

# Grid Code Review Panel

Thursday 28 May 2020  
Online Meeting via WebEx

## WebEx details

Meeting link (copy into web browser):

<https://uknationalgrid.webex.com/uknationalgrid/j.php?MTID=m56adeb4c88a008f113ee45722635c79b>

## Audio connection:

Telephone: 020 7108 6317

Access code: 598 155 109

Password: 6pJQVkPed36





# WELCOME

**nationalgrid**ESO

# Introductions & Apologies for absence

## **Apologies**

Ross McGhin – Onshore Transmission Operator Representative

## **Alternate**

Richard Woodward – Onshore Transmission Operator Alternate

## **Presenters**

Tony Johnson, NGENSO – GC0144 & GC0145

Louise Trodden, NGENSO – GC0145

Nicola Barberis Negra, Orsted – GC0146

Will Jones, NGENSO – GC0130 CAC

## **Observers**

Susan Mwape, NGENSO (GC0144)

Chris Wood, Elexon (GC0145)

Sridhar Sahukari, Orsted (GC0146)



# Approval of Panel Minutes

**Approval of Panel Minutes from  
the Meeting held 22 April 2020**

# Actions Log

Review of actions log

# Panel Alternate Governance Rules

GR.7.2 Alternate(s): other Panel Members.

- a) At the same time that the parties entitled to vote in the relevant election appoint **Elected Panel Members** under GR.4.2(a), they shall appoint the following **Alternate Members**:
- i. one alternate representative of the **Suppliers**;
  - ii. one alternate representative of the **Onshore Transmission Licensees**;
  - iii. one alternate representative of the **Offshore Transmission Licensees**; and
  - iv. two alternate representatives of the **Generators**.

In the event that the election process fails to appoint an **Alternate Member** for any of the **Elected Panel Members**, each **Elected Panel Member** shall be entitled (but not obligated) to each at their own discretion nominate their own **Alternate Member**.

- b) Any **Panel Member** that is not an **Elected Panel Member** shall be entitled (but not obligated) to each at their own discretion nominate their own **Alternate Member**.
- c) A **Panel Member** shall give notice to the **Panel Secretary** in the event it will be represented by an **Alternate Member** for any one **Grid Code Review Panel** meeting.
- d) Where a **Panel Member** has nominated an **Alternate Member** in accordance with GR.7.2(a) or (b), they may remove such **Alternate Member**, by giving notice of such removal, and any nomination of a different **Alternate Member**, to the **Panel Secretary**. A **Panel Member** may not choose as his **Alternate Member**: any party who is already acting as an **Alternate Member** for another **Panel Member**; or another **Panel Member**.

All information to be sent by the **Panel Secretary** to **Panel Members** pursuant to these **Governance Rules** shall also be sent by the **Panel Secretary** to each **Alternate Member** by electronic mail (where relevant details shall have been provided by each **Alternate Member**).

# Chair's Update

**An update from the Chair about  
ongoing relevant work,  
discussions etc.**

# Authority Decisions

- ☐ **GC0096** - Energy Storage
- ☐ **GC0105** - System Incidents Reporting
- ☐ **GC0107/113** - The open, transparent, non-discriminatory and timely publication...
- ☐ **GC0132**: Updating the Grid Code governance process to ensure we capture EBGL change process for Article 18 Terms and Conditions (T&Cs)



# New modifications submitted

- ❑ **GC0144:** Alignment of Market Suspension Rights to the EU Emergency and Restoration Code Article 35.1(b)
- ❑ **GC0145:** Updating the Grid Code to include the Manually Activated Reserve Initiative (MARI)
- ❑ **GC0146:** Solutions for frequency control of Power Park Modules

# **GC0144: Alignment of Market Suspension Rights to the EU Emergency and Restoration Code Article 35.1(b)**

**Antony Johnson and Susan Mwape  
National Grid ESO**

# The Defect

- As part of its final submission for the Market Suspension Proposals in January 2020, the ESO and Elexon believed that the arrangements for Market suspension were catered for in the GB Industry Codes through OC9.4.6 of the Grid Code and Section G3 of the BSC.
- The requirements for Market Suspension are summarised in section 2.1.7 of Issue 3 of the System Restoration Plan
- The parameters under which the System is in an Emergency State are detailed in section 2.1.1 of Issue 3 of the System Defence Plan
- In its response to the Submission, Ofgem advised that Article 35.1(b) of the Emergency Restoration Code was not adequately reflected in the GB Codes
- The modification is therefore required for alignment purposes only with no material impact proposed

# Extract from E&R Article 35.1(b)

- E&R Article 35.1(b) states
- *A TSO may temporarily suspend one or more market activities laid down in paragraph 2 where:*
  - *the TSO has exhausted all options provided by the market and the continuation of market activities under the emergency state would deteriorate one or more of the conditions referred to in Article 18(3) of Regulation (EU) 2017/1485;*
  - (Note – Article 18(3) of Regulation (EU) 2017/1485 – SOGL – System Operator Guideline – Refers to the conditions under which the System is in an Emergency State)
  - The GB interpretation of this condition is covered in Section 2.1.1 Issue 3 of the System Defence Plan)
  - The current Grid Code however does not directly link the emergency conditions in section 2.1.1 of Issue 3 of the System Defence Plan to or how the market may be suspended



# Proposal

- The proposal is to introduce a new section of the Grid Code (BC.2.9.8) introducing a set of market suspension parameters in relation to E&R Article 35.1(b)
- This would be consistent with the approach detailed in the System Defence Plan
- The new market suspension parameters are linked to the existing rules laid out in the Grid Code
- Minimise any requirements for a BSC change.

# Draft Grid Code Text – Market Suspension

## BC2.9.8 Market Suspension

BC2.9.8.1 Within the **GB Synchronous Area**, the **Transmission System** shall be considered to be in an emergency state when operational security analysis requires activation of one of the following measures:

A situation where there is (or could be) a violation of one of more criteria as defined under the **National Electricity Transmission System Security and Quality of Supply Standard** (NETS SQSS); or

A situation when Unacceptable Frequency Conditions as defined under the **National Electricity Transmission System Security and Quality of Supply Standard** (NETS SQSS) have occurred; or

At least one measure of the **System Defence Plan** is activated; or

There is a failure of the computing facilities used to control and operate the **Transmission System** or unplanned outages of Electronic Communication and Computing Facilities as provided for in BC2.9.7 or the loss of communication, computing and data facilities with other **Transmission Licensees** as provided for in STCP 06-4.

BC2.9.8.2 While the **Transmission System** is still in an emergency state if after issuing system warnings and emergency instructions in accordance with (but not limited to) the requirements under OC7.4 and BC2.9, and the situation deteriorates to such an extent that it results in:-

- a) a **Total Shutdown, The Company** will suspend the market in accordance with the provisions of OC9.4.6; or
- b) a **Partial Shutdown, The Company** will also suspend the market but only where the **Market Suspension Threshold** has been met in accordance with OC9.4.6.

# Alignment with TERRE Market Suspension

- A Grid Code mod is also required to ensure NGESO notifies Users (through Elexon) that the TERRE market is suspended.
- The BSCCo must be notified if TERRE market tools are on outage so that no data will be transferred from NGESO regarding TERRE market data (eg RR bids, RR auction result data or RR flagged acceptance data).
- BC4.9 covers TERRE market suspension in the event of outages of computer systems but not issues wider than computer outages
- It is proposed to add a new section BC4.10 which will address this issue

# Draft Grid Code Text – TERRE Market Suspension

Extracts from BC4.9....

Where the **TERRE** market is suspended as a result of any of the circumstances listed in (a) – (d) above, **The Company** shall notify all **BM Participants** taking part in **TERRE** and the **BSSCo** that the **TERRE** market has been suspended.

New Section BC4.10....

## BC4.10 TERRE Market Suspension

The **TERRE** market shall be suspended when one of the following circumstances arises:

- (a) Suspension of the **Balancing Mechanism** in accordance with OC9.4.6; or
- (b) Outages of computer systems leading to the suspension of the **TERRE** market as provided for in BC4.9; or
- (c) Notification by **The Company** that the **TERRE** market has been suspended.

Where any of the above circumstances arise **The Company** shall notify all **BM Participants** taking part in **TERRE** and the **BSSCo** that the **TERRE** market has been suspended.

|



# Critical Friend Feedback: GC0144

Code Administrator comments	Amendments made by the Proposer
Font needed formatting/cosmetic changes Acronyms table added for clarity	Accepted by proposer

# Panel Decision / Next Steps

- Panel is invited to agree this proposal is self governance and proceed straight to Code Administrator Consultation
- Recent discussions with Ofgem and Elexon indicate they are comfortable with this approach and the proposed solution
- To align with Article 18 of the Electricity Balancing Guideline the consultation must run for a minimum of 1 month
- The ESO does not believe it is in the best interests of the industry or consumers to change the current market suspension arrangements as this would incur additional and unnecessary costs
- Additional wording is proposed for TERRE market suspension

# Does GC0144 meet the self governance criteria?

## Self-Governance Criteria

A proposed Modification that, if implemented,

(a) 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 Grid Code's governance procedures or the Grid Code's modification procedures, and

(b) is unlikely to discriminate between different classes of Users

# **GC0145: Updating the Grid Code to include the Manually Activated Reserve Initiative (MARI)**

**Louise Trodden and Tony Johnson**  
**National Grid ESO**



# Agenda

- What is MARI
- Proposal
- Risks
- Project Plan
- BSC Panel
- Panel Ask

# What is MARI?

Manually Activated Reserve Initiative (MARI) is the platform used for exchange of manual frequency reserve restoration (mFRR). mFRR is a standard EU balancing energy product.

