



Ofgem Low Carbon Network Fund: GE Response to the Two-year Review Consultation

16 January 2012

Introduction

GE is one of the world's leading suppliers of power generation and energy delivery technologies. We supply an unparalleled range of energy solutions to the UK of which smart grid technologies are one part.

In the UK, GE employs around 18,000 people and has invested over £14 billion in the UK economy since 2000. Our available installed base meets 18% of electricity needs and we are also a major smart grid solutions supplier to the UK electricity networks industry.

As a committed partner to the UK energy sector, GE welcomes the opportunity to participate in the LCNF Two-Year Review and to lend our support to this initiative. We continually invest in innovative technology that meets the needs of customers and society, with as much as \$150m directed globally towards low carbon network technologies. Much of this is invested in the UK and focused on reducing carbon emissions increasing energy efficiency.

Reflecting our commitment to innovation, GE opened Europe's first Smart Grid Innovation Centre in 2009 at our Bracknell headquarters, and has also pioneered the Ecomagination Challenge, a \$200 million innovation experiment where businesses, entrepreneurs, innovators and students shared their best ideas on how to improve our energy future.

Consultation Questions

Key points:

- GE is fully committed to supporting the LCNF in its aims to stimulate much needed innovation and we view the Low Carbon Network Fund as a global exemplar
- The emphasis of the LCNF must remain on fully commercial-scale integrated projects that deliver quantifiable impacts and value for money
- There are significant impacts and learning opportunities that GE can support by working with DNOs via our global experience and proven track record for delivering technology solutions
- Improvements to the process and funding profile could potentially increase the quality of bids to focus on learning whilst reducing the risk of duplication.

1. Evaluation Criteria

a. Do respondents consider that the evaluation criteria have driven certain types of projects at the expense of other learning outcomes? If so, what are these learning outcomes and do they need to be specifically stimulated?

b. Do the evaluation criteria ensure that the LCN fund is compatible with future developments in smart grids?

Answer: We agree that the evaluation criteria have to date worked well. However these should continue to focus on fully integrated and complete solutions and encourage the participation from third parties, such as technology vendors; whose technology know-how and experience together with a track record can deliver 'end-to-end' solutions to the UK customer base.

Future LCNF projects could meaningfully focus on gaps that exist in the current portfolio of projects. This might include bringing in a wider participation such as for example, energy suppliers in order to incorporate wider technologies such as smart metering.

2. Best use of learning

1. We welcome your views and experiences on how we can enhance the requirements on learning dissemination for LCN Fund projects to ensure that industry gets the best value from them.

Answer: GE views the LCNF as a vital platform to promote learning, demonstrating how carbon-reducing technologies can have a positive impact on the electricity networks and helping utilities plan more efficient, reliable, lower-carbon networks. As such we believe that the LCNF could develop clearer guidelines or show recognition towards bids that demonstrate a direct link between learning derived from projects and the 'business-as-usual' activities of the LCNF participants.

Through our experience of launching Ecomagination, which has seen over 100 products brought to market since launching in 2005, GE feels particularly well placed to support the learning objectives of the LCNF. However it is important to ensure participation from the full supply chain.

3. Duplication

a. We welcome respondents' views on the level of duplication across first and second tier LCN Fund projects and what changes, if any, we should make to the LCN Fund governance to address this duplication.

b. We welcome views on whether there is merit in each DNO undertaking its own monitoring or whether this could be avoided if all monitoring data was held in a single place and accessible to all DNOs

Answer: GE supports all efforts to reduce unnecessary duplication from projects and views opportunities to promote cross collaboration between LCNF participants as beneficial to the overall aim of transparency. However, whilst reducing duplication should be considered, differing

approaches to certain issues, such as network monitoring, may contribute to a more diverse mix of ideas and innovation allowing them to be deployed on a fully competitive and commercial scale.

4. Focussing on learning outcomes

a. Given their wider scope, how can we best gain greater up front clarity in submissions on the learning outcomes of the larger, more complex projects?

