Dr Luis(Nando) Ochoa
Senior Lecturer in Smart Distribution Networks
School of Electrical and Electronic Engineering
Ferranti Building C4, Sackville Street
University of Manchester
Manchester, M13 9PL

tel +44(0)161 306 4819
www.manchester.ac.uk/research/luis.ochoa

22nd May 2015

Smarter Grids and Governance Team
Ofgem, 9 Millbank, London, SW1P 3GE

Response to Consultation - Successful Delivery Reward Applications for LCNF Projects

As a stakeholder who is directly involved in the academic studies of two LCNF Tier 1 projects (ENWL's "Low Voltage Network Solutions and "Low Voltage Integrated Automation") and LCNF Tier 2 projects (ENWL's "Customer Load Active System Services" and "Smart Street" as well as EATL/SSE's "My Electric Avenue"), I am writing to support the application of "Customer-led Network Revolution (CNLR)" project by Northern Powergrid.

Please find below my response to *Question 1* "Do you consider that the SDRCs have been delivered to a quality expected from the Full Submission, in a timely and cost effective manner?". This response also applies to *Question 3* (performance of the project).

Response: This is an ambitious, all embracing project that examines the whole system rather than components. The quality set in the full submission has indeed been achieved and can even be considered as exceeded. In particular, the project successfully managed to adopt a challenging multi-disciplinary approach involving social scientists to understand individuals, families and organisations who were, as customers, directly involved in trials. From the technical perspective, the project was successful in producing a hierarchical control approach which can grow as the network challenges and opportunities emerge as we progress along the low carbon transition. This required a very challenging data collection on a grand scale updating old models and informing the development of new standards. Critical to the dissemination of learning, particularly to other DNOs, the project managed to generalise the findings from the trials using a mixture of simulation and emulation using hardware-in-the-loop technology. Finally, from the academic perspective, the project's significant contributions to the scientific knowledge are demonstrated by the publication of around 10 journal papers.

Based on the above, I believe that the CLNR project deserves to be awarded the SDR.

Yours Sincerely,

Dr Luis(Nando) Ochoa