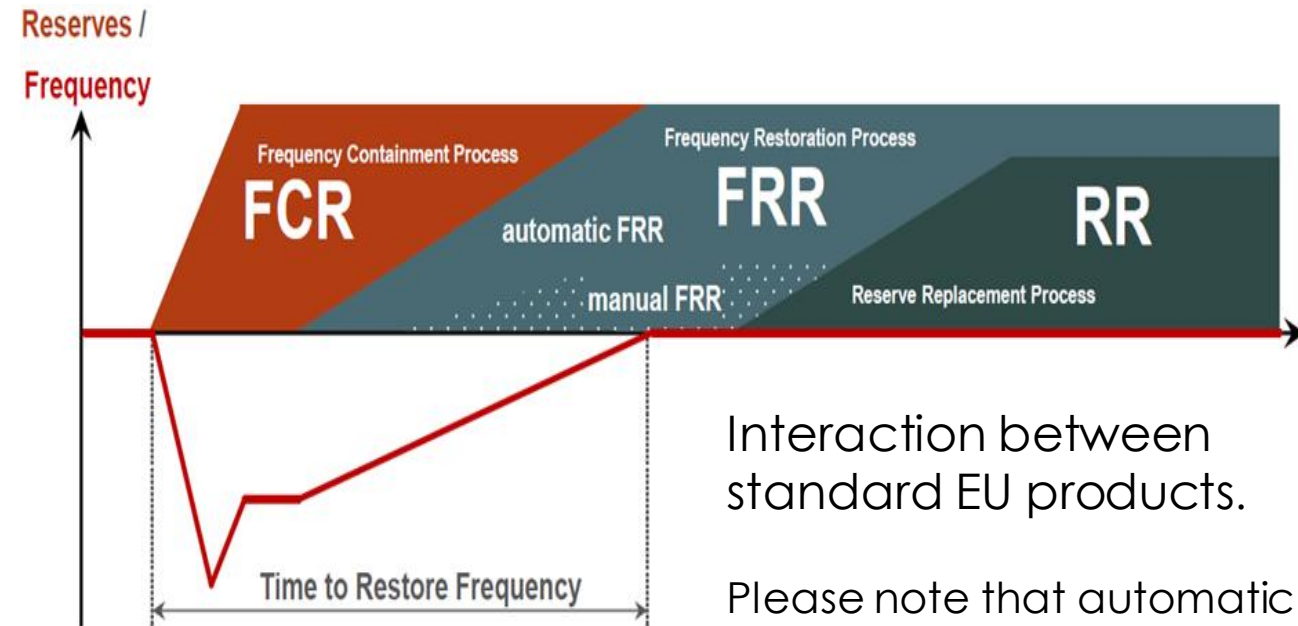
mFRR contributes to the creation of harmonised balancing energy products for TSOs. Unlike TERRE, MARI is mandatory for all TSOs in Europe.



# What is MARI?

MARI is a reserve balancing product activated in 12.5 minutes, in comparison TERRE (RR) is activated in 30 minutes (both are settled on pay as clear mechanism). MARI aims to restore frequency containment reserves in a similar way to some BOAs, Fast Reserve and STOR (being activated in less than 15 minutes).

Additionally, MARI can be activated in two ways (either scheduled over the 15 minute window, or via a direct activation of energy within the 15 minute window).



Interaction between standard EU products.

Please note that automatic FRR is not an option in GB, we are implementing manual FRR. Reserve Replacement (RR) is the EU balancing product known as TERRE.

# Proposal

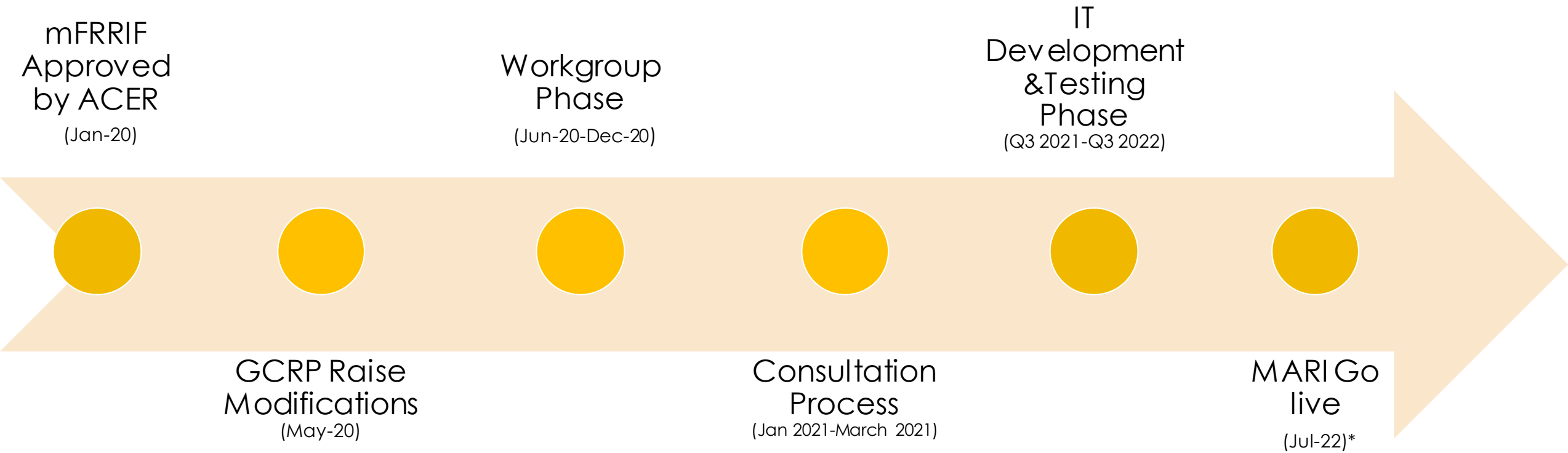
mFRR has been introduced as a new standard EU product for which GB has a legal requirement under EBGL Article 20 to implement by July 2022.

Currently the mFRR product does not have the technical requirements specified in the Grid Code, so a new section of the Grid Code will be developed to enable requirements for participation and pre-qualification to be specified.

Given this is a new product, new processes will also be required to be undertaken by market participants and in the control room, and full industry engagement will be required for its success.

MARI will be based upon the principles of TERRE, the code changes will involve creating new sections of the Grid Code to include mFRR specifications. The code changes anticipated will mean creating new chapters of the Grid Code within the Balancing Section- these are proposed as BC6 and BC7.

# Proposal



# Risks

## TERRE

Aware this has not gone live in GB- extensions have been granted, expected go-live date is end of Oct-20

## GB products

New frequency response products are being implemented in GB- how do these fit alongside MARI and our Interconnectors

## Time to implement

We need to complete the workgroup process by December 2020 to allow sufficient time to develop and test our IT systems

## COVID-19

Known unknown- will this cause workload issues for stakeholder to participate in the workgroup phase and for internal process in the control room and delays to other work

## Derogations

Permitted once for a period of 2 years.

Belgium are currently still progressing MARI, therefore, - the NEMO interconnector would be the only one available for mFRR ([MARI Accession Road Map](#))

## Brexit implications

How does this fit with GB involvement in the IEM post January 2021

# Project Plan and Workgroup Plan

- Project plan has been formed jointly with Elexon to make best use of time we have available to deliver the code changes in this modification
- The workgroups will be themed to keep on topic
- Webinars are being pre recorded to provide education on the MARI product and how to part of the workgroups
- Pre workgroup material to be circulated to ensure full discussion, rather than running through lots of slides in the meeting
- Workgroups to be joint with the BSC modification to ensure that we are working together to move the modifications forward



# BSC Panel Comments

BSC Proposal raised on 14<sup>th</sup> May 2020.

Some questions and discussions were related to

- Interconnectors
- If we can be late and miss the deadline
- If we can have a review of the risks through the project

Agreement was to progress to workgroup stage.

# Governance Route and Panel Ask

Agreement to  
proceed with  
workgroups

The proposal  
meets the  
standard  
governance  
process

Time requires  
us to move  
forward. We  
request for the  
first workgroup  
to be WC 22<sup>nd</sup>  
June 2020

Jointly ran  
workgroups  
with Elexon for  
the BSC  
modification  
P407

# Panel Decision

**Does the Panel agree that:**

- This is a standard governance modification?; and
- This modification should proceed to a workgroup?

# Critical Friend Feedback: GC0145

Code Administrator comments	Amendments made by the Proposer
<ul style="list-style-type: none"><li>• Suggested amendments to the modification title so that it is easier to read/plain English.</li><li>• Highlighted sentences that need to be broken down/put in more plain English/deleted.</li><li>• Further clarification required on impacted parties.</li><li>• Highlight this will be a cross code workgroup with the BSC modification P407 (Project MARI).</li><li>• Define all acronyms throughout the proposal form.</li><li>• Add hyperlinks to reference material.</li><li>• No information provided on costs and environmental impacts.</li><li>• Confirm whether there are any impacts on a SCR.</li></ul>	<ul style="list-style-type: none"><li>• The modification title has been amended.</li><li>• The Proposer has tried to shorten sentences/use more plain English and delete sentences that were not required.</li><li>• Additional information has been added within the medium impacts section of the Proposal form.</li><li>• The Proposer has highlighted this within the cross code impacts.</li><li>• Acronym's have now all been defined.</li><li>• Hyperlinks to reference material have been added.</li><li>• These sections have now been completed.</li><li>• This section has now been updated.</li></ul>

# GC0146: Solutions for frequency control of Power Park Modules

Review of current Grid Code requirements



Nicola Barberis Negra, Sridhar Sahukari

## Scope of the Proposal

Review current requirement for frequency control of Power Park Modules (CC.6.3.7(a) and ECC.6.3.7.3.1(a)) to ensure it is fit for purpose for the offshore wind industry

- Outline of this presentation
  - Definitions, control design and Grid Code requirements
  - Current requirement vs. alternative solution (proposal)
  - Benefits of proposal
  - Propose change to Grid Code legal text

