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30 November 2006

Dear John

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

We welcome the opportunity to be involved in this consultation process on the Innovation Funding Incentive (IFI) and Registered Power Zone (RPZ) Schemes. We agree it is important to review the schemes at this early stage, first to make improvements only where necessary and secondly to understand how they will operate beyond the next electricity distribution price control review (DPCR5).

The IFI scheme has reinvigorated R&D in the industry and overall is working well. Over recent years the R&D intensity had reduced to 0.1% of UUE turnover and the natural pressures from the RPI-X mechanism to encourage short term cost reductions were making it less likely that new R&D projects would be approved. IFI has now stimulated R&D activity, including collaboration with R&D providers, manufacturers, academia and other DNOs. We have projects already planned or committed that will take up the full IFI allowance for both this year and next. We would hope that this level of expenditure could be sustained in the future by continuation of IFI, moderating the effect of price cap regulation on R&D activities.

Our response to each of the main issues you have set out in your letter are covered below.

1. Internal funding

In our experience, the limit on internal expenditure set at 15% is a constraint on efficient R&D. In order for companies to extract the greatest benefit from R&D projects they need to be championed internally and not just bought in from external providers. Furthermore, the ultimate intention will always be to adopt the results of the research project for application within the company. This process is easier and less costly if there has been involvement in the project from the internal teams who

will eventually have to lead the adoption process. This all increases the amount of internal costs for the project and we expect that internal costs will vary widely over the different phases of the project. At present there is a process for applying to Ofgem for approval to be given for any internal costs above 15%, and Ofgem also have the right to audit any project figures. However, if it is expected that internal costs are routinely above the limit then it seems sensible to remove the limit altogether and perhaps suggest guideline internal limits for each phase of the project. This gives companies the flexibility required and removes an annual administration issue whilst retaining all the reporting and audit requirements.

We accept your general point that DNOs should not create specialised R&D sections. Aside from the small central resource to manage the R&D budget, we would expect internal costs to relate to Operations staff, who are critical to the success and adoption of R&D projects. Without their co-operation, research involving network operation would not be possible, or would become significantly more expensive if it means having to utilise external staff in order to get the work done.

2. IFI eligibility criteria

Over the first 18 months of the operation of the IFI scheme we have had to argue strongly for two projects to be classed as meeting eligibility criteria. These projects were described by you as being 'commercial' and not technical, therefore not meeting eligibility criteria. Our contention was that the projects involved research of a scientific and engineering nature which resulted in improved economic signals to our customers and greater efficiency in the use and operation of our network. Rather than have to spend time and effort in justifying such projects in the future we believe it would be beneficial to everyone concerned to clarify the existing eligibility criteria.

We do not currently have a suggested form of words but would be happy to work with you through the ENA's R&D working group to develop these. We believe that given the existing eligibility criteria are technical development, innovation and customer value, there is only a need to clarify the understanding of each of these. This should ensure that where the activity itself is clearly technical it would be eligible, even if one use of the outputs is to support commercial transactions. A further benefit of this clarification would be to ensure that environmental, safety and physical security related projects meet the criteria. It is felt there are many important strategic issues such as climate change and sustainability that are currently being excluded under the existing criteria due to the lack of clarity.

3. IFI benefit assessment

A significant part of the total costs of converting R&D into operational practice is the cost of adoption. Once a new device or procedure has been proven in a test environment, it will often need to be rolled out across a whole network in order to achieve the full benefits. In our view, the approach to project review in the Good Practice Guide is flawed because the forecast adoption costs are not incorporated in the NPV calculation. If the benefits of implementation are to be claimed, then so must the costs of achieving the roll-out that releases those benefits. There is

otherwise a danger that the NPV calculations artificially inflate the likely benefit of any particular project.

It is also crucial that a much better understanding of the non-financial benefits eg safety, operational, environmental can be assessed in a simple way. This will aid in both prioritisation and selection of projects internally and also in being able to communicate the benefits of IFI projects much more easily. As this is such a complicated area it is proposed that the ENA R&D working group develops a new benefit assessment for consideration by Ofgem.

4. RPZ constraints

Unless a DNO is going to commit resources to effectively becoming a shadow generation developer across all generation technologies, the DNO will not have detailed knowledge of likely attractive generation development locations. It is therefore hard to know where the RPZ opportunities might exist. It must also be realized that the RPZ opportunity is completely in the gift of the developer, rather than the DNO, because the opportunity will be driven almost entirely by the size of the development.

A DNO is already incentivised to maximize generator connections, both in size and number. There is very little perceived willingness on the part of generators to work with DNOs to look at increased scheme sizes such that novel technical solutions are required, particularly as this increases risk and uncertainty for the generator in a manner which is hard to characterize.