Answer:

There is some concern that learning outcomes can be weakened (or delayed) if they are not given sufficient priority at the early stage of the bids or if their insufficient collaboration between projects. In some cases, upfront resource may be deployed disproportionately to bid submission and modelling at the risk of overlooking measuring impacts and knowledge transfer.

As per our response to Question 2 (above), clearer guidelines or some recognition could be made towards bids that demonstrate a link between learning derived from projects through to the 'business-as-usual' activities of participants.

5. LCNF aims to promote collaboration

a. We would be interested to hear your views on your experiences of this website and other means of facilitating collaboration.

Answer: GE welcomes the LCNF's aims to promote greater collaboration and views this as beneficial to the overall programme - particularly to support greater transparency or reduce the risk of duplication. GE also supports all efforts to develop tools to support this aim such as the Energy Networks Association website referred to in the consultation letter.

Reflecting GE's own commitment to greater engagement in this field, we opened Europe's first Smart Grid Innovation Centre in 2009 and have also pioneered the Ecomagination Challenge, a \$200 million innovation experiment where businesses, entrepreneurs, innovators and students shared their best ideas on how to improve our energy future.

6. Cost-benefit analysis

a. How should we design the form and content of guidance on carbon benefits so that they are comparable across projects?

Answer:

GE supports Ofgem's efforts to provide guidance to the quantification of carbon benefits of projects. This step is vital to ensure the credibility of the process by designing a suitable process that calculates benefits that are comparable across multiple and differing projects.

To support the development of guidance, GE has itself developed a model, based on research with partners and customers that prioritises key value propositions and solutions. This is based on a modular approach based on value propositions that address financial, infrastructure, environmental, and consumer empowerment criteria.

Key propositions include:

- Optimizing Network Assets
- Improvements to Network Efficiency
- Improvements to Service Reliability
- Constraint management
- Actively Managed Networks
- Enable Low Carbon economy
- Demand Management
- Empower "prosumers" (entities that are both producers & consumers)
- Virtual Power Plant

7. Process

a. How can we improve the LCN fund first and second tier processes?

b. How could we implement an additional stage to allow DNOs to amend submissions in response to comments from the Expert Panel or technical consultants without undermining the competitive nature of the process?

Answer: The LCNF application process has overall been successful and compares extremely favourably to similar initiatives in Europe.

The 'two-stage' process (that comprises of the Initial Screening Process (ISP) prior to a Full Submission stage) has helped to reduce risk of funds committed to unsuccessful bids but does not wholly address (and in some cases exacerbates) the upfront costs encountered by applicants in the wider supply chain. As a result of this process, bid design has to some extent been compressed into short timescales. Once submitted, this has left relatively little time between bid submission and presentations to the Expert Panel.

8&9. Funding Profile and Discretionary funding

a. We welcome your views on the suggested timings and whether or not the delay between project submissions and potential discretionary funding dampens the incentive.

Answer: It would be beneficial for the Two-Year Review to more fully consider the impact of the decision-making process on innovation. Innovation by its nature, involves risks and the possibility of a project not delivering anticipated outcomes, or costs diverging from those originally anticipated. In a commercial environment, GE commits substantial sums and resource to identifying partners and developing commercially viable bids. If successful the majority of the rewards are often re-invested in the UK to benefit the wider economy.

10. Transition to the NIC

a. We would appreciate views on the easiest way to ensure a smooth transition from the LCN Fund to the new price control, whilst fulfilling the commitments we made on the LCN Fund in DPCR5 Final Proposals.

Answer: A dedicated innovation fund should continue as an important element of the package to drive fully commercial-scale deployments as part of the RII0-ED1 framework. Whilst the LCNF is a crucial first step, the transition to the NIC regime will need to be carefully managed with long-term certainty to participants, investors and the wider supply chain in order to maintain momentum and avoid a hiatus in investments. This will be particularly important to ensure a smooth transition in the period between 2013 and 2015 when the LCNF overlaps the NIC.