

# Grid Code Development Forum

03 June 2026

# Agenda

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- 1 Introduction, meeting objectives and review of previous actions - **Claire Newton, NESO**

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  - 2 Code Administrator Update - **NESO (Code Administrator)**

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  - 3 New EDL Reason Codes for Real-Time Dynamic Response - **Vicky Allen, NESO**

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  - 4 GC0166 Technical Implementation - **Steve Baker, NESO**

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  - 5 AOB and Meeting Close - **Claire Newton, NESO**

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# GCDF – Objectives and Expectations

## Objective

Develop ideas, understand impacts to industry and modification content discussion, in relation to Grid Code related issues.

Anyone can bring an agenda item (not just NESO!)

## Expectations

Explain acronyms and context of the update or change

Be respectful of each other's opinions and polite when providing feedback and asking questions

Contribute to the discussion

Language and Conduct to be consistent with the values of equality and diversity

Keep to agreed scope

The Forum will be recorded and made available on the GCDF webpage along with summary notes.

# Code Administrator Update

NESO (Code Administrator)

# New EDL Reason Codes for Real- Time Dynamic Response

Vicky Allen, NESO

# Context on MFR and Real-Time Dynamic Response

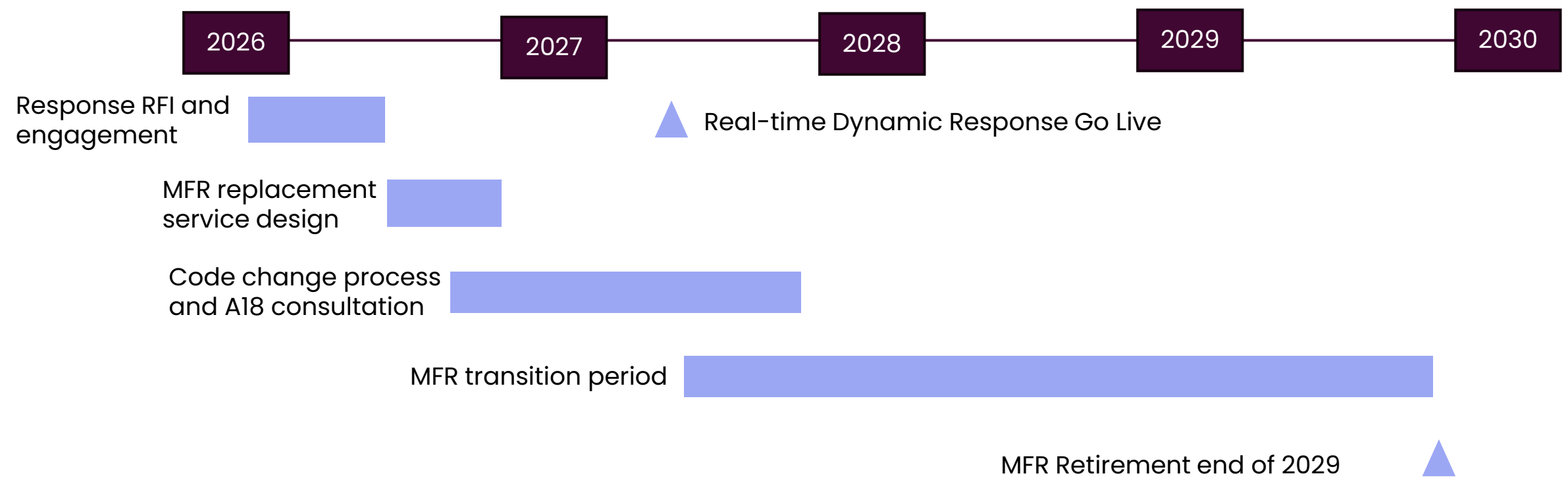
- Real-Time Dynamic Response (RTDX) is a commercial service enabling the ENCC to instruct Dynamic Response (DC/DM/DR).
- Mandatory Frequency Response (MFR) is a service that all BMUs must have the capability to deliver under the Grid Code.
- Whilst Dynamic Regulation (DR) may be added to the Grid Code in the future, alongside MFR or MFR replacement service, there is no direct relationship or dependency between the two services.
- Further information on both changes is included in this presentation for context.

# Update on MFR Replacement

NESO will shortly be launching a request for information (RFI) from providers of MFR, Primary, Secondary, and High Frequency (PSH), to seek information about the capabilities of providers so that a new frequency response service can be specified. We would like to strongly encourage all providers to respond to the survey. The survey will be published [here](#).

