Distribution Code Consultation DCRP/18/07/PC

Demand Connection Code – Distribution Code Amendements

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 Friday 27 July 2018** to <u>dcode@energynetworks.org</u> and please title your email 'Consultation Response DCRP/18/07/PC'. Please note that any responses received after the deadline may not receive due consideration by the Working Group

Respondent	Arun Seshadri Rammohan	
Company Name	Caterpillar Energy Solutions GmbH	
No. of DCode Stakeholders Represented		
Stakeholders represented	Internal Combustion Engines Group	
Role of Respondent	Electrical Engineer	
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]	Y	

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

	Question	Response	DNOs' Response
Q1	Do you agree that clarifying the performance requirements as proposed in the appendices 1 to 6 is helpful?	Yes, the requirements are precise now.	
Q2	Do you agree that the proposed text remains compliant with the RfG requirements?	Yes.	
Q3	Do you have any comments on the draft legal text in Appendices 2 to 6?	The proposed performance cap of a ramp of 0.5% of output per second is prompt for both small- (<2 MW) and large internal combustion engines (ICE) while reducing active power. But using the same ramp rate of 0.5% per second for increasing active power and arriving at 5% of the response within 10 seconds is not undoubting for large ICEs. This is because increasing power at fast ramp rates are harder outside ISO conditions (100m, 25°C). Hence, we propose to add a statement which would allow DNOs to provide exemptions for larger SPGMs when considered reasonable.	As per subsequent email discussion, this is noted. Mr Rammohan has agreed that it is not likely to be a practical problem.
Q4	Do you have any other comments on these proposals?	-	

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Respondent	Isaac Gutierrez
Company Name	Generator - ScottishPower Renewables Ltd
No. of DCode Stakeholders Represented	1
Stakeholders represented	Generator - ScottishPower Renewables Ltd
Role of Respondent	Senior Electrical Engineer
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

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

	Question	Response	DNOs' Response
Q1	Do you agree that clarifying the performance requirements as proposed in the appendices 1 to 6 is helpful?	Yes	
Q2	Do you agree that the proposed text remains compliant with the RfG requirements?	Yes	
Q3	Do you have any comments on the draft legal text in Appendices 2 to 6?	Yes – see response to question Q4 below	
Q4	Do you have any other comments on these proposals?	SPR believe that the same terminology shall be used between the grid code and distribution code as some EU users connect generators into both distribution and transmission networks and would be easier to refer to the same technical terminology). In addition, it seems that consideration has not been given to Minimum Regulating Level (known previously as DMOL) when providing LFSM-O. SPR would like to suggest the following modification (highlighted in red below) to be included in the legal text of Clause 11.2.4.3	This is a valid point and noted. We know that you have now had a conversation with National Grid about the possible confusion over terminology and they have accepted in principle that they need to address this under a housekeeping mod in the near future. It is our intention to work with NG in their housekeeping mod and use that as an opportunity to align better the terms in G99 and the Grid Code.
		Steady state operation below Minimum Generation is not expected but if system operating conditions cause operation below Minimum Generation which give rise to operational difficulties then the Generator shall be able to return the output of the Power Generating Module to an output of not less than the Minimum Generation unless the Power Generating Module reaches an operating point below its Minimum Regulating level.	
		Also in section A.7.2.4 a threshold of power output shall be defined for carrying out a valid test as for PGM using intermittent power sources (i.e wind) there is uncertainty on predicting wind speed so for example a test could be carried out if the PGM power output is above 65% of its maximum output always	In relation to testing, the paragraph at the end of A7.2.4: "* This frequency step Δf will generally be +2.0 Hz unless an injection of this size causes a reduction in plant output that takes the operating point below

	taking into consideration that the PGM is not below minimum generation	Minimum Generation in which case an appropriate injection should be calculated in accordance with the following:
		For example 1.5 Hz is needed to take an initial output 100% to a final output of 70%. If the initial output is not 100% and the Minimum Generation is not 70% then the injected step should be adjusted accordingly as shown in the example given below:"
		is supposed to deal with this issue. This already allows for a test of a reduced step to take the output down only as far minimum generation.
		This paragraph is repeated in Annex B5.6, B6.5, C8.6 and C9.5
		In additiont adding the following text to the start of A.7.2.4 (the bit in brackets) will make this clearer
		"(although a lower power output may be agreed with the DNO if site conditions preclude attaining Registered Capacity , such as an absence of adequate wind),"
		And similarly in B.5.6 and B.6.5. C8.6.3 and C.9.5.4 arguably already cover this off.