

DECC/Ofgem Stakeholder Workshop: Issue Log for the DCC Network Code

Last Updated: 31 July 2015

Prior to the European Cross Border Committee meeting on 23 July, DECC and Ofgem requested stakeholder comments on the Demand Connection Code (DCC) based on the version dated 08 July 2015. This document summarises the issues captured in written comments before the stakeholder workshop on 14 July and any additional comments raised at the meeting.

This is a summary of the key issues raised by GB stakeholders and is not a detailed issue log capturing all the details submitted or discussed on the day – following discussion it was also agreed that some of these issues would no longer be regarded as high priority.

This document will be published on the [Joint European Stakeholder Group \(JESG\) website](#).

Issue Priority (where indicated)	Description of your priority DCC comments	Impact and evidence
H	Art.14 – This section still seems to allow short circuit currents to be changed following an unplanned event (and possibly increased beyond the rating of User/DSO equipment if there is an associated change in running arrangements) without requiring agreement between the respective parties. As fed back previously, this is a serious Health & Safety concern and is not acceptable.	In previous European discussions the explanation has hinged on not needing to legislate around actions that would be defined elsewhere but this does not feel good enough.
M	Storage is not covered in the DCC Code. It is also not covered in the RfG Code.	Is it the intention of the Commission to leave Storage to Member States? Or to come back to codifying this at a later date when the technology is more mature?
M	Traction supplies or directly connected customer issues (eg heavy industrial directly connected users such as steel plants or aluminium smelters) do not appear to have been accounted for in the Code.	The code as drafted could cause such users some serious issues (to do with the type of demand and specific limitations of these particular applications in terms of power factor etc.).
M	Art.19 is not clear whether Low Voltage Demand Disconnection (LVDD) is mandatory or not – Art.19 (2)(a) implies it is whereas Art.19 (2)(d) implies it is not.	We currently do not have LVDD in GB and its applicability and benefit when applied solely to new demand connection sites needs to be understood.
H	Recital 20 seems to imply that only system operators can apply for derogations.	
M	Art.14 (3) – One week is too long. Why does the TSO need this long to tell connected parties about this key change in operating conditions? Would expect it to be agreed in operational timescales.	
M	Art.14 (5) the notification must be before the planned event, not up to one week after it. This seems such a violation of basic H&S arrangements that I might be	

	missing the point as to what this article is trying to do.	
H	Art.15.1 – it is not clear what the term “maximum export capability in import” means - as a general point Clauses 15 (1) (b) and (c) are not very clear.	ENTSO-E drafting team being asked for clarification of intent before alternative drafting is proposed.
M	Art.15 4 - the phrase “the transmission connected DSO may require to the relevant TSO to be considered for reactive power management” is far from clear. Does it mean “the DSO may seek to be included as an ancillary service provider for reactive power”? If not, what does it mean?	
H	Art. 18 – do we need some general rubric to make it clear that the TSO can only specify these requirements in the normal way that this is already done, ie with public consultation and NRA approval?	
H	Art.19 - Just to be clear that this only applies to new distribution systems and new distribution system connexion points? If so, fine. But will be a problem if retrospective. Facilities for 1 c (iii) and (iv) don't currently exist.	
H	Art.19 (2) In early drafts of DCC, the introduction of LVDD was to be contingent on a reasoned case and NRA approval. These schemes introduce significant new risks of disconnecting customers and I would expect some oversight safeguards before they are installed.	
M	Art.2 (5) and Art.2 (8) are not mutually exclusive. Are they supposed to be? Some demand side actions will be caught by both definitions	
M	Art. 27 (2) – what does “independent” in the last sentence refer to?	
M	Art. 29 (2) (f) – why is the relevant SO not included here (as they are the party responsible for frequency control), ie why is this a TSO only issue? Should be able to be specified by DSO too in coordination with the SO.	
H	Art.28 (2) (k) – RoCoF should not be based on an average. This is a complex area. It would be better to allow the SO to define in coordination with the TSOs and DSOs through normal consultation, the measuring method/time rather than putting something into law that is almost certainly wrong.	
M	Art. 31(1). It is not the connexion of the demand units that requires notification – it is the intent to use them for demand side measures. Seems wrong to talk of connexion when they could be connected for many years before first being put to use for DSR.	
M	Art.37 (6). Art.19 seems misguided in finding the need to codify the relevant AC input into the LFDD scheme, getting the TSO to specify it in Art.37 (6) is unworkable. These schemes are buried deep in the DSO's network. The TSO will have no knowledge of the site specifics.	
H	Art.41 – this needs to be rewritten to take into account the use of DSR Active Power Control by DSOs.	
H	Art.3 – Still think that the question of new and existing is fudged – mainly by the introduction of the “distribution system connexion” definition. As an additional but minor point the last sentence of Art.3 (1) in relation to the regulatory authority is not clear.	Consider the case of a transmission network extension, such as might be required to connect new nuclear generation. It is likely that the new transmission network will overlay the existing highest voltage of the distribution network, and in many locations the distribution network route will be given up