There will also be a webinar about the RFI on 9<sup>th</sup> June. You can sign up to attend it [here](#).

# MFR Replacement Draft Timeline



In the meantime, we are continuing with the launch of the real-time dynamic service (RTDX).

# What is Real-Time Dynamic Response?

RTDX is the ability for ENCC to instruct providers to deliver DC, DM or DR in real-time.

- Providers will submit limits (MW) and prices (£/MWh) for each SP and service if they wish to participate.
- These can be updated until gate closure.
- ENCC will send 'start' and 'cease' instructions to providers to initiate and stop delivery.
- Delivery will be assessed and paid in the same way as for the current day ahead procurement.
- There is no change to the current day ahead auction.

# Why are NESO doing Real-Time Dynamic Response?

## Case 1: System Security

MFR is no longer fit for purpose as a post-fault service. This leaves NESO exposed to extreme events where a large quantity of post-fault response procured at day-ahead becomes unavailable.

The ability to purchase DC in real-time removes this risk.

## Case 2: Consumer Savings

More coordinated purchasing of DC across day ahead and real-time could result in savings of £10m pa.

Additionally, using DC, DM and DR services instead of MFR services (PSH) could result in savings of £7m pa.

# What are the new reason codes?

## Start Instructions

Code	Meaning
ICL	Start instructed DCL
ICH	Start instructed DCH
IML	Start instructed DML
IMH	Start instructed DMH
IRL	Start instructed DRL
IRH	Start instructed DRH

## Cease Instructions

Code	Meaning
YCL	Cease instructed DCL
YCH	Cease instructed DCH
YML	Cease instructed DML
YMH	Cease instructed DMH
YRL	Cease instructed DRL
YRH	Cease instructed DRH

N.B. These instruction codes will only be used to instruct BMUs via EDL. There will be an alternative route to instruct NBMUs.

# Questions?

# GC0166 Technical Implementation

Steve Baker, NESO

# GC0166 Overview

**GC0166** introduces Grid Code changes to enable effective usage of the increasing numbers of limited duration assets operating in the BM and reflect their bi-directional nature.

Three new parameters are introduced:

- Maximum Delivery Offer (**MDO**)
- Maximum Delivery Bid (**MDB**)
- Future State of Energy (**FSoE**)

These parameters are aimed at informing NESO about available MWh volume for BOA instructions (inside BM window) & scheduling (outside BM window).

MDO and MDB will need to be submitted via EDL (with interim/testing arrangements in place ahead of full roll-out). FSoE parameters are not expected to change often and can be submitted via SMP or directly to NESO.

Two older parameters (**MDV and MDP**) will be retired.

## Explanation of MDO & MDB:

### Maximum Delivery Offer:

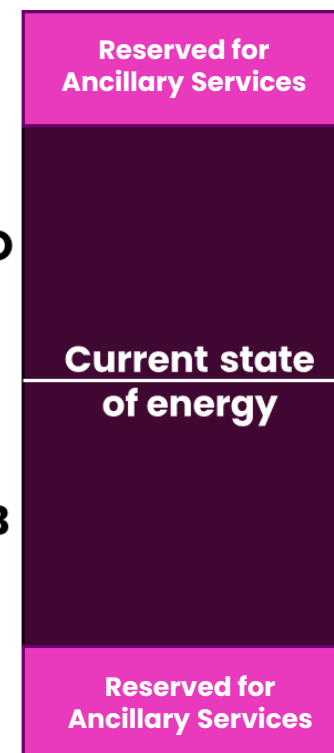
The amount of energy (MWh) which is available for instructable offers in Balancing Mechanism

