DER Technical Forum – Open Issues



Item	Raised by	Date	Org	Issue summary	Current comments.
112	Stephen Somerville	30/05/21	SPE	Registered Capacity – the accommodation of the reactive power flows and effect on registered capacity	This is an issue that does re-appear from time to time. We have attempted to deal with it in the past in issues 40, 80 and 83.
					We went through it with slides at the 7 June 2022 DER TF. DNOs have summarized how they specify maximum capacities and power factors in their connexion agreements (see meeting slides)
					We propose that we incorporate the material from the 7 June 2022 meeting into the next version of the DG guides
	Stephen Somerville	30/05/21	SPE	The treatment of the effects of frequency excursions on power quality in terms of the effects from storage with frequency response contracts	This is a good point, and one that probably would benefit from a consistent consideration by DNOs.
113					It might be sensible to base the frequency on the observed incidence of frequency excursions, over the last 18 months say, that trigger a specific level of response from such services. The response level might be set locally, and the P28 "frequency of event" set by the historic track of frequency excursions triggering that level of response. This can be calculated from the information NGESO publish monthly.
					This should be picked up as part of ongoing work to develop a common approach to BESSs between the DNOs.
					However, note that in the BESS discussions on 18/11/21 it was pointed out that the 3% limit essentially applies at any time once the transients have died away, so for BESS power swings the 3% probably applies in all cases, irrespective of frequency of event.
114	Matthew Porter	30/06/21	PSE2	P28 voltage step change interpretation for storage responding to frequency excursions	To be picked up as part of the work on developing common approaches to BESS installations,
122	Roger Marlow		Arcadis	I represent a UK water industry working group responsible for the development and maintenance of electrical specifications. During recent work to update a specification for low voltage diesel generator sets, I was asked by the group to lobby the ENA technical committee responsible for G99 to consider relaxing the following clause in EREC G99: 7.3.3.1 parallel operation	7.3.3.1 The Power Generating Module may be permitted to operate in parallel with the Distribution Network for no more than 5 minutes in any month, and no more frequently than once per week. If the duration of parallel connection exceeds this period, or this frequency, then the Power Generating Module shall be considered as if it is, or can be, operated in long-term parallel operation mode. An alternative frequency and duration may be agreed between the DNO and the Generator taking account of particular site circumstances and Power Generating Module design. An electrical time interlock should be installed to ensure that the period of parallel operation does not exceed the agreed period. The timer should be a separate device from the changeover control system such that failure of the auto changeover system will not prevent the parallel being broken. Notice that the highlighted text already allows for an agreement between the DNO and Generator to agree an appropriate testing regime, subject to there being a valid reason to do so. An alternative would be to fit full LoM protection and address any relevant points from 7.3.3.4, in which case the PGM would be treated as LTP. To be reviewed as part of the next update to G99.
126	Philip Bale	07/09/22	UB Grid Consultancy	Difficulties caused by DNOs not holding sufficient information from existing applications to complete a new NGESO modification application.	The timing of the provision of data is prescribed in DPC1 of the Distribution Code – needs review to see how this suggestion might be accommodated. Following a meeting between Philip and DNO experts from NGED and Electricity North West it is suggested that it is suggested that Part 4 of the SAF becomes mandatory. Update 03/11/23 – the DNOs now think that parts of Part 4 might be inappropriate to be mandatory – to be reviewed further.
127	Stephen Sommerville	15/09/22	Aurora Energy	P28 compliance for load rejection and the stage of a project when these assessments must be done.	It is appropriate (and necessary in P28) to consider outages. To be investigated further as part of the refinement of BESS processes.126
128	Matthew Porter	26/06/23	PSE2	A query about the clarity of fast fault current injection requirements.	Awaiting feedback from Mr Porter
129	Aaron Thompson	(29/09/23)	Innova	Our issue is specifically regarding Type C PPMs. We have a number of Type C (solar) sites across different DNOs. Looking at G99 section 18.2 there is no EON or ION in the connection process for Type C PPMs, and	Suggested that a new clause is introduced into 17.3.6 and 18.3.6: "To aid completing the necessary tests, and to allow the interim export of energy for the Generator's commercial purposes, at the discretion of the DNO, the DNO and the Generator may agree an interim

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				to achieve FON we need to complete tests that require at least 65% (full voltage control) or 85% (reactive power and frequency response tests) of the maximum export capacity to be generated. For solar sites that energise over the winter months, it is unlikely that they would have such irradiation needed to achieve the required export to complete those tests until spring/summer the following year. For Type D PPMs there is the ION to cover this type of situation and allow export during this period until testing can be completed and FON achieved.	operating regime pending completion of all the necessary tests and data submission. In such cases the provisions of Section 18.4.3 shall be respected and Section 19.3 shall be used as a guide to the formality required."
				Having discussed this with other developers there seems to be a consistent inconsistency. We have had varying processes for achieving FON from different DNOs as well as confusion and variance within the DNOs. I outline two examples:	
				1. DNO A issues a Nil Export Connection Agreement (export allowed for testing purposes only) and following all the tests that could be completed at the time, issued an ION and vary the Connection Agreement to allow full export. Following successful completion of the outstanding compliance tests the FON is then issued. This approach seems a pragmatic approach.	
				2. DNO B have stated that they require FON to be completed before they will counter sign the Connection Agreement and allow full export. This leads to a lot of confusion and questions over how we are going to be able to complete the testing which requires connection to the network and export without a Connection Agreement in place – they won't offer a Nil Export initially but only the final Connection Agreement with the full requested Export Capacity. Further, this will result in our site that is due to energise in December, not being able to export until March/April when we have the required irradiation to complete the remaining testing and achieve FON.	