

## Grid Code Alternative and Workgroup Vote

### GC0141: Compliance Processes and Modelling amendments following 9th August Power Disruption

**Please note:** To participate in any votes, Workgroup members need to have attended at least 50% of meetings.

#### Stage 2 - Workgroup Vote

2a) Assess the Original and WAGCMs (if there are any) against the Grid Code objectives compared to the baseline (the current Grid Code).

2b) Vote on which of the options is best.

#### Terms used in this document

Term	Meaning
Baseline	The current Grid Code (if voting for the Baseline, you believe no modification should be made)
Original	The solution which was firstly proposed by the Proposer of the modification
WAGCM	Workgroup Alternative Grid Code Modification (an Alternative Solution which has been developed by the Workgroup)

#### The Applicable Grid Code Objectives:

- a) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity
- b) Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);
- c) Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;
- d) To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and
- e) To promote efficiency in the implementation and administration of the Grid Code arrangements

## Workgroup Vote

### Stage 2a – Assessment against objectives

To assess the Original and WAGCMs against the Grid Code objectives compared to the baseline (the current Grid Code).

You will also be asked to provide a statement to be added to the Workgroup Report alongside your vote to assist the reader in understanding the rationale for your vote.

AGCO = Applicable Grid Code Objective

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Afshin Pashaei, NGET					
Original	Y	Y	Y	Y	Y	Y
Voting Statement: A sharable model both RMS and EMT model is required to be submitted to ESO and TOs. Sharing the model can easily facilitate required studies through compliance process with clear accountability.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Alastair Frew, Drax Generation Enterprise Ltd					
Original	Y	Y	Y	Neutral	Neutral	Y
Voting Statement: To ensure safe and stable system development more modelling is required and there has to be a simpler arrangement to allow all parties to share their individual plant models.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Ben Marshall, HVDC Centre					
Original	Y	Y	Y	Y	Y	Y
Voting Statement:						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Christopher Smith, National Grid Ventures/National Grid Interconnector Holdings Ltd					
Original	Y	Neutral	Y	Neutral	Y	Y
Voting Statement: The original provides greater clarity to the USER and therefore will improve efficiency.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Colin Foote, SP Energy Networks					
Original	Y	Y	Y	Y	Y	Y
Voting Statement: The Original will deliver benefits on all objectives.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Isaac Gutierrez, Scottish Power Renewables (UK) Limited					
Original	N	N	N	N	N	N
Voting Statement: SPR considers that no change from baseline in respect of PC.A.9 should be done. SPR considers that better clarity on what exactly is been looking for (regarding transient events) with the addition of EMT modelling.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Mark Horley, National Grid ESO					
Original	Y	Y	Y	Y	Y	Y
Voting Statement: In order for the ESO and TOs to carry out the necessary security assessments for operating the system better models are required particularly for the new technologies. Research and innovation work suggests that there is a particular need to develop EMT modelling to accurately predict behaviour of a network with a large proportion of converter based generation technology. The proposal includes provisions to help protect the intellectual property of manufacturers while sharing models in an efficient and non-bureaucratic manner.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Marko Grizelj, Siemens Energy Ltd					
Original	Y	Y	Y	Y	Y	Y
Voting Statement: The original better facilitates the grid code objectives than the baseline. A structured process for RMS and EMT model submission will play a critical role in the integration of renewables in to the electricity grid.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Martin Aten, Uniper Technologies Limited					
Original	Y	Y	Y	Y	Y	Y
Voting Statement:						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Michael Smailes, Offshore Renewable Energy Catapult					
Original	Neutral	Y	Y	N	Y	Y
Voting Statement:						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Nicola Barberis Negra, Orsted Hornsea Project Three Uk Ltd					
Original	Y	Y	Y	Y	Y	Y
Voting Statement: To perform meaningful studies and to demonstrate compliance, the only way to do so is to have access to models of other Users in the system that may be affected by its connection. So the original proposal is the best solution compared to the baseline						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Pukar Mahat, Siemens Gamesa Renewables					
Original	Y	Y	Y	Y	Y	Y
Voting Statement: The option to notify change which would impact on grid compliance will reduce the burden to all stakeholders by limiting the use of IE without compromising the security and efficiency of electric system.						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Sigrid Bolik, Siemens Plc					
Original	Y	Y	Y	Neutral	Y	Y
Voting Statement: The legal txt still contains typographical errors and is expected to be corrected. PC. PC.A.9.8.4.4 still refers to PowerFactory and should be changed to “For protection events (e.g. crow bar controller operation) the simulation events, including initial detection, operation, and time-out, should be reported to the PowerFactory output window during the simulation.”						

Workgroup Member	Better facilitates AGCO (a)	Better facilitates AGCO (b)	Better facilitates AGCO (c)	Better facilitates AGCO (d)	Better facilitates AGCO (e)	Overall (Y/N)
	Tim Ellingham, RWE Supply and Trading					
Original	Y	Y	Y	Neutral	Neutral	Y
Voting Statement:						

### Stage 2b – Workgroup Vote

Which option is the best? (Baseline or Proposer solution (Original Proposal))

Workgroup Member	Company	BEST Option? (Original, Baseline, WAGCMs)	Which objective(s) does the change better facilitate? (if baseline not applicable)
Afshin Pashaei	NGET	Original	All
Alastair Frew	Drax Generation Enterprise Ltd	Original	a, b, c
Ben Marshall	HVDC Centre	Original	All

Christopher Smith	NG Ventures/NG Interconnector Holdings Ltd	<b>Original</b>	<b>a, c, e</b>
Colin Foote	SP Energy Networks	<b>Original</b>	<b>All</b>
Isaac Gutierrez	Scottish Power Renewables (UK) Limited	<b>Baseline</b>	<b>N/A</b>
Mark Horley	NGESO	<b>Original</b>	<b>All</b>
Marko Grizelj	Siemens Energy Ltd	<b>Original</b>	<b>All</b>
Martin Aten	Uniper Technologies Limited	<b>Original</b>	<b>All</b>
Michael Smailes	Offshore Renewable Energy Catapult	<b>Original</b>	<b>b, c, e</b>
Nicola Barberis Negra	Orsted Hornsea Project Three Uk Ltd	<b>Original</b>	<b>All</b>
Pukar Mahat	Siemens Gamesa Renewables	<b>Original</b>	<b>All</b>
Sigrid Bolik	Siemens Plc	<b>Original</b>	<b>a, b, c, e</b>
Tim Ellingham	RWE Supply and Trading	<b>Original</b>	<b>a, b, c</b>

Of the 14 votes, how many voters said this option was best.

<b>Option</b>	<b>Number of voters that voted this option as better than the Baseline</b>
Original	<b>13</b>
Baseline	<b>1</b>