

**Workgroup Consultation Response Proforma****GC0151: Fault Ride through process**

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses to [grid.code@nationalgrideso.com](mailto:grid.code@nationalgrideso.com) by **5pm on 16 August 2021**. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

If you have any queries on the content of this consultation, please contact **Nisar Ahmed**, [Nisar.Ahmed@nationalgrideso.com](mailto:Nisar.Ahmed@nationalgrideso.com) or [grid.code@nationalgrideso.com](mailto:grid.code@nationalgrideso.com)

Respondent details	Please enter your details
<b>Respondent name:</b>	Garth Graham
<b>Company name:</b>	SSE Generation
<b>Email address:</b>	garth.graham@sse.com
<b>Phone number:</b>	01738 456000

**For reference the Applicable Grid Code Objectives are:**

- a) *To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity*
- b) *Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);*
- c) *Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;*
- d) *To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and*
- e) *To promote efficiency in the implementation and administration of the Grid Code arrangements*

**Please express your views regarding the Workgroup Consultation in the right-hand side of the table below, including your rationale.**

Standard Workgroup Consultation questions		
1	Do you believe that the GC0151 Original Proposal better facilitates the Applicable Grid Code Objectives?	Yes, for the reasons we detailed in the Proposal form (which for the sake of brevity we avoid repeating here).
2	Do you support the proposed implementation approach?	Yes, for the reasons we detailed in the Proposal form (which for the sake of brevity we avoid repeating here).
3	Do you have any other comments?	<p>We are mindful of the very recent example of an FRT event at Heysham on 22<sup>nd</sup> July<sup>1</sup> 2021 which, we understand, resulted in circa 1,30MW of Transmission connected plant apparently co-incidentally tripping off / de-loaded along with circa 250MW of Distribution connected plant that also apparently co-incidentally tripped off / de-loaded.</p> <p>It would seem, from the information the ESO has so far provided to stakeholders (via the Operational Transparency Forum on 4<sup>th</sup> and 11<sup>th</sup> August 2021) that this maybe a 'live' example of what would have happened had either the Original or the ESO suggested alternative been in place.</p> <p>As we understand it, the ESO has taken over two weeks after the initial Heysham event to confirm that the fault on the transmission system resulted in voltage changes that was out-with the Grid Code tolerances that a User would have had to stay on – therefore the plant that tripped / de-loaded following that Heysham event did so fully in compliance with their Grid Code obligations.</p> <p>With the Original solution all Transmission connected plant with a FON would (in that 'live' example, had it occurred post the implementation of GC0151) have remained available for some weeks in order to both provide services to the ESO as well as providing competition in the marketplace whilst those with an ION would have been able to also</p>

<sup>1</sup> Slides 15-18 at the 4<sup>th</sup> August 2021 ENCC Operational Transparency Forum  
<https://data.nationalgrideso.com/backend/dataset/b3c55e31-7819-4dc7-bf01-3950dccbe3c5/resource/12f02484-fa28-453a-844f-67cd77b796cb/download/ngeso-transparency-forum-21-08-04-vfinal.pdf>

provide some of their capability to the ESO/marketplace whilst the investigation was on-going.

However, with the ESO suggested alternative (again with the same 'live' example) this may not have been the case as they would have been held off if they could not have provided to the ENCC the information which (it would seem) the ESO has but wishes to place an obligation on the User to nevertheless provide to the ESO within two hours.

Or, to put it another way, the ESO assumes the User is guilty until the User has proven they are innocent even though, in some cases, the ESO may have access to the information showing this not to be the case and that the User was thus innocent – indeed in some cases involving its related corporate activities it would appear that the ESO checks that data real time post a fault type situation: but the ESO does not appear to do this for some other Users (who lack the corporate interrelationship with the ESO).

Notwithstanding the above, we note that the situation with respect to showing FRT compliance for Distribution connected assets remains both unclear and, according to the ESO's own arguments, this could lead to higher levels of reserve having to be held by the ESO (to cover for the increased risk of non-compliance with FRT requirements from D connected assets) the cost of which falls upon BSUoS payers and thus upon Transmission connected Users.

We note that a Distribution Code Modification consultation was issued late last week for "*DCRP/MP/21/05 [title] Distribution Code Compliance – Modification to introduce a Distribution Code compliance process*".