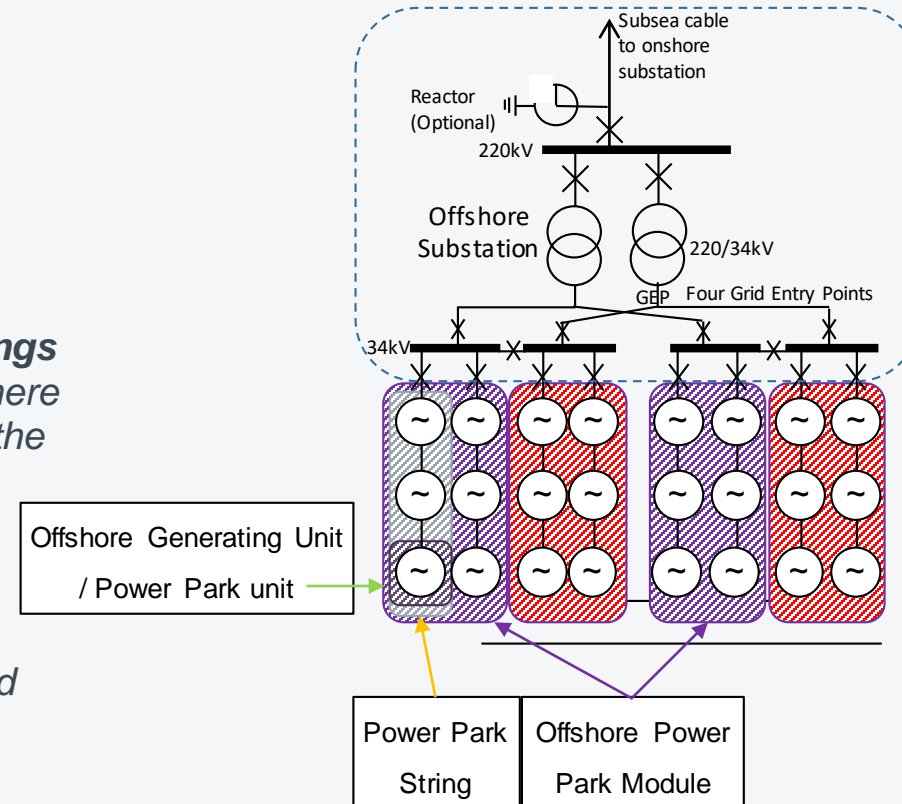
# Grid Code Key Definitions

- Key definitions from the Grid Code (see diagram here)
- Offshore Generator Unit / Power Park Unit
- Power Park String
- Offshore Power Park Module (PPM)

*“A collection of one or more **Offshore Power Park Strings** (registered as a **Power Park Module** under the **PC**). There is no limit to the number of **Power Park Strings** within the **Power Park Module**, so long as they either:*

*(a) connect to the same busbar which cannot be electrically split; or*

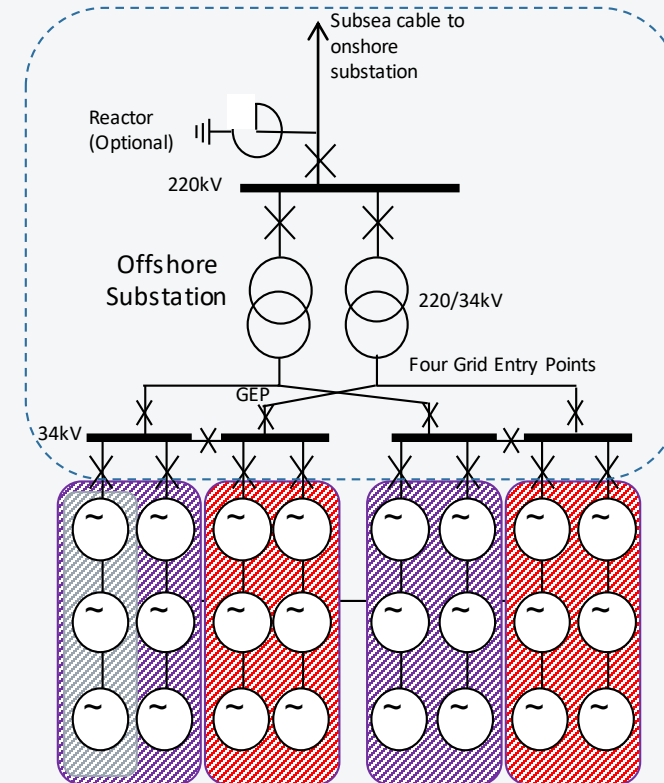
*(b) connect to a collection of directly electrically connected busbars of the same nominal voltage and are configured in accordance with the operating arrangements set out in the relevant **Bilateral Agreement**”.*





# Offshore Wind Farm Control Design Solutions

- Current control arrangements for Offshore wind farms

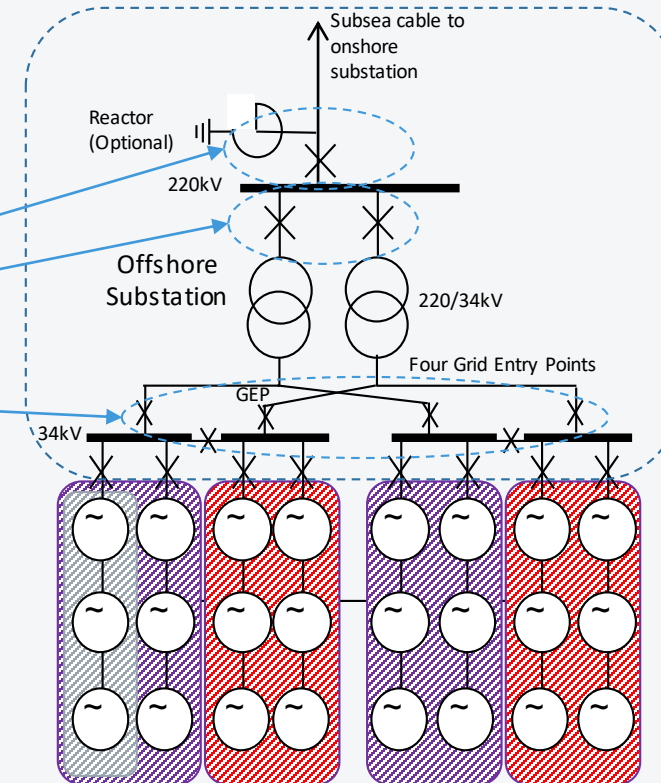


# Offshore Wind Farm Control Design Solutions

- Current control arrangements for Offshore wind farms
  - Frequency control

## Frequency control

- Respond to frequency variations to support the entire system



# Offshore Wind Farm Control Design Solutions

- Current control arrangements for Offshore wind farms

- Frequency control
- Reactive power/Voltage control at offshore platform

## Frequency control

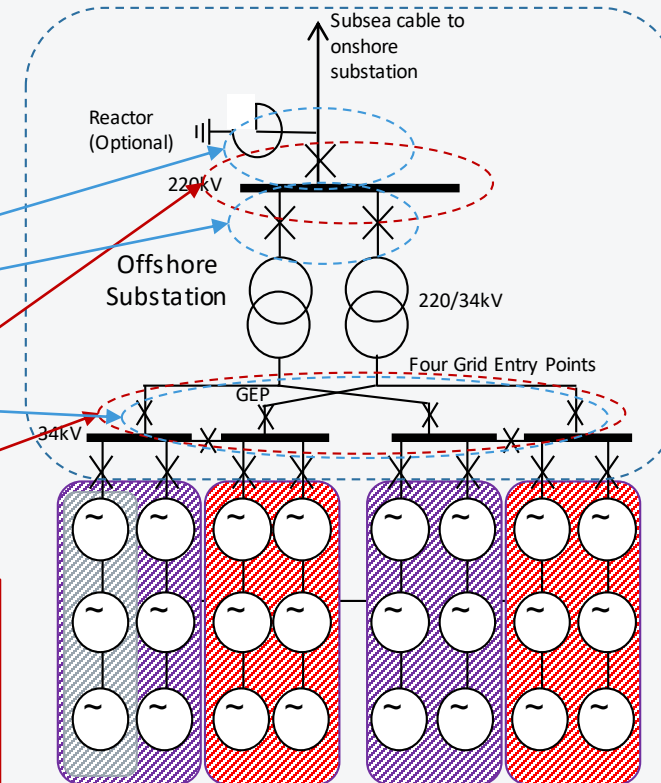
- Respond to frequency variations to support the entire system

## Reactive Power

- Maintain unity power factor at GEP
- Provide support to OFTO asset reactive power requirements

## Voltage control

- Maintain constant voltage at OSS



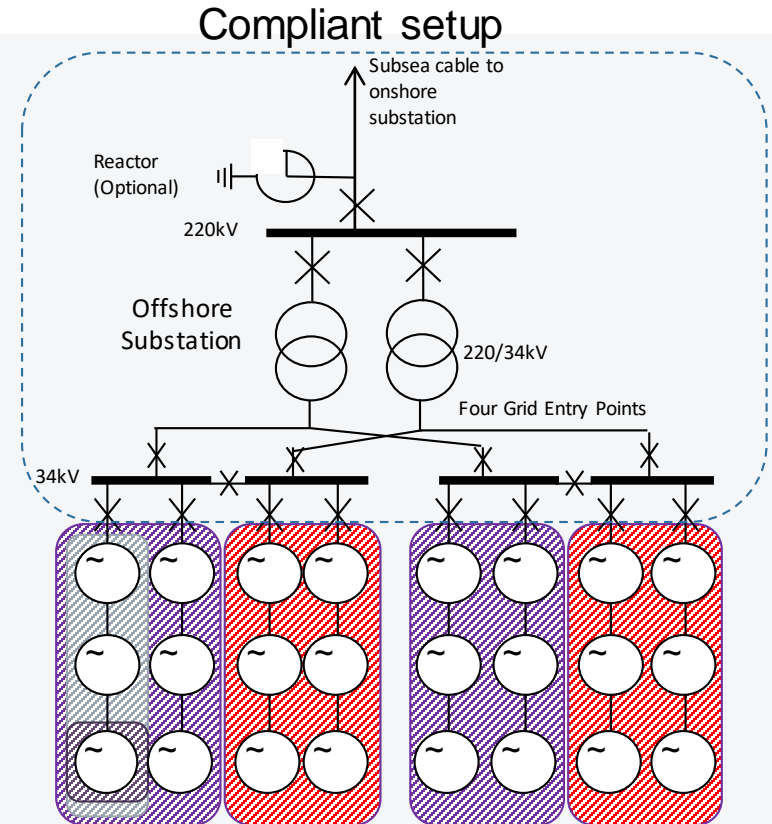
# Frequency Control Requirement

- CC.6.3.7 (a)

