Public

GC0166 Proof of Concept (PoC)

Version 1 - March 2026

NESO
National Energy System Operator

Contents

1. Executive Summary

GC0166 is a Grid Code modification that introduces new dynamic parameters for Limited Duration Assets (LDAs). As part of NESO's preparation for GC0166, we conducted a Proof of Concept (PoC) to assess how the new parameters will perform in real-world Balancing Mechanism (BM) conditions. This report outlines the PoC approach and its outcomes, with the key insights summarised as follows:

- **Real operational data is critical for understanding how GC0166 will work in practice.** Provider-submitted data revealed real-world behaviours that theoretical modelling could not capture, directly impacting the way GC0166 will be implemented.
- **Evidence based methodology change.** The PoC showed that instantaneous Maximum Delivery Offer (MDO) and Maximum Delivery Bid (MDB) submitted by providers overstated LDA availability. A revised approach now protects contracted volume, ensuring fairer and more accurate dispatch.
- **Optimisation has been validated.** Real data testing increased confidence in MDO/MDB constraints and demonstrated robust performance of Target Dispatch and Fast Dispatch using the Bulk Dispatch Optimiser (BDO) in realistic scenarios.
- **Further refinement of GC0166 guidance is needed.** Understanding the variations in data volumes and submission patterns from participants helped inform wider objectives to ensure that NESO systems can confidently handle input data from day-one of GC0166 Go-Live. The next PoC will help NESO further understand and validate these system requirements.

2. Introduction

As the energy system continues to transition towards a renewable-led generation mix, novel approaches are needed to ensure NESO can operate the system securely, efficiently, and at least cost. This includes our approach to Limited Duration Assets (LDAs), such as Storage Modules. Their growing presence on the system as a flexible technology means they will play an increasingly important role in the BM and need to be utilised effectively.

This report details the process and outcomes of the first GC0166 Proof of Concept (PoC), which represents a significant step in preparing both NESO and industry for an important change in how LDAs are represented and dispatched in the BM. GC0166 introduces new dynamic parameters to be used within NESO systems, which provide a clearer representation of what flexible assets can deliver over time, enabling a move away from simplified assumptions and towards a more realistic view of operational capability.

The real-time volume of energy stored by an LDA is described by the Current State of Energy parameter set out by GC0166. The Future State of Energy (FSoE) parameters include Maximum Delivery Offer (MDO) and Maximum Delivery Bid (MDB), which describe the volume of energy a unit can offer or bid at a given future point in time (Figure 1). The volume of energy a unit can offer or bid is equivalent to the amount by which the unit can increase or decrease from its projected volume of stored energy at that time, whilst reserving enough spare volume for asset operations.

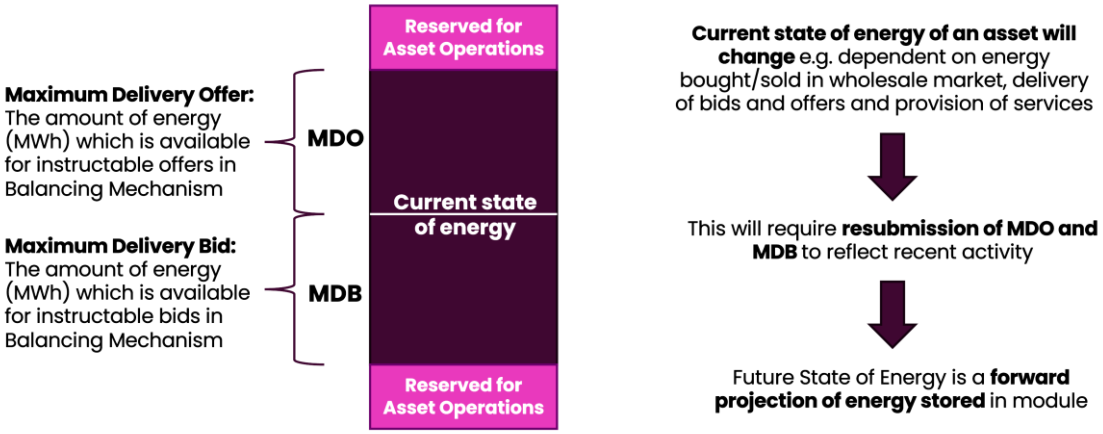

Figure 1: *Description of how the new dynamic parameters proposed by GC0166 will work*

