

Our Ref: (S)964/hf

2 August 2013

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Dear Dr Ramsay,

Integrated Transmission Planning and Regulation (ITPR) Project: Emerging Thinking

The IET welcomes Ofgem's efforts to harmonise the planning and delivery of transmission across three existing regimes. For us this is however part of a wider issue, which is the lack of a single entity with engineering responsibility for the integrity of the whole GB electricity system, including transmission, distribution, generation, supply and demand management.

We have long advocated the need for an overall "system architect" with such overall responsibilities. This is entirely normal in complex engineering systems, and its absence in electricity risks perverse outcomes and potentially unstable and unpredictable behaviour. The major changes taking place in the electricity system at present are only the beginnings of transformational changes expected in coming years, and without a systems view there are very significant risks.

In proposing a transmission system planning function ITPR moves in the direction of a system architect and could represent a first step to this whole system approach. However it would be unfortunate if decisions regarding ITPR made the development of a wider system architect role more difficult in the future. Therefore further exploration is required into the best option for the entity that provides the national system architect role.

The IET would be pleased to meet with Ofgem to explain our thinking and the concept of a whole system approach.

RESPONSES TO QUESTIONS

The need for change

Question 1: Do you think we have appropriately characterised the future challenges to network development? Where do you see the main challenges? What are the long-term strategic and sustainability implications of these challenges?

We agree with the need to bring together the three separate regulatory regimes for the reasons outlined in section 2 of the consultation.

We agree that the consultation correctly identifies the main issues and need for change.

Question 2: Are any of the review areas under ITPR more relevant than others?

We agree that each of the 4 areas for consideration is important and would rank them as follows:

- 1 the need to align the incentives across all types of network asset
- 2 the need to manage multi-purpose projects (MPP)
- 3 the need to manage conflicts of interest
- 4 the need to have a clear voice in European network issues

We would comment however that being a part of the European debate across the piece is of continuing and increasing importance, and the industry needs to devote more thought to how this is achieved.

We are aware that there are already examples of multi-purpose projects that result in perverse incentives or add risk to projects in development and hence there is a need to change the regulatory regime at the earliest opportunity. For example interconnector projects and integrated offshore grid connection offer the potential for cheaper overall offshore power networks, and better use of scarce resources such as landfall sites.

Options for System Planning

Question 3: What are your views on the options for system planning discussed in this chapter? Are there other approaches to system planning that you think we should be considering within the ITPR project?

We agree that the consultation identifies the realistic options for **transmission** system planning and do not see other options worthy of consideration. However, we would like to see the options discussed in the wider context of a whole system approach.

Question 4: Do you think that it would be beneficial to strengthen the role of a coordinating body working with relevant parties to facilitate efficient decision-making? In what areas could this coordinating body add most value to the process?

We strongly agree with the need for a stronger coordinating role, as described earlier in this response.

Question 5: What are your views on the (real or perceived) conflicts of interest that could occur from parties holding dual responsibility in system planning and asset delivery and ownership? What are your views on potential options for institutional arrangements, separation and transparency measures to mitigate this?

We recognise the issues of conflict of interest in a party responsible for planning that is also responsible for some aspects of delivery. We also recognise the benefits of giving an interest to the planning entity in some asset ownership and delivery that will inform their thinking and make them a better planner. There is also a pragmatic need to minimise disruption to the industry and to minimise bureaucracy. We therefore believe that total separation of the planner from any delivery is not essential, but that it is important to ensure that the planner's work is undertaken with an open mind, fully alert to the innovation currently sweeping the industry, and not overly conditioned by conventional industry practice.

We therefore support the concept of an enhanced role for the National Electricity Transmission System Operator (NETSO) as a ring fenced entity within a company that is allowed to own and deliver a minority of network assets. Along with the enhanced duties we would expect greater oversight and that a majority of ownership and delivery of new assets would be done competitively by others.