Upon initial examination it appears that this proposal does not address the FRT concerns that the ESO has set out in its 7<sup>th</sup> May 2021 letter and we would like to understand what urgent steps the ESO is planning on taking to address the material effect of non FRT compliance on the Distribution system; as for example, seems to have been shown in part by

		the effect on 250MW on the 22 <sup>nd</sup> July Heysham FRT event noted above.
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	No.
<b>Specific GC0151 Workgroup Consultation questions</b>		
5	Do you have any comments on the Process to be followed after a suspected fault ride through failure?	We believe that the process set out in the business rules for the Original afford the best outcome for Users and the ESO after a suspected fault ride through failure as they ensure that plant and apparatus (including network assets) are not unduly withheld from the ESO and the marketplace.
6	Do you have any comments on the required sharing by the ESO of largest infeed loss information?	<p>We support requiring the ESO to share this information with Users (which the ESO was initially reluctant to do) and we now understand from Elexon that it is already in the public domain.</p> <p>It would seem that Users might be able to infer the number from interconnector constraint information but this will be an inference performed by each User, which may therefore not be correct - it would be far better for all concerned to have the actual number in the public domain.</p>
7	Do you have any comments on the sharing of user lessons learned information (including any information from Fault Data/Recorders)?	<p>As with post event incident reports in the aeronautical sector, sharing this non-confidential information with your peers allows everyone to learn from each other and to all improve as a result. This, in our view, is in the best interest of all consumers as well as Users: or to put it another way – why hide this information: to what benefit?</p> <p>In our view, as with the 9<sup>th</sup> August 2019 event (and indeed the August 2003 event) it is clearly possible for the ESO to summarise the nature of the cause, such as software update or incorrect protection settings etc., and share this expeditiously with Users so that all can learn and improve – otherwise we are (collectively) never going to learn the lessons of history and we are thus (collectively) apt to repeat our mistakes over and over again.</p>

		<p>As with the aeronautics sector we need to follow the ‘<i>no blame culture</i>’ by encouraging (not penalizing) those who divulge (non-confidential) information that is helpful to others.</p>
8	<p>Do you have any comments on the sharing of information by the ESO on faults (with or without identified FRT issues)?</p>	<p>As we set out in our answer to question 7 above, we support the sharing of this information – the question should be what benefit is there in not sharing this information? Who gains from secrecy of this information? In our view no one does.</p> <p>As has been identified by the ESO in its presentation to stakeholders, an FRT event can (according to the ESO) cause plant up to 250 miles (400KM) away to co-incidentally trip off or de-load.</p> <p>Without the timely sharing of this information, by the ESO, with stakeholders then how, for example, is a generator or an interconnector at, say, Medway to have known (in a timely manner, such that they can act upon the information in a manner conducive to helping the system) of the 22<sup>nd</sup> July Heysham FRT event?</p> <p>Furthermore, we note that all generators connected in the past six years or so have been required to install (at a cost of approximately £70k per installation) dynamic system monitoring equipment which is designed to provide analysis of a site’s response to a fault and thus provides the ESO with the necessary information to understand what has actually happened in the event of a fault.</p> <p>However, we understand that the ESO appears not to have (by design or default – we know not which) remote timely access to this DSM information and therefore the ESO is not using all the tools at its disposal to better understand and operate the system in an efficient and cost-effective way as possible.</p> <p>Notwithstanding the above, if the ESO continues to decline to make use of this DSM information we would humbly suggest that the cheapest option for consumers is to take steps to remove the obligation on parties to install and maintain an information capability for which the ESO (it would seem) has no desire to see or use.</p>

