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Dear Colleague,

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

On 5 October 2006, we published an open letter consultation on the Innovation Funding Incentive (IFI) and Registered Power Zone (RPZ) schemes for Distribution Network Operators (DNO)[1]. This letter sets out our views of the issues considered by the consultation and the decisions that the Authority has made as a result.

Introduction

The background to the IFI and RPZ schemes was set out in the open letter referred to above and so is not repeated here.

The consultation process included an open workshop which took place on 21 November 2006. Twenty five stakeholders attended this event, the minutes of which have been published on our website. The workshop allowed the key issues raised by the open letter to be discussed between the DNOs and other interested stakeholders. These key issues were:

- The future of the IFI and RPZ schemes after 2010, the end of the current electricity distribution price control period;
- The criteria that define an IFI project;
- The proportion of IFI funding that a DNO can spend internally;
- The method of calculating the potential benefits of an IFI project; and
- The factors that appear to be constraining RPZ projects currently.

The open letter consultation closed on 30 November 2006. We received a total of twenty two responses. These have all been published on our website and a summary is set out in the Attachment to this letter.

[1] Available in the "IFI-RPZ" area of Ofgem's website (www.ofgem.gov.uk) – document reference 181/06

Ofgem's Views

Here we set out our views on the issues addressed by the consultation and the conclusions we have drawn.

The future of the IFI

There has been widespread consultee support for the view that the life of this scheme should be extended beyond the current price control period (DPCR4). Under current arrangements, IFI project funding will cease on 31 March 2010. We appreciate that larger and more strategic R&D projects have timescales of perhaps 3-5 years and sometimes more. We are therefore persuaded that DNOs are likely to start curtailing their IFI activities well in advance of the end of the DPCR4 period without some certainty about the arrangements for DPCR5. There is therefore a case for giving a level of certainty to the companies about the future of the IFI now.

We agree that giving clarity beyond 2010 on IFI is justified on the particular merits of this issue and is consistent with our general strategy of reducing focus on 5 year periods and incorporating longer term considerations. We therefore intend that the IFI scheme will be continued throughout the DPCR5 period. The arrangements for the scheme will be as for DPCR4 and the pass-through rate will be set at the average DPCR4 level of 80%. Our position on this issue would only change in the event that it proved to be inconsistent with our statutory duties at the time of implementation.

We believe that investment in innovation should be self-sustaining. We will therefore be giving consideration to the further development of the price control mechanisms as part of the DPCR5 process to move towards this goal post-DPCR5. We will also revisit the other parameters of the IFI scheme as part of DPCR5. In particular, we could consider raising the cap on R&D Intensity from its current level of 0.5% if the actual benefits delivered by IFI projects are sufficient to justify this.

IFI internal expenditure

The level of the cap on IFI internal expenditure is currently set at 15% of total expenditure. This was broadly considered acceptable at the time of its introduction. However, experience has shown that this cap can constrain IFI activities and many of the consultation responses have argued strongly that it should be either raised or removed completely.

Experience has shown that it is not possible to establish an optimum balance between internal and external expenditure that is applicable for all R&D projects. Where a DNO outsources a large project to a third party the DNO's costs as a proportion of the total project costs will be low. However, where a DNO is actively involved in the project, perhaps hosting a pilot installation, the proportion will, and should, be much higher. A similar difficulty arises where a DNO is part of a collaborative project, effectively leveraging its IFI investment. Here the absolute cost to the DNO can be small but predominantly internal rather than external.

Recognising that experience might require us to revisit this, the licence condition allows a DNO to seek our consent for a higher level where a case can be made. We have been persuaded that the 15% level is not helpful and have considered three options to address this issue:

- Encourage the companies individually to seek higher caps;
- Make a licence change to establish a new cap for all companies; or
- Remove the cap altogether and, now that external collaboration is well established, rely on the extant reporting of internal expenditure to highlight any inappropriate allocation of IFI resources.

We have decided that the third option offers the best way forward for the remaining three years of DPCR4. This can be achieved without the need to change the licence by companies seeking our consent individually under the terms of the existing licence to change the 15% figure to 100%. For the avoidance of doubt, we retain our view that internal expenditure should be carefully managed and remain proportionate having regard to the type of project being undertaken and the stage it has reached in its lifecycle.

We also take the view that the boundary between IFI internal expenditure and 'business as usual' engagement such as involvement with industry committees should be clarified and this is referred to later in this letter. The issue of internal expenditure has been left open in TPCR4 until now because of this consultation process. We have decided that the same approach should be applied to the TPCR4 IFI scheme and this will be reflected in the licence changes now being drafted.

