

A landscape photograph featuring a valley with a winding road and a river, set against a backdrop of snow-capped mountains under a dramatic, cloudy sky. Several bright, glowing yellow-orange lines, representing energy or data, curve across the foreground and middle ground, following the path of the road and river. The overall scene is bathed in a warm, golden light, suggesting a sunrise or sunset.

# Stakeholder Workshop for Transmission Licence Condition C16

8<sup>th</sup> November 2021

## Introduction – Jon Wisdom

### Update on changes since C16 Annual Review 2021/22

ODFM BSAD Statement  
update effective 30/04/2021

NTC Procurement Guidelines  
update effective 30/08/2021

Licence modifications to  
facilitate the introduction of  
an Electricity System  
Restoration Standard  
24/08/2021

### Early sharing of possible changes to the 2022/23 statements in the C16 consultation

Introduction to our new  
services

Early thoughts on redrafts of  
the Statements for existing  
services

# Introduction

## Purpose of today

- Early sharing of possible changes to the statements in the consultation this year
- Discussion and feedback from industry on possible changes and additional suggestions

## Goal of today

- Build clarity on the change being recommended, and where priorities are
- We encourage attendees to challenge or support what is presented at the end of each topic
- Not to agree or finalise changes, but to have a structured open discussion

## Next steps

- This is an “informal” element of the C16 process. The obligations and formal consultations begin in 2021, and this event is an important feeder into that work

# C16 Introduction

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- Standard Condition Licence C16 "Procurement and use of balancing services" sets out the obligation on National Grid ESO to publish five statements addressing the procurement and use of balancing services. It also sets out the process to be followed in amending the five statements.
- The five documents are: Procurement Guidelines; Balancing Principles Statement; Balancing Services Adjustment Data Methodology Statement; System Management Action Flagging Methodology Statement; and Applicable Balancing Services Volume Data Methodology Statement

Update on  
changes since  
C16 Annual  
Review 2021/22



# ODFM

**Update on changes since C16 Annual Review 2020/21**

**Adam Sims, Power Responsive Manager, Markets**

# ODFM

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- The ODFM product was a temporary arrangement to manage unforeseen and unprecedented low demand conditions between April and October 2020, and to minimise any potential use of Grid Code emergency measures to curtail embedded generation
- The service was reinstated for summer 2021 as there were credible forecast scenarios in which it was required, however it has not been utilised since being reinstated in May 2021
- We are working to deliver Negative Slow Reserve before summer 2022 to provide an enduring route to accessing downward flexibility. We will be removing ODFM from the Statements.

# NTC

## Update on changes since C16 Annual Review 2020/21

Tom Ireland, Cross Border and EU Manager



# Net Transfer Capacity (NTC)

ESO consider the existing wording already described within the Procurement Guidelines Statement is suitable and are proposing no changes

## What is NTC?

NTC is a tool used to manage interconnector capacity; it covers intraday and day ahead timescales for both allocated and unallocated capacity. NTC restrictions are used to secure operation of the system.

## Why is it included in the Procurement Guidelines?

NGESO have worked with GB interconnectors to agree a commercial methodology for when an NTC is placed on an interconnector. Including NTC in the Procurement Guidelines ensures there is a route to recover the cost via BSUoS.

## Why did we do an adhoc consultation?

NTC is a tool that can be used at Intraday or Day Ahead timescales. Currently operational interconnectors use Intraday Trading Limits (ITLs), however NSL has no intraday market. Therefore we needed a tool to manage capacity on the new interconnector as it went live. ITLs are a legacy tool and not available for use on NSL (as there is no ID market). Therefore an adhoc consultation was needed to ensure the tool could be used in line with NSL Go Live.

- To manage interconnector flows to help manage system issues such as stability or import/export constraints, NGESO may need to limit changes to the interconnector scheduled flow occurring during the intraday market, or in the day ahead market where an intraday market does not exist. We achieve this by using the following mechanism:
  - Net Transfer Capacity (NTC) – bilateral or trilateral agreement to limit the amount of capacity released into the day ahead or intraday auction. This can also be used to prevent a previously traded position from being unwound back in the other direction.

# Restoration Standard

Update on changes since C16 Annual Review 2020/21

Audrey Ramsay, System Restoration Senior Manager

# Electricity System Restoration Standard (ESRS)

- New Electricity System Restoration Standard (ESRS) came into effect on 19th October 2021.
- This new ESRS will require NGENSO to have sufficient capability and arrangements in place to restore 60% of regional demand within 24 hours and restore 100% of GB demand within 5 days by no later than 31st December 2026.



