

Ref:S865/hmf

RPI-X@20 consultation
- Local Grids and RPI-X@20
Ofgem
2nd floor
9 Millbank
London
SW1P 3GE

6 September 2010

Dear Ms Nixon

Regulating Energy Networks for the future: RPI-X@20 Recommendations

The IET welcomes the recommendations from the [RPI-x@20](#) work, in particular the emphasis on innovation. Distribution networks will need to be transformed over the next 10-20 years to act as the key enablers to a low carbon energy system in order for UK and EU energy policy goals to be delivered. Distribution networks will have to accommodate potentially large amounts of small scale renewable and other low carbon generation, smart demand, and potentially new sources of large scale demand such as electric vehicle charging and ground and air source heat pumps.

The key issues over this period are likely to be:

- **innovation** - including a **cultural** change in Distribution Network Owners (DNOs) from being low cost service deliverers and asset managers to being technical innovators and catalysts for change
- **uncertainty** - a need to respond rapidly to changes such as rapid deployment of electric vehicles, with associated charging requirements
- **longer term thinking** - moving further along the road towards considering network development from a longer term perspective

Hence the IET agrees with Ofgem's statement of objective, the proposed lengthening of the price control, and the strong emphasis on innovation.

There are however a number of areas where the IET believes care will be needed in setting incentives and arrangements:

- we can see how third party delivery and ownership options could bring additional innovation and greater efficiency, but also how this could increase fragmentation in an already highly fragmented industry. A key requirement for smart grids will be integration, not just within the electricity industry but also involving local authorities, automotive and appliance manufacturers, car park operators, home automation providers, Energy Service Companies (ESCOs) and others. Solutions will need to be found that address this issue, from a technical point of view including successful technical leadership in system design where systems cross organisational

boundaries. Successful ways, including governance arrangements, will also need to be established to enable the wider industry to work together towards common goals.

- the uncertainty over how far and how fast new elements such as smart demand, distributed renewables, and electric vehicles will be deployed will require flexibility in the application of regulatory settlements, particularly over the longer price control periods proposed. There is the distinct possibility that the requirements for investment and innovation will look very different at the end of a price control to how they appeared when the price control was determined. Price control restrictions should not become a barrier to necessary innovation, or the deployment of new capabilities at scale when needed
- There is evidence to date that take-up of innovation funds amongst DNOs has ranged from strong to very weak, as at the moment they are to a degree optional. A culture change will be needed in many DNOs to deliver innovation at scale. There are substantial skill shortages amongst the electrical power engineers who will be needed to make this happen, means that this change will be both difficult and relatively expensive from the perspective of hiring the necessary staff. Consideration will need to be given as to how to catalyse change in all DNOs.

The IET is one of the world's leading professional bodies for the engineering and technology community and, as a charity, is technically informed but independent of network company, equipment supplier or service provider interests. This submission has been prepared on behalf of the Board of Trustees by the IET's Energy Policy Panel and takes into account input from the wider IET membership during the course of the RPI-X@20 review process.

The IET stands ready to support Ofgem in navigating this uncertainty and we offer the IET's good offices to assist in building links between new stakeholders, making use of our impartiality, industry knowledge, and facilities.

Please let me know if the IET can be of any further assistance.

Yours sincerely



Paul Davies
Head of Policy
The Institution of Engineering and Technology
Email pdavies@theiet.org
Telephone: 01438 76 56 87