

Distribution Code Consultation Response Proforma

DCRP/PC/18/02: Implementation of the EU Network Code Requirements for Generators

Stakeholders are invited to respond to this consultation, expressing their views or providing any further evidence on any of the matters contained within the consultation document. Stakeholders are invited to supply the rationale for their responses to the set questions.

Please send your responses and comments by **17:00 on 01 February 2018** to dcode@energynetworks.org and please title your email 'Consultation Response DCRP/PC/18/03 RfG'. Please note that any responses received after the deadline may not receive due consideration by the DNOs.

Any queries on the content of the consultation pro-forma should be addressed to DCode Administrator on 020 7706 5124, or to dcode@energynetworks.org

Respondent	<i>Greg Middleton MSc Principal Engineer</i>
Company Name	Deep Sea Electronics plc
No. of DCode Stakeholders Represented	1
Stakeholders represented	Deep Sea Electronics plc
Role of Respondent	<i>Equipment Manufacturer</i>
We intend to publish the consultation responses on the DCode website. Do you agree to this response being published on the DCode website? [Y/N]	Yes

	Question	Response
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Q1	Comments are welcome on any part of the draft Distribution Code, G98 and G99. Please comment in the manner that is most convenient to you. Specific word templates are available in the consultation pack for making detailed drafting comments on, but please do not feel constrained to use them.	Please see the table below
Q2	Do you have any general comments on how effectively the RfG requirements have been incorporated into GB documents and is there any aspect that needs modifying before final publication?	<p>It is very unfortunate that the compliance process is not the one intended by the RfG. It is self-certification by manufacturers to Engineering Recommendation G99 and as such is GB specific and not at all harmonised across member states. The RfG clearly intends harmonisation using formal laboratory testing to a harmonised European Standard to facilitate cross border trade. This GB specific approach will do nothing to facilitate cross border trade and may well increase trade barriers.</p> <p>We should emphasise that this is in no way the fault of GB authorities who have done their utmost to resolve the problems caused by a fundamentally flawed piece of EU legislation that fails to specify the QA level required for Accredited Laboratories to issue Equipment Certificates. The failure to ensure an appropriate harmonised European standard is in place is the other obstacle to implementing the RfG as intended.</p> <p>While the proposed compliance system is a pragmatic solution to the problem for GB, it does raise fundamental concerns;</p> <ol style="list-style-type: none"> 1. The criteria for acceptance of a manufacturer's self-declaration of compliance with G99 is not clear and could lead to disputes between manufacturers, generators and DNOs. 2. When a dispute does arise, the only arbitrators are Ofgem and the courts. 3. With no formal laboratory involvement and not even a British Standard never mind a European one it could be very hard to resolve disputes. <p>It has been suggested that once a harmonised European standard does become available in one to two years time G99 should be reworked to reference it. Unfortunately, this will do nothing to resolve the lack of a QA level so Certified Laboratories will still not be able to issue Equipment Certificates. There is also doubt that there would be a good enough financial case to create the Notified Body that would probably be required for this process.</p>

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		<p>Reworking G99 like this will add a significant additional burden to an industry still coming to terms with the changes caused by the RfG. It should be subject to full scrutiny by a cost-benefit analysis like any other code changes and only be carried out if financially justifiable.</p> <p>We are concerned that G99 is still unfinished and includes errors that are acknowledged by the authors. This inevitably means it will have to be completed after this last opportunity for scrutiny which is far from ideal.</p>
Q3	Are there any comments on the G99 drafting points that are listed in section 2.3.3 above?	
Q4	Do you have any comments on the draft common application form included in the consultation pack, or on the envisaged connexion and compliance assessment process?	
Q5	Please indicate (ASAP, ie before the closing date of 01/02/18 if possible) if you have any views relating to the logic or re-ordering etc of the forms in G99's annexes	
Q6	Guidance Note 3 in the Distribution Code relating to Stirling engines had expired. It is proposed to extend this now until the RfG is effective from 18/05/19.	

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Please provide comments relating to the specific technical content of the Distribution Code

Page No	Line No	Clause/ Subclause	Paragraph Figure/ Table	Type of comment (General/ Technical/Editorial)	COMMENTS	Proposed change	OBSERVATIONS OF THE SECRETARIAT on each comment submitted

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Please provide comments relating to the specific technical content of **EREC G98**

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Please provide comments relating to the specific technical content of EREC G99

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	22		2 Scope and Structure	General	Read literally, this says there is a hard changeover on 17/5/2019, you can only use G99 from that day and not before i.e. there is no transition period.	For practicality, there has always to be a transition period during which you can use either G59 or G99.	
	2289			Editorial	Sentence is truncated	Complete it	
	2692			Editorial	No full stop, is the sentence complete?	Complete it	
	2791		11.3 Fault Ride Through and Phase Voltage Unbalance	Technical	<p>The RfG does not require band A to provide FRT.</p> <p>G59 only requires Medium and Large power stations to provide FRT.</p> <p>The Distribution code does require it "where it has been agreed" but does not specify any specific curve leaving it an open-ended requirement.</p>	Clarify that no band A PGM will be compelled to provide FRT type requirements against their wishes. Compelling a PGM to meet an unspecified FRT curve is unreasonable.	

