Distribution Code Consultation Response Proforma

DCRP/21/02/PC: Distribution Code EREC G100 Issue 2: Technical Requirements for Customers' Export and Import Limitation Schemes

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, 9th July** to dcode@energynetworks.org and please title your email 'Consultation Response DCRP/21/02/PC DCode EREC G100 Issue 2. Please note that any responses received after the deadline may not receive due consideration by the Working Group.

Any queries on the content of the consultation pro-forma should be addressed to DCode Administrator on 020 7706 5105, or to dcode@energynetworks.org

Respondent	*Mark Sommerfeld, Head of Power and Flexibility*
Company Name	Association for Renewable Energy and Clean Technology (REA)
No. of DCode Stakeholders Represented	
Stakeholders represented	*Members of the REA*
Role of Respondent	Trade Association representing smart system manufacturers, developers and installers.
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

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	Question	Response
Q1	Do you agree with the general intent of the proposed modification? If not, please explain your views.	No. While agreeing with the intent of formalise G100 requirements, specific concerns have been raised by members relating to the impact the proposed changes could have on the manufacture, installation, and performance of behind the meter energy storage and generation systems, including EV charging points and heat pumps. The proposals add a significant level of complexity to G100 requirements, forcing systems to measure both voltage and current at the site boundary and manage both import and export power proportionally based on deviations in current or voltage. This is a significant departure from just needing to measure the current flow of a sites incoming supply, to ensure export limits are not breached. Members raise concern that smart systems will now need to measure times between deviations, count the number in each period and implement different levels of reset functionality with a lock-out state under certain circumstances. The resulting testing & commissioning procedure will be highly onerous, and the manufacturer will need to provide a test mode, a Mode 4 protection override feature, to allow testing to be completed without invoking the lock-out mode. This will add both costs and complexities to systems and is expected to be especially excessive for smaller business or domestic systems. In addition, the limits applied to both import and export will be determined using a much more complex methodology, meaning developers will need to be able to determine the sum of all onsite non-controlled loads as well as the new controlled loads (heat pumps, storage, EV charging etc.). On large sites, it will be difficult to identify the existing load. The proposals are also expected to negatively affect customers with systems that regularly switch on and off, with multiple periods of overshoot of much less than 5 seconds. Proposals for 'no more than three excursions', triggering mode 3, could see systems regularly disabling themselves, until an engineer can visit the site. This could undermine the benefits of smart

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	Question	Response
		flexible systems, despite the total time overshooting export limits being well within those allowed within a 24 hour period. While certain exemptions for control systems are noted, dynamic load balancing systems would appear to be in-scope. As such, the potentially low level of max total load vs. import capacity could limit the potential for new flexible loads, such as required by multiple EV chargers, where the total sum of power ratings could be higher than the available capacity. These requirements could prove both costly and difficult to meet and, as such the proposals should be reviewed in conjunction with storage, EV and other smart system manufacturers to ensure they are proportional and pragmatic. It is also noted that the overall consultation period for these proposals has been very short and has not provided sufficient time for manufacturers to engage and understand the implication of these changes. The REA would be happy to help facilitate roundtable discussions on this, with relevant members, following the closure of this consultation, so that these concerns can be heard by the ENA and addressed.
Q2	Do you agree that the revised EREC G100 should be included in the Distribution Code Annex 1 and included under Distribution Code governance in the future? And if not, why not?	While we agree with the need to formalise G100, it should not be done until sure of wider impacts across the industry. To include it in Annex 1 too soon, could result in unintended consequences that could be difficult to unpick.
Q3	Do you agree that the proposed modifications satisfy the applicable Distribution Code objectives? If not, please explain your concerns.	The proposals risk being detrimental to the installation of low carbon technologies. The proposed excursion requirements may well favour higher carbon generating technologies with less, but longer excursions, taking longer to ramp down.
Q4	Do you support the formal description of the modes of operation and the migration between them?	Mode 1 should be adjusted to allow for many multiples of excursions of less than 5 seconds and remain in Mode 1. This will allow medium or large load systems switch on and off as appropriately and enable their flexibility benefits.

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	Question	Response
Q5	Do you agree with the fail-safe approach, and with the excessive mode 2 operation criteria? If not, would you propose different criteria?	No, Mode 1 should permit multiple short-term excursions (less then 5 seconds) as being normal, with mode 2 in place for any excursions longer then this. Without this storage operations will need to operate in the most conservative mode in small sites with larger loads.
Q6	Do you agree with the proposed approach to resetting the limitation scheme and recovering from mode 3? In particular do you agree that it is appropriate to distinguish the capability to reset the CLS between domestic and commercial/industrial installations? An alternative would be to make a distinction between fully type tested CLSs and those which are not fully type tested; the WG would be interested in views on this.	
Q7	Do you agree with the design limits? Do you support the thresholds proposed?	The proposals are currently too prescriptive for small domestic installations, where we believe the risk of extended excursions is currently overstated and undermining the benefits such systems can provide to grid.
Q8	Do you support the approach to communication media? Do you agree with the suggested approach to cyber security? Given this is a developing area we would particularly like to hear from manufacturers and installers on this point.	
Q9	Do you have any comments on the requirement to monitor the integrity of the secondary circuit of the current transformers used?	.
Q10	Do you support the approach proposed for multiple limitation devices installed in a single premise?	
Q11	Do you have any comments on the proposals for domestic installations?	

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	Question	Response
Q12	Do you have any comments on the proposed type testing regime?	
Q13	Is there the right balance of principle and detail in Section 5 on testing? Do you have any detailed comments on how testing should be prescribed?	We are concerned that the proposals will make the testing & commissioning procedure highly onerous, and the manufacturer will need to provide a test mode, a Mode 4 protection override feature, to allow testing to be completed without invoking the lock-out mode. This will add both costs and complexities to systems.
Q14	If you have any detailed comments on the proposed drafting, please provide those comments in the proforma provided, or by marking up the consultation draft of G100.	We raise concerns that insufficient time has been provided for manufacturers and installers to understand the impact of these proposals. Further consultation is required with manufacturers to understand the implications, including for domestic and small business installation, where these requirements are particularly expected to be excessive.

Please provide comments relating to the specific technical content of the proposed modifications[1]

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

[1] Add more rows if required

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