We conducted PoC testing to explore how these parameters would work in practice, using real-world data submitted by providers to build an understanding of their usage. Figure 2 provides an overview of the types of insights that we wanted to uncover through the collected data. These insights will shape how NESO and industry continue to work together through the next phase of testing, helping participants prepare for implementation with greater confidence, and providing a clearer understanding of what GC0166 will mean for their assets and operations.

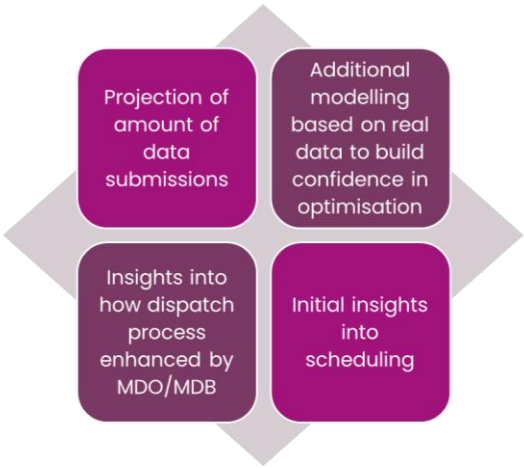

Figure 2: *The goal of the PoC was to uncover insights surrounding these four themes.*

3. Background and Scope of the PoC

NESO's current approach to representing LDAs in the BM relies on the simplified '30-minute rule', which requires units to declare export or import levels that can be sustained for a continuous 30-minute period; further information is available in our EDT/EDL Submission Guidance available **here**. This approach limits how flexibly these assets can be dispatched and planned for. The introduction of MDO and MDB aims to modernise our utilisation of LDAs by enabling:

- A transition away from the interim 30-minute rule toward dynamic, asset-specific parameters.
- Improved planning capability across intraday and day-ahead horizons.
- More efficient and accurate dispatch decisions in both balancing and scheduling timescales.
- Greater transparency of State-of-Charge and operational limits for Control Room decision-making.

To test these reforms, industry was invited to take part in a structured data-collection exercise, submitting two operational days of GC0166-related parameters per unit. This formed the first multi-provider dataset to validate the feasibility, consistency and operational value of GC0166 ahead of implementation. The process followed by NESO to conduct the PoC is displayed in ***Figure 3***.

