

## P480 'Publication of regional demand forecast data to fulfil ESRS Reporting requirements'

The Modification seeks to facilitate the Electricity System Restoration Standard (ESRS) requirements to publish the day-ahead peak demand forecast for each restoration region and the demand restored in each restoration region published hourly during a System Restoration on BMRS (Elexon's Insights Solution Platform) from 31 December 2026.



Elexon recommends P480 is progressed directly to the Report Phase with an initial recommendation to approve



Elexon does not consider that P480 impacts the European Electricity Balancing Guideline (EBGL) Article 18 terms and conditions held within the BSC

This Modification is expected to impact:

- NGESO

Phase

Initial Written Assessment

Definition Procedure

Assessment Procedure

Report Phase

Implementation

XXX/XX

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## About This Document

You can find the definitions of the terms and acronyms used in this document in the [BSC Glossary](#)<sup>1</sup>.

This document is an Initial Written Assessment (IWA), which Elexon will present to the Panel on 12 September 2024. The Panel will consider the recommendations and agree how to progress P480.

There are four parts to this document:

- This is the main document. It provides details of the Modification Proposal, the solution, impacts, costs, benefits/drawbacks, proposed implementation approach, and a recommendation of how the Modification should progress.
- Attachment A contains the P480 Proposal Form.
- Attachment B contains the draft redlined changes to the BSC for P480.
- Attachment C contains the draft redlined changes to the Code Subsidiary Documents (CSDs) for P480.



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### Not sure where to start?

We suggest reading the following sections:

- Have 5 minutes? Read section 1
- Have 15 minutes? Read sections 1, 4, 5 and 6
- Have 30 minutes? Read all sections
- Have longer? Read all sections and the annexes and attachments.

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<sup>1</sup> <https://www.elexon.co.uk/glossary/?show=all>



## ESRS

The new Electricity System Restoration Standard will require NGENSO to have sufficient capability and arrangements in place to restore 100% of Great Britain's electricity demand within 5 days. It should be implemented regionally, with an interim target of 60% of regional demand to be restored within 24 hours. The Electricity System Restoration Standard will reduce restoration time across Great Britain and ensure a consistent approach across all regions.

# 1. Summary

## Why change?

This Modification seeks to make changes in the BMRS system (Elexon Insights Solution) to align with the requirements listed in the Electricity System Restoration Standard (ESRS) that requires National Grid ESO to publish demand forecast data within a defined timeframe to ensure energy efficiency and resilience for Great Britain.

[Grid Code Modification GC0156](#)<sup>[1]</sup> was raised and approved to facilitate the implementation of ESRS. This Modification Proposal supports the implement GC0156.

Currently, the day-ahead demand forecast is published on Elexon Insight Solution platform (referred to as BMRS in the BSC) and publishing additional demand forecast by System Restoration Zone will complement the existing dataset. To fulfil the requirements of OC 1.7, the day-ahead peak demand forecast for each restoration region must be published on Insights Solution platform during normal system operation.

## Solution

This Modification proposal seeks to amend BSC to introduce an obligation on NGENSO to submit the:

- 1) peak day-ahead demand forecast data for each System Restoration Region, and;
- 2) demand restored data in each System Restoration Region, during a System Restoration.

## Impacts and costs

There are no direct impacts identified on the BSC Parties or Party Agents. However, BSC Parties who want to consume this new regional demand forecast data will need to amend their systems.

Insights Solutions Platform is expected to be impacted to publish the data. The cost for which is highlighted below. Alongside this, BSC Section Q and CSDs will require changes & the systems at NGENSO are also expected to be impacted.

We have not identified any EBGL impacts & there are no impacts anticipated on MHHS.

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<sup>[1]</sup> <https://www.nationalgrideso.com/industry-information/codes/gc/modifications/gc0156-facilitating-implementation-electricity-system-restoration-standard>

Cost Estimates			
Organisation	Implementation (£)	On-going (£)	Impacts
Elexon	~ £172k	0	Insights Solution platform (BMRS) already supported, no additional ongoing costs
NGESO	<£100k	0	NGESO needs to make changes to their system
Industry	-	0	No cost anticipated
Total	<£270k	0	

## Implementation

The ESRS requirements commence from 31 December 2026. Therefore, this Modification is planned to be implemented in June 2025 as part of June Standard release, to allow sufficient time to address any issue that may arise prior to the start of the publication of data.