**MDO**

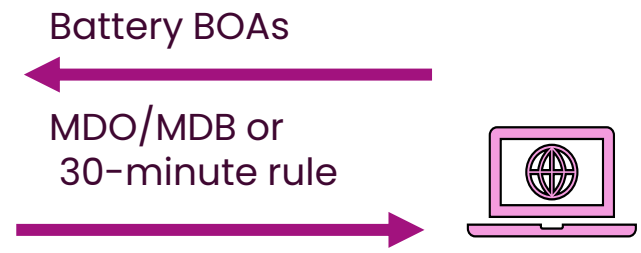
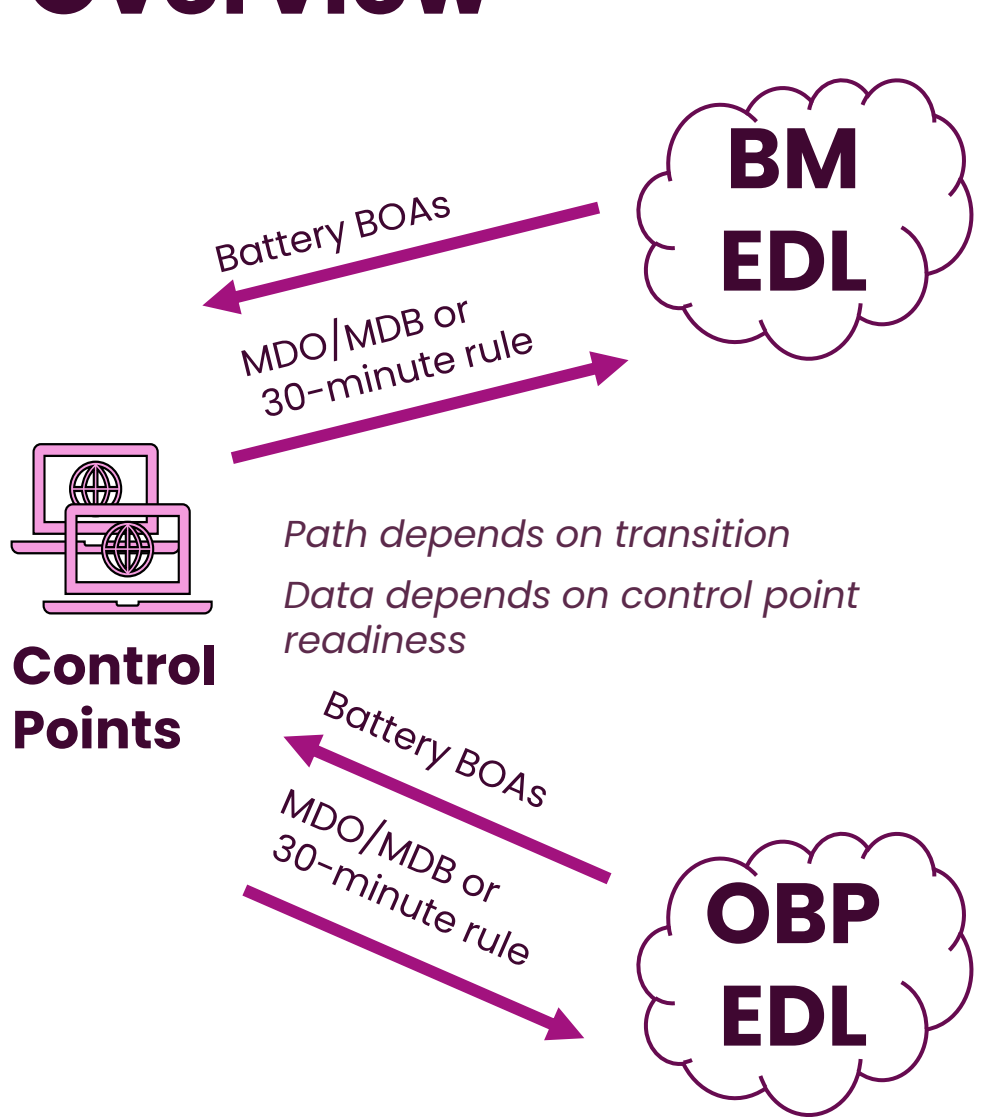
### Maximum Delivery Bid:

The amount of energy (MWh) which is available for instructable bids in Balancing Mechanism

