

23 November 2010

Rachel Fletcher
Partner, Smarter Grids and Governance
The Office of Gas and Electricity Markets
9 Millbank
London SW1P 3GE

Dear Ms Fletcher,

We welcome the opportunity to respond to Ofgem's recent open letter on gas and electricity innovation stimuli.

The RIIO network regulation model aligned with the proposed innovation stimuli provides a good foundation for the development, demonstration and deployment of new technologies to support the attainment of a low carbon network. From the perspective of an internationally leading and industrially supported research Institute, we have concerns about the loss of Innovation Funding Incentive (IFI) based opportunities.

In the UK, university research has been strongly linked to new technology developments in the distribution and transmission network operators. This has, undoubtedly, been driven by a vibrant and effective use of IFI funding. We are convinced that without IFI, the translation of research into "development and demonstration" projects would not have occurred. There are excellent exemplars of DNO/TNO engagement leading the effective development and demonstration within our own research Institute:

- Scottish and Southern Energy built on fundamental research in the area of active network management and developed a system which allowed the absorption of increased levels of wind energy in Orkney, without the need for reinforcement of their system. This technology has subsequently been commercialised within one of the first "Smart Grid" companies, Smarter Grid Solutions.
- Scottish Power's funding of research in the area of protection analysis has led to the implementation of an automated analysis system being deployed for the day-to-day use of their engineers. This will accelerate their response to events on the network.
- National Grid funded research into flexible condition monitoring architectures. This led to the development of an online system automatically analysing the data from a condition monitoring system nursing two 180MVA transformers.

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THE PLACE OF USEFUL LEARNING

These examples indicate how IFI funding has supported the translation of early stage research, typically funded via EPSRC, into meaningful systems for DNOs and TNOs. This provides appropriate technology demonstration which will lead to the creation of new products, services or companies supporting the aims of Ofgem and the UK utility industry.

As a result, we would encourage Ofgem to ensure a mechanism exists for the companies to efficiently engage with University research groups. Drawing from the experience of LCN is clearly important. Having been involved in extensive efforts to support the preparation of a number of LCN proposals, we would be particularly concerned if RIIO was based only around the Tier 2 model. This would not provide for the efficient and timely engagement that has been a characteristic of IFI collaborations. Maintaining the efficiency that has characterised IFI collaborations within the RIIO model will ensure that the research pipeline (fundamental research, applied research, development, demonstration and deployment) can be supported. The incentive stimuli appear more focused on the stages from development onwards, creating a disconnect in the process of generating new technologies.

Yours sincerely,

The image shows two handwritten signatures in black ink. The signature on the left is 'Graeme' with a long, sweeping underline. The signature on the right is 'Stephen McArthur' with a similar long, sweeping underline.

Prof Graeme Burt
Prof Stephen McArthur
Co-Directors, The Institute for Energy and Environment
University of Strathclyde