Oversight is key and needs to be more than only economic. At the engineering level we would suggest a widely-based steering board or committee is established, empowered to guide and consider proposals from the GB System Operator (GBSO) in this enhanced role. This is to help ensure balanced engineering thinking, taking into account the needs of all stakeholders, future as well as present. Consideration should also be given to how this role might develop in the future into that of a technical system architect, and the potential need to separate the role from the GBSO at that time. We suggest that there are two potential options:

Option A: National Grid's existing role as GB system operator is further extended

Pros:

- Existing mature and competent body with knowledge that can hit the ground running
- Will avoid duplication of functions and hence greater demands on scarce power systems engineering skills

Cons:

- No matter how many internal fences are erected, NG will always have an asymmetric view based on its internal knowledge and shareholders.
- Starts the industry down a route where NG's role expands to become overall system architect, exacerbating the concern that one industry participant gains dominant powers
- Potentially disadvantages innovative approaches outside NG's core culture and expertise, for example solutions based on local initiatives

Option B: A new entity is created specifically to operate as technical system architect

Pros:

- Allows a broad range of capabilities to be integrated to facilitate a wide variety of solutions and foster innovation, moving towards a system architect role in the future
- Would place the key engineering issues and complexities now coming to the fore in a prominent place so they receive due attention

Cons:

- Additional cost and potentially additional bureaucracy
- Potentially needs additional scarce power systems engineering skills

Question 6: What are your views on potential future approaches to planning interconnection? Should there be increased central identification of potential interconnection that could benefit GB consumers?

We agree that interconnection on a merchant basis, driven by market price differentials alone, is likely to result in too low a level of interconnection. We support the idea of some interconnection being identified as necessary by the system planner and delivered separately.

Delivery of Assets

Question 7: What are your views on the options for delivery of transmission assets discussed in this chapter? Are there other options that you think we should be considering within the ITPR project to address the delivery drivers and challenges identified?

We agree that chapter 4 identifies the main options for asset delivery. We support the general principle of widening the ownership and delivery of network assets to encourage innovation.

Question 8: Do you think that it would be beneficial to introduce some flexibility in the existing regimes to provide for alternative delivery routes, where this is in the interests of consumers? If so, what criteria could be used to determine the delivery route for an investment?

We agree that flexibility is needed to allow alternative approaches to asset delivery. We note the need to establish early in the development process which delivery option is appropriate and will be used so that developers can consent and procure the assets efficiently.

Question 9: If we pursued additional flexibility in application of the regimes, what role should discretion play in identifying the delivery route for a particular investment?

We believe the delivery approach should be considered on a case by case basis. To attempt to draw up criteria to cover every eventuality would make those criteria complex and potentially lead to less rather than greater clarity. Instead we suggest the most obvious regime apply by default and where this is not clear-cut Ofgem should make an early determination based on a recommendation / proposal from the developer in order to give early clarity.

Emerging Thinking

Question 10: Do you think that the case for change to current arrangements to enable more integration and coordination is material now, or may become so in the future? If the latter, when?

We agree that there are already cases that are not clearly within one or other existing regime and there is a need to change as soon as due process allows. However we urge that due consideration is given to the development of this thinking into a system architect concept.

Question 11: What are your views on our emerging thinking to consider further an enhancement of NGET's role as the SO in system planning to provide for a more coordinated and holistic approach across the GB system?

We agree that enhancing the role of NGET which is the existing National Electricity Transmission System Operator (NETSO), is the most pragmatic way to move these issues forward provided appropriate engineering checks and balances are put in place. However, in the longer term we would recommend a whole system approach be adopted that might require further separation of the system architect due to the range of generation, distribution and supply issues that are not within NGET's existing competence.

Question 12: What are your views on the emerging thinking that introducing further flexibility and applying criteria to designate whether an investment should be delivered by incumbent delivery or competitive selection could address many of the challenges and drivers identified?

Not answered.

Question 13: What other options should we take forward for consideration in the next stage of our work on ITPR?

We would like to see a wider consideration of a whole system approach to design of the network that goes beyond transmission network planning as discussed above.

Question 14: Do you have any views on our approach and timetable for our work on ITPR, or on interactions with related areas?

It would be undesirable if a step by step approach to solving these issues, starting with transmission, led to an expanded role for National Grid simply by default. Therefore further early

exploration is required of the best option for the entity that provides the national system architect role.

Question 15: Do you have any other views on the ITPR project not covered by these questions?

Please refer to IET's introduction and key points.

About the IET

The IET is one the world's leading professional bodies for the engineering and technology community. We have over 150,000 members in 127 countries and has offices in Europe, North America and Asia-Pacific. The Institution provides a global knowledge network to facilitate the exchange of knowledge and to promote the positive role of science, engineering and technology in the world.

This response has been prepared on behalf of the Board of Trustees by the IET's Energy Policy Panel.

If the IET can be of further assistance to Ofgem on these matters please do not hesitate to contact me.

Yours sincerely



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