“Each **Generating Unit, DC Converter or Power Park Module** [...] must be fitted with a fast acting proportional **Frequency** control device (or turbine speed governor) and unit load controller or equivalent control device to provide **Frequency** response under normal operational conditions in accordance with **Balancing Code 3 (BC3)**. **In the case of a Power Park Module the Frequency or speed control device(s) may be on the Power Park Module or on each individual Power Park Unit or be a combination of both [...]**”

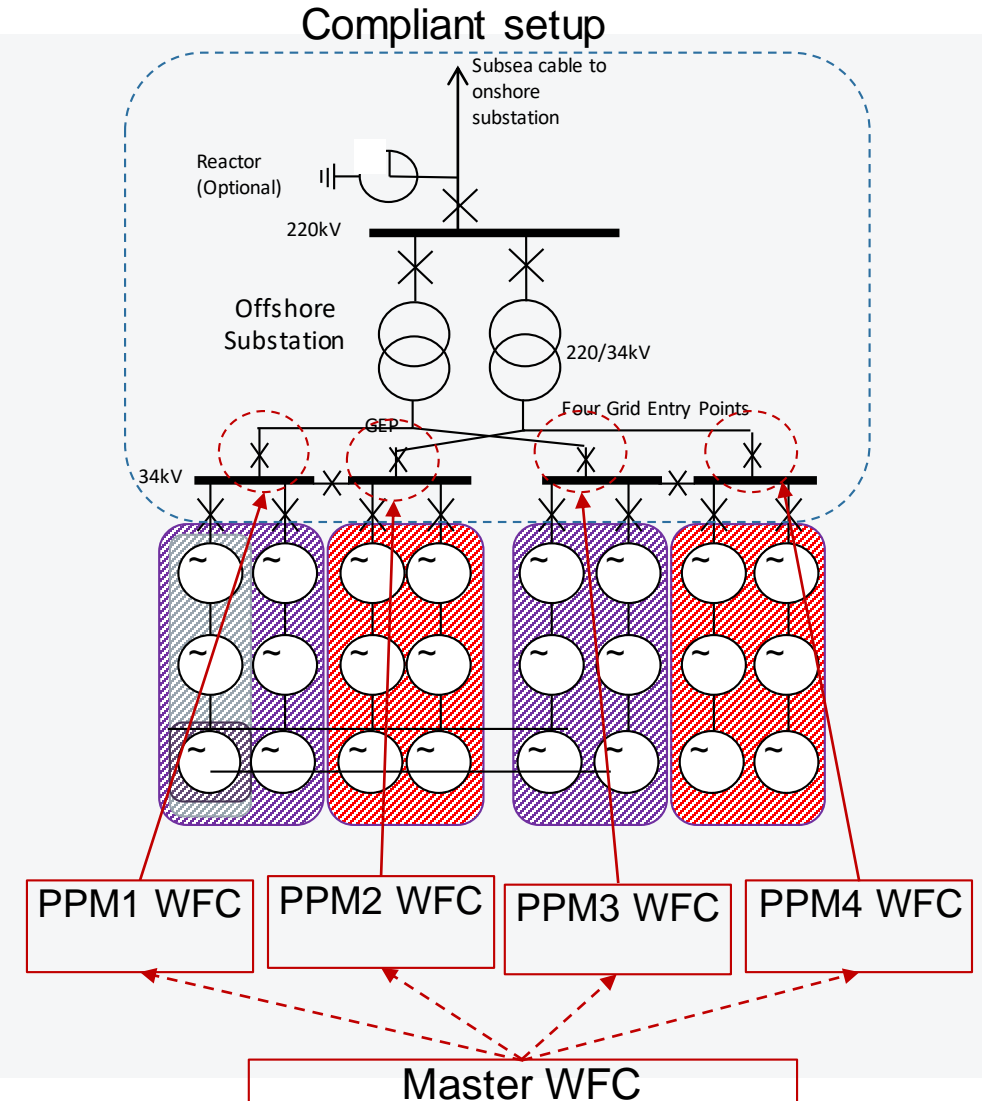
- ECC.6.3.7.3.1 (a)

“In addition to the requirements of ECC.6.3.7.1 and ECC.6.3.7.2 each **Type C Power Generating Module** and **Type D Power Generating Module** (including **DC Connected Power Park Modules**) or **HVDC Systems** must be fitted with a fast acting proportional **Frequency** control device (or turbine speed governor) and unit load controller or equivalent control device to provide **Frequency** response under normal operational conditions in accordance with **Balancing Code 3 (BC3)**. **In the case of a Power Park Module including a DC Connected Power Park Module, the Frequency or speed control device(s) may be on the Power Park Module (including a DC Connected Power Park Module) or on each individual Power Park Unit (including a Power Park Unit within a DC Connected Power Park Module) or be a combination of both. [...]**”



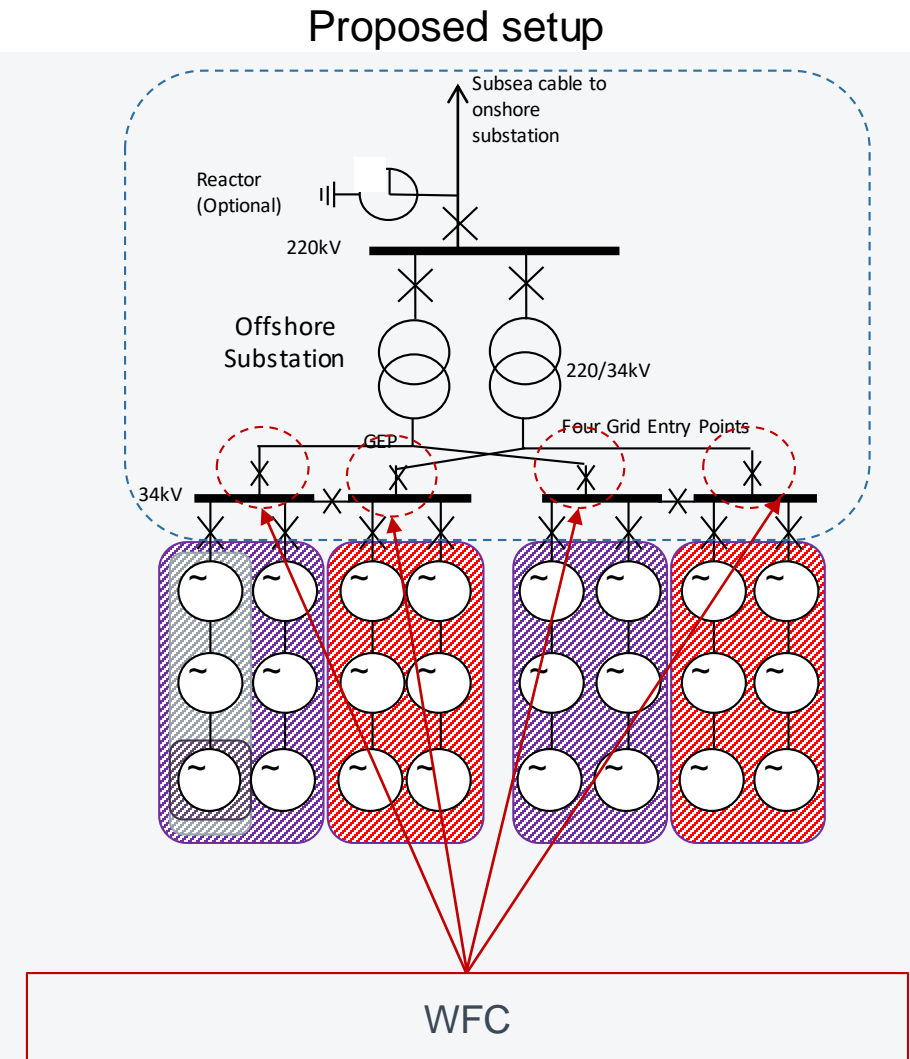
# Implication of Current Frequency Control Requirement and Proposed Solution

- The current requirement implies that
  - At least four Wind Farm Controllers (WFC) are required to meet the existing Grid Code requirement, one for each PPM.
  - A Master Wind Farm Controller (Master WFC) may be required to coordinate the four individual WFCs.
  - Depending on the way the reactive power / voltage is controlled and the location of the measuring point, additional control systems including additional measurement points may be required
  - Multiple BM Units could be required for this solution



