

WAGCM1 - Grid Code Alternative Form

GC0141:  
Preferred permutation across all GC0141 “Sub-Modification” workstreams

Overview:

The Alternative has been raised to cover the proposers chosen permutation in relation to the elements that comprise the modification.

Details of the chosen permutation as attached and summarised below:

Solution	Independent Engineer	Sharing for SSTI / SSCI	RMS & EMT Models	Fault Ride Through Definition & Retrospective Requirements	Compliance Repeat Plan	Enhanced FRT Studies	Torsional Data
WAGCM1	No requirement for IE	ESO/TO share models as required	Specification of RMS & EMT model (fully encrypted)	Adds a time duration & retrospective requirements	Every 5 years Users submit compliance statement and DRC Schedules	Additional studies for complex connections agreed at start of process	All Users provide torsional data (retrospective)
	No change from Baseline						
	Original Proposal						
	Alternative Option						

Requirement for an Independent Engineer – Current Baseline

Sharing of SSTI / SSCI Models – Original Proposal

Specification for RMS & EMT Models – Original Proposal

Fault Ride Through Definition and Retrospective Requirements – Original Proposal

Compliance Repeat Plan – Original Proposal

Enhanced Fault Ride Through Studies – Original Proposal

Provision of Torsional Data for Older Plant – Original Proposal

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## What is the proposed alternative solution?

The alternative covers the proposers chosen elements of the modification, with some elements differing from the Original Proposal.

## What is the difference between this and the Original Proposal?

### Requirement for an Independent Engineer – Current Baseline

We believe the Independent Engineer concept will add complexity, cost and will slow down the process. It will also add ambiguity in accountability without bringing more benefit to the compliance process. The User has the responsibility to meet the technical requirements and ESO has the responsibility to do a compliance assessment. An Independent Engineer will not add more nor bring any further clarifications to the process.

We believe the ESO should have resources to carry out these assessments.

### Sharing of SSTI / SSCI Models – Original Proposal

The Original proposal provides the clearest path to share the models and facilitate studies with clear accountability.

### Specification for RMS & EMT Models – Original Proposal

A sharable RMS and EMT model is required to be submitted to the ESO and TOs. Sharing the model can easily facilitate required studies through compliance process with clear accountability.

### Fault Ride Through Definition and Retrospective Requirements – Original Proposal

It improves security and reliability of the network.

### Compliance Repeat Plan – Original Proposal

Keeps up to date model and data for the Users' equipment.

### Enhanced Fault Ride Through Studies – Original Proposal

It improves security and reliability of network and compliance process.

### Provision of Torsional Data for Older Plant – Original Proposal

## What is the impact of this change?

Proposer's Assessment against Grid Code Objectives	
Relevant Objective	Identified impact
(a) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	<b>Positive</b> Sharing the model and clear accountabilities in the compliance process facilitate designing techno-economical solutions.

(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);	<b>Positive</b> The proposed modifications facilitate techno-economical design in the connection process and it has positive impact on competition.
(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;	<b>Positive</b> Sharing the models facilitates required studies to design a secure and efficient network with clear accountability.
(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	<b>Positive</b> The proposal provides clear accountabilities for all parties and facilitates meeting the compliance requirements.
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	<b>Positive</b> Sharing the model can clearly facilitate required studies through compliance process with clear accountability.

### When will this change take place?

#### Implementation date:

In line with GC0141

#### Implementation approach:

### Acronyms, key terms and reference material

Acronym / key term	Meaning
BCA	Bilateral Connection Agreement - between a User and ESO
ECC	European Connection Conditions – part of Grid Code
PC	Planning Code – part of Grid Code

TO	Transmission Owner
NG ESO	National Grid Electricity System Operator

**Reference material:**

None.