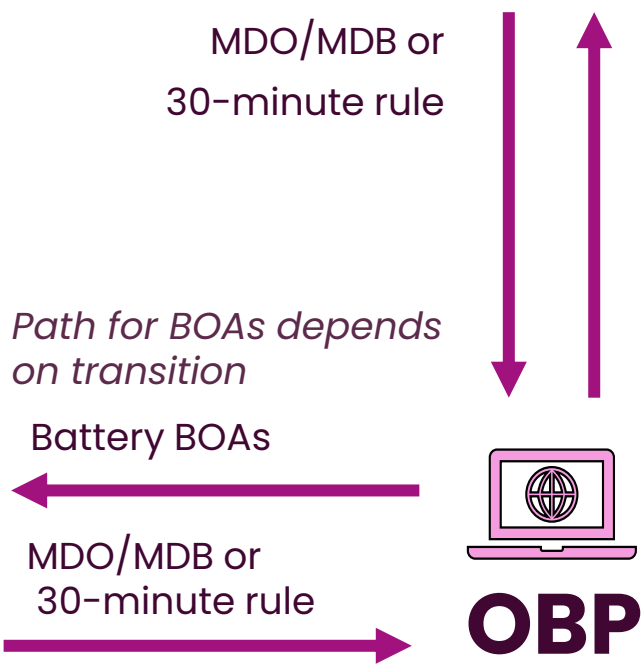
**MDB**



# Overview



## BM System



*BM does not use MDO/MDB – still assumes 30-minute rule*

30-minute rule (TRMEL/TRMIL)  
Engineering Adjustment  
Battery BOAs  
*(Path for BOAs depends on transition)*

*OBP FD TD, NDO using mixture of BMUs still on 30-minute rule and those on MDO/MDB*

*Scheduling uses FSOE*  
*Battery Volume Calculator*

# GC0166 Technical Implementation



## Delivery Date:

- Ofgem approved GC0166 into the Grid Code on 22nd October 2025.
- Operational implementation of the new dynamic parameters is required within 6-12 months.
- **This means operational delivery by 5th November 2026.**



- **Responsibility:** Lead Parties are responsible for ensuring all limited duration assets in their BM portfolio are compliant by this date.



**Software Changes:** Modifications are required to the software system called EDL (Electronic Dispatch & Logging) & WA API to enable GC0166 implementation.

Three documents have been modified so that software suppliers can update their IT systems:

- **Data Validation, Consistency and Defaulting Rules:** This covers the rules on the submission of MDO and MDB – available [here](#).
- **EDL Message Specification:** This defines the message structure used on EDL for MDO and MDB – available [here](#).
- **WA API Message Specification:** This defines the message structure used for MDO and MDB for WA API – this is accessible on the WA API Developer's Portal.



## Data guidance and support:

- **Best Practice Guidance for MDO / MDB submissions** has been published to support industry (available [here](#)).
- Ongoing engagement with parties to identify and resolve edge cases (share to [box.obp\\_edt.edl@neso.energy](mailto:box.obp_edt.edl@neso.energy) subject title 'MDO/MDB scenario edge case').
- Guidance will continue to be updated as additional scenarios are identified.

# Progress to Date

- **Communication & Engagement:**

- ✓ We have run a series of events & webinars on GC0166 to support Industry in preparing for the Grid Code modification – most recently an in-person Q&A workshop; you can catch up on previous engagements & communications re: GC0166 including scenario modelling & the outcomes of the Proof-of-Concept testing [here](#).
- ✓ Published relevant documentation (Software specs for EDL & WA API/ Best Practice Guidance / Updated DVCD rules)
- ✓ Engaging with Lead Parties, EDL Software Providers, Control Points, and unit Optimisers re: testing, supporting documentation, and readiness to transition.

- **We have started two types of testing to ensure readiness for GC0166 implementation:**

- **Interface Testing:** Interface testing for both the BM and OBP irrespective of the connectivity solution – EDL Hosted, EDL On-prem, EDL Bespoke, WA API – **is essential**; this is to ensure that MDO and MDB values are received via EDL / WA API into the NESO Control Room and correctly logged, validated, and processed.
- **Proof of Concept (PoC) Testing:** PoC with unit optimisers to explore how MDO and MDB work in practice, using real-world data submitted by providers. This is forming the first multi provider dataset to validate the feasibility, consistency and operational value of GC0166 ahead of implementation. **This testing is not essential but highly recommended.**

# GC0166 – PoC Testing & REVEAL Trial

**What are we doing?** Building on the [initial proof of concept](#) using revised methodology where MDO/MDB protects contracted volume.