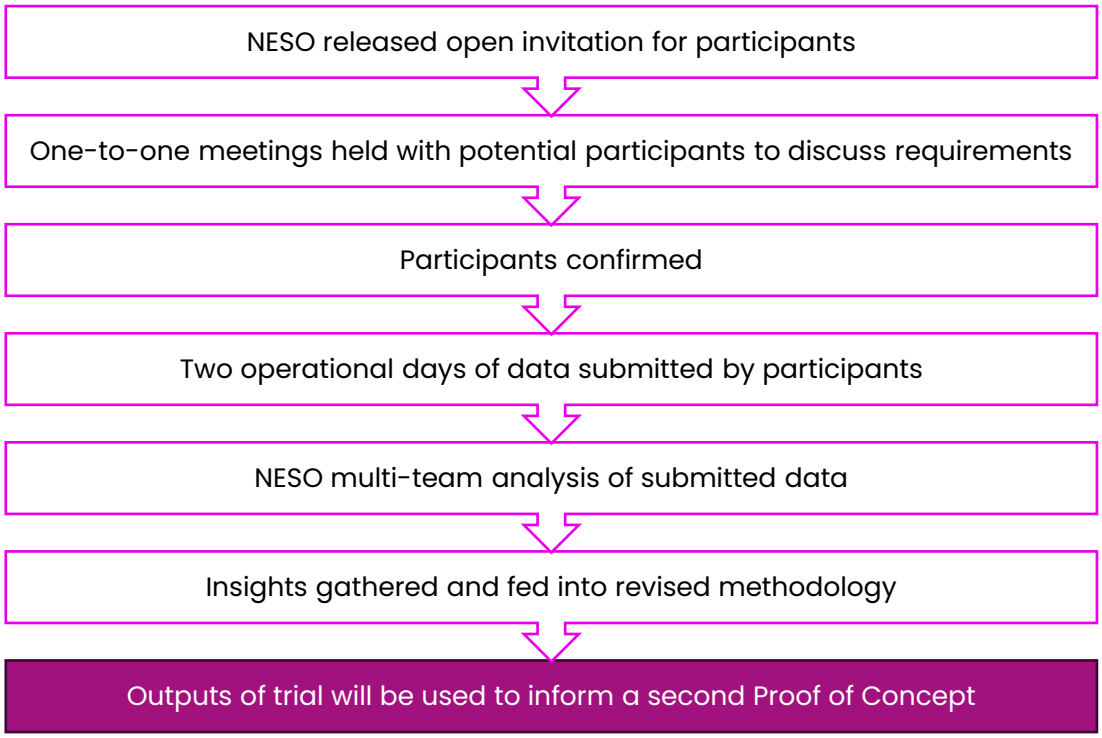

Figure 3: *NESO's process for conducting the PoC*

4. Industry participation

Market Participants were offered the opportunity to participate via several routes including the GC0166 Working Group (July 2025), Balancing Programme Webinar (16th September), and Dispatch Transparency Forum (3rd November).

From this open invitation, we sought participants that would allow testing across the full spectrum of likely active Balancing Mechanism Units (BMUs), including:

- Battery (>50MW, 10-50MW, <10MW, single /aggregated, demand)
- Non battery (pumped storage)

Initial meetings were held with 18 storage customers and, while not all interested parties were in a state of readiness to participate within the desired timescales, a total of nineteen units from eight providers with a diverse range of asset characteristics contributed to the PoC. The data collected from participants included the following parameters: MDO, MDB, MEL/MIL (Maximum Export / Maximum Import Limit) without the 30-minute rule, State-of-Energy limits, efficiencies and FSoE. (Customer Trial Protocol GC0166 Parameters PoC - **Appendix 1**).

NESO engaged proactively ahead of the PoC, holding more than twenty dedicated 1-2-1 sessions to walk providers through expectations, data structures, and technical considerations. These conversations gave participants space to raise detailed operational questions and ensure their internal processes were aligned with the trial requirements. NESO provided guidance and worked examples to support providers in preparing high-quality submissions.

By submitting two operational days of real unit-level data, participating providers offered NESO a first-time view of how the proposed GC0166 parameters perform under operational conditions. The first comprehensive dataset of its kind enabled teams across Optimisation, Dispatch Transparency, Balancing Operations and the NESO GC0166 Working Group to test core assumptions, validate system behaviour, and refine design decisions using evidence rather than theoretical modelling.

The PoC allowed participants to become familiar with the complexities of GC0166 ahead of implementation and validate their own internal tooling and optimisation models. Engaging directly with NESO experts, participants raised vital technical questions to clarify edge-case scenarios and influence the final methodology, particularly around how MDO/MDB should be calculated, and how contracted volumes should be protected. This collaborative process ensured that participant feedback shaped the evolving guidance, worked examples, and submission expectations.

