

Tom Ireland
Electricity Charging & Access Development
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA



30th November 2007

Dear Tom,

Consultation GB ECM-09 - For the charging and access arrangements associated with SQSS design variations.

EDF Energy is pleased to have the opportunity to comment on the National Grid's consultation for SQSS design variations

National Grid has proposed that a User who opts for a single circuit connection (no redundancy) should be rewarded with year-on-year discounts to TNUoS charges. We believe that this is an adequate, pragmatic process for rewarding the User for opting for the single circuit and allows Users to evaluate the risk/cost of outage against the savings made.

We believe ECM09 is cost-reflective and in keeping with the charging methodology, but have some reservations with the partial redundancy proposals

Substation discount

Substation costs are recovered through the non-locational residual element of the charge and are already discounted through the 27:73% sharing factor with demand. By providing a discount for the substation, it is likely that the "deep" discount may be greater than the "shallow" charge, thus leading to perverse signals for generators, resulting in inefficient investment for the transmission licensees.

We agree with NGET that there should be no substation discount.

Design variation circuit discount and applicable circuit length

We agree that the generator should only get a discount for the proportion of the network that is non-compliant. The circuit length calculation proposed on the generic nodal calculation is the best option.

We agree with NGET that the nodal specific security factor calculated using a generic formula is the best option.

Circuit ‘partial redundancy’ connection discount

This proposal uses the MW capacity figure of the transmission assets used in the double circuit (yet still non compliant) connection, rather than the TEC MW value more commonly used in calculating charges. This is a significant deviation from the principle of paying for the utilisation of capacity (TEC), rather than what is installed.

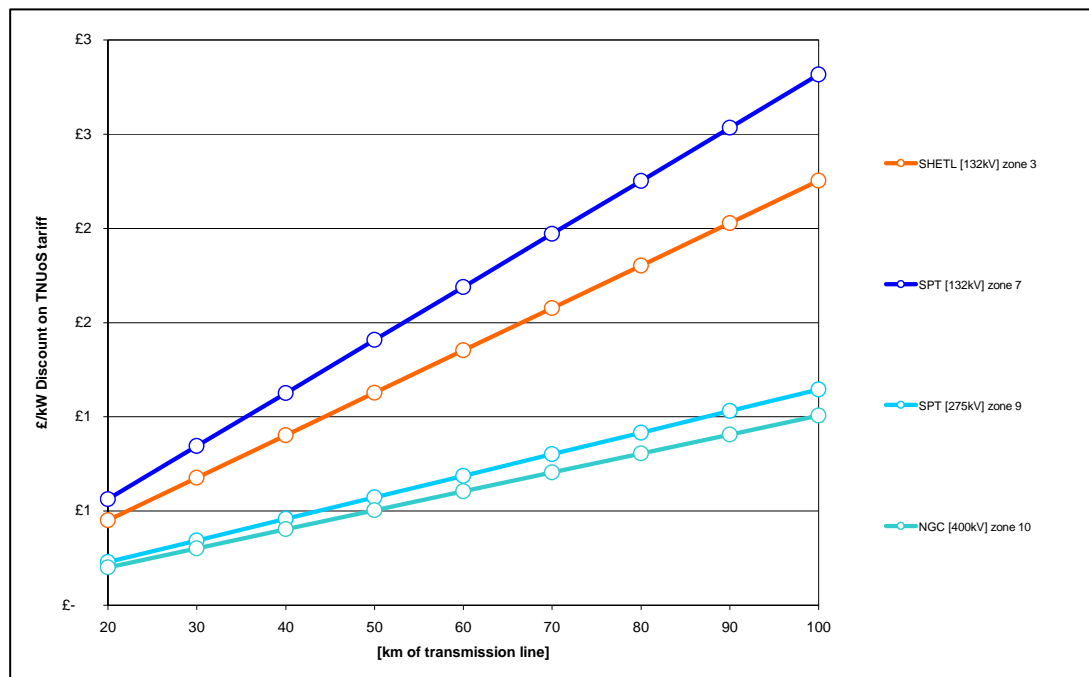
EDF Energy does not agree with the proposal for this discount. For instance for a generator on a spur where each circuit has a lower rating than that of the generator it would receive a discount, however if both circuits have a capacity in excess of the capacity of the generator these costs are not placed on the generator. This is only applicable to spur circuits as overcapacity on the MITS can be utilised by other Users of the system. We realise this is a consequence of spur circuits being considered transmission infrastructure and not connection assets. It may be a more suitable option to make the “discount” also a “surcharge”. Also, should the generator only have partial redundancy, through the use of transformers rated lower than the generator, it will not receive a discount, this is analogous to the arguments surrounding the substation discount where providing a cost reflective discount is impossible due to the sharing factor in the charging methodology.

