Response to Ofgem discussion paper "Innovation and Registered Power Zones" by VA TECH T&D (UK)

Intellectual Property Question

1. Do you have any specific views on the management of intellectual property that may be created through the IFI and RPZ initiatives?

We agree with the general principle that Ofgem should not seek to incentivise the network companies to pursue Intellectual Property Rights of their own.

Innovation Funding Incentive (IFI) Questions

2. Do you support Ofgem's rationale for introducing the IFI? Do you consider the IFI to be aligned with consumers' interests?

Yes, we agree with the rationale that incentives are needed to develop new technologies to enable lower cost connections. Lower cost connections will encourage greater take-up and diversity of embedded generation. Innovation is an essential part of this. We welcome the separate treatment of R&D expenditure from routine OPEX. We believe this will encourage innovation and to be in the long-term interests of consumers.

3. What are your views about the use of the DTI's R&D Scoreboard as a yardstick in this context? It would be useful if DNOs could quantify their company's current R&D Intensity and offer their views on an appropriate level for the next DPCR period.

We believe that the R&D intensity of network companies needs to significantly increase from its current level in order for innovative solutions to be developed. We do not believe that this can be left solely to manufacturers or equipment suppliers. A target of around 0.5% seems appropriate. To help in determining an appropriate figure, we suggest that a benchmarking exercise be carried out to compare R&D intensity for this sector with other countries.

4. Do you think the three category approach (A, B and C) and treatment of allowed funding is a reasonable balance in the interests of all parties? What should the value be of the proposed F1 and F2 factors?

We support the principle of categorising R&D. However, we feel it is important to recognise that basic research also has some benefit and that it should be incentivised. Also, the failure of basic research should not be "punished", provided that the correct process has been applied. We would therefore suggest a simplified, two category approach as follows:

_	Category	Description	Allowable funding
		Projects designed to deliver a product against a clear	80%
		target and network need; e.g. protection and	
		automation to integrate a DG connection on a	

	particular part of a network.	
В	Generic innovation but still focussed on identified problems; e.g. a voltage control solution for networks with wind generation, also including projects which are aimed at establishing enhanced technical understanding; e.g. exploring the capabilities of new insulating materials and systems.	20%

5. What are your views on establishing good practice for the management of innovation and could such a framework be adopted commonly across the industry?

We would recommend a generic, well-established, R&D framework, ideally from an industry or consultancy already familiar with such processes. We do not believe that such a framework should be developed in isolation by electricity industry participants.

6. Should the IFI percentage cap be varied between companies according to performance or some other criteria?

We feel that the network company should be free to set its own level of expenditure (identified by category, as above) as part of the DPCR submission, possibly within an "acceptable" range as determined by Ofgem. This will enable network companies to allocate funds to R&D based on their actual needs and available resources. As with CAPEX obligations, there would be some kind of penalty for failing to deliver on the proposed expenditure.

Registered Power Zone (RPZ) Questions

7. Do you share Ofgem's view that DG is likely to be connected more efficiently if innovation and new solutions/technologies are employed?

We believe there is considerable scope to reduce connection costs and increase available capacity for connection through new solutions/technologies¹. However, introduction of such new technologies usually requires the introduction of new operational practices, as well as sufficient time to prove effectiveness and reliability. In order to achieve this, the network company must be prepared (or incentivised) to make the necessary changes.

8. Do you have a view regarding the annual RPZ MW capacity and numbers of projects that might be appropriate per DNO licensee per year, and whether the number should be allocated by the suggested gold, silver and bronze categories?

We believe that limiting the number of RPZ projects is sensible, although it would seem wrong for the same number to be applied to all network companies. We believe the number of proposed RPZ projects should be proposed by the network company, with the final number to be agreed as part of the DPCR process.

We do not feel that limiting the MW capacity is a good idea as it could introduce artificial

¹ DTI Call for Proposals 401: "Integration of operation of embedded generation and distribution networks", VA TECH T&D UK 2003

distortions in the distributed generation projects. E.g. Should a 60MW wind farm connection qualify or not? Since all technical and statutory standards must be met, we do not believe a MW capacity limit is necessary.

9. Should the premium return be common for all RPZs or should it be related to the innovative content of the project? If the latter is considered appropriate, is the gold, silver, and bronze approach helpful, or can you suggest a better alternative?

In order to reward innovation and offset risk, we believe it is essential that the premium return is higher for the more "challenging" RPZ projects. The Gold/Silver/Bronze classification might be rather complex to administrate. On the plus side, it appears to be highly flexible; it sends the right "message" and should be effective in providing the appropriate management incentives. Alternatively, a two-tier system might be easier to administrate.

10. Is it practical to base financial rewards on a project meeting or failing to meet performance objectives?

Innovation on power systems carries inherent financial risk, and failing to meet performance objectives would almost certainly result in the network company bearing additional costs. The possibility of additional punishment for "failure" would almost certainly negate the original incentive.

11. Do you think a mechanism relying on an enhanced £/MW driver to provide a premium return is appropriate, and if not what alternative could be considered?

Since the aim is to increase the uptake of embedded generation in accordance with government targets, this would appear appropriate.

12. What lifespan do you consider should assigned to an RPZ and to the premium return?

We believe the minimum should be 5 years. If a maximum limit is required, we would suggest 10 years.

13. What premium do you consider to be appropriate to encourage innovation in DG connections and how could this be justified?

We are not able to suggest a figure. However we believe that this is strongly linked to the answer to 15.

14. Do you have a view on how, in principle, the boundaries of RPZs might be defined? Should they, for example, encompass a physical area, rather than simply an electrical node? Do you see potential, in design or operation, for outsourced specialist services?

We believe that defining the boundaries simply as a physical area would not be practical. We feel that at this stage, the definition should remain open and flexible in order to encourage innovation. For example, one possible (but by no means exclusive) definition could be that the boundary is that of an "automatically electrically isolatable system", i.e. a section of network that can be isolated from the main system by remote control or automation (regardless of voltage and however small or large that section may be). Supply of the necessary equipment, installation and configuration of such a section of network could be outsourced to a specialist provider.

15. In your view, how should the RPZ initiative be funded?

As a solution and service supplier, we are not able to comment on this.

General Questions

16. Can you suggest alternative regulatory mechanisms that might better deliver the stated objectives of the IFI and RPZs?

We believe that the mechanisms as proposed would effectively deliver the stated objectives of the IFI and RPZs.

17. Would it be helpful to consider whether IFI and RPZ arrangements could be introduced on an interim basis, ahead of commencement of the next price control period in 2005?

Yes, we believe such arrangements could be trialled on an interim basis, ahead of commencement of the next price control period in 2005. As a supplier, we would welcome the opportunity to participate in the development and implementation of such a trial RPZ project and believe that we could add significant value to the process.