

By e-mail –
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Your ref
83/13

Our Ref

Date
2 August 2013
Contact / Extension
Alan Michie
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Dear Charlotte,

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

I am responding on behalf of SP Transmission (SPT) to the above consultation issued on 5 June 2013. We welcome the opportunity to comment on Ofgem's emerging thinking.

Network companies need a stable regulatory regime to give them confidence to invest and innovate. We accept that it is right to continually review regulatory arrangements. However our view is that the onshore arrangements are continuing to work well and our preference is therefore for continuity of regulatory arrangements. We therefore recommend that any ITPR outcomes are balanced to minimise further industry change.

If change is required relating to system planning, then we support the "enhanced coordinating body" model. The pragmatic, cost-effective approach is for NGET to undertake the enhanced SO role. However, it may be necessary to introduce measures to ensure full transparency between NGET's SO and TO functions.

We are not convinced that the anticipated benefits for consumers of onshore transmission competition have been demonstrated. Effective separation has governed the onshore arrangements since BETTA and has delivered an effective integrated onshore transmission system. However, if change is required relating to transmission asset delivery, then we would be prepared to look at "additional flexibility". Due to the complexity of interrelating

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factors that need to be taken into account in making decisions around significant transmission projects, and their associated uncertainties stretching into the medium term, our preference would be for a discretionary approach in which Ofgem, as the decision maker, applies high-level principles on a case-by-case basis.

We are very keen to participate and fully support Ofgem on the ITPR project, and welcome the opportunity for direct discussion with Ofgem on ITPR.

We have provided answers to your specific questions in the attachment.

Yours sincerely,



Alan Michie
Head of Regulatory Policy and Commercial
SP Energy Networks

Copy:

Scott Mathieson, Regulation and Commercial Director, SP Energy Networks

ITPR Project: Emerging Thinking

Detailed Comments by SP Transmission

CHAPTER: Two - Current Arrangements and Future Developments

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?

SPT has a licence obligation to comply with the SO-TO Code and in so doing fully support the System Operator in operating and managing the onshore transmission system in southern Scotland. Our transmission licence clearly sets out our RIIO T1 outputs, and includes a process for adding and modifying these outputs if required.

SPT is a key enabler for the delivery of UK Energy Policy, by undertaking various major reinforcement works that are part of our agreed RIIO T1 plans. These reinforcements are essential, rather than optional, in ensuring that we meet UK Energy Policy. By delivering these reinforcements in line with our agreed plans we will also help minimise short-term system costs.

SPT has to address considerable planning uncertainty on its projects. It also has to work closely with the SO to optimise system access (through applying the principles set out in the Network Access Policy). What helps in such an environment is to have a framework that that minimises regulatory uncertainty. ITPR must try to avoid introducing further uncertainty.

Technology Challenges

SKM's "Review of Worldwide Experience of VSC HVDC Technology Installations", issued alongside the "Emerging Thinking" document, accurately represents the technological uncertainties. An offshore integrated transmission network will be significantly different from existing onshore networks with commonplace onshore apparatus simply not available at present for a DC network, or at best severely challenged by the offshore environment. In deciding what ITPR actions should be taken, it should be recognised that it will take some time for new technology such as high voltage (i.e. 500kV+) VSC HVDC to be built offshore.

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

In our view a key priority for the ITPR project is to ensure that there is a stable regulatory framework for network investment.

CHAPTER: Three - Initial Analysis of 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?

In our view the consultation paper sets out a full suite of system planning options.

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?

From our perspective as an onshore TO, we do not see any major difference between the Shallow coordinator and the Enhanced coordinator models. We have had a good working relationship with NGET (and SHETL) as both a TO and an SO. If this can continue, then a move to an Enhanced Coordinator model, in which the SO takes the lead on certain tasks but continues to work closely with TOs, should be workable.

If NGET is to be the SO then it may be necessary to introduce measures to ensure full transparency between NGET's SO and TO functions.

A move to an Enhanced Coordinator model may also lead to NGET taking more responsibility for representing the entire GB on ENTSO-E, representing onshore TOs and OFTOs.

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 believe that arrangements under the SO-TO Code, coupled with the regulatory restrictions on discriminatory behaviour, have worked well since the introduction of BETTA.

The paper postulates that there is the potential for bias if competitive arrangements are introduced. Strong competition in transmission already takes place between suppliers and we therefore believe that the introduction of new competitive arrangements is unnecessary. Indeed, we believe that the introduction of competition will further complicate matters, and also extend project timescales.

If there must be competitive delivery for major transmission projects, then we would expect measures to ensure transparency between the various parties, and the managed exchange of key information.

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?

An integrated European grid will improve supply security and promote lower electricity prices. However it will require significant interconnection between countries. If there are to be more interconnections, it may be that a coordinated approach is more appropriate with ENTSO-E playing an important role in facilitating the identification and need for appropriate interconnection/s.

It also supports NGET taking more of a lead role for GB at ENTSO-E while also ensuring that TOs and OFTOs are fully consulted and appropriately represented.

CHAPTER: Four - Initial Analysis of Options for Delivery of Transmission 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?

In our view the various transmission delivery options are fully covered in this paper.

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?

From an onshore TO perspective, we believe that we have delivered and will continue to deliver the right transmission reinforcements cost-efficiently. We consider that it is misleading to suggest that there is no onshore transmission competition. In fact there is a very competitive supplier market in electricity transmission.

Ofgem's decision to fast-track SPT in RIIO T1 has already had clear benefits. We have put a significant amount of effort into the development of our supplier base and this has resulted in us placing contracts with several substation and cable laying contractors with whom we have not worked before. In addition, it has resulted in us increasing the amount of competition for overhead line work by working with several new contractors to develop their business and take them through our pre-qualification processes. A good example of the benefits from this approach can be seen from our invitation to tender for the new 275kV overhead line associated with our South West Scotland development. This resulted in six contractors making best and final offers whereas past experience would have suggested two or three active participants at that stage in the procurement process.

