

**Assurance activities VS SQSS BAU**

Assurance Activity	Description	Parties Involved	Explanation of test	Question to WG?	WG view Impact on SQSS
Dead line Charge test	When planning a dead line charge test, consideration shall be given to the effect the test will have on <b>Customers</b> supplied from the part of the <b>Total System</b> that needs to be de-energised, including whether their supplies would need to be interrupted to undertake the test. Where possible, tests should be conducted to avoid interruption to <b>Customer</b> supplies however where this is not possible, alternative tests or computer simulation exercises can be agreed between <b>The Company, Relevant Transmission Licensee</b> (as applicable), the <b>Network Operator</b> (as applicable) and the <b>Restoration Contractor</b> . Where it is identified that routine testing cannot be undertaken which is critical to restoration of the <b>Total System</b> , from a strategic perspective, as a result of interruption to <b>Customer</b> supplies, consideration should be given to <b>System</b> reconfiguration where such a change is technically and economically viable which would be agreed between <b>The Company, Relevant Transmission Licensee</b> and <b>Network Operator</b> (as appropriate).	<b>Transmission Licensees</b> , relevant <b>Network Operators</b> <b>Anchor Restoration Contractors</b> and <b>The Company</b>	A dead line charge test is to demonstrate the Anchor Generating Unit's ability to charge a pre-defined dead part of the Total System and its ability to control the voltage on that part of the Total System.  Generator starts up and energises its substation then you will energise a transmission line to energise another substation, that section would be isolated before the test and made dead, they then energise the line to see the generators response, whether it can absorb the MVAR from the line and confirm the generator remains stable. A planned outage.	Should you want to create a dead section of the network could this affect the SQSS?	No
Remote Synchronisation test - TO/DNO	A remote synchronisation test would require the steps detailed in (i) – (iii) below to be undertaken. i) Start-Up of one or more of the Generating Units at the Anchor Power Station under normal operational conditions; ii) Re-energisation of a dead test section of the Total System as defined in the Local Joint Restoration Plan or Distribution Restoration Zone Plan as appropriate; and iii) Demonstration of the ability to synchronise to a section of the Total System at a location remote from the Anchor Power Station's Grid Entry Point or User System Entry Point (as the case may be).	<b>Relevant Transmission Licensees</b> , relevant <b>Network Operators</b> , <b>Restoration Contractors</b> and <b>The Company</b>	Usually they do a dummy remote sync, they do not physically close the circuit breaker to synchronise the test unit to the live system in case of any errors so as not to collapse the system.	Should you want to create a dead section of the network could this affect the SQSS?	No
<b>Anchor Restoration Contractor test</b>	Test in line with requirements within OC5.7.2 All Generating Units at the Anchor Power Station, other than the Generating Unit on which the Anchor Plant Test is to be carried out, and all the Auxiliary Energy Supplies at the Anchor Power Station, shall be Shutdown. (b) The relevant Generating Unit shall be Synchronised and Loaded. (c) The relevant Generating Unit shall be De-Loaded and De-Synchronised. (d) All external alternating current electrical supplies to the Unit Board of the relevant Generating Unit, and to the Station Board of the relevant Anchor Power Station, shall be disconnected. (e) Auxiliary Energy Supplies at the Anchor Power Station shall be started, and shall re-energise either directly, or via the Station Board or the Unit Board of the relevant Generating Unit. (f) The provisions of OC5.7.2.1 (e) to (i) in respect of the Generating Units in the Anchor Power Station shall thereafter be followed. (g) In respect of EU Generators, the above tests defined in OC5.7.2.2(a) – (f) shall be assessed against the requirements of ECC.6.3.5.3.	<b>Relevant Transmission Licensees</b> , <b>Network Operators</b> , <b>Anchor Restoration Contractors</b> and <b>The Company</b>	New terminology for test name as its new for restoration, however the primary service generation test is similar and has been performed with out impact to SQSS.	Do we think this will have an impact on the SQSS? This generator may not meet SQSS criteria but its under test conditions is that a problem?	No
<b>Top Up Restoration Contractor test</b>	Disconnect and shutdown the Top Up Restoration Service Provider from the Network and restart the plant and apparatus from shutdown following the restoration of an external electrical energy supply. Whilst the external electrical energy may be supplied from the network, rather than an anchor generator, it is important to ensure that this supply is monitored so it doesn't go beyond the capability of that anchor generator.	<b>Relevant Transmission Licensees</b> , <b>Network Operators</b> , <b>Top Up Restoration Contractors</b> and <b>The Company</b>	New terminology for test name as its new for restoration, however the primary service generation test is similar and has been performed with out impact to SQSS.	Do we think this will have an impact on the SQSS?	No
<b>Quick Resynchronisation Unit Test</b>	ECC.6.3.5.6 requires a quick resynchronisation capability and as part of this requirement if a power generating module has a minimum re-synchronisation time greater than 15 minutes it is required to have a trip to house load capability. Simulation Studies to demonstrate this are covered in ECP.A.3.6 and the actual test including trip to house load is undertaken through the OC5.7.  The relevant Generating Unit shall be Synchronised and Loaded; (b) All the Auxiliary Energy Supplies in the Anchor Power Station in which that Generating Unit is situated, shall be Shutdown; (c) The Generating Unit shall tripped to house load; (d) The relevant Generating Unit shall be Synchronised to the System but not Loaded, unless the appropriate instruction has been given by The Company and/or relevant Network Operator under BC2 which would also be in accordance with the requirements of the Anchor Restoration Contract;	<b>EU Generators</b> in respect of <b>Type C</b> and <b>Type D Power Generating Modules</b> , relevant <b>Network Operators</b> and <b>The Company</b>	This is a trip to house load test. It means the plant is de-energised to house load i.e. enough power to keep auxiliaries going and not a complete shutdown. A generator with this capability is able to return to service even quicker than the expected 2hrs.	Do we think this will have an impact on the SQSS?	No
Remote Synchronisation test - <b>Restoration Contractor</b>	A Restoration Service Provider or the action of a Distribution Restoration Zone Controller to re-energise a dead test section of the Network with the Network Operator. The Restoration Service Provider or Distribution Restoration Zone Controller, led by the Network Operator, then synchronises the Power Island on the test network area with the main power system.	<b>Relevant Transmission Licensees</b> , relevant <b>Network Operators</b> , <b>Restoration Contractors</b> and <b>The Company</b>	Restoration contractor coming online and synchronising to a system. Testing of the generator.	Do we think this will have an impact on the SQSS?	No