5. How the PoC data was used across NESO

The data collected from participants has been used across NESO, with key takeaways as follows:

- **Real-world data volumes**: There was significant variation in the volume and submission patterns of participant data, giving NESO the evidence needed to refine guidance and ensure systems can confidently handle GC0166 day-one workloads.
- **Optimisation confidence:** The PoC has strengthened confidence in optimisation modelling, demonstrating how MDO/MDB behave in practice, helping to validate future scheduling and balancing-timescale use.
- **Industry collaboration:** The trial reinforced the importance of close collaboration with providers, highlighting where clear instructions and standardised data formats are required for consistent and accurate submissions.

5.1 Dispatch Transparency

The collected data played a central role in helping the Dispatch Transparency Programme understand minute-by-minute unit behaviour under GC0166 parameters. The Programme was able to:

- Understand how units position themselves minute to minute and evaluate potential impacts on skip rate methodology.
- Identify where methodology refinements are necessary to accommodate MDO/MDB parameters.

Crucially, this insight could not have been obtained without real operational data. It has already resulted in design adjustments that ensure the methodology reflects actual unit capabilities rather than theoretical constructs. High quality, provider submitted information directly strengthens the robustness of the skip rate approach, which supports transparent, accurate reporting.

5.2 OBP & Balancing Mechanism (BM) Technology

Data volumes varied widely across participating units across the two-day- period. This variability has proven essential for system readiness assessments:

- The dataset to shape understanding of the expected data volumes into OBP & BM systems for GC0166. This information has provided a realistic view of the scale and variability of submissions, enabling modelling of operational scenarios with confidence.
- Insights have enabled rigorous testing of both the BM system and OBP design and processes, validating their ability to handle day one workloads effectively.
- Data has directly informed refinements to complex system behaviour, process flows, and performance expectations, ensuring that both platforms are fully prepared to support a smooth and reliable day 1 go-live.

5.3 Optimisation

The dataset has been used to test the new mathematical constraints for MDO and MDB within the Target Dispatch and Fast Dispatch algorithms. This includes:

- Running comparisons between pre-GC0166 and GC0166-compliant parameter sets.
- Adjusting MEL/MIL to allow the optimiser to dispatch units at full technical capability.
- Using before/after modelling to verify advised dispatch actions.
- Aligning optimisation behaviour with real control-room production cases.

The creation of data files from provider data, merged with dynamic system information, allows the optimiser to be tested in a realistic simulation environment for the first time. This is a major enabler of GC0166 readiness as it grounds optimisation performance in real system behaviour.

6. Outcome

This PoC has directly shaped the decision to change how MDO and MDB should be submitted. Initial submissions reflected instantaneous MDO/MDB values, and providers were reporting the full technical capability of their units without accounting for energy that must be reserved for contracted services, such as Response or Reserve. Analysis across the 18 units led to a refined approach for GC0166; instead of instantaneous declarations, providers will now submit MDO and MDB values that protect contracted volume, ensuring that only genuinely available energy is represented. This change results in more reliable dispatch modelling, fairer representation of limited-duration assets, and a more accurate foundation for both Target Dispatch and Fast Dispatch optimisation.

7. Summary and Next Steps

The first GC0166 Proof of Concept successfully demonstrated the value of gathering real operational data from a diverse set of LDAs. The trial not only strengthened NESO's technical understanding of how MDO and MDB perform in real-world conditions but also highlighted where additional clarity and support are needed for providers ahead of implementation. These learnings directly informed updates to the worked examples for GC0166 parameters, as well as improvements to the best practice guide, which will be published in due course. The collaborative approach taken by participants, combined with the granularity of the data submitted, has significantly increased confidence in the overall implementation pathway.

Building on the findings from PoC1, NESO will now move into a focused second Proof of Concept (PoC2), using the revised methodology where MDO/MDB submissions protect contracted volume. This second round of data collection will again span two operational days and will be used to validate the updated approach and ensure consistency across providers. In parallel, NESO will prepare for the Reveal streaming trial, where a smaller cohort of participants will connect via VPN and submit real-time data to simulate live BM behaviour. Reveal is a digital trials platform which has been developed by NESO. This will allow NESO to test redeclaration turnaround times, explore challenging operational scenarios and further refine optimisation responses. These steps will all

contribute to building a clear, transparent and increasingly detailed understanding of how GC0166 will operate in practice ahead of full operational go-live.