- NGENSO will be consulting on an ESR Assurance Framework (replacing the Black Start Strategy and Procurement Methodology) which will be submitted to Ofgem for approval and published on our website annually.
- Restoration services procurement and costs will be reported in a consolidated annual report with all other balancing services procurement and costs.
- NGENSO are also consulting with industry on the changes needed to comply with new ESRS through:
  - ESRS working groups - first meetings scheduled for w/c 8th November
  - NGENSO industry consultation – planning to publish in w/c 8th November

Early sharing of possible changes to the 2022/23 statements in the C16 consultation





# New Services

# Future Reserve Products

Early sharing of possible changes to the 2022/23 statements in the C16 consultation

Adam Sims, Power Responsive Manager, Markets

# Reserve Product Reform

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## New Reserve products

We are planning to deliver new reserve products throughout 2022/23

### Negative Slow Reserve

This product will be the first to launch, as it meets an operational need to provide additional routes for the control room to access downward flexibility. Industry engagement on product and service design will continue throughout Q3 21/22 in advance of the A18 consultation process, so more detail will be available for the full C16 consultation. The product will launch in a number of sprints, so there will be more changes to the product and market post go-live.

### Other reserve products

Following the launch of Negative Slow Reserve, we will work with industry to create a transition plan to move STOR into Positive Slow Reserve later in 22/23. This will be followed by Positive and Negative Quick Reserve products, however these have a dependency on the rollout of the new response products, so timescales are not yet set.

# Future Frequency Response

Early sharing of possible changes to the 2022/23 statements in the C16 consultation

Minesh Solanki, Balancing Markets Development Officer



# Dynamic Moderation & Dynamic Regulation

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Dynamic Moderation and Dynamic Regulation are new response services and will be included and described within the Procurement Guidelines Statement section for Response

## Dynamic Moderation (DM)

- DM is the new pre fault frequency service designed to rapidly deliver between +/-0.1 and +/-0.2 frequency deviation. This service will be procured day ahead in EFA blocks on a pay-as-clear auction platform.

## Dynamic Regulation (DR)

- DR is the new pre fault frequency service designed to slowly correct and deliver between +/- 0.015 and +/-0.2 frequency deviation. This service will be procured day ahead in EFA blocks on a pay-as-clear auction platform.

These new services will be launched in 2022 and we are working closely with the Single Market Platform programme to explore improvements to the registration and prequalification processes.

# Local Constraint Market

Early sharing of possible changes to the 2022/23 statements in the C16 consultation

Adam Sims, Power Responsive Manager

# Local Constraint Market (LCM)

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## Constraint Management Service

ESO consider that this new service is already described within the Procurement Guidelines Statement section for Transmission Constraint Management.

### What is LCM

- National Grid ESO (ESO) are exploring the implementation of a Local Constraint Market (LCM) to manage the high constraint costs at this Anglo-Scottish boundary. The LCM is considered to be a tactical solution, delivering over the next 3 – 4 years, ahead of longer-term considerations for Regional Development Programmes (RDPs) in Scotland.

### Why do we need LCM and when will this new service commence

- Taking learning from the Optional Downward Flexibility Management (ODFM) service, implemented to contract additional flexibility to manage low-demand periods throughout the COVID pandemic lockdown, we are seeking to accelerate the implementation of the LCM with a target implementation date of Q3 2022.

# Regional Development Programmes

Early sharing of possible changes to the 2022/23 statements in the C16 consultation

Katharine Clench, RDP Strategy Manager

# RDPs – MW Dispatch

## MW Dispatch - Constraint Management Service

As part of our Regional Development Programmes (RDPs) we are developing a transmission thermal constraint management service for non-BM parties. The service is being trialled in the South West, in collaboration with WPD, from Summer 2022.

### What is MW Dispatch

- A new transmission thermal export constraint management service to apply, initially, in South West and South East England.
- In the first instance, the service employs DNO systems to facilitate a service instruction to the DER service provider.

### Why do we need MW Dispatch and when will this new service commence

- The South West and South East of England are expected to play a major part in meeting the future governmental green energy targets because there is lots of renewable solar and wind generation.
- Whole system assessments found that investing in systems to manage generation on the distribution network in the South West / East is more economic than network investment, and facilitates quicker connection of new DER to the system
- We anticipate that the service be trialled in the South West region from Summer 2022. Following successful trials, we will look to make enhancements to the service and determine whether it could be rolled out to other areas across GB.