		to the new transmission circuits. To compensate for the loss of the distribution network (ie the SMALL bit of DSO network affected) there will be new T/D interfaces built. These will be new connexion points – but the distribution system will be existing. So it won't comply. What is the point of giving the illusion that there is new assets and therefore new compliance when this won't be the case?
H	Art.17 (1) – the current wording would suggest that the TSO will need to agree the settings to all the different control devices in the distribution system. Should this not be limited to distribution system connection devices	
H	Art.29 (2)(d) - "on return to frequency within the dead band defined in para. 2(c), a random time delay of up to 5 minutes shall be initiated" This is an implementation detail that should follow from the code requirements, and may differ across TSOs. This level detail should not sit in this code and may impact on detailed design of existing markets. Suggested rewording: On return to frequency within the dead band defined in paragraph 2(c), a random time delay may be defined by the relevant SO in consultation with the TSOs in the synchronous area.	National Grid procures demand side response system frequency control through the FCDM and FFR suite of products today. These markets are functional and delivering a service of value to National Grid. This change to the network code may impact on the existing detailed product design here; in our opinion the code should define principles and requirements which are then broken into implementation detail by individual TSO. With regards to this specific requirement, a random time delay is only needed if all demand 'units' within a response are synchronised. In the case of dynamic frequency control in GB, demand units are not synchronised and so this requirement is not essential.
H	Art.29 (2)(e) - "be equipped with a controller that measures the actual system frequency. Measurements shall be updated at least every 0.2 seconds" This is an implementation detail that should follow from the code requirements, and may differ across TSOs and individual products. This level of detail should not sit in this code and may impact on extant products. Suggested rewording: be equipped with a controller that measures the actual system frequency. Measurements shall be updated at an appropriate level for the service delivered.	National Grid procures demand side response system frequency control through the FCDM and FFR suite of products today. These markets are functional and delivering a service of value to National Grid. This change to the network code may impact on the existing detailed product design here; in our opinion DCC should define principles and requirements which are then broken into implementation detail by individual TSOs. With regards to this specific requirement, some frequency control products may be slower responding and not require such a high resolution.
H	Art.29 (2) (f) - "be able to detect a change in system frequency of 0.01 Hz, in order to give overall linear proportional system response, with regard to the demand side response system frequency control's sensitivity and accuracy of the frequency measurement and the consequent modification of the demand. The demand unit shall be capable of a rapid detection and response to changes in system frequency, to be defined by the relevant TSO in consultation with the TSOs in the synchronous	