# Implication of Current Frequency Control Requirement and Proposed Solution

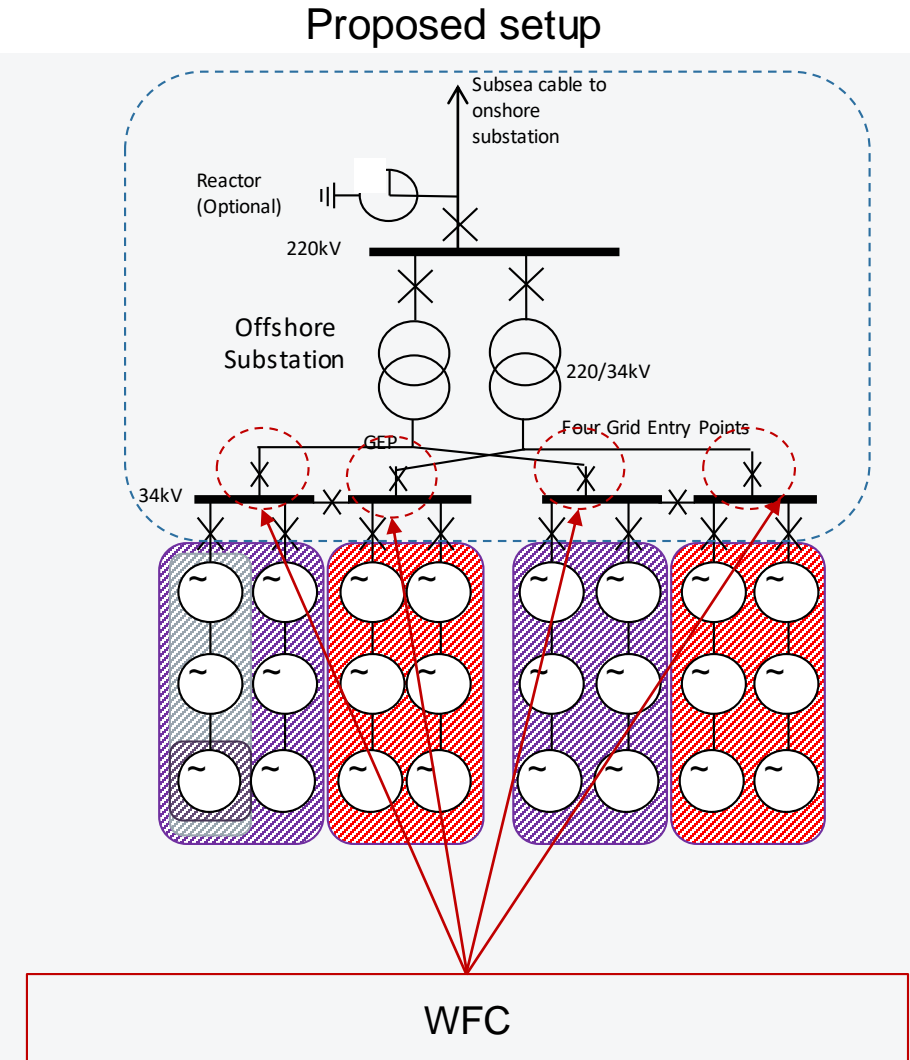
- The current requirement implies that
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  - A Master Wind Farm Controller (Master WFC) may be required to coordinate the four individual WFCs.
  - Depending on the way the reactive power / voltage is controlled and the location of the measuring point, additional control systems including additional measurement points may be required
  - Multiple BM Units could be required for this solution
- A solution with a single WFC would offer a less complex solution and meet the same objective of the Grid Code requirement
  - Frequency could still be controlled providing the same compliant response
  - Less control systems would be required (4+1 vs. 1)
  - A Combined BM Unit could be defined here, simplifying both operation and control of the wind farm for both User and NG



# Benefits of the Proposed Solution

Advantages of a solution with one WFC

- CAPEX reduction between £320-400k per offshore platform

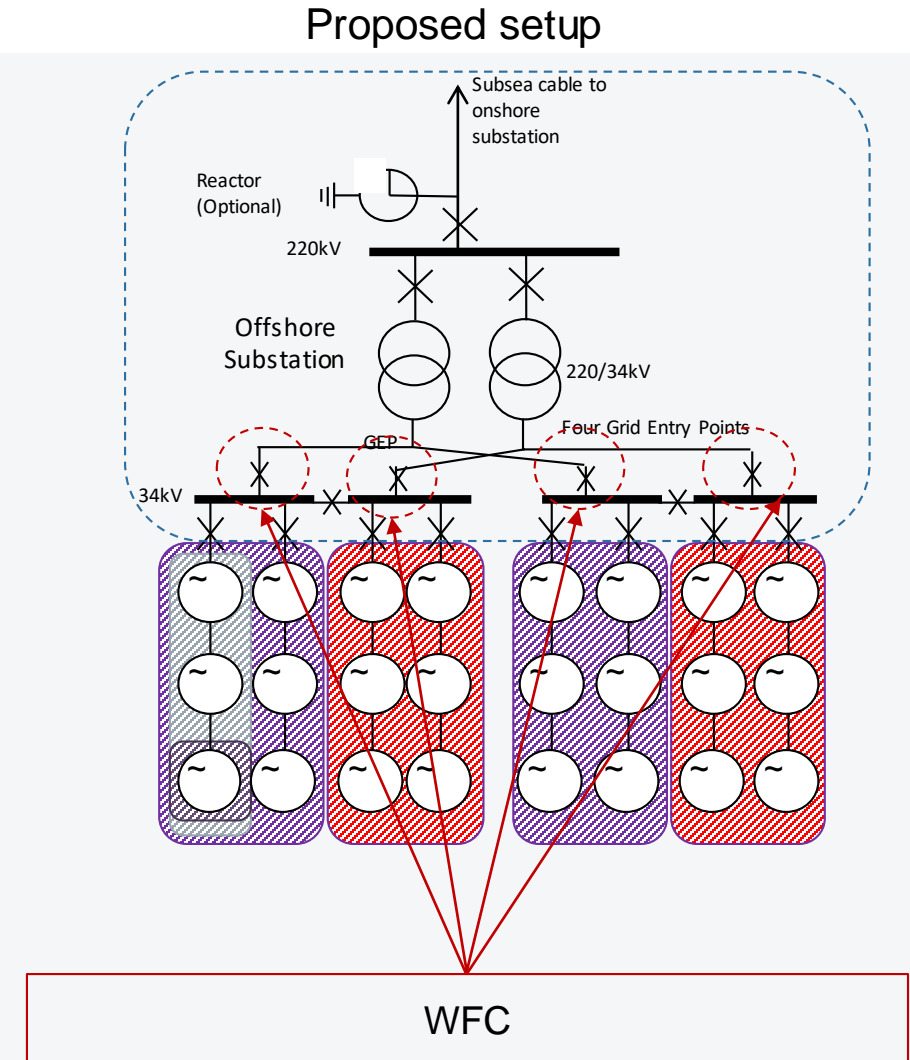




## Benefits of the Proposed Solution

### Advantages of a solution with one WFC

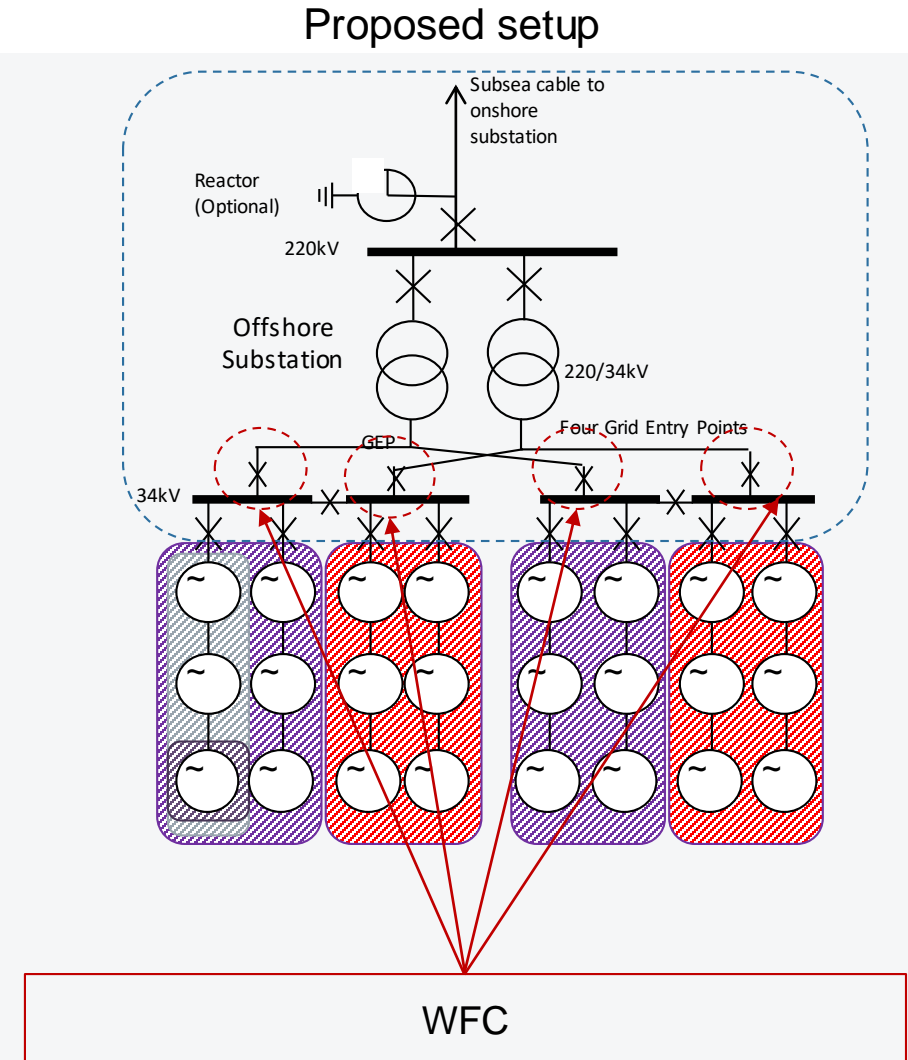
- CAPEX reduction between £320-400k per offshore platform
- Use of a Combined BM Unit for the entire Offshore platform
  - Better optimisation of the power output from the individual wind turbines on a second by second basis, under both normal operation and when there are outages
- Higher energy capture during curtailment scenarios



