

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	<p>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.</p> <p>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)</p> <p>We propose that we incorporate the material from the 7 June 2022 meeting into the next version of the DG guides</p>
113	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	<p>This is a good point, and one that probably would benefit from a consistent consideration by DNOs.</p> <p>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 NGENSO publish monthly.</p> <p>This should be picked up as part of ongoing work to develop a common approach to BESSs between the DNOs.</p> <p>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.</p>
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,
126	Philip Bale	07/09/22	UB Grid Consultancy	Difficulties caused by DNOs not holding sufficient information from existing applications to complete a new NGENSO modification application.	<p>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.</p> <p>Following a meeting between Philip and DNO experts from NGEN and Electricity North West it is suggested that it is suggested that Part 4 of the SAF becomes mandatory.</p> <p>Update 03/11/23 – the DNOs now think that parts of Part 4 might be inappropriate to be mandatory – to be reviewed further.</p>
127	Stephen Somerville	15/09/22	Aurora Energy	P28 compliance for load rejection and the stage of a project when these assessments must be done.	<p>It is appropriate (and necessary in P28) to consider outages.</p> <p>To be investigated further as part of the refinement of BESS processes.126</p>
129	Aaron Thompson	(29/09/23)	Innova	<p>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 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.</p> <p>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:</p> <p>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</p>	<p>Suggested that a new clause is introduced into 17.3.6 and 18.3.6:</p> <p>“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 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.”</p>

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				<p>compliance tests the FON is then issued. This approach seems a pragmatic approach.</p> <p>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.</p>	
130	Edita Burke	09/02/24	ABP	<ol style="list-style-type: none"> 1. Do DNOs have any advice on how to challenge the current CUSC wording in relation to the criteria determining when a SoW is required? Are there any other forums where these issues could be discussed and progressed? 2. Diversity assessment of complex sites <ol style="list-style-type: none"> a. Does the company (DNO) have a formal policy on how to assess the diversity of demands and generation on complex sites when assessing new applications for that site? b. If so, is it published? Where? 3. Generation/Site curtailment <ol style="list-style-type: none"> a. Under what circumstances do you install equipment that can trip either a customer's generation? Or the customer's whole site? b. Under what circumstances could the latter apply? Is this approach published? Where? c. Where the company use the facilities installed in accordance with G99 11.1.3 or 12.1.3, or if the site is intetripped, what are the rules the determine which sites are affected and in which order? Are these published? d. What information does the company have to produce to the customer in relation to the likely volume and incidence of use of any of the above curtailment? 4. Combination of applications – <ol style="list-style-type: none"> a. under what circumstances does the company combine applications for quotations from different, or even from the same, customer? b. Can customers provide their own P28 and G5 studies and assessments? c. Are there published rules on this? If so, where? 5. Fault levels <ol style="list-style-type: none"> a. Fault level problems can lead to very long lead times for connexion. What is your company doing about this? 	Issues raised with DNOs

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				<p>b. Are there any technology solutions that can be deployed?</p> <ul style="list-style-type: none"> i. On the DNO side, is your company considering Industrial Internet of Things (IIoT) technologies similar to export limiting and ANM requested from customers to monitor and control activities in your substations? ii. What technologies could be adopted by customers to reduce fault current contribution from generation and storage assets? <p>6. Batteries</p> <ul style="list-style-type: none"> a. Possibly an extension of 2a above, but does the company always treat generation and storage output as 100% additive when usually they will be substitutional? b. What mitigations exist to avoid treating the output as additive? c. Would an approach where customers would commit to storage trading strategies linked to site's demand, generation and potentially fault current levels enable faster transition to net zero? Such strategies could be subject to witness tests as export limiting and ANM solutions are. Storage would in essence be relying on the same type of technology as export limiting/ANM/intertipping to ensure reliability. <p>How can your company signal to developers etc where there are beneficial sites for siting or co-locating storage?</p>	
131	Damon Roberts	07/10/24	Harksys	A number of queries regarding the interpretation of G99m, but with particular focus on the flexibility of requirements for reverse power and/or overload protection.	DNOs seeking further views from stakeholders and will then consider updating the existing guidance note.
132	Chris Marsland	07/10/24	Brigham Hart	<p>Brigham Hart would like:</p> <ul style="list-style-type: none"> • An update on the NIA funded EDGE-FCLi project between NGED (WPD) and GridON • An update on progress in moving to BaU since publication of final report in June 2022 • Is there anything delaying adoption • To know the position of other DNOs on this and other fault current limiting technology • To understand the ENA's engagement in adoption or approval of this technology? 	Under research by stakeholders and DNOs
133	Lukasz Bochinski	07/10/24	UKPN	<p>The current wording is:</p> <p>7.6 Type A Power Generating Module capacity for single and split LV phase supplies</p> <p>7.6.1 The maximum aggregate capacity of Power Generating Modules that can be connected to a single phase supply is 17 kW. The maximum aggregate capacity of Power Generating Modules that can be connected to a split single phase supply is 34 kW.</p>	Agreed that this should be placed in the list of housekeeping modifications to be made at the next available opportunity.

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				<p>This wording is derived verbatim from the 2008 publication of G59. It is not really in line with the approach taken in recent years where G100 is used to control the export to the system.</p> <p>The limits of State 2 in G100 would appear to be entirely appropriate in all these cases.</p> <p>7.6.1 could be rewritten thus:</p> <p>7.6.1 The maximum aggregate capacity of Power Generating Modules that can be connected to a single phase <u>supply without the use of a EREC G100 export limitation system</u> is 17 kW. Similarly The maximum aggregate capacity of Power Generating Modules that can be connected to a split single phase supply <u>without the use of a EREC G100 export limitation</u> system is 34 kW.</p>	