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SP Transmission response to Ofgem Consultation - System Operator incentive schemes from 2013: principles and policy

I am responding on behalf of SP Transmission Limited ("SPTL") to this consultation. SPTL is a Transmission Owner ("TO") located in the South of Scotland which has an obligation under its transmission licence to comply with the SO-TO Code (the "Code") and make available its transmission assets to National Grid Electricity Transmission ("NGET") as the System Operator ("SO"). Given the scope of this consultation, we believe that it is appropriate for SPTL to comment.

Our main points are:

- We will continue to support the SO in what has been a successful and effective working relationship up to now. However, the scale of work required on the Scottish transmission network going forward into RIIO T1 will require an increased level of system access. We suggest that the current SO incentive arrangements should consider the short to medium term cost impacts of increasing levels of wind generation being accepted on to a constrained Scottish transmission system.
- The development of a Network Access Policy is a positive step. An agreed Policy will be a very helpful mechanism for ensuring that priorities are defined and understood, for facilitating planning into the longer term, and for ensuring that there is a clear process for the provision of enhanced services.
- The constraint issue predominantly arises when the network is being assessed under N-2 security standards and we suggest that some consideration is given to applying N-1 security should the likelihood of a double circuit transmission fault be extremely low e.g. in benign weather conditions.

Background

Following the implementation of Connect and Manage in 2010, we are starting to see the impact of the growing level of wind connecting to the Scottish transmission system in terms of increased constraint costs. Our RIIO T1 business plan sets out outputs which will deliver value to the GB customer of around £1.7B cumulative by 2021 in reduced constraint costs through various transmission system reinforcements. However, in the short term to medium term constraints will probably remain high until the reinforcements currently underway are completed and commissioned. We are working urgently with the other onshore transmission licensees to undertake an extensive and agreed transmission reinforcement programme, which are an absolutely essential building block to meeting government renewable targets.

The current industry structure has been in place since 2005 and the relationship between SPTL and NGET has worked well, characterised by a degree of give and take on both sides while ensuring that the requirements of the Code are met at all times. Since 2005 we have connected almost 2GW of renewable generation directly to our transmission network, and our RIIO T1 plans are based on the industry agreed Gone Green planning scenario to connect a further 2.5GW by 2020, such that in Scotland by 2020 11GW of renewable generation will be connected to the Scottish transmission network. Indeed, current progress in connecting renewable generation in our licensed area indicates that we are significantly ahead of the Gone Green target.[1]

Requirement for System Access

As a TO, we are starting to see the impact of intermittent wind generation on to the Scottish transmission network as electricity transfers across the Main Interconnected Transmission System (MITS) increase due to the level of wind generation now connected in Scotland. This can result in high system constraint costs if the Scottish system is not "intact". In turn, this leads to situations where we are experiencing problems in agreeing outages with the SO on the active transmission network that have not been identified in the year ahead plan.[2]

Not unexpectedly, our requirement for system access is resulting in tensions between the TO and SO; we require access to the grid network while the SO is incentivised to minimise constraint costs. Since the start of 2012 we have found the SO to be slow to agree any new outage requests, and we frequently have to wait until one or two days before the requested date before finally agreeing. This short notice often gives us insufficient time to organise resources. Our impression is that this is due to the SO's need to forecast as accurately as possible the level of wind generation in Scotland in order to ensure high transmission system availability at times of high wind.

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[1] NGET's connections register, available via their website, details a portfolio of renewable generation contracted to connect in Scotland through to 2020 that is considerably higher than 'Gone Green'.

[2] This may be due to urgent, short notice outages being required to repair defects caused by storm damage. For example, debris from the exceptional storm event on 3 January caused damage to insulators on key sections of our overhead lines. Short-notice outages were therefore required to repair this damage.

Our agreed RIIO T1 Business Plan sets out, on average, a doubling of capital expenditure year on year compared to our current transmission price control (TPCR4), with particularly high levels of capital expenditure in the first three years as we undertake necessary reinforcements to our network. In order to deliver this essential investment, system access will be crucial, and from what we are observing recently the SO's incentive to limit constraint costs is proving to be a hindrance to this access.

This situation will be exacerbated in the short to medium term as more and more wind generation is connected in Scotland before essential system reinforcements are completed. If access arrangements cannot be agreed, then we may not be able to deliver the essential programme of work for RIIO T1, which would result in both an increase in constraint costs in the medium to long-term, and also decrease system reliability if we are not able to replace/refurbish/maintain ageing assets.