# Benefits of the Proposed Solution

## Advantages of a solution with one WFC

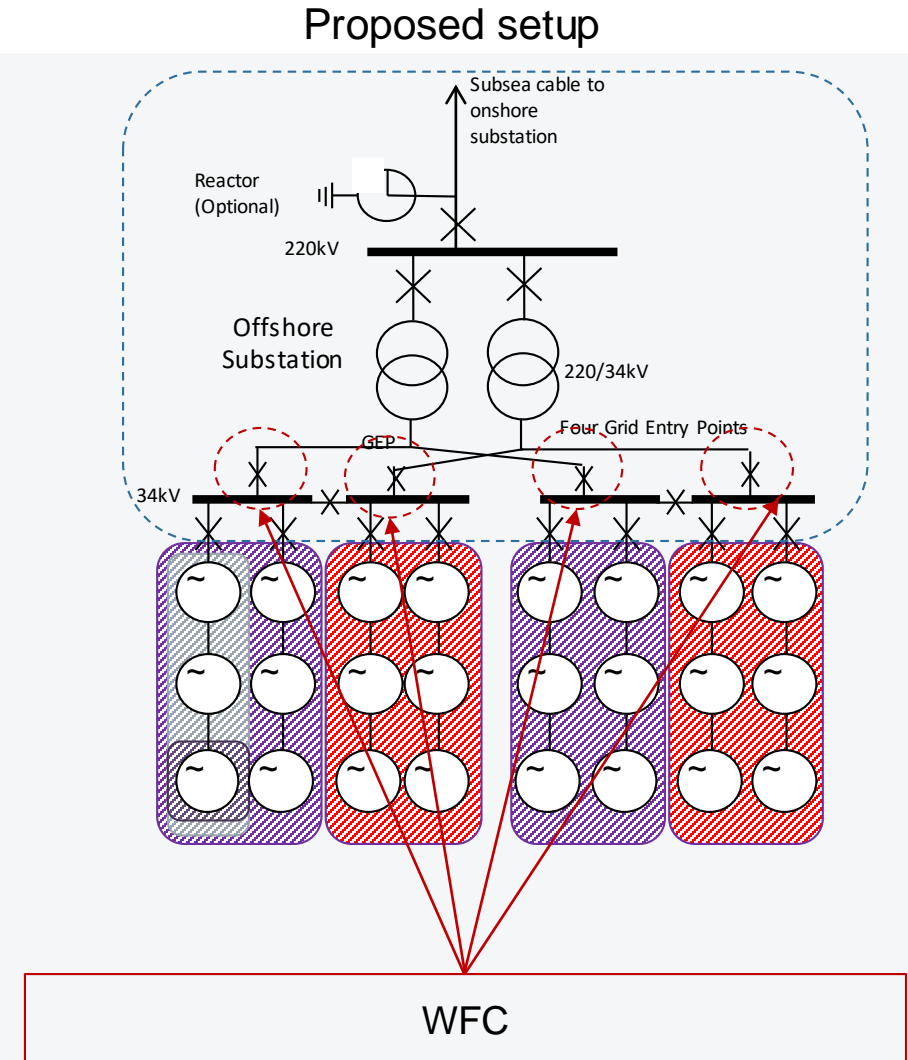
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  - Better optimisation of the power output from the individual wind turbines on a second by second basis, under both normal operation and when there are outages
  - Higher energy capture during curtailment scenarios
- The reactive power / voltage control performed with a single WFC will eliminate the risk of instability due to multiple WFCs controlling the same point and reduce the risk of limiting the support that can be provided to the OFTO



# Benefits of the Proposed Solution

## Advantages of a solution with one WFC

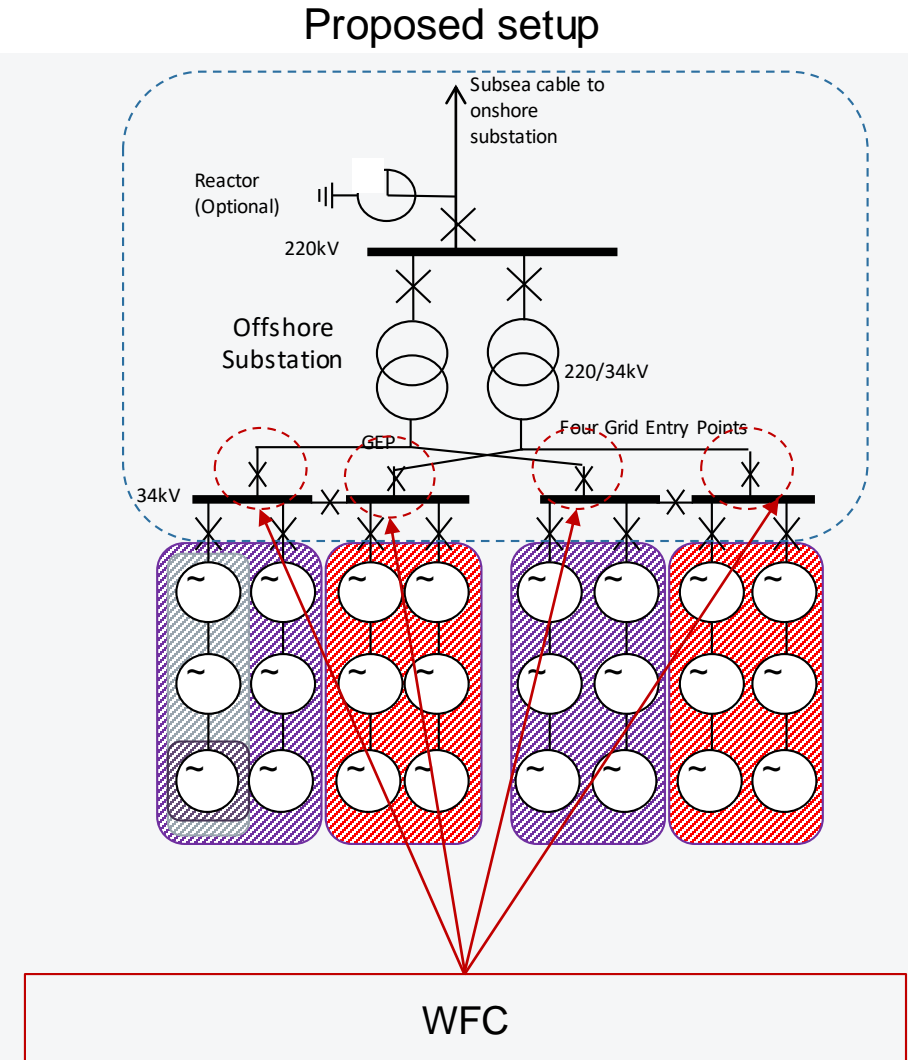
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- The reactive power / voltage control performed with a single WFC will eliminate the risk of instability due to multiple WFCs controlling the same point and reduce the risk of limiting the support that can be provided to the OFTO
- Simpler and less error-prone system



# Benefits of the Proposed Solution

## Advantages of a solution with one WFC

- CAPEX reduction between £320-400k per offshore platform
- Use of a Combined BM Unit for the entire Offshore platform
  - Better optimisation of the power output from the individual wind turbines on a second by second basis, under both normal operation and when there are outages
  - Higher energy capture during curtailment scenarios
- The reactive power / voltage control performed with a single WFC will eliminate the risk of instability due to multiple WFCs controlling the same point and reduce the risk of limiting the support that can be provided to the OFTO
- Simpler and less error-prone system
- Ørsted experience is that there is no visible benefit in having multiple WFCs for an offshore wind farm, mainly due the way the frequency control system is designed.

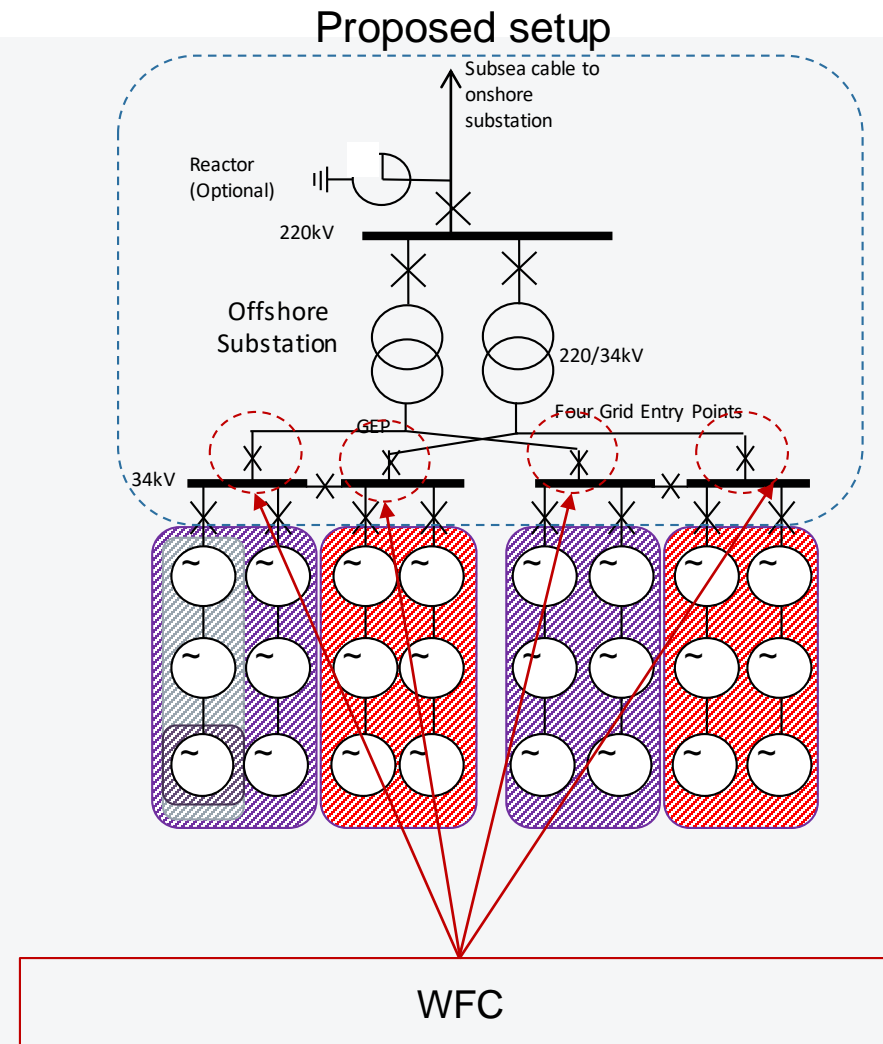


## Proposed Legal Text Change for CC.6.3.7

Proposal: modify the Grid Code requirement in CC.6.3.7 to allow wind farm developers to choose either solution for the control of frequency in the system

“Each **Generating Unit, DC Converter or Power Park Module** [...] In the case of a **Power Park Module** the Frequency or speed control device(s) may be

- i) on the **Power Park Module**; or
  - ii) on an aggregation of **Power Park Modules** which are registered under the same **BM Unit**; or
  - iii) on each individual **Power Park Unit**; or
  - iv) a combination of i) and iii) or a combination of ii) and iii).
- [...]”