Therefore, Elexon recommend that this Modification is implemented on:

- **26 June 2025** as part of the BSC Standard June 2025 Release

## Recommendation

The Proposer recommends that the BSC Panel agree that this Modification be progressed straight to the Report Phase, as the solution is fully developed, support the implementation of GC0156 and allow NGESO to fulfil its obligation of publishing the demand forecast data and hence fulfilling the requirements of ESRS.

# 1. Why Change?

## What is the issue?

[Grid Code modification GC0156](#)<sup>2</sup> was raised on 9 February 2022 to facilitate the implementation of ESRS. The Authority approved GC0156 modification for implementation on 5 February 2024. One of such provisions the NGENSO is responsible for is detailed in Grid Code Operating Code (OC) 1.7:

- Publish daily, 60% and 100% of the peak day-ahead demand forecast for each of the seven System Restoration Regions on BMRS during normal operation from 31 December 2026.
- Publish hourly, on reasonable endeavours basis, the demand restored for each System Restoration Region during a System Restoration on BMRS from 31 December 2026.

Currently, the day-ahead demand national forecast is published on Elexon's Insight Solution platform (referred to as BMRS in the BSC).

This Modification Proposal seeks to make changes to BSC system and [BSC Section Q 'Balancing Mechanism Activities'](#)<sup>3</sup> to implement these provisions outlined in GC0156.

## Background

In October 2021, Department of Business Energy Industrial Strategy (now Department for Energy Security and Net Zero (DESNZ)) issued a direction in accordance with Special Condition 2.2 of NGENSO's Transmission Licence – The ESRS framework. This came after a review undertaken by BEIS (now DESNZ), of the current regulatory framework for dealing with widespread electricity failure. A nationwide electricity failure has never occurred in GB; however similar events have happened internationally. The ESRS aims to mitigate such risks that could disrupt GB's energy supplies.

The ESRS requires NGENSO to have sufficient capability and arrangements in place to restore 100% of GB's electricity demand within 5 days. It should be implemented regionally, with an interim target of 60% of regional demand to be restored within 24 hours. The ESRS will reduce restoration time across GB and ensure a consistent approach across all regions. The ESRS requirements must be met by 31 December 2026.

## Desired outcomes

The desired outcome of this modification is that Elexon amends its Insights Solutions Platform to support the implementation of the provisions of Grid Code Operating Code 1.7 and publish the data as required, in line with changes outlined in GC0156.

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<sup>2</sup> <https://www.nationalgrideso.com/industry-information/codes/gc/modifications/gc0156-facilitating-implementation-electricity-system-restoration-standard>

<sup>3</sup> <https://bscdocs.elexon.co.uk/bsc/bsc-section-q-balancing-mechanism-activities>



### What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

(f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

(g) Compliance with the Transmission Losses Principle

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## 2. Solution

### Proposed solution

This Modification proposal seeks to amend BSC Section Q paragraph 6.1 to introduce an obligation on NGESO to:

- Submit the peak day-ahead demand forecast data by System Restoration Region (that is North Scotland, South Scotland, North East, North West, Midlands, South East and South West) daily during normal operation; and
- During a System Restoration, submit the demand restored data in each System Restoration Region which will be published via the Insights Solution platform.

### Benefits

The benefit of implementing the proposal is to support the implementation of GC0156 and allow NGESO to fulfil its obligation of publishing the demand forecast data and hence fulfilling the requirements of ESRS. This will also help create industry wide awareness of the daily restoration target should a Partial or Total Shutdown occur and create awareness of the restoration progress for each System Restoration Region during a System Restoration event.

### Applicable BSC Objectives

Impact of the Modification on the Relevant Objectives:	
Relevant Objective	Identified impact
a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence	<b>Positive</b>
(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System	<b>Positive</b>
(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity	Neutral
(d) Promoting efficiency in the implementation of the balancing and settlement arrangements	Neutral
(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]	<b>Positive</b>
(f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation	Neutral
(g) Compliance with the Transmission Losses Principle	Neutral

- a) The ESRS directive was issued by BEIS (now DESNZ) on the NGESO in accordance with Special Condition 2.2 of National Grid Electricity System Operator

Electricity transmission licence. Thus, this change is part of actions to comply with this directive.