We fully acknowledge that system access has financial consequences and we must ensure that we work together to utilise access as effectively as possible. Our RIIO T1 plans are based on "paralleling up" work where we can by making use of system outages for transmission reinforcements to undertake non-load asset replacement works. Nevertheless, given the scale of work, it is inevitable that the requirement for system access will increase.

In year-ahead planning timescales NGET has been slow to agree some outages requested for 2013. We are concerned that at some point we will see a major outage clash between a MITS upgrade and RIIO T1 asset replacement / refurbishment works. Our view is that in such a situation the priority must be to focus on safety and security of supply, hence asset replacement / refurbishment works must be accommodated even if this leads to potential delays in reinforcements, and increased constraint costs in the medium to longer term. As we set out in our Network Access Policy, our focus must be to agree an access plan into the medium to longer term to help ensure essential reinforcement works are delivered.

SO Incentive Scheme

We are very sympathetic to the situation faced by NGET as SO, and we will continue to work with NGET collaboratively to look at all feasible ways of minimising short-term system costs whilst looking to deliver our agreed outputs. The development of a Network Access Policy is a very positive step and we will use this, alongside the Code, to promote ways of maximising access whilst also minimising system costs. The approach set out in our Policy is based on planning further ahead and establishing critical circuit outage windows up to eight-years in advance of the circuit outage work, with formal agreement of circuit outages two years in advance, and the option of further refinement at the year-ahead stage. This should help minimise the impact on the TO and the SO by ensuring that both TO and SO requirements are addressed at a much earlier stage.

We believe that the SO incentive scheme should have an equitable means of addressing uncontrollable system costs i.e. the SO should be exposed to costs for areas it can control, but should not be exposed to costs for areas it cannot control. Uncontrollable costs, for example, include essential short-notice transmission system outages taken to repair damaged assets due to

poor weather (e.g. overhead line insulators and conductors), and short notice changes to generator outages.

SO-TO Interactions

It is important to note that the Scottish situation differs from England and Wales due to the very large scale growth in renewables in Scotland to date, the fact that 132kV assets in Scotland are designated "transmission" (with considerable lengths providing an active "transport" role), and less interconnected transmission network (due to our Scottish network being designed to support a lower overall system demand dispersed over, in comparative terms, a much wider geographic area).

We are of course willing to consider change. An example of change that has evolved year-on-year is for the SO and TOs to undertake planned outages over a longer outage season. Within this outage season, we use extended day-time working and weekend working to provide the flexibility required to complete system outages to programme. However, planning too much work over extended working periods impacts on key resources, and restricts our ability to effectively manage short notice issues.

We agree that the overall aim should be to minimise system costs i.e. both SO and TO costs. Under RIIO T1 we have an extensive and challenging set of load and non-load outputs to deliver. After first considering safety and system security, "TO costs" should include the impact of removing system access for the delivery of RIIO T1 outputs. We note the references in this consultation to the TO "changing its behaviour" in terms of, for example, changing outage planning and that Ofgem is considering whether there should be a licence requirement on the TO to have due regard to requests from the SO to change outage plans. We would be willing to support this requirement if there is a mechanism for the TO's outputs to be adjusted, such as the mid-period review referred to in paragraph 4.44.

Please also note that paragraph 4.38 does not reflect the present outage cancellation cost process correctly. The SO does not "pay" the TO to change outages, the SO only covers costs incurred to change outages, and there is no additional gain for the TO.

Operating to N-1

Since the start of BETTA we have been promoting the application of operating parts of the network to N-1. In good weather, we believe that the risk of a fault is very low and that this risk is acceptable. The constraint issue predominantly arises when the network is being assessed under N-2 security standards and we suggest that another change should be to consider applying N-1 security should the likelihood of a double circuit transmission fault be extremely low e.g. in benign weather conditions. This could be used as a network management tool before constraining off generation.

Finally, with regard to question 12 in particular (payment mechanism to encourage efficient SO-TO interactions) we support this in principle subject to the caveats above regarding safety and other compliance issues and also the need to tailor incentives to areas within the control of the agent concerned.

Please do not hesitate to give me a call on 0141 614 1958 is you require further information or points of clarification.

Yours sincerely,

Alan Michie
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SP Transmission Limited