Appendix E – Dynamic Containment Test Certificate Template

Please use this Test Certificate format and submit to NGESO, along with the test data and CV of the ITE employed by the prospective response provider.

Prospective Response Provider Company Details

Contracted company name	
Primary contact name	
Contact number/s	
Email address	

Contract Details

Contract ID	
Service type	
Asset type, e.g. diesel generator, battery etc	
Unit make up, e.g. single or aggregated	*Describe here what is included in this test e.g. Single asset, group of assets, asset/s being assessed within an existing Unit.*
Aggregation methodology (if appropriate)	
Unit location / ID	
Do any assets associated with this report have a condition in their DNO connection agreement whereby they are signed up to an Active Network management (ANM) Scheme / Flexibility Connection? If yes, please ensure contracted party speaks to their ESO account manager.	
Contract signed date	
Service start date	
Test date	

Dynamic Service Details (*example here is for a 5MW Unit*)

Deadband	±0.015Hz
Response / MW	5

Test Results

Further relevant test description/commentary here

Test	Pass Criteria	Pass/Fail	Comment
1.1, 1.2	No delivery within deadband. Where there are any non-zero values here these need to be explained by the ITE in the test report using the comments field.		
1.3,1.4	For Test 1.3 and 1.4 a noticeable change in active power in the correct direction is all that is required.		
1.5-1.12	Active power response within each 3 minute timescale remains within tolerances.	Pass	Note result here (See Figure …)
1.5-1.12	~~Delay in~~A response following a change of frequency should occur before~~is between 0.2 and~~ 0.55 seconds.		
1.5-1.12	Delivery of active power due to a change in frequency is achieved in the required timescale	Pass	
1.5-1.12	The Unit should monotonically progress to its required response	Pass	
2.1 2.2	Active power response is within the allowed tolerances.	Pass	Show in figure below with tolerance bands overlaid.
3	Response is sustained for 15 minutes	Pass	Refer to figures
3	The standard deviation of load error at steady state over a 900 second period must not exceed 2.5% of the maximum contracted active power.	Pass	Standard deviation is assessed from 1 second until 900 seconds after the frequency step.
4	Provide an active power response consistent with the contracted performance timescales.		Figure should show the active power following frequency as expected.
	Overall Test Result		

Test Result Graphs

Plot frequency injection and active power response vs time for each test.