IFI eligibility criteria

The IFI was from the outset designed to address engineering challenges faced by the DNOs. The definition of an eligible IFI Project is set out in the Regulatory Instructions and Guidance (RIG)[2] and further guidance on the criteria defining eligible projects is provided in the Good Practice Guide[3] (GPG - Engineering Recommendation G85). The DNOs have argued that the current eligibility criteria are too restrictive and exclude projects that could benefit consumers. For example, the companies have proposed that developing innovative ways of enhancing the physical security of sites should be eligible under IFI. We understand that the companies intend to review the GPG to incorporate the electricity and gas transmission IFI schemes and submit the revised GPG for Ofgem approval before 31 March this year. This presents an opportunity for the companies to make a case for changes to the eligibility criteria which we will consider on their merits. It would also be useful to address the issue of using IFI funds for the 'roll-out' of innovations following their successful development and, as discussed above, the boundary between activities that would be considered as 'business as usual' and eligible IFI projects. It is our view that engagement with industry engineering committees is not eligible as this does not constitute a project having a specific target or deliverable. We do intend to change the RIG's definition of an eligible IFI Project to address the inconsistency relating to the valuation of single project benefits and those of a DNO's portfolio of projects that currently exists with the GPG.

[2] www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/10451_7105.pdf
[3] www.energynetworks.org/spring/engineering/cms01/CMDocuments/contentManDoc_75_10f5bd06-d7ff-45a2-88e5-939ac1a49aec.pdf

IFI benefit assessment

It is commonly recognised that assessing the benefits of R&D projects is problematic owing to the risks involved and the range of possible outcomes. Project assessment is addressed in the GPG and, as with the eligibility criteria, we recommend that the industry pursues this via the revised GPG. The companies have already given this consideration and are expected to propose a scorecard approach which will bring together financial and non-financial benefits.

Future of RPZ

Experience has shown that finding the right combinations of technical opportunities and supportive developers has to date limited the number of RPZ proposals. No specific weaknesses of the RPZ scheme have been identified. However, some parties have argued that it would be helpful for the final registration date of 31 March 2010 to be extended.

Without an extension there is a risk that companies would not enter into RPZ negotiations with developers after about end-2007 as project lead times can be 18 – 24 months. This would be regrettable as RPZs are designed to address the highly problematic phase of 'technology transfer' that besets R&D in the UK and Europe. An extension alone will not address the fundamental constraints but the nature of RPZs is that momentum can be expected to build slowly, increasing in pace as more constraints to distributed generation arise on the networks. However, RPZ differs from IFI in a number of respects. In particular, RPZ remuneration is linked to the wider DG incentive mechanism which is likely to be reviewed under DPCR5.

DNOs are currently able to apply for RPZ registration until 31 March 2009 but the RPZ project will have to have a connection start date (as defined in the RIGs) in the form initially registered with Ofgem no later than 31 March 2010 in order to qualify for the RPZ premium. It is therefore proposed that the deadline for RPZ registration is extended by one year to 31 March 2010, the end of the DPCR4 period, and the connection start date by two years to 31 March 2012. This will offer a bridge between the DPCR4 RPZ arrangements and any subsequent arrangements in DPCR5. We do not at this time want to commit to the RPZ arrangements continuing into DPCR6 and so it is also proposed that the RPZ premium will only be payable until the end of DPCR5. The value of the RPZ premium will therefore be reduced for projects with a start date after 31 March 2011. We intend to review the RPZ incentive as part of DPCR5. We remain of the view that innovative connection arrangements can bring benefits for customers and should be suitably incentivised.

The consultation responses have also drawn attention to the fact that 132kV RPZ projects cannot be pursued in Scotland because 132kV is defined as transmission there. We have decided that this should not be addressed by modifying the RPZ scheme. Rather, it is proposed that we address this in a targeted manner through a project with the TO and SO companies. The Scottish 132kV systems are already active networks, unlike those in England and Wales, but our judgement is that innovation might well be able to release new capacity within existing asset configurations in the shorter term.

Summary of Decisions

In summary the Authority has decided to:

- Commit to extend the DPCR4 IFI scheme until the end of DPCR5 with a flat pass-through rate of 80%;
- Remove the cap on internal IFI expenditure for both distribution and transmission when requested to do so by a DNO;
- Extend the deadlines for RPZ registration and commissioning by one year and two years respectively; and
- Develop and implement a project with the transmission operators and the GB system operator to assess the potential for innovation to achieve capacity release in the shorter term on the Scottish transmission networks. It is envisaged that IFI funding arrangements, already agreed under TPCR4, may play a part in this.