For more information, please contact box.balancingprogramme@neso.energy.

Public

Appendix

NESO
National Energy System Operator

Appendix 1:

Customer Trial Protocol – GC0166 Parameters PoC

Executive Summary

This document sets out the process and commitments between a participant and the National Energy System Operator (NESO) for the GC0166 Parameters PoC trial. The trial will involve an existing Balancing Mechanism (BM) unit continuing to send the normal dynamic data parameters in the usual way. During the trial, the participant will collect/deduce additional parameters for the unit in real time/with time stamps, for two operational days saving it in a csv file. That file will be uploaded to a secure, shared, SharePoint location within one week.

Through this PoC Trial, customers and NESO will have the opportunity to understand the likely volumes of data which will arise and be submitted following implementation. The data collected in this trial will enable additional modelling to provide confidence in optimisation and help us understand how MDO/MDB will help in balancing timeframes, with initial insights in scheduling timeframes.

Categories of Participant

In order to test the optimisation calculations in balancing timeframes and undertake some initial calculations in planning timescales, a range of unit types and capacities are needed for the trial. We are therefore looking for multiple participants.

Customers can propose unit/s for the trial using the table at Appendix 1. Please also state which of the following categories the unit/s would occupy: small <10MW; Medium 11-50MW; large >50MW.

a. Single unit (battery) – small, medium, large
b. Aggregated unit (battery) – small, medium, large (individual assets are >1MW)
c. Demand side Aggregated unit – individual assets <1MW (relaxed operational metering initiative)
d. Non-battery, non-aggregated unit – compressed air, wind, solar, pumped storage, large demand side (>1MW individual asset/s)

Existing Data Parameters

Existing Dynamic parameters and their Grid Code references are given in Appendix 2. These will continue to be provided during the trial period via the usual route.

The existing parameters are: NDZ, NTO/NTB, MZT, MNZT, Offer & Bid prices, MEL, MIL, SEL, SIL, SOE, RUR, RDR, PA, MW Meter.

Additional Parameters

There are two sets of additional parameters which are explained in Appendix 3:

1. Those required by the GC0166 modification – MDO / MDB and FSOE
2. Further additional parameters which will assist NESO in testing the optimisation calculations. These include SOE upper/lower limit, Real time SOE, Export/ Import efficiency, Daily cycle and MWH cycle limit.

Trial Process

a. **Operations**. The customer will continue to submit dynamic data as detailed in Appendix 2, and operational metering, as normal, and there will be no variation to that operation as part of this trial. Therefore, there are no contractual or settlement implications. Similarly, as additional parameters will be collected by the customers and submitted separately to NESO, there are no Codes implications.

b. **Data Submissions** – the customer is asked to collect the additional parameters given in Appendix 3 in real time, or with the relevant time stamp. As there is no current facility to stream them, they should be saved for onward sharing. Appendix 3 highlights the data points that are required in the PoC test and how the data will be transferred to NESO. A suggested spreadsheet structure, with example data, is attached to this Note, at Appendix 4.

   This isn't an exhaustive list, and both parties agree to review what other analysis can be explored to benefit the learnings from the trial.

c. **Trial Start and End** – Once the specific dates have been agreed with NESO, participants are asked to submit data from 1100 – Day2+ 0500 (e.g. Monday 1100 – Wednesday 0500). Once the data has been received and reviewed by NESO, the customer may be invited to repeat the collection and submission for a subsequent period.

d. **Ancillary service participation** -The unit may continue to provide other services during the trial period.