Figure 1 – Test 1 Active Power Response

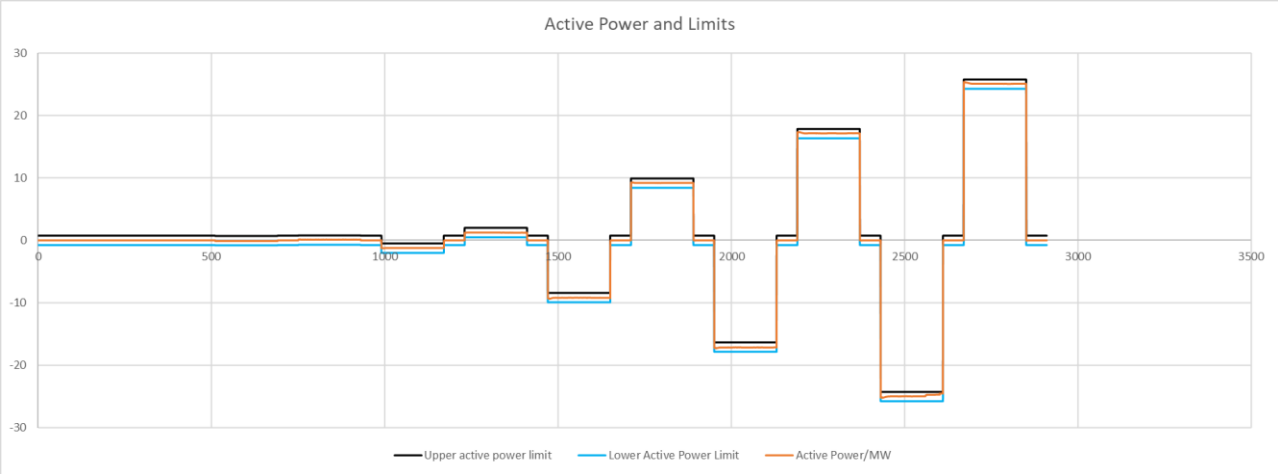


Figure 2 – Test 1.1

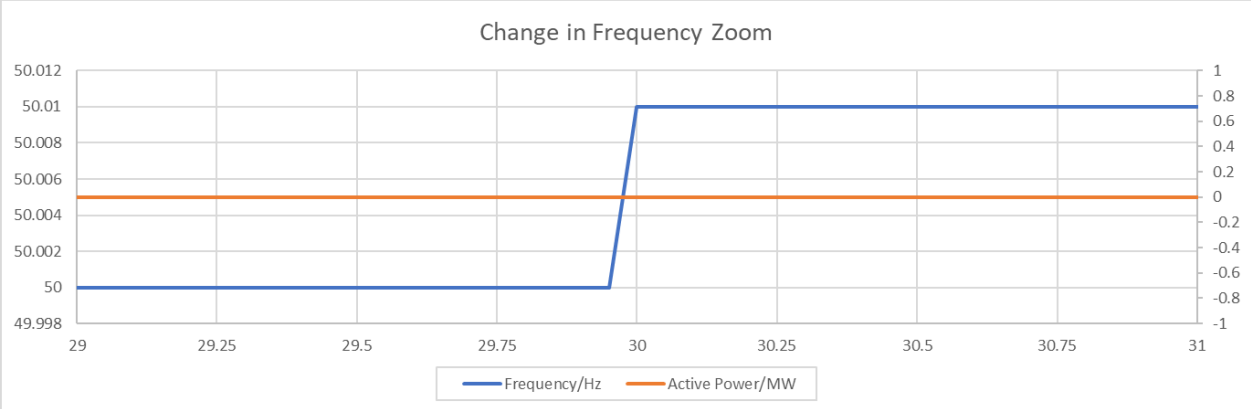