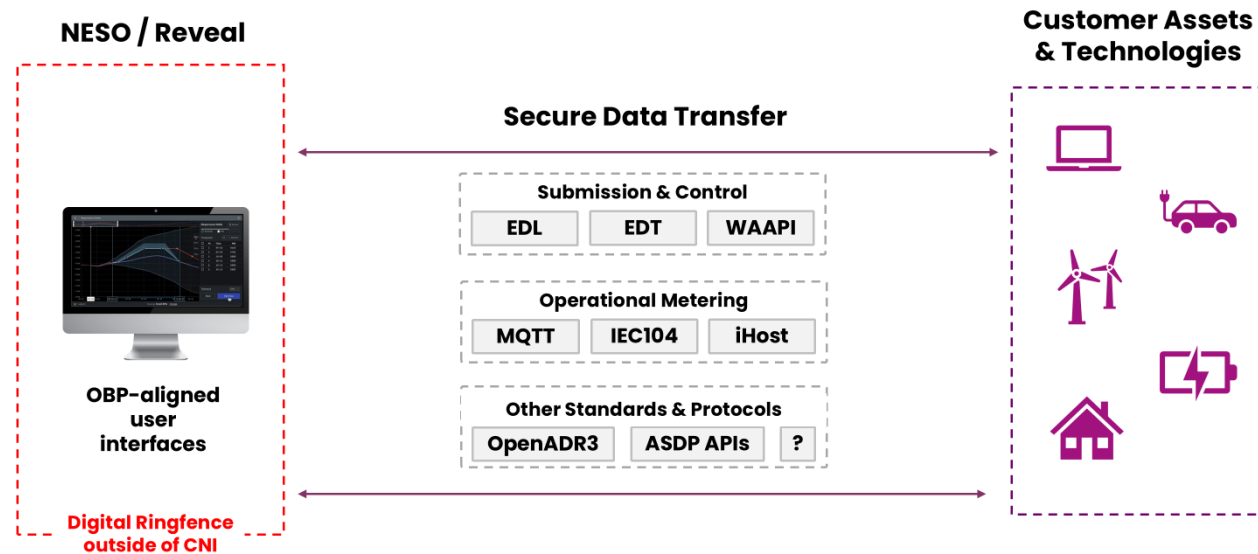
**What is the approach?** Two-day data collection to validate the updated approach and ensure consistency across providers.

**In Parallel:** Streaming data in REVEAL digital trials platform with a smaller set of participants submitting data in real-time to simulate live BM behaviour.

## Outcomes:

- REVEAL enables testing of redeclaration turnaround times and allows coverage of a range of operational scenarios
- Further refinement of optimization responses
- Supports a clear, transparent and detailed understanding of how GC0166 will operate ahead of full go-live

Whilst not mandatory, this testing is strongly recommended ahead of go-live in our production systems, to ensure MDO/MDB behaviour aligns to the guidance ahead of the transition; please reach out to [Box.OBP\\_EDT.EDL@neso.energy](mailto:Box.OBP_EDT.EDL@neso.energy) if not already in contact with our trials team on this.



# GC0166 Technical Implementation

## NESO Implementation:

- Implementation timelines for Grid Code change GC0166 will not be impacted by the change in date for the EDT / EDL transition to OBP.
- Whilst originally, we had planned to include this update as part of the EDT/EDL move to OBP, we'll now first add GC0166 to the existing Balancing Mechanism systems to support Industry and to decouple the GC0166 transition. The new parameters will still be passed to OBP for use, but this approach lets us separate the two changes for smoother delivery.
- We are currently assessing what the transition might look like with our Control Room, with the intention to transition units in 500 MW waves across a series of weeks through to 5 November to ensure we maintain system security during the change.
- The BM system will start accepting MDO/MDB from the end of June 2026 (exact date TBC) for the first 500 MW ready to transition; if more than 500MW are ready on day 1, selection of units to transition first will likely be randomised.
- We are working with Lead Parties, Software Suppliers, and Optimisers to understand their readiness regarding the transition to enable development of a robust plan which will be communicated to Industry at the earliest convenience.

# What Happens during GC0166 Transition?

- Transition will be managed on a **BMU-by-BMU basis**, moving from the 30-minute rule to MDO/MDB
- Deployment will be **controlled and progressive**, with close monitoring of data quality
- Initial use will focus on **dispatch actions**, expanding as confidence increases
- Any issues will be worked through with parties, with a preference to **resolve and continue**
- No expected change to the use of **shorter BOAs in normal system operation**

# Questions?

# Thank You

# AOB

# NESO Markets, Balancing and Dispatch: A Summer System Update

This event will provide updates & discussion from across the Dispatch Transparency Programme, Electricity Markets & the Balancing Programme.

Register to join us in [London](#) on 22<sup>nd</sup> June.

Register to join us in [Glasgow](#) on 2<sup>nd</sup> July.