Optimisation Scenario Testing

This testing will involve combining the submitted customer data with production data for the same time periods and running the algorithms to assess the impacts. The data obtained will enable NESO to test optimisation in balancing timescales for the following scenarios:

- Each individual unit type, one at a time
- Layering multiple units, in different combinations
- Time sequencing units, in different schedules

Outputs from the Trial

The data obtained from this trial will enable NESO to:

- Prove the operational use of MDO/MDB/FSOE and ability of customers to collect and submit these parameters prior to formal GC0166 implementation
- Enable NESO and customers to evaluate the volume of data from MDO/MDB/FSOE submissions and the value of the additional parameters
- Test the optimisation algorithm with real data from different types of units
- Feed into a best practice process for the implementation of the GC0166 parameters and development of IT delivery
- Evaluate optimisation over different time periods, supporting market arrangements
- Work towards maximising the optimal use of units, thereby reducing costs to consumers

Points of Contact

NESO point of contact: Trials team - box.balancingprogramme@neso.energy

Appendix 2 – Table of Unit details for Participation in the Trial

Participant

Point of contact for trial data

The following Unit/s are proposed for inclusion in the Trial

Item	Description	Unit Details	Unit Details
BMU ID	BMU ID – AG-ABC123		
Fuel Type	Battery / aggregated battery / pumped storage / Demand		
Proposed Category for Trial (a-d)	a. Single unit (battery) (s/m/l) b. Aggregated unit (s/m/l) c. Demand side Aggregated unit d. Non-battery		
Settlement ID	2__ABC123		
DNO	UK PN		
GSP Group	C – Central London		
Number of Assets in unit	1234		
Individual asset capacity & types of assets – W / MW	e.g. 7-15 KW Domestic battery/solar		
Total Deliverable Capacity – MW	e.g. 30 MW		

Deliverable Power (power deliverable for 1 hour) MWh	e.g. 2MWh		

Appendix 3 – Existing Dynamic Parameters

PARAMETER / DATA	Grid Code SECTION	GRID CODE TEXT
NDZ	BC1.A.1.5	Notice to Deviate from Zero (NDZ) output or input, being the notification time required for a BM Unit to start importing or exporting energy, from a zero Physical Notification level as a result of a Bid-Offer Acceptance, expressed in minutes.
NTO/NTB	BC1.A.1.5	Notice to Deliver Offers (NTO) and Notice to Deliver Bids (NTB), expressed in minutes, indicating the notification time required for a BM Unit to start delivering Offers and Bids respectively from the time that the Bid-Offer Acceptance is issued. In the case of a BM Unit comprising a Genset, NTO and NTB will be set to a maximum period of two minutes;
MZT, MNZT	BC1.A.1.5	Minimum Zero Time (MZT), being either the minimum time that a BM Unit which has been exporting must operate at zero or be importing, before returning to exporting or the minimum time that a BM Unit which has been importing must operate at zero or be exporting before returning to importing, as a result of a Bid-Offer Acceptance, expressed in minutes;
		Minimum Non-Zero Time (MNZT), expressed in minutes, being the minimum time that a BM Unit can operate at a non-zero level as a result of a Bid-Offer Acceptance;
Offer and Bid Prices	BC1.A.1.4	Bid Offer Data- An example of the format of data is shown in a table
MEL	BC1.A.1.3.1	Maximum Export Limit (MEL) A series of MW figures and associated times, making up a profile of the maximum