Figure 3 – Test 1.3

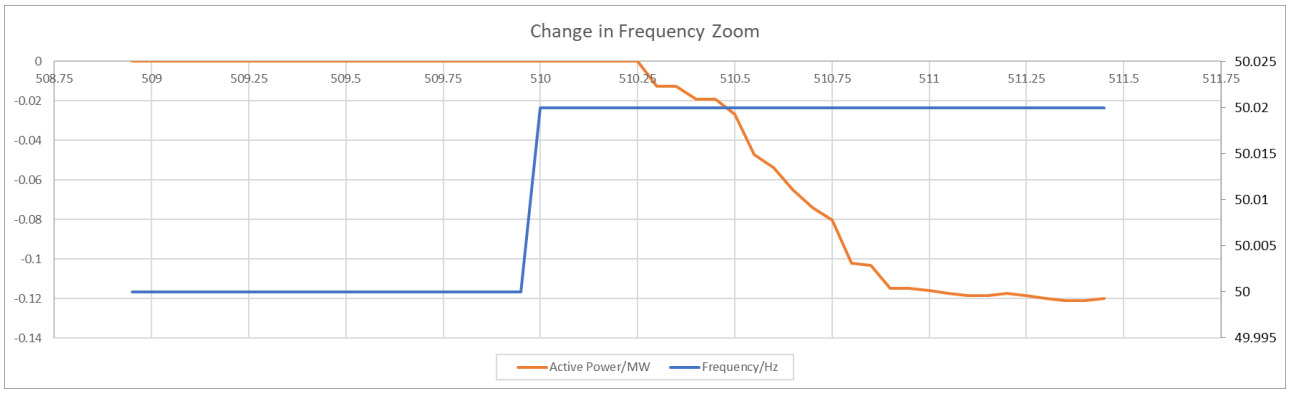
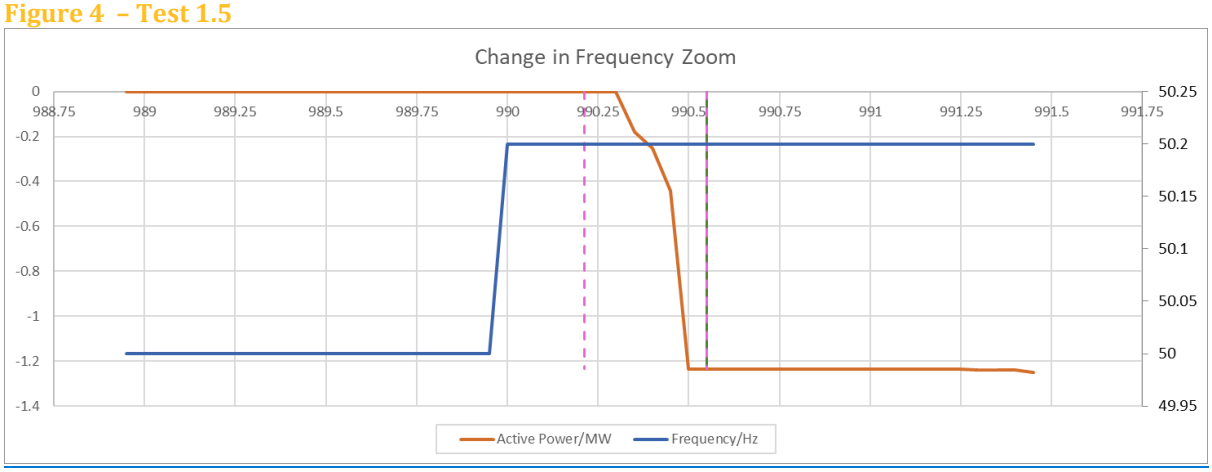