# ABSVD

**Early sharing of possible changes to the 2022/23 statements in the C16 consultation**

**Tariq Hakeem, Settlements Team Project Lead**

# ABSVD

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## Our services and ABSVD

Prior to April 2020, no NBM services were included in ABSVD. Following P354, there is inconsistency between the way BM and non-BM units are treated in terms of ABSVD. This inconsistency will extend to the new Dynamic Moderation and Dynamic Regulation services.

## What will be changing

To address this challenge, the ESO are investing in the enhancement of systems and processes to enable us to apply a consistent approach going forward across BM and non-BM units when it comes to ABSVD for the Dynamic Frequency Response services. The ESO propose to investigate further the P354 process to see if it possible to include, Dynamic Containment, Dynamic Moderation and Dynamic Regulation in the list of services that will have ABSVD applied for both BM and non-BM units.

## When will the changes take place

This change will be implemented as soon as it is technically feasible, our current focus is developing our new Settlement system to include frequency response, the development will commence in early-2022 and further developments such as ABSVD will follow.

## Applicable Balancing Services Volume Data Methodology Statement

A landscape photograph of a field at sunset. The sun is low on the horizon, casting a warm glow. The sky is filled with soft, wispy clouds. In the foreground, there is a field of tall grass. Several bright green, glowing light trails curve across the middle ground, suggesting energy or movement. The overall mood is serene and futuristic.

# Existing Services



# Frequency Response

Early sharing of possible changes to the 2022/23 statements in the C16 consultation

Andrew Rice, Commercial Operations

# Firm Frequency Response (FFR)

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FFR is a service can provide both dynamic and non-dynamic response to changes in frequency:

**Dynamic Firm Frequency Response (DFFR)** is a continuously provided service used to manage the normal second-by-second changes on the system.

**Non-dynamic Firm Frequency Response (SFFR - Static Firm Frequency Response)** is typically a discrete service triggered at a defined frequency deviation.

Changes to FFR service in 2022 will be as follow:

- During 2022 the ESO is planning to cease the procurement of DFFR through monthly tenders. This service will be replaced by a new service which is planned to be launched in the 1st half of 2022
- SFFR will continue to be procured until the new quick reserve product is launched, we expect that we will continue to procure SFFR for the majority of 2022

# Enhanced Frequency Response (EFR)

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**EFR** was a onetime tender to deliver enhanced frequency response which started delivering in April 2018. The technical requirements of service delivery are as follows

- be capable of delivering a minimum of 1 MW of response. This may be from a single unit or aggregated from several smaller units. Maximum response of 50MW; and
- be capable of responding within one second to frequency deviations and operate in frequency sensitive mode within the operational envelope and associated restrictions set out in the invitation to tender.

The EFR contracts awarded were for a 4 years duration and as a result the ESO will stop procuring EFR as a service by summer 2022.

# Balancing Principles Statement (BPS) Report

**Mark Jones, Operational Insight**

# BPS Report

Updates (24 July 2021) to Part C: Balancing principles statement

Year	Date published
18-19	Oct-20
19-20	Dec-20
20-21	Due Jan-22 *

\* To align with auditors report

C16 para 6(b): “The licensee must as soon as practicable after 30 September 2021 and in each subsequent year, in respect of each period of twelve months commencing on 1 October and ending on 30 September”

C16 para 6(d): “must be accompanied by a statement from an independent auditor of internationally recognised standing appointed by the licensee that they have carried out an investigation the scope and objectives of which must have been established by the licensee and approved by the Authority, and they must give their opinion as to the extent to which the licensee has complied with the statement prepared pursuant to sub-paragraph (a)”

# BPS Report

Provides information for instances where ESO needed to use additional measures to balance the system:

- BMU emergency instructions and interconnector emergency assistance/ instruction
- Demand control actions
- Maxgen
- Negative Reserve Active Power Margin (NRAPM) notice
- Electricity Margin Notices (EMNs)
- Black Start/ Islanding
- Communication failures
- Involuntary reductions
- BMUs disconnected by transmission faults

The final opinion for the BPS audit is included as an attachment to the BPS report

New services (discussed today) will be added to the BPS once they are live

# BPS Report: changes

Key events highlighted in this report:

