

# LCN Fund Full Submission

## Supplementary Answer Form

Tick if this answer is Confidential: ☐

Tick if this answer has been provided verbally: ☐

Project code:	WPD-T2-04	Question Number	WPD028
Question date	18.09.2012	Answer date	20.09.2012
Submission section question relates to	4		
Topic	Full Submission Workbook		
Question	There are a number of discrepancies between the figures for Capacity Released and the Method Time to Release Capacity quoted in Section 4 of the Full Submission Pro forma (page 22) and the Net Benefits worksheet. Please advise which are the correct figures.		
Notes on question			
Answer	<p>The figures are correct in both elements of the submission. However, the different parts of the submission consider different timescales. The figures given in the Full Submission Pro-forma (page 22) for the Method time to release capacity do not include capacity released as part of DNOs' business as usual (BaU) deployment. The Net Benefits worksheet does include the BaU deployment of Methods and the associated capacity released.</p> <p>The text below provides further clarification on the capacity release estimations and the timescales that have been considered for Method adoption and BaU deployment.</p> <p><b>Method Alpha</b></p> <p>We have made a conservative estimate that the roll out of the Method across the 14 DNO licence areas will release 1568MW of capacity. The capacity released has been estimated as follows:</p> <p>5.6 MW released per Substation</p> <p>56 MW released per location (10 Substations considered per location)</p> <p>112 MW per DNO licence area (2 locations)</p>		

1568 MW across GB (14 DNO Licence areas)

The integration of the Method to a DNO licence area will mean that every Substation will be considered in the enhanced Fault Level assessment process. However, the benefits of rolling out the Method to a DNO licence area have been conservatively estimated to effect 20 Substations (2 locations), in each area.

As indicated in the Full Submission Workbook, Method Alpha is proposed to be rolled out to 14 sites across GB, where a site is a DNO licence area containing two Method roll out locations, by 2024. Method Alpha is expected to deliver learning early in the project, with initial trials of the Method and learning outcomes to be generated by mid-2014. We've estimated that the first DNO licence area wide adoption of the Method will be in 2018, which allows appropriate time for the Method to have been refined and peer reviewed within the project, leading to a proposed change in the modelling process for Fault Level. The full deployment of the Method, throughout GB, could be fully adopted by 2024, where the expected integration period is 12 months per DNO licence area.

#### **Method Beta**

We have made a conservative estimate that the Method will initially be rolled out to two sites (where a site represents a location similar to that of the project's Trial area, i.e. 10 Substations) per DNO licence area, which will release 1568MW of capacity. The capacity released has been estimated as follows:

5.6 MW released per Substation

56 MW released per site (10 Substations)

112 MW per DNO licence area (2 sites)

1568 MW across GB (14 DNO Licence areas)

As indicated in the Full Submission Workbook, Method Beta is proposed to be rolled out to an additional 27 sites (2 per DNO licence area in total) by 2030. Method Beta is expected to deliver learning outcomes by mid-2016. We've estimated that the Method will be adopted at the first additional site by 2019, which allows appropriate time for the Method to have been refined and peer reviewed within the project, leading to a proposed real-time Fault Level management solution. The full deployment of the Method, 28 sites in total as referenced in the Full Submission Pro-forma (FSP), could be achieved by 2030, where the expected integration period is two years per site installation.

We have assumed that between 2031 and 2040 there will be a continued business as usual roll out of the Method, estimated to be seven sites per year, however the capacity released through these

	<p>installations have not been included in the FSP (Page 22).</p> <p><b>Method Gamma</b></p> <p>We have made a conservative assumption that the Method will initially be rolled out to two sites (where a site represents a location similar to that of the project’s Trial area, i.e. 5 Substations) per DNO licence area, which will release 3878MW of capacity. The capacity released has been estimated as follows:</p> <p>27.7 MW released per Substation</p> <p>138.5 MW released per site (5 Substations)</p> <p>277 MW per DNO licence area (2 sites)</p> <p>3878 MW across GB (14 DNO Licence areas)</p> <p>As indicated in the Full Submission Workbook, Method Gamma is proposed to be rolled out to an additional 27 sites (2 per DNO licence area in total) by 2032. Method Gamma is expected to deliver learning outcomes by the end of 2016. We’ve estimated that the Method will be adopted at the first additional site by 2020, which allows appropriate time for the Method to have been refined and peer reviewed within the project, leading to a proposed Fault Level mitigation solution. The full deployment of the Method, 28 sites in total as referenced in the Full Submission Pro-forma (FSP), could be achieved by 2032, where the expected integration period is three years per site installation.</p> <p>We have assumed that between 2033 and 2040 there will be a continued business as usual roll out of the Method, estimated to be five sites per year, however the capacity released through these installations have not been included in the FSP (Page 22).</p>
Attachments	
Verbal Clarifications (Consultants )	