Figure 4 – Test 1.5



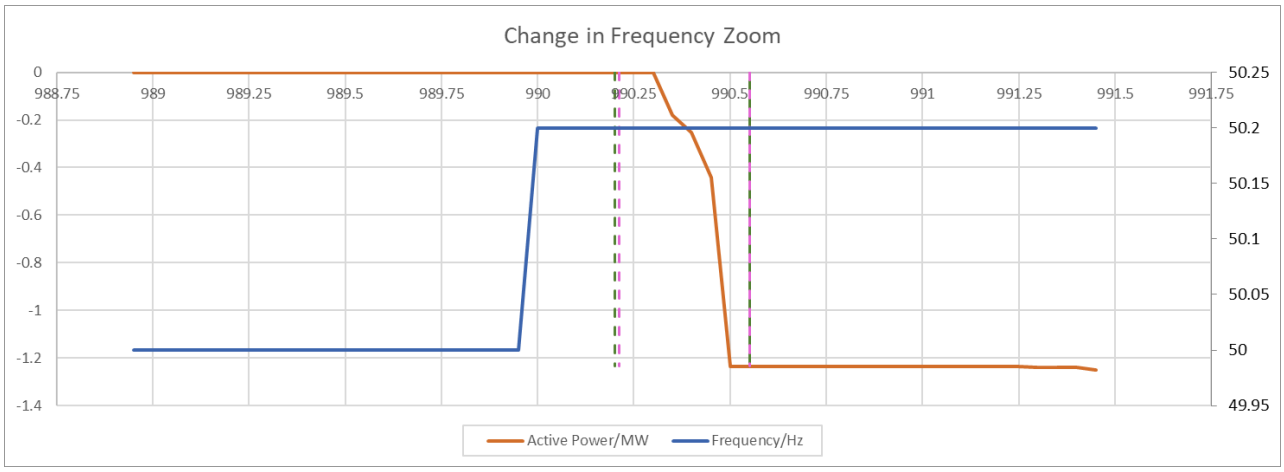
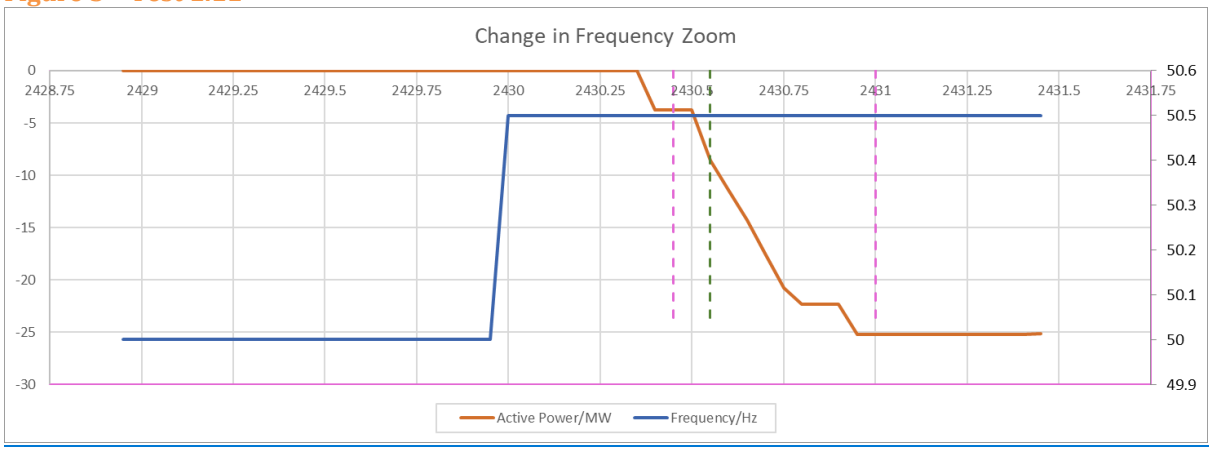


