

<b>G-PST/ESIG Webinar Series: Operating the System Towards Zero Carbon</b>	
<b>Question</b>	<b>Answer</b>
<p>If a GFM device uses a PLL for synchronization, would it be found to be in violation of bullet point 2.1 on slide 7? or is the key word there 'Traditional'?</p>	<p>A Grid Following inverter uses PLL control, or a similar technology, that measures the phase angle of the AC Grid's voltages to rapidly change the phase angle of the inverter's Internal Voltage Source voltage to stop changes in the inverter's current by keeping the angle constant during AC Grid power transients.</p> <p>A Grid Following inverter has a high transient impedance after a phase jump angle change which stops the inverter from supplying Active Phase Jump power. As such a GFM device which uses a PLL in the way as described above would not meet the Grid Forming specification. The key word here is "transient" not "Traditional"</p>
<p>How did NGESO work out the required volume of service in Stability Pathfinder project? Have you procured the expected volume to secure the system by March 2035?</p>	<p>We have defined stability requirements considering various technical analysis of the GB system such as assessment of voltage performance during fault and immediately after fault clearance (retained voltage and TOV), assessment of short circuit ratios and inertia levels. Due to uncertainty in scenarios and modelling, we are defining system requirements expected within the next decade.</p>
<p>How would the inertia measurement values be benchmarked in consideration of the nature of inertia ?</p>	<p>We are working with the National Physical Laboratory (NPL), the UK's National Metrology Institute, to independently assess the two inertia measurement systems and enable a benchmark standard for Inertia Measurement to be established.</p> <p>As far as the nature of inertia, both systems should be able to measure the system inertia regardless of how it is provided.</p>