		level at which the BM Unit may be exporting (in MW) to the National Electricity Transmission System at the Grid Entry Point or Grid Supply Point or GSP Group, as appropriate.
		For a Power Park Module, the Maximum Export Limit should reflect the maximum possible Active Power output from each Power Park Module consistent with the data submitted within the Power Park Module Availability Matrix as defined under BC.1.A.1.8. For the avoidance of doubt, in the case of a Power Park Module this would equate to the Registered Capacity less the unavailable Power Park Units within the Power Park Module and not include weather corrected MW output from each Power Park Unit.
MIL	BC1.A.1.3.2	Maximum Import Limit (MIL) A series of MW figures and associated times, making up a profile of the maximum level at which the BM Unit may be importing (in MW) from the National Electricity Transmission System at the Grid Entry Point or Grid Supply Point or GSP Group, as appropriate.
		An example format of data is shown below. MEL must be positive or zero, and MIL must be negative or zero.
SEL	BC1.A.1.5	Stable Export Limit (SEL) expressed in MW at the Grid Entry Point or Grid Supply Point or GSP Group, as appropriate, being the minimum value at which the BM Unit can, under stable conditions, export to the National Electricity Transmission System;
SIL	BC1.A.1.5	Stable Import Limit (SIL) expressed in MW at the Grid Entry Point or Grid Supply Point or GSP Group, as appropriate, being the minimum value at which the BM Unit can, under stable conditions, import from the National Electricity Transmission System
SOE (IEMS)	New definition in Glossary	**Future State of Energy (FSoE)** For each **Electricity Storage Module**, this is a series of MWh figures and associated times, which is calculated by **The Company** using the data provided under

	and Definitions	BC1.A.11.1, making up an estimated profile of the energy stored in that **Electricity Storage Module** (Real time – IEMS)
RUR		Run Up Rates- data is available
RDR		Run Down Rates- data is available
PA (IEMS)		Need to review; we can get short extracts but need to engage with a regular IEMS analyst
		*IEMS = integrated energy management system
MW Meter (IEMS)		Need to review; we can get short extracts but need to engage with a regular IEMS analyst
		*IEMS = integrated energy management system

Appendix 4 - Proposed Trial Parameters

Parameters 1, 2, 3 are as defined in the GC0166 mod and would be provided on an ongoing basis for all LDA units to NESO.

The other parameters have been proposed as potentially useful in helping NESO understand unit behaviour. Therefore, it is proposed to collect them during the test period and review.

Parameter	Item	Unit	Resolution / Frequency	Purpose of parameter	Minimum Time Horizon
Maximum Offer Volume (MDO)	1	MWh	Minutely – After Every BOA and Change	GC0166 requirement	One Operational Day (11am – Day+2 5am)
Maximum Bid Volume (MDB)	2	MWH	Minutely - After Every BOA and Change	GC0166 Requirement	One Operational Day (11am – Day+2 5am)
FSOE (as defined in GC0166 mod)	3	%age	Minutely - After Every BOA and Change (time series)	NESO will calculate for the full implementation, but customer is asked to provide	One Operational Day (11am – Day+2 5am)

				for the purpose of this PoC	
MEL W/0 30m rule		MW	Minutely What would the MEL have been if the 30min rule did not exist	To understand the difference the use of MDO/MDB may make	One Operational Day (11am – Day+2 5am)
MIL w/o 30m rule		MW	Minutely What would the MIL have been if the 30min rule did not exist	To understand the difference the use of MDO/MDB may make	One Operational Day (11am – Day+2 5am)
SOE Upper Limit	4	%age	Minutely data only submit when it changes, after auction or technical issues Format - %age as relates to capacity at registration	to ensure stored energy volume does not exceed in service capacity	One Operational Day (11am – Day+2 5am)
SOE Lower Limit	5	%age	Minutely data only submit when it changes, after auction or technical issues Format - %age as relates to capacity at registration	to ensure stored energy volume does not go below minimum level	One Operational Day (11am – Day+2 5am)
Real Time SOE -	6	%age	Submit on change Metered value. Links to metering requirements. submitted minutely but we take it on change	Existing parameter	One Operational Day (11am – Day+2 5am)