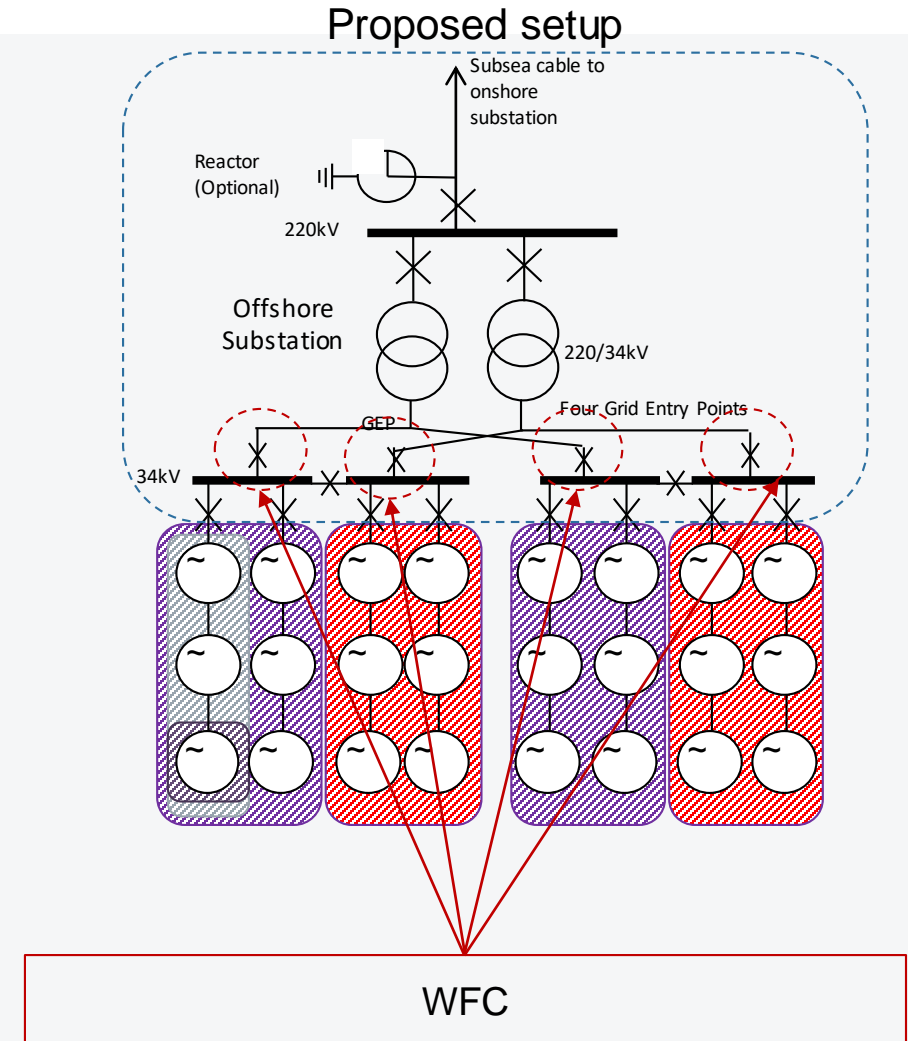
## Proposed Legal Text Change for ECC.6.3.7.3.1(a)

Proposal: modify the Grid Code requirement in ECC.6.3.7.3.1 (a) to allow wind farm developers to choose either solution for the control of frequency in the system

“In addition to the requirements of ECC.6.3.7.1 and ECC.6.3.7.2 [...] In the case of a **Power Park Module** including a **DC Connected Power Park Module**, the **Frequency** or speed control device(s) may be

- i) on the **Power Park Module** (including a **DC Connected Power Park Module**); or
- ii) on an aggregation of **Power Park Modules** (including a **DC Connected Power Park Module**) which are registered under the same **BM Unit**; or
- iii) on each individual **Power Park Unit Unit** (including a **Power Park Unit** within a **DC Connected Power Park Module**); or
- iv) a combination of i) and iii) or a combination of ii) and iii).

[...]”



# Panel Decision

**Does the Panel agree that:**

- This is a self governance modification?; and
- This modification should proceed to Code Administrator Consultation?



# Does GC0146 meet the self governance criteria?

## Self-Governance Criteria

A proposed Modification that, if implemented,

(a) 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 Grid Code's governance procedures or the Grid Code's modification procedures, and

(b) is unlikely to discriminate between different classes of Users

# Critical Friend Feedback: GC0146

Code Administrator comments	Amendments made by the Proposer
<p>Walkthrough on how to complete the form through a virtual meeting.</p> <p>Minor wording changes to add clarity to the text.</p> <p>Improved the wording in the consumer impacts section and the implementation section to provide further clarity.</p>	<p>All amendments were accepted by the Proposer.</p>



# In Flight Modification Updates

**Review of all Grid Code modifications  
with current status, next steps and any  
Panel recommendations**

# Dashboard – Grid Code (as at 19 May 2020)

Category	Dec	Jan	Feb	Mar	Apr	May
New Modifications	2	0	2	2	1	3
In-flight Modifications	19	20	20	21	22	25
Modifications issued for workgroup consultation	1 <i>GC0130</i>	0	1 <i>GC0135</i>	0	1 <i>GC0131</i>	1 <i>GC0134</i>
Modifications issued for Code Administrator Consultation	1 <i>GC0135</i>	0	1 <i>GC0107/113</i>	1 <i>GC0133</i>	2 <i>GC0130</i> <i>GC0136</i>	1 <i>GC0143</i>
Workgroups held	1	4	2	1	1	4
Authority Decisions	1 <i>GC0129</i>	0	0	0	0	1 <i>GC0143</i>
Implementations	0	0	3 <i>GC0125/127/128</i>	1 <i>GC0135</i>	0	1 <i>GC0143</i>
Modifications on Hold	2	1	1	1	1	1
Workgroups postponed due to quoracy issues	0	0	0	0	0	0

# Grid Code Workgroups for next 3 months (as at 19 May 2020) – Tranche 1

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
GRID CODE	April	May	June	July
Tranche 1 - High Priority Grid Code Modifications				
GC0143				
GC0145			x? end of June	x?
GC0131		15-May-20		
GC0109				

# Grid Code Workgroups for next 3 months (as at 19 May 2020) – Tranche 2

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
GRID CODE	April	May	June	July
Tranche 2 - Medium Priority Grid Code Modifications				
GC0134	Mon 6 April 2020		Wed 10 June 2020	
GC0139		Wed 06-May-2020	x?	
GC0141		27 or 28 May 2020		x?
GC0138		Tue 12-May-2020		x?
GC0137	Thu 09-Apr-2020			

# Grid Code Workgroups for next 3 months (as at 19 May 2020) – Tranche 3

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
GRID CODE	April	May	June	July
Tranche 3 - Low Priority Grid Code Modifications				
GC0117				Tue 07-Jul-2020
GC0140				
GC0103				
GC0142				
GC0144?				
GC0146?				

# CUSC Workgroups for next 3 months (as at 19 May 2020) – Tranche 1

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
CUSC	April	May	June	July
Tranche 1 - TCR Modifications and High Priority Charging Modifications				
CMP327/CMP317	7/4/20 and 15/4/20 and 29/4/20	15/5/20 and w/c 25/5/20		
CMP333				
CMP334	20 and 21 April	07/05/2020 PM and 13/05/20		
CMP335/336			25/06/20	06/07/20
CMP337/CMP338	08/04/2020 and 20/4/20	13/05/20		
CMP339	30/04/20			
The new CMP332 (CMP343) and CMP340			22/06/20	23 and 24 July 2020
CMP345		x?		
CMP346				
CMP324 / CMP325	22/04/20	11/05/20		



# CUSC Workgroups for next 3 months (as at 19 May 2020) – Tranche 2

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
CUSC	April	May	June	July
Tranche 2 - Modifications to be progressed in Q1/Q2 2020 where gaps arise				
CMP311			late June x?	
CMP326			x?	
CMP316				x?
CMP304				x?

# CUSC Workgroups for next 3 months (as at 19 May 2020) – Tranche 3

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
CUSC	April	May	June	July
Tranche 3 - Modifications to be progressed from June 2020 (prioritisation order to be determined Q2 2020)				
CMP286/CMP287				
CMP288/289				
CMP291				
CMP298				
CMP300				
CMP308				
CMP315				
CMP328				
CMP330				

Completed	Booked in	To be arranged	No further Workgroups needed	New Mods
CUSC	April	May	June	July
Tranche 3 - Modifications to be progressed from June 2020 (prioritisation order to be determined Q2 2020)				
CMP331				
CMP341				
CMP342				
CMP344				
CMP347				
CMP348				

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# Discussions on Prioritisation

# Prioritisation Principles

## **Complexity**

The defect addressed by the proposed modification has implications for many different areas of the energy system which need to be taken into consideration throughout the process. The technical complexity and cross code impact of the modification will most likely require significant use of industry time and a higher than average number of workgroups to conclude the process.

## **Importance**

The perceived value and risk associated with the proposed modification. The value / risk could be considered from a number of different perspectives i.e. financial / regulatory / licence obligations both directly for customer and end consumers more generally.

## **Urgency**

A proposed modification which requires speedy consideration within the code governance process, as well as the timescales for implementation within the respective code.