Please do not hesitate to contact me on the above number if you have any queries in relation to the issues raised in this letter or alternatively contact Gareth Evans on 020 7901 7347.

Yours sincerely,

John Scott
Technical Director, OFGEM

Attachment

Innovation Funding Incentive and Power Zones: Summary of Consultation Responses

Introduction

In total, 22 responses were received from a wide range of interested parties. A list of respondents is shown in the table below.

DNO Group	EDF Energy, Central Networks, Scottish Power Transmission and Distribution, United Utilities, Scottish and Southern Energy, Western Power Distribution & CE Electric
TO	National Grid (Gas and Electricity)
Manufacturers	Kelman Ltd, KEHUI, Areva
Academia	Warwick Business School, DTI Centre for DG and Sustainable Electrical Energy
Consultants	KEMA, Cre8 Innovation Solutions Ltd, EA Technology
Consumer Bodies	Energywatch
Trade Associations	British Wind Energy Association, Scottish Renewables
Government	Scottish Executive, Highlands & Islands Enterprise
Other	Scottish Power Renewables

This summary collects together the responses relating to each of the topics raised.

Level of cap Internal IFI expenditure

Eight respondents recommended that the 15% cap on internal IFI expenditure should be removed and a number of reasons were cited. Five respondents stated that effective participation in highly collaborative and small projects requires significant levels of internal expenditure also noting that internal expenditure often varies through the life of a project from company to company and year to year.

Concerns were also raised by some respondents that the internal cap discourages the use of direct labour to carry out the R&D tasks to the detriment of developing a sustainable future DNO skills base as well as acting as a barrier to the type of projects companies are willing to undertake.

- One respondent suggested that companies should be allowed to report leverage on the level of spend rather than imposing a cap. Another respondent suggested that guideline internal limits should be suggested for each phase of the project.
- One respondent proposed that the ratio of internal to external resources should be estimated in the initial business developed by each DNO. Each project will be considered on its merits and a range of ratios could be accommodated. Subsequent review of overturn against forecast could be used to highlight any divergence in funding ratios accordingly
- One respondent suggested that Ofgem should remove the cap but review expenditure and disallow that which is felt to be inappropriate. Another suggested that there should be some scope for individual exceptions to the limit if a DNO can make a case to support increased internal expenditure.

Three respondents recommended increasing the IFI internal expenditure cap from 15% to a higher level for the following reasons:

- One respondent was of the view that the internal cap could be raised to 20% or as high as 25% as this is more likely to be consistent with the level of internal costs that might be incurred as more projects reach deployment phase.
- Another respondent stated that their company had not established an internal R&D department especially for IFI projects and, from their experience to date, an increase of the internal cap to 20% will be appropriate.

Sitting on the fence:

- One respondent was of the view that an open-ended commitment on internal spending is not necessary and it may be helpful to consider R&D innovation in similar industries and use that as a benchmark.
- One respondent was of the view that the internal cap should be kept at its present level as increasing it may stimulate the growth of smaller fragmented projects which do not offer as much potential benefit to consumers as larger ones.

IFI Eligibility

Ten respondents recommended that the definition of IFI eligibility should be broadened to cover other aspects of technical development relating to operating a network such as safety, environmental, security, DSM, storage, commercial and elements relating to full life cycle of assets such as design, construction, commissioning, operation, maintenance and decommissioning.

- One respondent was of the view that additional environmental improvements could be funded by increasing the 0.5% cap and ring-fencing a percentage of the expenditure.
- Two respondents suggested it would be helpful to include within the scope of the definition, innovative new modelling of related projects such as load flow, dynamic, stability, asset replacement and techniques to facilitate DG feasibility studies and other probabilistic techniques.
- One respondent proposed that the de-minimis project limit should be raised to 10% of the total allowable annual IFI allowance because the de-minimis project limit of £40k was reducing opportunities for DNO collaboration and worthwhile projects dropping off the STP programme.
- One respondent raised concerns that the definition of an IFI eligible project in section 3.2 of the GPG is at odds with section 3.2.3 of the GPG which recognises that not all

IFI projects will show Present Values due to the benefits that may be considered when evaluating whether a project is worth pursuing.

- Three respondents proposed that G85 should be amended to provide non-eligible examples, which are close to the boundary of eligibility and additional statements providing explicit guidance regarding investments which would be deemed ineligible.
- One respondent proposed that the IFI eligibility rules could be extended to enable DNOs commit finance to larger programmes of work as this could facilitate access to funds from other organisations which can be used to leverage IFI spend and could help to strengthen prototype and demonstration activities.

