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Dear Tom

Consultation document GB ECM-11
Charging Arrangements for Generator Local Assets

I am writing in response to the above consultation document that invites views on National Grid's proposals to improve the cost reflectivity of charging for assets local to generation connections. Both options presented by National Grid seek to disaggregate the locational element of the use of system charge into a local charge and a wider charge. If implemented, this would result in the most significant revision to transmission use of system charging since the introduction of the super-shallow 'plugs' methodology.

Scottish and Southern Energy (SSE) has long had strong concerns regarding the methodology for determining the locational element of the generator use of system charge. We do not believe that the locational charge, as it is currently determined, sends an effective, cost reflective signal to generators to which they can credibly respond. This is well illustrated by this proposed charging modification where, as we set out below, the options presented do not provide sufficient incentive to influence generator behaviour when it comes to making decisions about design variations. That is, the solution that is proposed does not address the identified problem.

As a consequence, we do not support this charging modification. We remain of the view that the fundamental issue is the methodology for determining generator use of system charges. This methodology is ineffective and does not properly take account of recent developments in the industry. This approach should be replaced with a cost reflective 'local' infrastructure charge and uniform charge for the 'wider' infrastructure.

Design variation connections

The intention of the charging modification under consultation is to establish a cost reflective signal for assets local to generation such that users who have the option of different levels of infrastructure investment (a design variation connection) make decisions which result in the most economic and efficient outcome.

With respect to the particular charging modification under consultation, **we do not believe that the options presented provide sufficient incentive to influence generator behaviour when it comes to making decisions about design variations.** For the options proposed, the tariff differential between a full and partial redundancy connection is broadly equivalent to that for the options proposed under GB ECM-06 (as illustrated in the table below). We note that, with respect to GB ECM-06, the Authority concluded that it had concerns that the proposed modification would be insufficient to incentivise generators to opt for a design variation.

For the example shown in Appendix 7 of the consultation document, illustration of the differential between a double circuit and single circuit spur connection			
	Circuit (£/kW)	Substation (£/kW)	Total (£/kW)
Actual infrastructure cost savings	2.87	0.84	3.71
Option A (this consultation)	1.54	0.16	1.70
GB ECM-06 (November 2006)	0.86	1.05	1.91

We have consistently argued that, if the goal is to ensure that users to opt for a design variation where it is economic and efficient for them to do so, the use of system charge needs to reflect the capital costs involved. It is not tenable to use one measure of assessing economic and efficient transmission investment, and then expect generators using a different measure to come to the same economic and efficient outcome. An effective solution to this issue has to recognise both the avoided investment in the transmission system and the lost opportunity cost of the generator.

That this issue has been over two years in industry debate, and that an effective solution remains elusive, illustrates the fundamental failings of the current charging methodology. On the evidence to date, we do not believe that a solution can be found using the current charging methodology. The alternatives are to look elsewhere (for example, at the compensation arrangements) or revise the basis for charging generators for use of the transmission system.

Consultation alternatives: Option A

Notwithstanding our comments above, of the two modification options presented **SSE prefers Option A – Specific treatment of local generation** on a 'least worst' basis. Option A is the

closer of the two options to a cost-reflective charge that ensures generation users pay for those infrastructure assets necessary for their connections to the transmission system.

While recognising the perceived value of a generic charging model, we believe there is scope to make some improvements to Option A that would increase cost reflectivity without further complicating the charging methodology; these are:

- For the circuit component of the local charge, application of Transmission Owner (TO) specific expansion factors (as is proposed under Option B); and
- For the circuit component of the local charge, application of a specific local security factor; hence accommodating partial redundancy in the connection design.

We also believe that further work is required to ensure the definition of a Main Interconnected Transmission System (MITS) substation is transparent, robust and can be consistently applied.

Local expansion factor Option A proposes a wider set of expansion factors to reflect the cost variance across different types of circuit constructed. One set of expansion factors are shown under Option A, which match those shown for National Grid and Scottish Power under Option B. Option B also includes expansion factors for Scottish Hydro Electric Transmission. **We believe the complete set of expansion factors (proposed under Option B) should also apply to Option A.**

Local security factor Option A proposes that if the loss of the circuit would result in loss of access to the network then the local security factor applied is 1.0, whereas for other instances the local security factor will be charged at the existing GB average Locational Security Factor value, currently 1.8.

The local charge is intended to send a cost reflective signal to users specific to the provision of local infrastructure assets. One of the key parameters in assessing this approach is the 'sharpness' of the signal. Consequently, it appears perverse that the signal is blunted by this approach to applying the local security factor. In the first instance, this approach understates the costs of a double circuit connection by application of the 'all system' average. Further, this approach takes no account of partial redundancy.

We believe that the cost reflectivity of the local circuit charge should be improved by applying a local security factor specific to those circuits. The consultation notes that the 1.0 or 1.8 assumptions, although not cost reflective in all instances, have been proposed for being simple, transparent and predictable. However, the consultation also notes that 38 generators would be liable for the local circuit charge and, of these, 13 are considered to have a single circuit. It cannot be considered onerous to determine, using the simple and straightforward capacity ratio of the local circuits and generator export limit, a specific local security factor for the remaining 25 generators.

MITS substation Application of Option A would require the definition of a MITS substation. Introducing this definition would, essentially, split the GB transmission system into two elements: a 'local' GB transmission system and a 'wider' GB transmission system. It would also create, in essence, two classes of generation user. As a consequence, if this approach is to be implemented, the definition of a MITS substation needs to have a sound basis.

The consultation paper presents no clear rationale for the proposed definition of a MITS substation. In particular, we note that the definition of a Grid Supply Point is different from that in the Grid Code; hence, resulting in some embedded generators being liable for local circuit charges. Without clear, transparent criteria for this definition that are robust and can be consistently applied, then the application could change year-on-year resulting in unpredictable and volatile charges. This is clearly undesirable; hence we believe further work is required to make clear the basis for defining a MITS substation.

Consultation alternatives: Option B

SSE does not support Option B – Distance to local hub. This approach is largely conceptual in nature, rather than being based on the actual assets that connect a generator to the transmission system. As such, we do not believe this would address the longstanding issue of potentially inefficient network investment arising from the (perverse) incentives built into the charging regime that deter users from opting for a design variation. Furthermore, this approach would further increase the instability and unpredictability of use of system charges to users at a time when significant investment is required in new generation capability.

I hope these comments are helpful. If you would like to discuss this further then please do not hesitate to give me a call.

Yours sincerely,

Aileen McLeod
Regulation Analyst