It is interesting to note that all three of the existing RPZs seem to be related to the development of a significant wind resource behind a clear network constraint related to the remoteness of the resource from the bulk of the power system (although we are not sure that there is actually any additional generation connected in the EDFE RPZ). Whilst these developments are welcome, it does demonstrate a lack of market activity by other forms/scales of embedded generation.

5a. Future of IFI

The current IFI scheme is only specified up to March 2010. The uncertainty as to what, if any, mechanism will apply in the next review period is going to very rapidly lead to a constraint in accepting new projects that run over a period of years. From next year (06/07) we will only be able to consider projects of 3 years duration or less if we want to be assured of funding The tapering of the value of IFI compounds this problem – in the years when projects are most likely to run over the 2010 cliff-face, the proportion of costs that are recoverable is reduced. Without confidence in the post 2010 regime, we may find it much more difficult to identify projects that use our allowance in the final years of the current scheme. A possible solution to give confidence to participants in IFI projects, allow commitments to longer term projects and remove some of the regulatory uncertainty would be to have a 5 year rolling mechanism.

We see R&D sitting outside the normal pressures of the RPI-X mechanism, which encourages short term cost reductions and making it less likely that new R&D

projects would be approved The existing IFI scheme works well and has a clear structure, however, the percentage of recovery would need to be agreed for the scheme to go forward and that there would still be a fixed incentive for the Distribution Network Operator.

5b. Future of RPZ

Given the relative immaturity of the RPZ scheme both in number of RPZs and in the generating technologies represented it would seem sensible to retain the RPZ in its present form, provided that the incentive on DNOs to connect more MW of DG retains its current strength. Should the generation connection incentive be reduced in the future, then it might be appropriate to consider strengthening the incentive properties of the RPZ scheme to ensure that there is still an appropriate pull on DNOs to seek innovative connection arrangements, and to encourage appropriate active engagement with the developer community.

We are not persuaded that there is merit in the line of thought whereby DNOs are encouraged to market RPZ opportunities. This seems to be putting the cart before the horse. Efficient development of low carbon generation should be driven by a balance of all the costs, and if that implies a location where there are technical barriers to overcome, then it is appropriate to consider the RPZ approach. Seeking potential network barriers with a view to market them as RPZ opportunities is hugely difficult as the barriers will generally only exist for specific sizes of DG and/or with specific operating regimes.

In concluding this response it is our belief that the IFI scheme has made a very positive impact on the electricity distribution industry in it's short life. We firmly support the use of a similar mechanism for both the Transmission and Gas industries. As a final note on the benefits of the IFI mechanism I have attached comments from 3 manufacturers who we are currently working with indicating their support for IFI. I believe they will also be responding directly to you.

Yours sincerely

Mike Boxall

Digitally signed by Mike Boxall
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Mike Boxall
Electricity Regulation Director

cc David Gray
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Third party references

GridSense – Sydney, Australia

Working in collaboration with United Utilities on an IFI project, GridSense has commercialized one product which addresses the specific operation needs of UU. Specifically, this jointly developed product provides vital statistics, such as fault, load and temperature which can be displayed through their online SCADA system. With this product, UU is one step closer to being able to dynamically rate their overhead lines and such intelligence translates to avoiding unnecessary capital expenditure, deferral of costs and reduction in operating expenses.

This collaboration – made possible by the IFI – has been beneficial and rewarding for both the utility and developer. It has accelerated the ability of GridSense to commercialize a 'world first' product that directly meets the unaddressed needs of a utility in a methodical, timely and collaborative manner.

Kehui

Kehui (UK) Ltd is a relatively new company specialising in the development of equipment for detecting and locating intermittent faults on low voltage underground cables. Whilst the initial development of the equipment was funded without IFI support, the IFI scheme has encouraged several DNOs to participate in more extensive field evaluation than would otherwise have been the case. Following the successful performance of the equipment a further IFI project is currently being established involving joint collaboration between 3 DNOs, ourselves and an outside contractor to develop the management tools to allow the full benefit of the equipment to be realised. By working collaboratively the costs and time to implementation will be reduced for all parties. Such collaboration would have been unlikely without the encouragement of the IFI scheme

Kelman

Kelman has worked with United Utilities and EDF Energy on a number of projects under the IFI scheme. Through the scheme Kelman has developed closer working relationships with these DNO's, resulting in a better understanding within Kelman of the needs of the customers and the problems encountered on the network. This has resulted in better specifications at the outset of our projects, and delivers better solutions for the industry needs. Without the IFI framework these innovative projects would not have been possible. Kelman looks forward to the continuing support of the IFI Scheme.