	<p>area. An offset in the steady state measurement of frequency shall be acceptable up to 0.05 Hz;"</p> <p>This is an implementation detail that should follow from the code requirements, and may differ across TSOs and individual products. This level detail should not sit in this code and may impact on extant products.</p> <p>Suggested rewording: "be able to detect a change in system frequency in order to give overall linear proportional system response, with regard to the demand side response system frequency control's sensitivity and accuracy of the frequency measurement and the consequent modification of the demand. The demand unit shall be capable of a rapid detection and response to changes in system frequency, to be defined by the relevant SO in consultation with the TSOs in the synchronous area."</p>	
H	Art. 6 Regulatory aspects	<p>Understand that this provision is taken from the agreed version of RfG which makes a distinction between the requirements of general application and those that are site specific. For the requirements of general application - NRA approval is mandatory, whereas those that are site specific is not mandatory and their eventual approval by a designated authority shall be decided by the Member States on a case-by-case basis. We still have important concerns about this approach- for at least two reasons: (1) the Third Package clearly establishes the NRA competence for approving the methodologies and terms & conditions for network connection. As a result, NRAs shall approve all the parameters contained in the EU connection network codes without exception; (2) this raises a concern about the level of harmonisation and level-playing field that DCC (and other connection codes) ensure if its requirements are subject to different checks and balances in different countries. We also find it surprising that only two DCC requirements- voltage and frequency are considered being of general application.</p>
M	Art.15 (2) Reactive power requirements:" The relevant TSO may require that transmission connected distribution systems have the capability at the connection point to not export reactive power (at nominal voltage) at an active power flow of less than 25% of the maximum import capability. Where applicable, Member States may require the relevant TSO to justify their request through a joint analysis with the transmission connection distribution system operator."	<p>This requirement is completely new compared to state-of-the-art and discriminates the affected DSO (which has to install costly compensation equipment). There is no CBA available to justify this requirement. This paragraph should therefore be deleted.</p>
M	Art.32 (1): "The operational notification procedure for a demand unit within a demand facility or a closed distribution system connected to a voltage level at or below 1000V shall comprise an installation document".	<p>Process appears very bureaucratic with unnecessary administrative burdens on the demand unit as well as the relevant SO. Member State should therefore decide whether such a requirement is necessary or not, also considering the state and impact of DSR services on national level.</p>

H	Art.27 (3): "The categories referred to in para. 1 are not exclusive and this Regulation does not prevent other categories from being developed. This regulation does not apply to demand side services provided to other entities than system operators".	Although we generally find it positive that DCC will apply solely to those DSR providers who chose to offer their services to the system operators, we are still worried whether DCC does not have the potential to constrain DSR developments in the future by splitting off part of the DSR market- that being offered to DSOs or TSOs, rather than allowing a comprehensive market covering all possible traders to develop. This could be seen to be a barrier to innovation and development of markets in DSR.
H	<p>Art. 29 2(d) - "on return to frequency within the dead band defined in para. 2(c), a random time delay of up to 5 minutes shall be initiated"</p> <p>This is an implementation detail that should follow from the code requirements, and may differ across TSOs. This level of detail should not sit in this code and may impact on detailed design of existing markets.</p> <p>Suggested rewording:</p> <p>On return to frequency within the dead band defined in para. 2(c), a random time delay may be defined by the relevant TSO in consultation with the TSOs in the synchronous area.</p>	<p>National Grid procures demand side response system frequency control through the FCDM and FFR suite of products today. These markets are functional and delivering a service of value to National Grid.</p> <p>This change to the network code may impact on the existing detailed product design here; in our opinion the code should define principles and requirements which are then broken into implementation detail by individual TSO.</p> <p>With regards to this specific requirement, a random time delay is only needed if all demand 'units' within a response are synchronised. In the case of dynamic frequency control in GB, demand units are not synchronised and so this requirement is not essential.</p>
L	Art.12 and Art.13 etc. under Title II – why don't these articles apply to distribution system connections? - Why does the DCC stop using "distribution system connection term after it is used in the heading for Title II?	The term is introduced and used throughout Title 1 but seems to the drop out of usage after this initial section – which adds confusion.
H	Art.14 (3) and 14 (5) – it is unclear who the 'it' is in these paragraphs. Obligation is only for TSO to indicate a change of fault level that the TSO can withstand from the TSO network (if the 'it' is the TSO). Not to share the change in contribution to the Distribution networks.	
H	Art.17 (1) – the current wording suggests the TSO will need to agree the settings to all the different control devices in the distribution system. Should this be limited to distribution system connection devices?	
L	Art.18 (2) and (3). Consistent use of terminology for last sentence of each of these paras {in (2) The relevant TSO shall make publicly available the defined standard vs (3) The relevant TSO shall make the defined standard publicly available}.	
L	Art.25 (2) 'incompliance' should read 'non-compliance'	
M	Art. 9 – Why are some requirements in DCC subject to public consultation and others not?	
M	Art. 24 – Where DCC applies to existing facilities, will they need to provide an ION.	
M	Art.42 – Compliance simulations of small users seem very onerous.	