Electronics and
Computer Science

UNIVERSITY OF
Southampton

Grant McEachran
Head of RIIO-T
Office of Gas and Electricity Markets
9 Millbank
London
SW1P 3GE

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Dear Grant

RIIO-T1: Initial Proposals for National Grid Electricity Transmission and National Grid Gas

The University of Southampton is a member of the IET Power Academy and Power Networks Research Academy and has a long history of supplying graduate engineers and high quality R&D to the UK power sector.

We have undertaken a number of R&D projects funded through the IFI scheme, both for individual utilities and as part of larger consortia. IFI funding has been instrumental in gaining the active involvement of utilities. It has provided access to their data, knowledge and ultimately their plant for demonstrator projects.

The University of Southampton is a member of the SUPERGEN Energy Networks Hub (HubNet), established by Research Councils UK to provide research leadership in the field of future energy networks and to facilitate the exchange of ideas between researchers and industry.

We have considered Ofgem's initial proposals on outputs, incentives and innovation published on 27th July 2012. The proposed three-part stimulus package has merit, but there is a fine balance to be struck in ensuring that there is a viable pathway for innovation whilst protecting the interests of consumers.

Ofgem has initially proposed that NGET's network innovation allowance (NIA) should be set at 0.6% of annual revenue. This is close to the bottom of the range identified in March 2011's strategy document (0.5% - 1%). This fails to recognise the significant challenges being faced by the UK transmission community and its stakeholders.

Electronics and Electrical Engineering Research Group
Electronics and Computer Science, University of Southampton, Highfield Campus, Southampton SO17 1BJ United Kingdom
Tel: +44 (0)23 8059 3398 Fax: +44 (0)23 8059 3709 www.eee.ecs.soton.ac.uk

NGET's obligations to connect renewable generation cannot be met with existing technology (as is shown by projects such as the Western HVDC link). Over the next decade the UK's transmission companies are planning to invest over £5 billion to connect more wind energy and other renewables. Research is urgently needed to optimise this expansion of the system and to understand and limit the operational risks inherent in adding a significant component of new plant to the network.

It is the relatively modest amount of funding available through the NIA that underpins the larger more complex NIC projects and their eventual roll-out. In addition, the research funded through the NIA is instrumental in training the highly skilled engineers the UK needs to deliver cost effective and reliable network innovation.

In the last decade the electrical research landscape in the UK has been transformed and revitalised. Much of the credit for this is due to Ofgem's Innovation Funding Incentive and National Grid's coherent and well-managed innovation strategy. Without adequate NIA funding these advances will be lost and the gulf between high quality research and network innovation will grow ever wider, stifling the advances needed for the UK to meet its renewables obligations and damaging the interests of both system operators and future consumers.

Yours sincerely

Prof Alun Vaughan
Head of Electronics and Electrical Engineering Research Group

Direct tel: +44 (0)23 803398
email: asv@ecs.soton.ac.uk