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Dear John

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

Thank you for allowing me the opportunity to comment on the future of the IFI and RPZ schemes, and also for organising the very interesting workshop on 21 November.

Both schemes are innovative attempts to encourage the longer term development of networks by DNOs, and show a welcome recognition on the part of Ofgem of the role that regulation can play in influencing technological change. However, it is not surprising that both schemes show inevitable signs of some teething problems, and this consultation on their future is therefore very welcome.

As you know, I have spoken to individual DNOs over the course of the last few months as part of a project for the UK Energy Research Centre's Infrastructure and Supply theme. This response is informed by the interviews with DNOs on IFIs and RPZs as well as by the discussions at the 21 November workshop.

IFIs:

The DNOs' annual IFI expenditure reports show that between 0.08% to 0.39% of annual turnover is being spent on IFIs. It is not clear to what extent there has been an overall increase in DNO spending on R&D since the beginning of the scheme. However, no DNO is as yet spending the 0.5% of turnover which was considered appropriate by Ofgem at the beginning of the development process for the schemes, although some (notably United Utilities and EdF) are clearly more engaged in the scheme than others.

In part, the relatively low spending by some DNOs may be attributed to a lack of internal expertise within the companies as a result of low levels of R&D before the introduction of the IFIs. This situation may well be rectified as the DNOs recruit or train more staff to instigate or manage projects, but this is only likely if there is long term certainty about the future of the scheme. The five year periods of the price review may also act as a barrier to some of the most innovative or complex projects, particularly toward the end of the price control period. *Ofgem should therefore commit to the long term extension of the scheme, ideally on a rolling 5 – 10 year basis.*

Extending the programme would allow the removal of the reducing cost recovery mechanism over the period of the price control – the intention of this was to encourage early action by DNOs, and this necessity will be removed by an extension.

Internal expenditure cap

Increasing the IFI internal expenditure cap from 15% received strong backing from DNOs. Whilst a desire to limit the possibility that DNOs might create internal research departments is understandable, the 15% cap seems an arbitrary level, and may act as a barrier to developing skills within DNOs as well as to the types of IFI they are willing to undertake. Ofgem should therefore allow for an increase in the permitted level of internal expenditure, but continue to monitor the various initiatives under the RIGS. *Although some DNOs would argue that the cap should be removed entirely, it seems appropriate for some level of limit to be maintained into DPCR5 until collaborative R&D approaches are firmly established within the DNO culture. Having said that, however, there should also be some scope for individual exceptions to the limit if a DNO can make a case to support increased internal expenditure.*

IFI benefit assessment requirements

It is widely accepted that the current approach to assessing the benefits of IFI projects is unduly limited, as it excludes non-quantifiable benefits which may arise. These include environmental and social benefits, as well as positive but unforeseen knock on impacts of undertaking innovation, and this is a major shortcoming in assessing IFI projects. *A broader approach to assessing the potential benefits should therefore be developed which would reflect non-economic benefits.* This could take the form of a rating system to reflect different non-quantifiable aspects and should be used in conjunction with an analysis of the economic aspects of a project.

Asset life extension vs active network management

Broadly speaking, the DNO IFI annual reports show an emphasis on projects intended to extend the operating life of existing assets, rather on projects to enable active network management. This implies that the DNOs are currently adopting a short rather than long term approach to their network strategies. This may be explained by the low level of R&D before the introduction of IFIs which created a bottleneck in developing techniques to prolong the operating life of assets, and also by a desire from DNOs to avoid the investment spike seen in the 1960s as the infrastructure was installed. If this is the case, the emphasis on life extension may well give way to a longer term strategic approach. However, as highlighted by the Technical Architecture report, preserving existing assets may also prolong the problem of connecting generation to the networks and care needs to be taken to ensure that asset life extension does not act as a barrier to the increased deployment of distributed generation. *Given the desirability of creating networks where the effective connection and operation of distributed generation as soon as possible to meet government targets, it would seem appropriate for Ofgem to try and encourage greater levels of R&D into developing more actively managed networks.*

As I am not an engineer, it is difficult to assess the degree to which R&D into asset life extension is more risky for the DNO than R&D into technologies which could contribute to active network management. *If this is the case, Ofgem should allow a greater degree of cost recovery from consumers for innovations intended to enable active network management, or alternatively, to reduce the level of cost recovery for projects aimed at asset life extension rather than asset life extension.*

RPZs

Although three RPZs have been approved, no generation has yet connected. This means that the RPZs exist in name only, rather than in practice. The lack of experience in the actual workings of an RPZ makes specific comments difficult.

The consultation letter correctly identifies a lack of generator interest as a barrier to the development of RPZs. This has come about because of a discontinuity between the interests of DNOs - reinforcing their networks - and the primary interests of generators, who site their projects in areas where there is a high availability of renewable resources and the prospect of gaining planning permission. In addition, there also appears to be a lack of awareness about the RPZ scheme amongst renewable developers.

While DNOs are generally supportive of the scheme, the economics of setting up an RPZ and the limit on the revenue (£0.5million/year) that can be earned may be acting as a constraint on their promotion of the scheme, whether internally within the DNO, or externally.

There are a number of ways in which this situation might be addressed:

- Ofgem or the DNOs (possibly through the ENA) needs to engage developers' interest in the scheme by promoting it more widely. It is a shame that there was little generator interest in the workshop organised by Ofgem, and little input from generators during the consultations on the development of RPZs; *perhaps Ofgem or the ENA could organise a briefing for generators before the details of any changes to the scheme are finalised?*
- *Increasing the level of revenue that a DNO can earn from RPZ, which should stimulate interest in the scheme as a source of revenue*
- *Allowing a degree of replication between RPZs.* The Good Practice Guide limits the degree to which an innovation can be demonstrated in more than one RPZ; however, allowing the innovation to be implemented more than one RPZ would allow for incremental innovations and improvements to the devices or practice as a result of learning by using, as well as gradually reducing the risk implied by using new technologies. The gradual reduction in risk should make the implementation of the innovations more attractive. Adopting a more flexible approach to the demonstration of innovations should in time make the RPZ scheme more attractive to both DNOs and generators as confidence grows in a specific innovation
- At the moment, RPZs are limited to the connection of new generation. *There is a strong case for arguing that the scheme could also be applied to other technologies or practices, in particular storage and demand side management.* Broadening the scope of the scheme to include these would be consistent with a long term, strategic approach to distribution network development in the light of government targets for reducing carbon dioxide emissions
- Opportunities for developing RPZs are likely to exist on 132kV networks in Scotland, where much of the near term implementation of renewables will take place. *Ofgem should allow RPZs to be developed on the 132kV networks in Scotland*
- Developing renewables projects within an RPZ possibly depends more on the planning regime and the structure of the Renewables Obligation than on connection arrangements with the DNO. It follows, then, that planning and the RO will strongly influence the success or otherwise of the RPZ scheme. *Ofgem should investigate ways in which the three areas could be modified to ensure that they complement each other.*

DPCR5

I support the continuation of the schemes beyond 2010, subject to them becoming both more flexible and more strategic in their approach to network development.

I hope you find these comments useful. Please let me know if you would like more information.

Yours sincerely



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