Export Efficiency –	7	%age	Minutely – Resubmitted after Change – as above	Changes with battery performance, temperature etc – up to 20% Will use test data to help decide how often actually need it	One Operational Day (11am – Day+2 5am)
Import Efficiency	8	%age	Minutely – Resubmitted after Change – as above	Changes with battery performance, temperature etc – up to 20% Will use test data to help decide how often actually need it	One Operational Day (11am – Day+2 5am)
Daily Cycle Limit	9	Number	Single value for an operational day and need to give the time stamp	Either Daily limit or MWh cycle limit To understand unit limitations And whether price would change it	One Operational Day (11am – Day+2 5am)
MWh Cycle Limit –	10	Number	Single value for an operational day and need to give the time stamp	Either Daily limit or MWh cycle limit To understand unit limitations And whether price would change it	One Operational Day (11am – Day+2 5am)
Asset Capacity (deliverable)	11	MWh	Confirmed at start of trial - gives the time varying capacity	Basis for the MEL MEL/MIL	

New GC0166 Parameters

Item	Definition / Description
FSOE	**GC0166 text**: For each Electricity Storage Module, this is a series of MWh figures and associated times, which is calculated by The Company using the data provided under BC1.A.11.1, making up an estimated profile of the energy stored in that Electricity Storage Module.
MDO / MDB	**GC0166 text**: Maximum Delivery Offer/Bid (MDO/MDB), being a series of MWh figures and associated times making up the profile of the maximum volume of Offer Acceptances by a BM Unit which can be instructed by The Company through Bid-Offer Acceptances (BOA) to the BM Unit, such that within the current Balancing Mechanism Window Period, the BM Unit's Committed Level can be adhered to, and contracted Ancillary Services can be delivered. **Explanation**: Indicating the Offer and Bid Volume, in MWh that can be delivered if a BOA were to be sent starting at that minute. There is no equation or standard calculation as it depends on the unit capabilities and market obligations. We would be willing to hear about any particular issues or questions you have as part of this PoC.

Appendix 5

Spreadsheet of data to be collected with example data. For this Trial, the data structure should be the same as for MEL/MIL/PN, using the same From and To timing conventions in the BSC and BM.

NESO requires the new parameters to be provided as columns against each UNIT_ID, the DATETIME the parameter was changed and the DATETIME the parameter was changed for (for instance, a unit might have a MDO change made at 06:00 for 08:00). Please safe file using the convention Provider-Unit-YYYYmmdd-hhmm.csv . Data should be for two whole operational days and initially given for every minute, updated as time progresses.

For every minute change that happens after the initial dataset covering the operational day, a new data row should be added. This data row must include parameter values for data that has not changed as well as those that have.

% Values should be collected to 3 decimal places. MW/MWh values should be whole digits.

Please note, data below is dummy data:

BMU_ID	DATETIME_SENT	DATETIME_TIMEFOR	MDO	MDB	MEL w/o 30m rule	MIL w/o 30m rule	FSOE	SOE-Upper	SOE - Lowe	SOE - Realtime	Export Efficiency	Import Efficiency	Daily Cycle	MWh Limit	Capacity
TSTUNIT-1	31/12/2025 06:00	01/01/2025 00:00	10	10			50.000%	80.000%	20.000%	50.000%	90.000%	85.000%	2	40	50
TSTUNIT-1	31/12/2025 06:00	01/01/2025 00:01	10	10			49.990%	80.000%	20.000%	50.000%	90.000%	85.000%	2	40	50
TSTUNIT-1	31/12/2025 06:00	01/01/2025 00:02	10	10			49.980%	80.000%	20.000%	50.000%	90.000%	85.000%	2	40	50
TSTUNIT-1	31/12/2025 06:00	01/01/2025 00:03	10	10			49.970%	80.000%	20.000%	50.000%	90.000%	85.000%	2	40	50
		... For the whole operational day													
	...new rows when changes...														
TSTUNIT-1	31/12/2025 06:05	01/01/2025 00:00	10	10			50.000%	80.000%	20.000%	50.000%	90.000%	85.000%	2	40	30
TSTUNIT-1	31/12/2025 06:05	01/01/2025 00:01	10	10			49.990%	80.000%	20.000%	50.000%	90.000%	85.000%	2	40	30