- b) Implementation of OC 1.7 will contribute to the coordination of restoration efforts as relevant parties will be aware of and working towards common restoration targets.
- e) OC 1.7 is part of the GC0156 modification which is primarily for fulfilling the NGESO's ability to meet ESRS requirements. P480 seeks to fulfil the provisions in OC 1.7 and therefore, if approved, this change will be complying to the requirements of ESRS.

## Implementation approach

The Proposer recommends an Implementation Date for P480 of:

- **26 June 2025** as part of the Standard June 2025 BSC Release

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### 3. Likely Impacts and costs

#### Estimated costs of P480

Costs will be assessed during the Report Phase Consultation. However, for those roles we believe will be impacted, we have indicated in the impacts section whether we believe the costs are likely to be high, medium or low based on the following categories:

- High: >£1 million
- Medium: £100-1000k
- Low: <£100k

Implementation costs estimates			
Organisation	Item	Implementation costs (£)	Comment
Elexon	Systems	~£170k	
	Documents	<£2k	
	Other		
NGESO	Systems	<£100k	
	Other		
Industry	Systems & processes	-	
<b>Total</b>		<£270k	

#### P480 Impacts

Impact on BSC Parties and Party Agents		
Party/Party Agent	Potential Impact	Potential cost
No impact identified	There is no impact, but BSC Parties who wants to consume the data would need to amend their systems	L

Impact on the NETSO	
Potential Impact	Potential cost
NGESO will be making systems changes to ensure data is sent to Elexon's Insights solution Platform for publication as described in the Proposed Solution section	M



Impact on BSCCo		
Area of Elexon	Potential Impact	Potential cost
Analysis & Insights	Helping and supporting customers to consume the new regional demand forecast data	L

Impact on BSC Settlement Risks
No impact identified. Improved transparency of data for the industry

Impact on BSC Systems and processes	
BSC System/Process	Potential Impact
Insights Solution Platform	To publish data on Insights Solution Platform, a system change will be undertaken to ensure the regional data is being published as per the proposed solution

Impact on BSC Agent/service provider contractual arrangements	
BSC Agent/service provider contract	Potential Impact
Service Provider (BMRA)	BMRA will need to amend the systems to ingest and publish new data sets

Impact on Code	
Code Section	Potential Impact
Section Q	Include obligation on NGESO to submit regional demand forecast and regional demand restored data to the BMRA to be published on the BMRS

Impact on MHHS
No impact identified

Impact on EBGL Article 18 terms and conditions
No impact identified

Impact on Code Subsidiary Documents	
CSD	Potential Impact
NETA IDD Part 1 Document	New reports will need to be included for regional demand restored and regional demand forecast
NETA IDD Part 2 Document	



Impact on Code Subsidiary Documents	
CSD	Potential Impact
Balancing Mechanism Reporting Agent (BMRA) User Requirements Specification	New reports timings and formats will need to be included for regional demand restored and regional demand forecast
Balancing Mechanism Reporting Service (BMRS) Data Catalogue	New reports frequency and format will need to be included for regional demand restored and regional demand forecast

**Impact on a Significant Code Review (SCR) or other significant industry change projects**  
 We have requested Ofgem to class this Modification as exempt from any open SCRs

Impact of the Modification on the environment and consumer benefit areas:	
Consumer benefit area	Identified impact
1) Improved safety and reliability Implementing the provisions of OC 1.7 will help the ESO meet ESRS requirements resulting in a more reliable electricity System.	Positive
2) Lower bills than would otherwise be the case	Neutral
3) Reduced environmental damage	Neutral
4) Improved quality of service This change is part of efforts to reduce restoration time and ensure restoration efforts is spread across all regions.	Positive
5) Benefits for society as a whole Meeting ESRS targets means that the economic loss resulting from a total/partial shutdown will be limited.	Positive

**What are the consumer benefit areas?**

- 1) Will this change mean that the energy system can operate more safely and reliably now and in the future in a way that benefits end consumers?
- 2) Will this change lower consumers' bills by controlling, reducing, and optimising spend, for example on balancing and operating the system?
- 3) Will this proposal support:
  - i) new providers and technologies?
  - ii) a move to hydrogen or lower greenhouse gases?
  - iii) the journey toward statutory net-zero targets?
  - iv) decarbonisation?
- 4) Will this change improve the quality of service for some or all end consumers. Improved service quality ultimately benefits the end consumer due to interactions in the value chains across the industry being more seamless, efficient and effective.
- 5) Are there any other identified changes to society, such as jobs or the economy.