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# Blockers to Modification Progression

**(February, May, August, November)**

Blocker Code	March 2020		April 2020		May 2020		Comments
	Count	Mods affected	Count	Mods affected	Count	Mods affected	
Quoracy	0		0		0		NONE
Prioritisation	0		0		1	GC0142	Delay in Proposer responding to Panel asks for updated Legal Text prior to proceeding to Panels approval for going to CAC. This was caused caused by members of the NGESO Technical Codes Team working on the urgent modification GC0143.
ESO delay	0		0		0		NONE
Code Administration delay	0		0		0		NONE
Industry delay	0		0		0		NONE
Legal issues	0		0		0		NONE
Ofgem send back	0		0		0		NONE

BREAK

# Workgroup Reports

**None**



# Draft Final Modification Reports

- ❑ **GC0130** - OC2 Change for simplifying 'output useable' data submission and utilising REMIT data
- ❑ **GC0136** - Non-material changes to the Grid Code following implementation of the EU Connection Codes

# GC0130: OC2 Change for simplifying 'output useable' data submission and utilising REMIT data

Nisar Ahmed – Code Admin  
NGESO

# GC0130 Background

- GC0130 was proposed by National Grid ESO (William Jones) in August 2019.
- The current system used by Generators and interconnectors for submitting outage and output useable data is called **Transmission Outages Generator Availability** (TOGA). This system is currently reaching the end of its life and is soon to be decommissioned.
- Feedback from industry workgroups highlighted that Generators no longer want to submit data to TOGA as they are already required to submit higher resolution data under the **Regulation on Wholesale Energy Markets Integrity and Transparency** (REMIT) obligations. Therefore there is duplication of data submission.
- Data is only submitted once a day and does not reflect current market conditions thus causing distortion and reducing accuracy.
- Generators need to remain compliant with the requirements of **Operating Code no. 2** (OC2). Non-compliance could result in the Authority taking enforcement actions.

# GC0130 Code Administrator Consultation

The Code Administrator Consultation was issued on 21 April 2020 for 15 Working Days, with a close date of 13 May 2020.

4 responses were received (Drax Power Limited, National Grid ESO, BritNed Development Limited and National Grid Interconnectors) in response to the Code Administrator Consultation and these can be found in Annex 6 of this report.

## On meeting the Grid Code Objectives

All of the respondents agreed that the Original best met the Grid Code Objectives stating that GC0130 better facilitates the Applicable Grid Code Objectives. The respondents welcomed the efforts made to reduce duplication and that the reporting is to be done for outages.

However, NGESO do not agree with the necessity to publish to New TOGA within 1 hour. Market Parties that do not use ELEXON but another REMIT platform, are obliged to publish transparency data within one hour. The requirement to simultaneously publish to another platform within the same timescale risks adding undue stress to the process.

A longer timeframe to within 24 hours for reporting to New TOGA would be welcomed.



# GC0130 – Summary

- There were four consultation responses, two of which raised some new queries. We have summarised our view on these, and recommending proceeding with the current solution
- We feel that none of these points are significant enough to delay the modification at this late stage. Even any simple changes would unfortunately risk derailing the project.
- We intend to go-live this November and this has been aligned with Elexon after much debate.
- Going back to workgroup to agree any of these last minute changes would mean the project being extended.
- This would be very expensive, and the IS project may be scaled down, meaning the significant benefits of GC0130 to 80% of generators would not be realised.

# GC0130 – CAC response queries

Concern raised	NGESO view
Concern that OC2 legal text duplicates the REMIT process	This is our intention. Grid Code requirements need to be reflected in legal text, even if duplicated in REMIT. The code must stand alone if REMIT is no longer applicable in the future (i.e. Brexit).
OC2 legal text should state that generators fulfilling their OC2 requirement via REMIT do not have to submit data to NGESO as well.	We want to maintain control of who does what and on what platform so we will contact individual users of current TOGA and let them know that they can just do their submission to REMIT.
What if NGESO collection of Elexon REMIT data fails? Users would have to provide data to the company other ways.	No change / no additional risk. This was always the case if current system (TOGA) went down.
Unfair to those with multishaft or multipoles because they have to submit duplicate data	We recognise this, however this only impacts a very small percentage of users. They also benefit from having to provide data less frequently than before.
1 hour to notify NGESO of data is too short	This is in line with REMIT regulations and was agreed as a workgroup. We would have no major concerns if this was longer, as long as it was much less than 24 hours. However sending the code now would risk implementation (see impact note at end)
The new tool only collects data from Elexon's REMIT platform, but there are other REMIT portals	This platform was chosen as 80% of users of OC2 already use it, it's a simple to use web based platform and NGESO also use Elexon to publish the processed data
Reference to EU regulation might not be applicable in the future	This is recognised, but the Grid Code text would mean NGESO would still would get the users' data. Users would have to then provide it directly to NGESO, although they would have longer to provide it (24 hours).

# Next steps

- **Self Governance Determination Vote [Panel Decision]**
- Final Modification Report to be issued
- Timetable below:

Stage Gate	Date
Issue to Panel to confirm votes held at Panel (5 working days)	29 May 2020 – 05 June 2020
Appeal window (15 working days)	08 June – 29 June 2020
Decision implemented in Grid Code <b>** (a window is needed to allow NGESO and Elexon to decide on the most operationally suitable date)</b>	Between 05 November 2020 and 05 February 2021

# GC0136: Non-material changes to the Grid Code following implementation of the EU Connection Codes.

Nisar Ahmed – Code Admin  
NGESO



# GC0136 Background

GC0136 was proposed by National Grid ESO and was submitted to the Grid Code Review Panel for its consideration on 19 December 2019. The Panel decided that the Proposal met the criteria for Self-Governance as the changes were non-material.

However, the Panel on 19 December 2019 could not determine whether or not this should proceed straight to Code Administrator Consultation.

**Specifically, the Panel requested that:**

- ☐ The non-material changes should be clearly identified and should be separated from the typographical changes.
- ☐ The Proposer has provided two documents which can be found in Annex 2 and Annex 3 which detail all the changes; and the proposed changes to the legal text need to be reviewed by a group of stakeholders and industry experts.
- ☐ Following completion of both of these tasks, Panel on 26 March 2020 agreed that GC0136 should proceed to Code Administrator Consultation.

# GC0136 Code Administrator Consultation

The Code Administrator Consultation was issued on 21 April 2020 for 15 working days with a closing date of 13 May 2020.

One response was received (National Grid ESO) in response to the Code Administrator Consultation and this can be found in Annex 1 of this report.

## **On whether or not the Original best met the Grid Objectives:**

The respondent agreed that GC0136 better facilitates all five applicable Grid Code Objectives by removing errors, improving accuracy and making the text clearer and easier to understand for Users. Whilst none of the individual changes are material, there are numerous non-material changes being proposed, and together they will make a significant improvement to the accuracy and clarity of the Grid Code as a whole.

# GC0136 Code Administrator Consultation

## On Implementation:

The respondent recommended that this is implemented sooner rather than later. It impacts many areas of the Grid Code, so it is advisable to implement these changes as soon as possible, to avoid any unnecessary confusion between different versions of the code.

Since they are so widespread, care will need to be taken in implementing these changes. Panel should ask the Code Administrator to ensure that the changes are made to the baseline at the time that the mod is approved and thereafter that care is also taken to apply the changes from any modification that is in progress to the baseline as corrected through GC0136.

# Next steps

- **Self Governance Determination Vote [Panel Decision]**
- Final Modification Report to be issued
- Timetable below:

Stage Gate	Date
Issue to Panel to confirm votes held at Panel (5 working days)	29 May 2020 – 05 June 2020
Appeal window (15 working days)	08 June 2020 – 29 June 2020
Decision implemented in Grid Code	30 June 2020

# Reports to Authority

**GC0143: Last resort disconnection of Embedded Generation**

**Submitted to Ofgem on Wednesday 06 May 2020**

**Implemented on Thursday 07 May 2020**

# Electrical Standards

**No Update**

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# Governance

**No Update**

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# Grid Code Development Forum and Workgroup Day(s)



# Grid Code Development Forum and Workgroup Day(s)

## May Grid Code Development Forum and Workgroup Days

### Workgroup Days – 05 May and 06 May 2020

#### GCDF – 06 May 2020 – Agenda was as follows:-

- E&R Market Suspension Presentation by Tony Johnson, ESO
- • GC0117 Update Presentation by Tony Johnson, ESO on behalf of the proposer Garth Graham
- • Frequency control for PPMs Presentation by Nicola Barberis Negra, Orsted
- • MARI Presentation by Louise Trodden, ESO

## June Grid Code Development Forum and Workgroup Days

### Workgroup Days – 02 June and 03 June 2020

#### GCDF – 03 June 2020 – Draft agenda as follows:-

- Enduring Solution for GC0143 (Last resort disconnection of Embedded Generation)

# Standing Items

**Distribution Code Panel update**

**JESG Update**

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# Updates on other industry codes

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# Horizon Scan

**(February, May, August, November)**

# Horizon Scan

	2020												2021												2022											
	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D				
MARI	Q2	Mod raised in Q2, first workgroup in June																																		
E&R Phase 2			Q3	GCDF in June, mod to be raised in Q3																																
SOGL Article 118 & 119			Q3	Mod to be raised in Q3																																
HVDC Data Modules (Chris Smith)			Q3	Expert Group to be set up in Q3																																
Energy Codes Review					Q4	Delayed - work not expected to begin before Q4 2020																														
Whole System Technical Code Digitisation														Q2 '21	Beginning in Q2 2021 for RIIO-2																					
RFG Phase 2																																Expected to start in 2022				

# Forward Plan Update/Customer Journey) (January, March, May, July, September, November)

**New Online Nominations Form (Nisar  
Ahmed)**

# AOB

## 1. General discussion on impacts of coronavirus outbreak (ALL)

# Next Panel Meeting

**10am on 25 June 2020 via WebEx**

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**Papers Day – 17 June 2020**

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**Modification Proposals to be submitted  
by 10 June 2020**

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CLOSE