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	2854		12.1.3.2 The DNO will provide details of the method to be employed on a site by site basis. Protocols currently in use between DNOs and Generators include simple current loop; DNP3; IEC 61850.	General	<p>It is unfortunate that this opportunity to standardise the comms protocols between DNO and PGM has been missed. We have been trying to start a discussion on this for two years but with no response from the DNOs.</p> <p>This clause is prescriptive yet subsequent clauses 12.1.3.3, 12.1.3.5 and 12.2.3.6 are cooperative "the DNO will agree with the generator"</p>	Change this clause to be cooperative as in subsequent clauses.	
	3033		12.3.2 ...close-up phase-to-phase fault...		This is an open-ended requirement to meet a more onerous but unspecified curve beyond that in Table 12.1.	Clarify that no band B PGM will be compelled to provide FRT type requirements beyond those in Table 12.1 against their wishes. Compelling a PGM to meet an unspecified FRT curve is unreasonable.	

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	3054		12.3.4 Other Fault Ride Through Requirements b)	Technical	What is the acceptance criteria for being able to withstand multiple events? E.g. does two FRT events per hour demonstrate their "repeated ability"? Does this paragraph intend to refer to 12.4.1 because it confuses between FRT events in 12.3 and a wider than normal voltage range in 12.4		
	4156		15.4.1 b) second bullet point	Technical	This states that the operating time will be measured by stepping from 50.0Hz to 0.2Hz past the threshold. It should be from 0.3Hz before the threshold to 0.3Hz after the threshold as in A2-4 and in G59.	Correct it. Note some bullets in this section duplicate some of the numbers from the A2-4 but others give up and don't duplicate any, just referring to the annex. Wouldn't it be better to drop all duplication and only refer to the annex?	
	4182		15.4.1 d)	Technical	There is no description of the VS immunity test	Describe it.	
	4294		16.3.4	Technical	This seems to be saying that the equipment manufacturer must prevent the generator from modifying the type-tested parameters, but that will also prevent the DNO and installer from modifying them. DNOs have objected to this in discussions.	Clarify how access is to be restricted.	
	4964		20.2.2	General	If the replacement equipment is type-tested then the DNO should not be able to request compliance testing.	Clarify that it doesn't apply to type-tested equipment unless the DNO has good cause to believe the type-test report is invalid.	

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	4969		20.3.1	General	If the replacement equipment is type-tested then the DNO should not be able to request compliance testing.	Clarify that it doesn't apply to type-tested equipment unless the DNO has good cause to believe the type-test report is invalid.	
	4973			Editorial	Incomplete sentence	Complete it.	
	5017		A2-1 Compliance Verification Report – Tests for Type A Synchronous Power Generating Modules up to and including 50 kW	Technical	<p>In sections 4 and 5 the interface protection parameters are more demanding than in A2-4 i.e. the type tests for a protection relay are more demanding than the site tests.</p> <p>As they are more demanding than the requirement in G59 they would lead to the redesign of protection relays, but there has been no discussion about any need to increase these requirements.</p> <p>Also, some requirements such as trip level acceptance windows are missing making the tests pointless.</p>	Copy the requirements from A2-4 (which match those in G59) into A2-1 for consistency and completeness.	
	5024		A2-3: Compliance Verification Report for Inverter Connected Power Generating Modules	Technical	The same issue as for A2-1, the interface protection parameters need to be consistent regardless of whether this is synchronous or asynchronous as the same protection relays are used in all installations.	Copy the requirements from A2-4 (which match those in G59) into A2-3 for consistency and completeness.	

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	5026		A2-4: Site Compliance and Commissioning test requirements for Type A Power Generating Modules	Technical	Frequency stability test “Inside normal band” should be 50.8Hz not 50.3Hz i.e. 0.2Hz from the trip. The description of the test should also say that it steps from 50.8 and back to 50.8	Correct it.	
	5026		A2-4: Site Compliance and Commissioning test requirements for Type A Power Generating Modules	Technical	No boxes for VS stability test	Add them after those for LOM stability test	
	5359		A7.1.2.2 Over / Under Voltage	Technical	This annex contains the more onerous tests for interface protections also seen in A2-1	Bring them in line with A2-4 and G59 or better still remove the unnecessary duplication of values.	
	5929		Figure A.7.8: LFSM-O step response test		Shouldn't the lines be defined numerically to avoid dispute?	Define them numerically	

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	6409		Figure B.5.1: LFSM-O step response test	Technical	Shouldn't the lines be defined numerically to avoid dispute?	Define them numerically	
	6609		Figure B.6.3: LFSM-O BC3 step response test	Technical	Shouldn't the lines be defined numerically to avoid dispute?	Define them numerically	

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Please provide comments relating to the specific technical content and usability of the Standard Application Form

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