9	The proposal sets out the time to investigate by the User et al. Do you believe this time is appropriate or not? Please provide your rationale	Yes, the time suggested in the Original is appropriate. As per the recent Heysham FRT events, it took a number of weeks for the ESO itself to identify the cause of the event, so to always require just two hours for a User to identify the issue is, based on the Heysham examples, wholly impractical and unduly burdensome.
10	The proposal sets out the MW threshold. Do you believe this is appropriate or not? Please provide your rationale	<p>The 100MW was chosen as an appropriate threshold balancing the impact of the User of the system against the obligations the generator would have on FRT so, for example, smaller generator will have a lower impact and some pre-RfG generators below 100MW will not have any codified FRT requirements.</p> <p>This approach also avoids discrimination between generator types of the same sizes.</p>
11	The proposal sets out the level of the forced constraint. Do you believe this is appropriate or not? Please provide your rationale	<p>Yes, the degree of constraint as set out in the Original is appropriate. It is a balance of the impact on the system whilst also being an appropriate incentive for the User to quickly investigate and fix any fault whilst also recognising the likelihood of the User having an FRT non-compliance problem is lower based on the time it has been operating.</p> <p>Note also that the constraint applies <b>whilst the investigation is occurring</b>: the alternative is to constraint output to zero which is a punitive approach where (as shown with the recent Heysham event) one is not warranted.</p>
12	Do you believe that the methodology should apply differently to projects in receipt of an ION or a FON?	Yes, as they have demonstrated different levels of Grid Code compliance. In our proposal the ION and FON are proxies for operational experience. Generators who are on the system for many years will have seen 'normal' faults occurring and thus will have seen and rode through such faults when compared with an asset in receipt of an ION.
13	Should the ESO have the ability to constrain a User suspected of FRT failure ahead of further investigation?	No. As the recent Heysham examples shows, it can take weeks just to get the data from the ESO as to what happened on the TO system, let alone what might have happened at the generator or interconnector (which maybe that they have in fact complied with the Grid Code). Therefore, it is

		<p>possible that the ESO would unnecessarily and unfairly constrain Users who were in fact compliant with their Grid Code obligations.</p> <p>We note at the time of writing that the ESO has still to provide a report from its investigations into the recent Heysham FRT events to stakeholders, thus impeding opportunities for Users and Network Operators; like generators and interconnectors; to learn from what happened.</p> <p>We have reflected upon the Workgroup deliberations (and will also carefully consider the responses to this Workgroup consultation).</p> <p>In light of those discussions to date (and perhaps the consultation responses?) it may be appropriate to consider amending the business rules for the Original to reflect that where, in exceptional circumstances, the plant or apparatus of a User or a Network Operator's asset co-incidentally trips or de-loads <i>again</i> following a subsequent FRT incident in close (time) proximity to the first FRT incident <b>and</b> the User / Network Operator / ESO believes (when exercising Good Industry Practice) that the asset in question should have ridden through both faults then, in that case (of a double failure in short succession) the ESO should have the ability to constrain the User's or Network asset (and we are prepared to consider amending the Original accordingly).</p>
14	<p>In respect of the voltage wave form data, should the Grid Code prescribe or not the format in which that data is to be provided? Please provide your rationale.</p>	<p>It should be in machine readable format.</p> <p>COMTRADE is a standard format for wave form data but may require Users to access the requisite software, so this may require further investigation.</p>
15	<p>In respect of the constraint limitation to be applied to affected parties, should this be set within a range or a fixed value? If so, what do you believe that to</p>	<p>Having considered further the Workgroup discussions to date (and subject to response to this Workgroup consultation which we shall carefully consider) we agree that it would seem appropriate to be set at the historic Stable Export Level or the constrained value as per the proposal of 70% of capacity (whichever is lower).</p>

	be. Please provide your rationale.	
16	Would you agree that a generator should continue to operate if there was a derogation required?	Yes, we do as this ensures a consistency of approach with, for example, Network Operator assets and interconnectors.
17	Do you believe that generators operational history should be taken into account when deciding upon the constraint level whilst an investigation is taking place?	Notwithstanding what we say above, yes as it could show that a generator (or interconnector) had previously ridden through a fault while constrained to a lower output.
18	Do you have any comments on possible Alternative from the ESO as included in the consultation?	<p>It does not address the core concerns about the unreasonable impact on the User for the reasons that we have detailed in our answers above.</p> <p>A key question is how much constraint should be applied whilst an investigation is underway; is it zero 100% or something in between and in which circumstances does this apply. The ESO's alternative proposal does not address this question.</p>
19	Do you have any comments on the Strawman document on the FRT process?	We welcome the provision of the Strawman in aiding the Workgroup deliberations to date.

**Legal Text**