

**DTI Centre for Distributed Generation  
and Sustainable Electrical Energy**

**Consultation on the Innovation Funding Incentive and  
Registered Power Zone Schemes for Distribution Network  
Operators**

**Response from the  
DTI Centre for Distributed Generation  
and Sustainable Electrical Energy**

**Goran Strbac and Nick Jenkins**

**November 2006**

## **Consultation on the Innovation Funding Incentive and Registered Power Zone Schemes for Distribution Network Operators**

The DTI Centre for Distributed Generation and Sustainable Electrical Energy fully supports the IFI and RPZ initiatives to encourage innovation in the UK Electricity Sector. We believe the IFI and RPZ initiatives provide a unique and timely opportunity for network operators to develop innovative solutions to respond effectively to the changing needs of energy networks and ageing infrastructure.

In the context of the remit of the Centre we would like to highlight several points that we believe are relevant for the consultation on the future role of IFI and RPZ.

### **1. Cost effective response to climate change challenge**

We believe that the IFI and RPZ initiatives are directly compatible with the conclusions of the recent Stern Review, “The Economics of Climate Change”. The Review states that the activities and investment that will take place in the next 10-20 years will have a profound effect on the future and that early action is needed. The Review recommends that support for energy R&D should at least double.

The Electricity Sector, as a major contributor to green house gas emissions, will need to develop a broad spectrum of innovative solutions in a number of areas, including the electricity network infrastructure and its operation and management, in order to ensure that our response to climate change challenge is cost-effective. The philosophy of the IFI and RPZ initiatives is focused on facilitating innovation in a liberalised environment, and these schemes will contribute to keeping the cost of implementing various climate change policies and programmes at an efficient level.

### **2. CEU Framework Programme 7**

The Commission of the European Union, through Framework Programme 7, will invest heavily in R&D to support its vision “SmartGrids” aimed at delivering the innovation required to tackle the challenges faced by European energy networks. If the UK is to maximise its benefit from these investments, it will be important that the UK Electricity Sector, particularly network operators, engages in research programmes at the European level. It is only through active engagement that the UK is likely to obtain maximum benefit from this international activity. In order to encourage UK participation, we suggest that the IFI framework should allow

companies to use the R&D resources to take part in the EU R&D Framework Programme 7.

### **3. Scope of RPZ**

We believe that Ofgem should consider expanding the scope of RPZ schemes to include the application of any novel non-network solutions to traditional and emerging network problems. It may be appropriate that these solutions do not necessarily need to be limited to generator based applications, but could also include other technologies such as demand side and storage applications aimed at supporting network operation or development in an innovative way.

We also believe that consideration should be given to how the implementation of “Smart Metering” can be encouraged. The wide-spread availability of “Smart Meters” is an important enabler for a wide range of innovative network control approaches and early demonstrations of the use of this technology to improve network performance would be helpful. We suggest that Ofgem considers if RPZ initiative could be contemplated for such applications.

### **4. Duration of the IFI and RPZ schemes**

We strongly believe that the IFI and RPZ initiatives should be extended beyond 2010, broadly in their present form. This will be critical for ensuring sustainable levels of R&D activity. It is well known that UK energy R&D capacity has reduced greatly since 1990 and although there are presently encouraging signs of a small up-turn, this is from a very low base. Both IFI and RPZ incentives need to be sustained and implemented in a stable manner if R&D capacity is to be developed. In particular, a technical R&D culture needs to be re-established in network companies and effective long term collaborations formed with other stakeholders (e.g. manufactures, consultants and universities).