08 November 2004

Dear Ayesha,

Electricity transmission network reliability incentive schemes

We are very concerned with Ofgem’s proposals to introduce a reliability incentive for transmission. We understand the reasons why it might be desirable to align the transmission and distribution incentives. However, there are fundamental differences between the transmission and distribution systems that we believe have not been taken into account in formulating these proposals.

Firstly, the distribution system is largely radial in character, such that a single fault invariably results in loss of supply. The incentives for distribution companies to minimise “customer minutes lost” (CML) have resulted in improvements in reliability through automation and equipment design, and improved response to faults to ensure supplies are restored as quickly as possible.

In contrast to this, transmission and supergrid (275 and 400kV) transmission in particular, is designed to be more robust such that single outages do not normally result in loss of supply. The energy unsupplied is a very small proportion of the total volume transmitted and Ofgem’s figure 8 demonstrates the world class performance of the E&W transmission network. It is therefore not clear what problem Ofgem is trying to solve with this initiative.

However, whilst energy unsupplied remains a small proportion (even with the exceptional events of 2003/4) of total energy it is very volatile in GWh terms. This means that NGC would be exposed to swings of revenue from reward to penalty that were unrelated to its performance in managing the reliability of its transmission system. Furthermore, most of the incidents resulting in loss of supply occur when
other circuits are unavailable due to construction or maintenance work. This could lead to a perverse incentive not to invest in or maintain the network in the short term, since the potential for a reward could outweigh the risk involved in permitting outages to carry out the work. At the very least it would lead to NGC being more risk averse in permitting planned outages on its system.

The consequences of rolling this incentive into Scotland would be far reaching, since a very large number of generators wish to connect to the Scottish system, and major infrastructure upgrades are planned. The potential for increased unsupplied energy going forward is therefore very high and NGC in its role of system operator is very likely to take an even more cautious approach in scheduling outages to avoid being penalised in this scheme. It is also not clear who would be penalised under a GB wide scheme, since the cause of unsupplied energy might be attributable to NGC as the system operator, or the TO. There might even be instances of unsupplied energy in one TO area as a result of a failure in the adjacent TO area.

An additional feature of the Scottish system is the existence of 132kV transmission. This has features much more like the distribution system, with significant portions of a radial nature supplying isolated areas. A single circuit fault can therefore cause systematic loss of supply. In looking through the SSE transmission system performance report, the incidents resulting in loss of supply are almost exclusively related to the 132kV system.

It would therefore be very difficult to devise an equitable incentive mechanism to apply to the Scottish companies.

In conclusion, we do not believe it is appropriate to introduce transmission network reliability incentives. It is also not appropriate to introduce these for a three month period before the introduction of BETTA, with an assumption that the complex issues surrounding inclusion of the Scottish transmission network can be resolved in that timescale. We therefore believe that if Ofgem are determined to introduce transmission reliability incentives, they should be introduced in the BETTA context, after appropriate consultation.

If you need any further information about our above comments, please give me a call.

Yours sincerely,

Rob McDonald
Director of Regulation