Assessment of benefits

Twelve respondents suggested that a mix of qualitative and quantitative non-financial measurements would complement the existing NPV calculations.

- One respondent suggested additional range of benefit such as safety, reliability, environmental, responsiveness and customer services that could be used as assessment criteria for projects.
- One respondent stated that their experience as part of the EPSRC user panel concluded that R&D benefits were best defined in terms of costs of research, leverage enabled through collaboration and case studies of applications of further developments including student destinations.
- Four respondents suggested using a balanced scorecard system to measure non-financial benefits and sharing of benefit assessments frameworks already used by organisations. One of the respondents suggested that the headings can be partly based on the risk assessment heading already incorporated into a PAS 55 and CBRM type approach, supplemented with some relating to knowledge.
- Two respondents proposed that the ENA R&D Working Group develops an annual and high profile guide aimed at communicating the benefits of IFI to an appropriate audience. One respondent suggested that the annual report should be adapted to describe non-financial benefits.
- One respondent stated that the approach to project review in the GPG is flawed because forecast adoption costs are not incorporated in the NPV calculation. Two respondents proposed that the ENA R&D working group develops a new benefits assessment for consideration by Ofgem.

RPZ Constraints

The majority of respondents acknowledged that the RPZ has not to date been as successful as IFI with only three schemes registered so far and no DG connections made as yet.

- Seven respondents were of the view that lack of certainty regarding the future of the RPZ initiative beyond 2010 might decrease the opportunity for generators to participate, hence extending the scheme will increase generator certainty.
- One respondent currently developing an RPZ was of the view that there should be no time limit on when the MW connects. This would remove the diminishing incentive to develop RPZs as the price control period progresses and provide certainty to the DNO that on his financial reward should the MW appear in the RPZ.
- Four respondents were of the view that the economics of setting up an RPZ and the limit on the revenue (0.5million/year) that can be earned could be acting as a constraint with DNOs undertaking RPZs.

- One respondent suggested a number of ways to address these constraints by increasing the scope of RPZs to include: increase in the level of revenue that a DNO can earn from RPZs, modify planning arrangements and the RO to complement the RPZ scheme.
- Three respondents proposed that RPZs should be allowed to be developed on 132kV networks in Scotland.
- Seven respondents were of the view that RPZ should be broadened to include applications of Storage and DSM schemes.
- One respondent proposed that a greater level of information on all registered RPZs should be made available in the public domain, including aspects such as geographical area, overview of technology and application and commercial structure.
- One respondent suggested that RPZs should be considered through the TPCR to address constraints.
- Two respondents were of the view that RPZs are most likely to be used to identify when the peak output of intermittent technologies such as wind need to be constrained rather than being used to design other forms of DG.
- One respondent proposed that the eligibility criteria should be widened to allow repeat application of innovative technology (e.g. repeat GenAVC at other voltages other than 11kV)
- Two respondents suggested that the RPZ incentive could be developed to be based on the accessibility or capacity enhancement rather than actual DG capacity take-up. One respondent cited the Orkney RPZ as a good example of early release of constrained capacity by allowing DG connection on a non-firm basis. The respondent seeks clarity from Ofgem that the RPZ incentive will apply to generators offered earlier connection to relieve the Scottish queue.

Future of IFI and RPZ

The majority of respondents expressed their support for the IFI and RPZ schemes and will like both schemes extended beyond the current price control period of 2010. Most believe that given the uncertainty over what, if any mechanism will apply in the next review period, it is necessary for Ofgem to introduce a five year rolling notice period as this will give confidence to participants in collaborative IFI projects and allow commitments to longer term projects.

- The majority of respondents were of the view that the existing IFI mechanism works well and has a clear structure; however there is a need to refine the existing framework.
- Three respondents were of the view that there should be an increase in the IFI allowance of 0.5%, however, a figure was not quoted. Two respondents proposed an increase to 1%.
- Two respondents proposed that the flat pass-through rate of 80% should be set for the IFI scheme.
- One respondent was of the view that capitalisation of R&D expenditure is logical since the objective is ultimately to enhance the cradle-to-grave performance of the distribution network. It is therefore inappropriate for R&D to be regarded as an operation cost. Therefore, the current IFI pass-through arrangement should be retained at least in part, provided that the current level of overheads allocated by

apportionment to capital will not be displaced, then the balance that is not pass-through could be capitalised.

- Two respondents did not support a suggestion made in Ofgem's open letter for IFI funding to be based on valuing benefits delivered by projects as they believe it would be difficult to manage and discourage participation in more innovative projects.