Figure 5 – Test 1.11



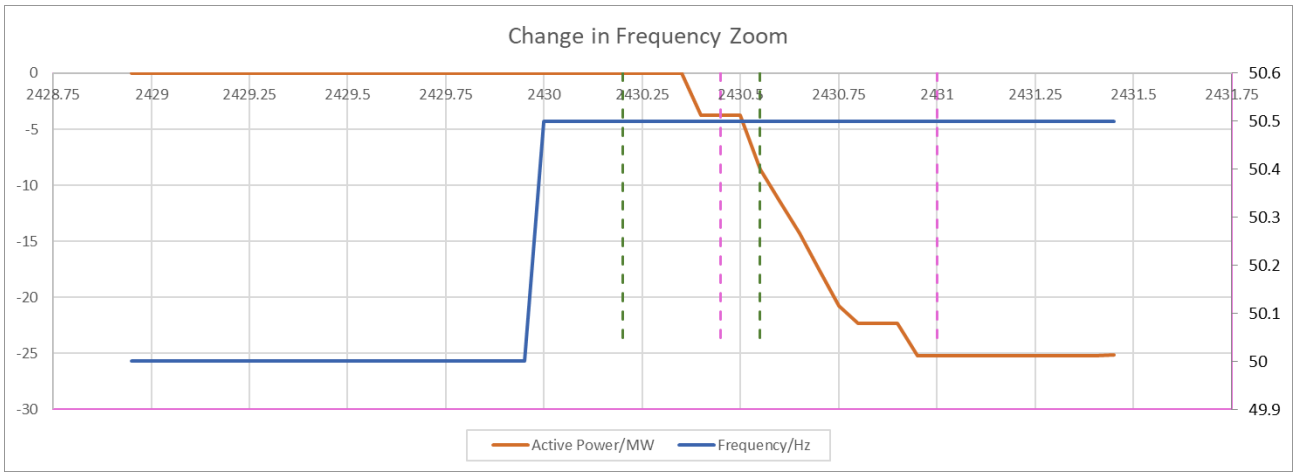


Figure 6 – Test 2.1

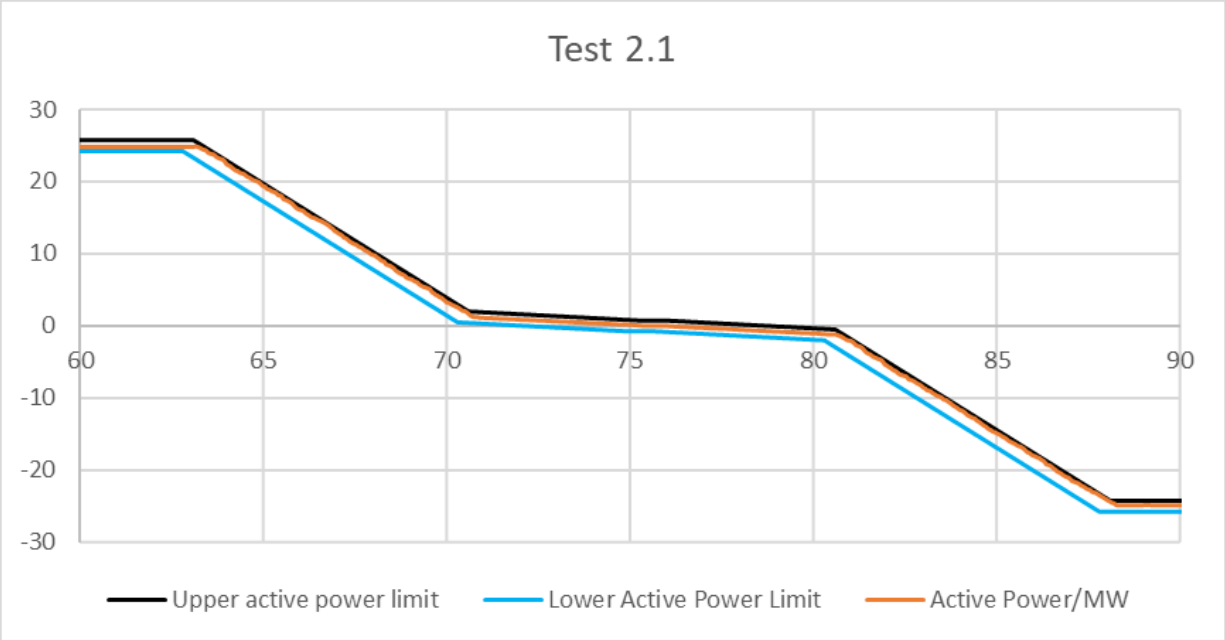


Figure 7 – Test 2.2

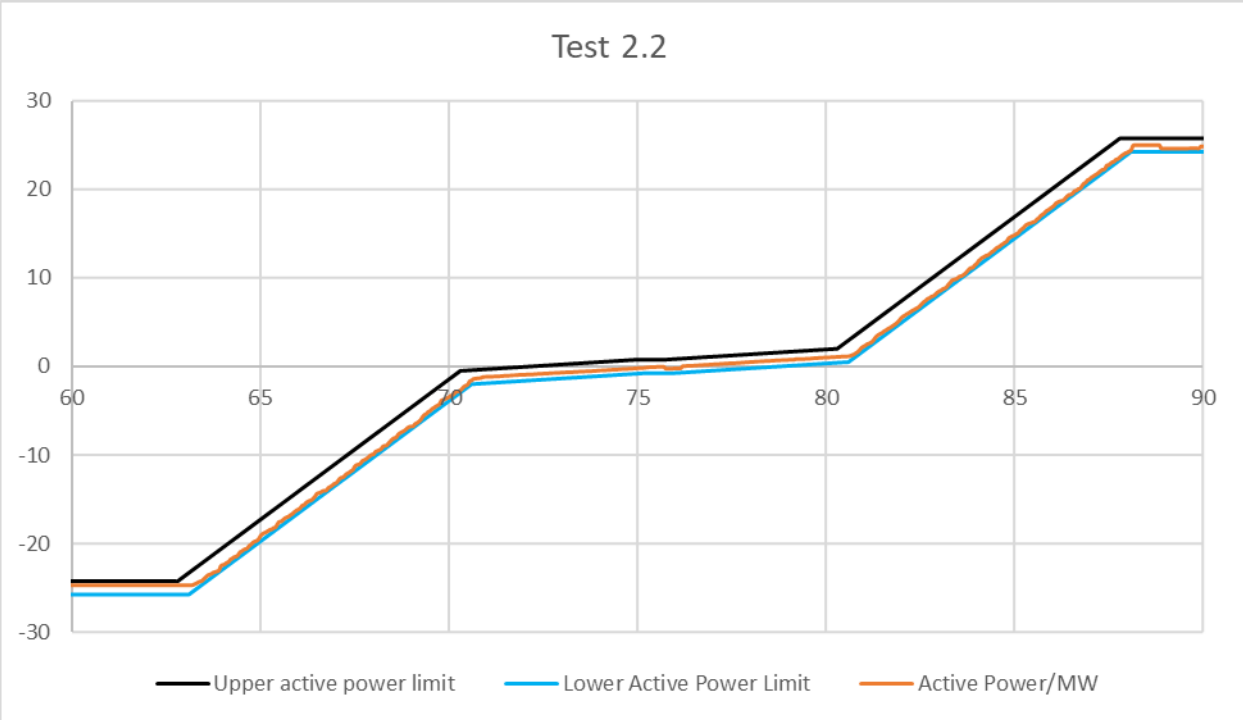


Figure 8 – Test 3.1

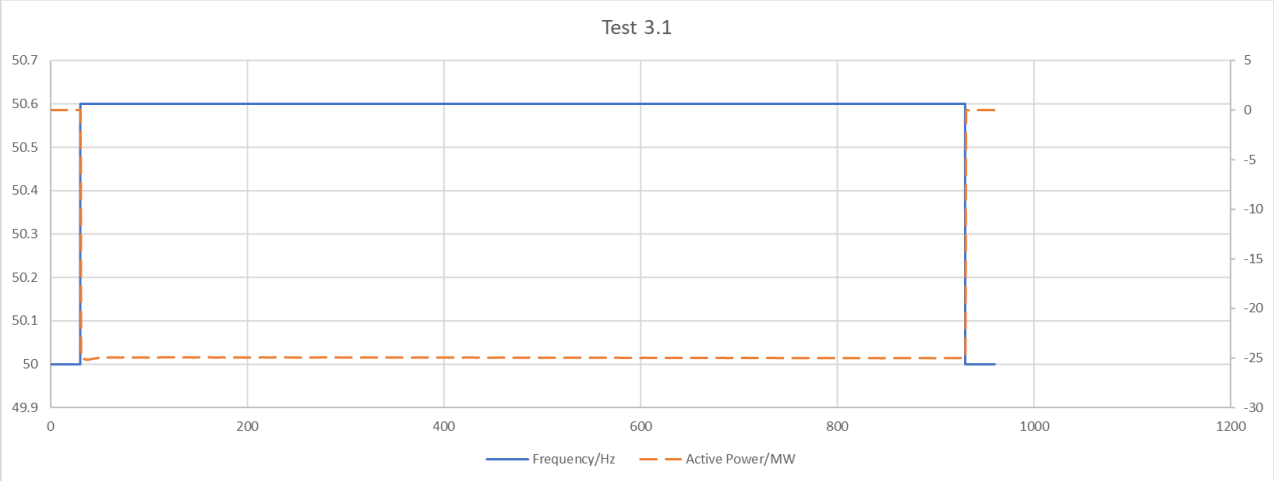


Figure 9 – Test 3.2

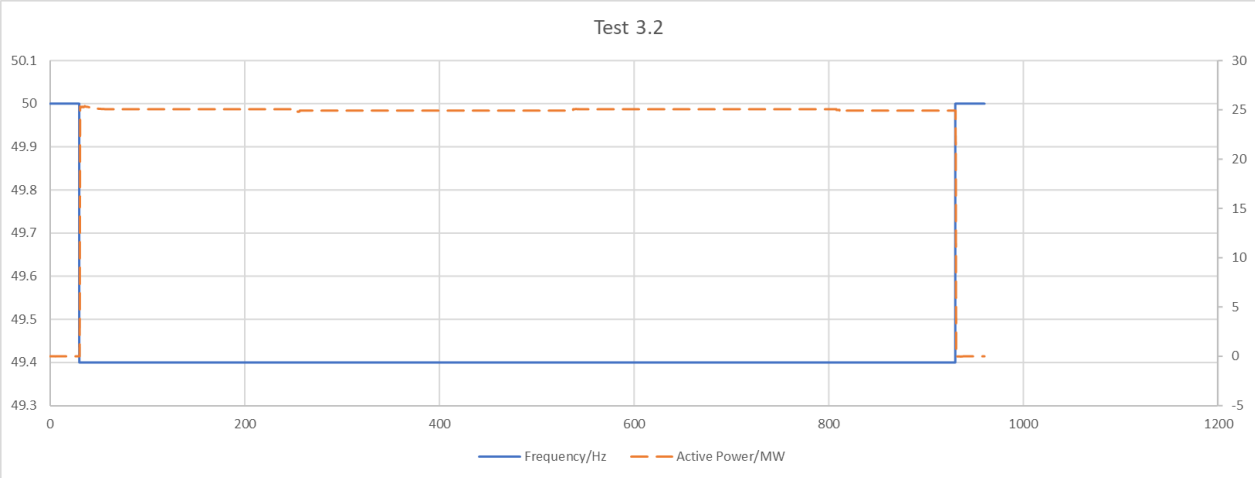
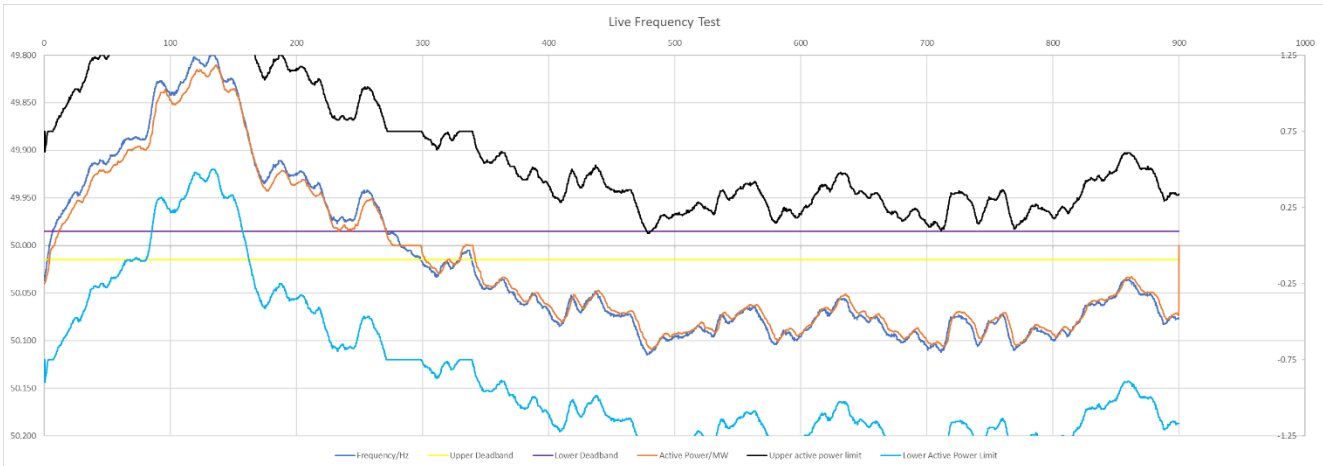


Figure 10 – Test 4



Independent Technical Expert (ITE) Details

Company name
Primary contact name
Contact number /s
Email address

I / We confirm that I / We the following:

(a) I/We am a/are Independent Technical Expert(s) (as defined in Appendix A of the NGESO's prevailing Testing Guidelines);

(b) I/We have carried out an assessment of the [asset] described above in accordance with the testing guidelines set out in the Testing Guidelines;

(c) the above details are, to my/our best knowledge and belief, true, accurate, complete and not misleading; and

(d) the CV attached of my/our experience is to my/our best knowledge and belief, true, accurate, complete and not misleading.

Signed:

Date: