process more efficient and reduce volumes where possible. However, in some cases, these large data submission volumes have caused issues with Electronic Dispatch & Logging (EDL) software for Lead Parties and highlighted the potential for adverse impacts on BM system performance. If scaled across the wider limited duration asset population (>300 BMUs), these impacts could become more significant, so further reductions are needed before larger transition waves can proceed.

Solution: As a direct result of the data submission volume observations, NESO has updated the MDO/MDB Industry Best Practice Guide to v3 ([link below](#)) to request that Market Participants reduce the expected MDO/MDB submission horizon from up to 42 hours ahead to only 6 hours ahead. This change is expected to significantly reduce data submission volumes and associated system impacts while continuing to provide the operational information required to support future dispatch and scheduling activities. Guidance on not submitting duplicates, and consolidating data submissions, was already included in the original versions of the MDO/MDB Industry Best Practice Guide and so this remains.

Observation: Initial MEL/MIL redeclaration volumes were higher than expected due to some duplication.

Solution: We have worked with participants to request that they do not send MEL/MIL duplicates through which has resolved this issue with redeclaration levels now broadly aligned with expectations under the revised GC0166 MEL/MIL methodology.

Observation: Concerns regarding publication of future MDO/MDB values on Elexon Balancing Mechanism Reporting Service (BMRS) have been raised by several stakeholders.

Solution: Elexon, Ofgem and relevant NESO teams are aware of these concerns and are exploring the changes required to support publication of MDO/MDB data in a manner consistent with the current MEL/MIL approach. The intention is to publish the final



MDO/MDB data at Gate Closure for the Settlement Period and any redeclarations received within that period, to Elexon BMRS. No future values outside of this will be published.

Updated Transition Approach

Based on these observations, future BMU transitions will follow an adjusted approach. Lead Parties will be offered the opportunity to transition **a single BMU initially**, at a mutually agreed time between NESO and the Lead Party. This will provide an opportunity for the Lead Party, optimiser and NESO to review submission volumes and ensure that all processes are functioning as expected before transitioning additional assets.

This approach will allow us to build confidence in data submission patterns ahead of larger portfolio transitions, while also helping Lead Parties understand any operational or software impacts associated with the new arrangements.

It is important to note that the transition process itself remains straightforward, requiring only two system flags to be updated at a pre-agreed time. As such, minimal notice is required from NESO to facilitate the change.

In parallel, we will continue with the previously communicated **~500 MW transition waves** only when we are satisfied that data submission volumes have reduced sufficiently and that any associated risk to BM system performance has been appropriately mitigated. Further information on this will be shared as the analysis progresses.

GC0166 Transition Frequently Asked Questions

1. Can I revert to the 30-minute rule if there are complications during transition?

Once a unit has successfully transitioned to MDO/MDB submissions, NESO's preferred approach is for the unit to remain on the new arrangements. Reverting to the 30-minute rule would only be considered in exceptional circumstances and would require discussion with NESO on a case-by-case basis. Therefore, participants should prepare to transition their unit(s) to GC166 on the assumption that it is a one-way transition.

As reverting a unit creates additional operational and administrative complexity, participants are encouraged to work closely with NESO to resolve any issues encountered during transition to fix forward rather than planning to switch back.

2. What happens if my unit experiences faults on the day of transition? Can I transition a different unit instead?

If the planned transition of a unit cannot proceed due to an issue with the nominated unit, please contact NESO as soon as possible to agree which alternative unit can be transitioned. Please do not attempt to transition a different unit without agreeing with NESO as the transition process requires a manual change to be made on the NESO side, at an asset level, before the asset will be dispatched correctly using MDO/MDB.

3. How long will the soak phase for my first unit last?

There is currently no fixed soak phase duration that applies to all participants. NESO will monitor data submission volumes, data quality and asset utilisation during the soak phase before agreeing to the transition of further units. The market participant should also conduct their own analysis of the asset utilisation and any system impacts before agreeing to transition further units. The duration will therefore vary depending on individual circumstances and the outcomes observed. There will be ongoing engagement between the market participant and NESO during this soak phase and ultimately when both parties are happy to transition further units, the soak phase can be considered to have ended.

4. What communication can I expect during the soak phase?

NESO will maintain regular engagement with participants throughout the soak phase. This may include:

- Confirmation of successful transition.
- Feedback on data submissions.



- Highlighting any observations or issues identified.
- Requests for clarification or corrective actions where required.
- Confirmation when NESO is satisfied that transition activity can progress further

5. What will happen on the day of transition?

NESO and the market participant will have agreed for a specific unit to transition at a specific agreed time. For 15 minutes either side of this time, NESO will not instruct the asset, to allow the transition from a stable 30-minute MEL/MIL dataset to a similarly stable MDO/MDB dataset. Just prior to the agreed transition time (anytime in the 15 minutes prior) the market participant will make the relevant changes to their systems to switch from submitting MEL/MIL as per the 30-minute rule, to instead submitting MEL/MIL as per GC0166 arrangements; and additionally begin to submit MDO/MDB values. The first submission should include the entire PN submission time horizon at that point, and then all subsequent updates to MDO/MDB should only be for the next 6 hours. At the specific agreed transition time, NESO will change a flag in our dispatch system that will tell the optimiser to begin using submitted MDO/MDB values to create Bid Offer Acceptance (BOA) instructions, instead of the MEL/MIL. Following a short period of ~30 minutes initial close monitoring of data to ensure it is flowing through our operational systems correctly; the intention will be that our optimiser then dispatches the asset in cost merit order using MDO/MDB data. From this point our monitoring will continue but based on analysis that is conducted daily (e.g. around data submission volumes). The process to transition an asset is relatively quick and straightforward.

6. When will I be able to transition all of my units after the soak phase?

There is no predefined timescale that applies to all parties. NESO intends to use a phased approach, with organisations generally transitioning one unit initially in the soak phase before progressing additional units. The timing of the wider rollout will depend on market participant readiness and appetite but also conditional on successful completion of the soak phase i.e. data submission volumes and data quality are acceptable.

7. What are the biggest factors that could delay the transition of all my units?

The most common factors likely to delay transition include:

- Data quality issues.
- High volumes of data submissions.
- Duplicate or inefficient data submissions.
- The need for participants to implement agreed process changes.



- Resolution of observations identified during soak testing.
- Overall readiness across the participant's operations and systems.
- Several providers wanting to transition their units all at the same time, which is why readiness information from providers is critical to NESO.

NESO will work closely with participants to help resolve issues and minimise delays.

8. What is the latest date that I can start transitioning my units to MDO/MDB?

Participants should engage with NESO as early as possible and should not wait until the final stages of the transition programme.

The implementation deadline remains 5 November to ensure compliance with the Grid Code. NESO strongly encourages parties to begin discussions and transition planning as soon as possible to allow sufficient time for testing, soak phase activities and issue resolution.

9. Is there anything I need to do in advance of the transition?

Please ensure that your EDL software has been updated to the latest version that is able to send MDO/MDB data to NESO, along with any other software required to process/send MDO/MDB data.

10. Do I need to transition all of my units at the same time?

No. The current approach is for participants to transition a single unit initially before progressing additional units. This allows both participants and NESO to gain confidence in processes and data quality before wider rollout. For the avoidance of doubt, we will always limit the transition of units on any given day to ~500 MW to mitigate any unexpected impact to operational systems.

11. Will I receive BOAs with durations longer than 30 minutes before 5 November?

BOAs longer than 30 minutes will not be issued until the 5 November. Once all units have transitioned, BOAs may be sent longer than 30 minutes, but please note that a typical operational approach is for more frequent, shorter BOAs to efficiently manage the variability of the power system.



12. As we continue building out our internal logic, I have identified a couple of additional edge cases which impact our MDO/MDB calculations – they are not captured in the best practice guidance – what should I do?

NESO has produced the MDO/MDB best practice guidance document as supplemental information to support industry, in accordance with our role as the Code Administrator under the Grid Code [BC1.4 – Submission of data] and in carrying out our duties and licence conditions as the National Energy System Operator. Where additional edge cases are identified, please send them through to box.obp_edt.edl@neso.energy with the subject title 'MDO/MDB scenario edge case'. The team will review edge cases received and provide guidance where possible. Additional scenarios may be added in subsequent versions of the best practice guidance but our aim is to provide a view on the high level principles to then allow market participants to best determine how to manage edge case scenarios.

13. Why has NESO reduced the MDO/MDB submission horizon from 42 hours to 6 hours?

During the soak testing phase, NESO observed significantly higher levels of MDO/MDB data submissions than anticipated, which was causing performance issues with both NESO and Market Participant operational systems. This change is expected to significantly reduce data submission volumes during the transition period, while continuing to provide the operational information required to support future dispatch and scheduling activities. Once all Market Participants are submitting MDO/MDB data in line with the MDO/MDB Best Practice Guide, these timeframes will be reviewed by NESO.

14. How will the reduction in time horizon limit impact the use of this data in scheduling timescales and for the FSoE model?

In our previous webinars and in-person events, we have explained how, throughout the day, our strategy team produce a number of System Operating Plans (SOPs). These SOPs inform the real-time teams of the background to the decisions they will have to make in the next few hours. By having 6 hours worth of data, we can feed this into the forward plan for each SOP as we go through the day. This happens on a rolling basis. If we had data in longer timescales, we could have used this in making predictions further out, but we have found that the accuracy and volatility of data beyond 6 hours does not make this useful at this time. FSoE is a model that allows NESO to carry out "what-if" decisions. In our June Optimisation Forum, we showed how we would blend MDO/MDB at shorter timescales to the FSoE models allowing NESO to make scheduling decisions that go beyond 6 hours. So, we would use MDO/MDB up to 6 hours ahead but beyond that we would use FSoE.

15. What should I do if I have not yet contacted NESO regarding my transition plans?

Participants who have not yet shared their intended transition approach or timescales are encouraged to engage with NESO as soon as possible so that appropriate planning and support can be provided ahead of the implementation deadline. Even if this is to inform NESO that plans are still being worked up, this is useful for NESO to know when planning the transition. Please contact us via box.obp_edt.edl@neso.energy

16. What are the key documents to support this transition?

- **Data Validation, Consistency and Defaulting Rules** – rules on the submission of MDO and MDB
- **Electronic Dispatch & Logging (EDL) Message Specification** – message structure used on EDL for MDO and MDB
- **Wider Access Application Programming Interface (WA API) Message Specification** – message structure used for MDO/MDB accessible on the WA API Developer's Portal.
- **MDO/MDB Industry Best Practice Guide v3** – Supplementary information incorporating enhancements proposed by industry participants

Additional questions and queries

Please email at box.obp_edt.edl@neso.energy with any questions or queries and a member of the team will get back to you.