This change is part of arrangements by the NGENSO to ensure that 60% of national demand can be restored in all restoration regions in the 24hrs following a Partial/Total Shutdown and 100% within 5 days. Restoring electricity supplies across all System Restoration Regions within the ESRS timeframe will improve the reliability of the System and reduce the effects of a shutdown on consumers.

## 4. Proposed Progression

In this section, we detail the Proposer's request and our recommendations to the proposed Modification's progression.

### Progression

We recommend that this Modification proposal progresses to the Report Phase. This is on the basis that the solution for the proposed Modification is fully developed and follows directly from previous industry recommendations as part of Issue 105 Workgroup. We therefore recommend that it should be submitted for a 10WD Report Phase Consultation before the Draft Modification Report is presented to the Panel at its meeting on 10 October 2024.

### EBGL Impact

This change proposed in this Modification will have no impact on the EBGL arrangements. The draft legal text does not make any change to any BSC paragraphs that constitute EBGL Article 18 Terms and Conditions as detailed in the Annex F-2 of the BSC, nor does it extend them.

### Self-Governance

We agree with the Proposer that this Modification should be progressed as Self-Governance because this Modification is only proposing to update the systems to align with GC0156 which was approved by the Authority. Therefore, P480 will not materially impact parties directly and only impacts them if they want to consume the data that will be published as a result of P480 implementation.

Therefore, P480 does not materially impact any of the Self-Governance criteria.

### Next steps

We recommend that this Modification proceeds directly to the Report Phase for a 10 Working Day consultation from 16 September 2024 to 27 September 2024.

### Timetable

Proposed Progression Timetable for P480	
Event	Date
Present Initial Written Assessment to Panel	12 September 2024
Report Phase Consultation	16 September 2024 – 27 September 2024
Present Draft Modification Report to Panel	10 October 2024
Final Modification Report published	18 October 2024



### What is the Self-Governance Criteria?

A Modification that, if implemented:

(a) does not involve any amendments whether in whole or in part to the EBGL Article 18 terms and conditions; except to the extent required to correct an error in the EBGL Article 18 terms and conditions or as a result of a factual change, including but not limited to:

(i) correcting minor typographical errors;

(ii) correcting formatting and consistency errors, such as paragraph numbering; or

(iii) updating out of date references to other documents or paragraphs;

(b) is unlikely to have a material effect on:

(i) existing or future electricity consumers; and

(ii) competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and

(iii) the operation of the national electricity transmission system; and

(iv) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and

(v) the Code's governance procedures or modification procedures; and

(b) is unlikely to discriminate between different classes of Parties.

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## 5. Recommendations

We invite the Panel to:

- **AGREE** that P480 progresses directly to the Report Phase;
- **AGREE** that P480:
  - **DOES** better facilitate Applicable BSC Objective (a);
  - **DOES** better facilitate Applicable BSC Objective (b); and
  - **DOES** better facilitate Applicable BSC Objective (e);
- **AGREE** an initial view that P480 **SHOULD** be treated as a Self-Governance Modification;
- **AGREE** that P480 **DOES NOT** impact the EBGL Article 18 terms and conditions held within the BSC;
- **AGREE** an initial recommendation that P480 should be **approved**;
- **AGREE** an initial Implementation Date of:
  - **26 June 2025** as part of the BSC Standard June 2025 Release
- **AGREE** the draft Legal Text;
- **AGREE** the draft amendments to the Code Subsidiary Documents; and
- **NOTE** that Elexon will issue the P480 Draft Modification Report (including the draft Legal Text) for a 10 Working Day consultation and will present the results to the Panel at its meeting on **10 October 2024**.