- **There was no Emergency Instructions issued to Balancing Mechanism Units (BMUs). There was one instance where non BM participants were instructed down by Emergency Instruction due to a Localised Negative Reserve Active Power Margin Warning (NRPAM).**
- **Emergency Instructions were not given to any interconnector during the year, however there were eight Emergency Assistance requests agreed with interconnector parties.**
- **No Demand Control instructions were issued over this reporting period.**
- **No National NRAPM warnings were issued. However, there was one localised NRAPM warning issued in for Scotland.**
- **There was no partial or total system shutdown. No Black Start services were called off.**
- **Our Balancing Mechanism (BM) IT systems achieved 99.95% availability (excluding planned outages) in this reporting period.**
- **There was a single instance where a BMU had to involuntary reduce output. Bids were not used to reduce the output.**
- **There were twenty-six occasions where BMUs were disconnected from the GB Transmission System due to faults. No Bid-Offer Acceptances (BOAs) were issued to these BMUs.**

We would like to understand what you use the information for?

# System Management Action Flagging (SMAF) Report

Mark Jones, Operational Insight



# SMAF Report

Year	Date published
19-20	May-20
20-21	Jun-21
21-22	Due May-22

C16 Part E para 7A (b) (ii): “prepare a statement of the prevailing system management action flagging methodology....”

2017-18 C16 consultation. Appendix C section 5: “report annually on the accuracy of the flagging methodology.”

We have good processes in place to deliver in May/June each year

# SMAF Report: changes

P217A actions include:

- Transmission Constraints
- Voltage Support
- Rate of Change of Frequency (RoCoF)

2020-21 accuracy: 99.5%

Month & Year	Total Number of BOAs Accepted	Total Number of BOAs P217A Flagged	% BOAs Flagged to P217A
May-2020	52886	20200	38.20%
Jun-2020	57930	19786	34.16%
Jul-2020	52059	16939	32.54%
Aug-2020	46451	10725	23.09%
Sep-2020	57777	14636	25.33%
Oct-2020	54408	20251	37.22%
Nov-2020	65729	31788	48.36%
Dec-2020	53511	17905	33.46%
Jan-2021	40694	5435	13.36%
Feb-2021	53789	21885	40.69%
Mar-2021	49872	15571	31.22%
Apr-2021	40584	6082	14.99%
<b>Total:</b>	<b>625690</b>	<b>201203</b>	<b>32.16%</b>

**Table 1:** Monthly breakdown of total accepted BOAs

We would like to understand what you use the information for?

# Monthly Balancing Services Summaries and Procurement Guidelines Report

**Mark Jones, Operational Insight**

# MBSS and Procurement Guidelines Report Changes

We have identified that these reports cover a lot of the same information and want to seek views on what would be most useful to be presented in the MBSS on a monthly basis and in the Procurement Guidelines report on a yearly basis.

We are looking to remove the duplicated information between the 2 reports. MBSS shows month on month changes and PGR shows year on year changes.

Are you happy for us to remove duplication and make this change in PGR?

We would like to understand what you use the information for?

# Code Change

## Impacts



# Code Change Impacts

Both Modifications are in the early stage of solutions

BSC Modification P412: 'Ensuring non-BM Balancing Services providers pay for non-delivery imbalances at a price that reflects the real-time value of energy' may bring some changes to the ABSVD statement, the outcome of that modification will need to take in to account to relevant C16 changes required and the statements will be amended upon the go live of the solution.

BSC Modification P415, Facilitating access to wholesale markets for flexibility dispatched by Virtual Lead Parties.

We do not anticipate any changes to the C16 Statements for the year 2022/23.

# Industry

# Suggestions



# Industry Suggestions

Is there anything we haven't mentioned today that you were expecting to hear about?

Are there any further changes you were hoping to see?

Whilst we may not be able to provide a firm position on everything today, we will include these suggestions in our consultations, and we will use this process and further collaboration with industry to provide more clarity to your suggestions and questions



# Next Steps



# Next Steps

## Key Dates for this year's consultation

8th November 2021	Industry Event
16th November 2021	Early Consultation Open
7th December 2021	Early Consultation Closes
10th January 2022	Official Consultation, with detailed changes, Open
7th February 2022	Official Consultation Closes
14th February 2022	Report to Authority issued to Ofgem
14th March 2022	Authority Direction deadline
1st April 2022	Release of new updated C16 statements