

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	<i>Richard Earl</i>
Company Name	EO Charging
No. of DCode Stakeholders Represented	1
Stakeholders represented	<i>EO Charging</i>
Role of Respondent	<i>Manufacturer of Load Limiting equipment for EV charging stations</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

Distribution Code Consultation Response Proforma

	Question	Response
Q1	Do you agree with the general intent of the proposed modification? If not, please explain your views.	<p>Yes & No.</p> <ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> ○ The principle of limiting the import.power to protect the site fuse ○ Additional communication mediums between components e.g. wireless • No <ul style="list-style-type: none"> ○ Mandated Type Testing ○ The definition of the limiting requirements in this distribution code rather than as part of the wider UK roadmap on smart charging and smart grids
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?	<p>No.</p> <p>The definition of the four modes are directly linked to the smart charging requirements being considered under the PAS 1878/1879 and the EV Energy Taskforce. Therefore these requirements should not be part of the distribution code but rather considered as inputs to the overall smart charging requirements. We don't want to end up in the scenario where there are conflicting requirements between the various parties. Who would take priority in these scenarios.</p>
Q3	Do you agree that the proposed modifications satisfy the applicable Distribution Code objectives? If not, please explain your concerns.	<p>No.</p>
Q4	Do you support the formal description of the modes of operation and the migration between them?	<p>Within the EV community, modes 1,2,3,4 have very distinct meaning as defined in 61851-1. Mode 1&2 are essentially charging from granny leads, Mode 3 is AC charging and Mode 4 is DC charging. The adoption of the term Mode will probably cause confusion.</p> <p>Additionally, these four modes need to defined in conjunction with the wider work covered under the EV Energy Taskforce. There needs to be a cohesive implementation across the entire</p>

Distribution Code Consultation Response Proforma

	Question	Response
		ecosystem to ensure that customers have the right experience. We can't have the scenario where two different components of the charging ecosystem are fighting each other due to conflicting requirements and I can see great potential for that happening here.
Q5	Do you agree with the fail-safe approach, and with the excessive mode 2 operation criteria? If not, would you propose different criteria?	<p>No</p> <p>What happens when you have multiple different Load Limiting devices? If device A causes the site limit to be breached then what happens to Device B, C, D etc.</p> <p>10min between – what if it is a result of multiple devices – the scenario is that the system will trip, the customer will turn on the devices again then then trip again. If the devices are then locked out this is going to be a very bad experience for the end customer</p> <p>What happens if a mode 2 event happens that isn't the fault of the device being limited e.g. the house exceeds it's import limit (e.g. power shower, sauna,...) and the EV is not plugged into the ev charger. Do the rules apply to the EV charger? i.e. if the customer plugs in then is the charging limited because the house previously tripped the limits?</p>
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.	<p>No. In a domestic scenario we should not block a customer from charging their EV. We must give them the option to turn everything down/off and then plug in. Customer rely on their EVs to get to work and we cannot create scenarios where we actively block this.</p> <p>If we make it inconvenient (e.g. they have to physically reset an RCD) then that will encourage them to get the system resolved but we cannot prevent them from charging. From our experience, customers are very happy call us when there are problems with the installation.</p> <p>What requirements document would the limiting device be type tested against? We sell charging stations with integrated load limiting functionality. Therefore they are already tested</p>

Distribution Code Consultation Response Proforma

	Question	Response
		against the EN 61851-1 standard but to what standard would the load limiting functionality be tested against? Which test houses would be accredited to perform this testing?
Q7	Do you agree with the design limits? Do you support the thresholds proposed?	<p>No.</p> <p>As above we cannot prevent people from charging if it is safe to do so. We can interrupt charging temporarily but if the site is within it's import limits then we can't block charging for several days until an installer has been out.</p> <p>Also these requirements mandate the use of an "installer mode" or equivalent which makes certain functionality available only to the installer. This creates additional cost and complexity because the system has to accommodate multiple user types and different access rights</p>
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.	<p>Communication Media – Yes – the introduction of wireless communication topologies is important and warmly welcomed</p> <p>Cyber security – In principle yes but we need to ensure that we can still have the ability to put a CT clamp at the end of a 100m cable. We can't prevent this topology from being accepted. Looking at the ETSI 303645 standard it is clear that there are some requirements on the devices themselves and other requirements on the device operators. It should be clear what aspects of the standard are being applied to the device and what parts are being applied to the other parties (DNO, CPOs,...)</p>
Q9	Do you have any comments on the requirement to monitor the integrity of the secondary circuit of the current transformers used?	The ability to monitor the CT clamp is to detect one of three states: Normal operation, open circuit or closed circuit. It is not possible to detect open/closed circuit without additional electronics on the control unit. This would take time to roll into the product development roadmap and would unlikely to be done by Sept2022.
Q10	Do you support the approach proposed for multiple limitation devices installed in a single premise?	As pointed out above, the practical results of multiple limitation devices will cause headaches for consumers – which device tripped out, what happens to the other devices when they trip out, will the devices compete/hunt/oscillate for power?

Distribution Code Consultation Response Proforma

	Question	Response
		<p>It needs to be clear who is the master/parent device and who are the children devices. Also the requirements around this topic need to be formalised.</p> <p>Again, without repeating trying to repeat myself, this is the sort of scenario that should be managed by the EV Task force.</p>
Q11	Do you have any comments on the proposals for domestic installations?	<p>Does this apply to single phase and three phase domestic installations?</p> <p>Again domestic installations need to be considered as part of the PAS1878/1879/EV Taskforce discussions</p>
Q12	Do you have any comments on the proposed type testing regime?	<p>It needs to be clear what specification is being used for the type testing. This is not clear from the requirements. Who will be certified to perform this testing? Who will pay for the certification costs? Will there be guarantees that the certified test results will be accepted by all DNOs?</p> <p>Why would a manufacturer need to type test if there is the option of self declaration</p>
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?	<p>My concern of the test regime is the additional time it takes for the installation and the cost increase this would have with an installation. The installer wants to install the kit and go, additional testing would prove time consuming.</p> <p>The onsite tests should be the bare minimum. Once a device has been accepted by the DNOs once, then the subsequent installations should be as brief as possible.</p>
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.	<p>“The Customer is responsible for demonstrating that any CLS installed in the Customer’s Installation complies with the requirements detailed in this document.”</p> <p>I would say it is the responsibility of the installer to prove compliance rather than the customer/dwelling owner who will not have the technical knowledge to prove otherwise.</p>

Distribution Code Consultation Response Proforma

Please provide comments relating to the specific technical content of the proposed modifications¹

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