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?

Our preferred approach is to minimise change to the current onshore arrangements. If there is a need to move towards additional flexibility arrangements then, due to the complexity of interrelating factors that need to be taken into account, our preference would be for a discretionary approach in which Ofgem, as the decision maker, applies high-level principles on a case-by-case basis. This approach would help ensure that full and thorough consideration is taken of all interrelating factors before a decision is made.

We note the scenario set out in Ofgem's paper relating to an offshore "bootstrap", required by the onshore TOs to meet their licence obligations, and that such an asset could at some future date to be converted into a MPP. We hope that there would be a degree of discretion if at some stage in the future the most cost-efficient and low risk solution for an offshore connection is to connect to a existing TO "bootstrap" (as is postulated in figure 5, scenario 1 of your paper). The current arrangements imply there should be a change in ownership under this scenario. Our view is that if the onshore TOs had successfully and cost-efficiently completed key strategic assets for the benefit of GB consumers, then some type of

arrangement/s, perhaps applied on a one-off basis, may be required to ensure that the TO can continue to own its assets. This is equitable and would help maintain investor confidence in network investment. From a practical standpoint it would be easy to identify an “ownership boundary” and this would facilitate such discretionary arrangements.

CHAPTER: Five – Emerging Thinking and Next Steps

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 believe that continuity is required for onshore arrangements particularly given that the current onshore arrangements work well.

As discussed in Q9 above, we note the scenario set out in Ofgem’s paper relating to an offshore bootstraps, required by the onshore TOs to meet their licence obligations that could be converted into MPPs. Based on the current position in terms of HVDC VSC technology and risk, we believe that it will be some years before the risk is sufficiently manageable for an OFTO / offshore developer to consider connecting to a 500kV+ VSC HVDC offshore hub. Our view is that a practical timeframe for this scenario would be at least 10 years from now.

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 consider this to be the most pragmatic and cost-efficient option subject to any concerns over transparency being addressed.

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?

We are not convinced that the anticipated benefits for consumers of onshore transmission competition have been sufficiently demonstrated. Effective separation has governed the onshore systems since BETTA and has delivered an effective onshore integrated transmission system.

If there must be additional flexibility, then due to the complexity of interrelating factors that need to be taken into account in making decisions around significant transmission projects, our preference would be for a discretionary approach in which Ofgem, as the decision maker, applies high-level principles on a case-by-case basis.

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

As ITPR requires to be applied to real assets there may be some value in Ofgem developing case studies that cover the detailed working of ITPR on assets that are similar to those found

around the UK. These case studies should cover the regulatory, financial, technological, financial and operational aspects of the development, commissioning and ongoing operation of transmission assets. SPT would be willing to contribute to the development of these scenarios, which could then be issued for comment to the wider industry.

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

Given that Stage 3 decisions and implementation routes will impact on timelines, it makes sense for the Stage Four timeline not to be defined at this stage. It also provides some flexibility particularly given the scale of other industry initiatives underway.

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

We have considered the supporting SKM paper on HVDC VSC and also the Imperial College / University of Cambridge paper and have set out some brief comments below.

HVDC VSC

Integrated onshore and offshore networks will make use of HVDC VSC systems. Hence we recognise the value of simultaneously issuing the SKM “Review of Worldwide Experience of VSC HVDC Technology Installations” alongside the “Emerging Thinking” document, as the SKM report provides a reality check on delivery timescales. Tables 2 and 3 in SKM’s Executive Summary are a very good technical summary of the issues.

Our involvement in both the Western HVDC and Eastern HVDC projects has highlighted the practical difficulties in connecting offshore wind farms and transmission assets on a common system. An offshore integrated transmission network will be significantly different from existing onshore networks with commonplace onshore apparatus simply not available at present for a DC network, or at best severely challenged by the offshore environment.

High capacity HVDC VSC systems are at a very early stage and would involve significant risk if they are part of an offshore hub. We believe that it will be some time before the risk is sufficiently manageable to consider connecting to a high voltage 500kV+ VSC HVDC offshore hub. Our view is that a practical timeframe for this scenario would be at least 10 years from now.

Imperial College / University of Cambridge

It is disappointing that we were not interviewed by the authors prior to this paper being published. This would have allowed us to address the comments made in the paper relating to providing cyclic / short-term asset ratings, why we have had to go for “asset heavy” reinforcements and the extensive use of innovation being applied or already in place, such as our series compensation reinforcement and the operational intertrip on the link from Scotland to England.

We would have explained that the “asset heavy” reinforcements to the Scottish network were, and are, essential. Not to undertake these reinforcements would lead to either extreme system costs, or a significant barrier to entry for renewable generation.

Contrary to what is implied in the paper, we do make extensive use of innovation to get the most out of existing assets and minimise new asset build. The last four upgrades to the link from Scotland to England have been about getting the most out of the existing routes through reconductoring, voltage upgrades and state of the art shunt and series compensation systems.

An example of innovation is our upgrade of the link from Scotland to England to 4400MW which makes use of a series compensation solution. This solution has not been applied before (anywhere), and will provide effective sub-synchronous resonance mitigation at a substantially lower cost than competing technologies.

As an example of an innovative non-asset heavy solution, at the request of the SO we recently upgraded the operational intertrip on the circuits from Scotland to England to address the fact that conventional devices and signalling equipment could not satisfy scheme complexity and very stringent operating time intertrip requirements. It was also very cost-effective as for a cost of £700k the SO identified benefits of £1 million pounds per week in constraint cost savings.

2 August 2013.