We believe ECM09 will provide adequate discount to encourage developers to opt for a single circuit

Figure 1 presents £/kW discounts for 132kV, 275kV and 400kV connections in different zones, at a line length of 20km to 100km.

It seems sensible that the TNUoS discount encourages stations further away from the system to opt for a single line and the higher the cost of the circuit, such as 132kV line, the greater the discount.

Figure 1: £/kW discounts for increasing line km in different zones.

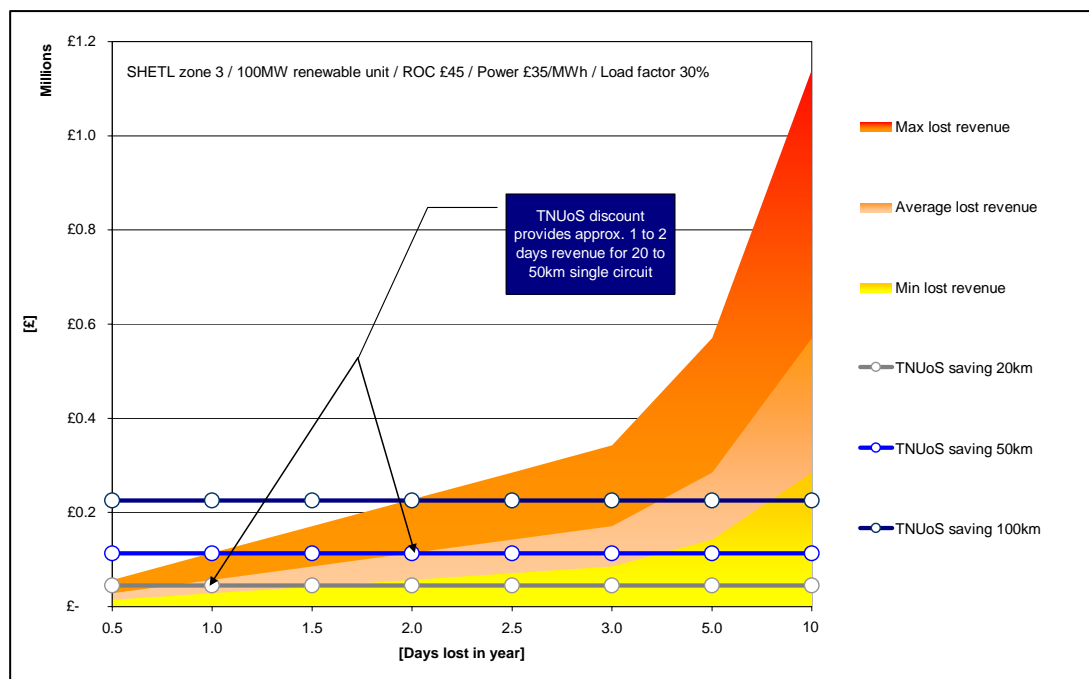


If we consider an onshore 100MW wind farm, connected in zone 3 (SHETL), the range of discount increases linearly from depending on the length of single circuit. This pattern is similar in all SHETL managed zones, where the station is connected on a 132kV line.

The circuit discount would equate to 1 to 2 days of lost revenue for the generator, assuming a 30% load factor and circuit length of 20-50km. This is lower than the earlier ECM06 consultation which included the substation discount. ECM06 would have provided the approximately 3-7* days of lost transmission access per annum for a ROC accredited wind farm. Under those proposals if a project qualified for a £3.12/kW substation discount then the generator is provided with 6-12* days of compensation. We believe 1-2 days compensation appears far more reasonable for the risk of circuit unavailability.

The circuit discount proposals (for ECM09) are shown in figure 2, where three levels of revenue accrued at 15%, 30% and 60% load factor (indicated by the yellow, amber and red shaded areas), is overlaid with lines that indicate the savings in annual TNUoS charges at different km line length. For example, should the generator be connected on a circuit of 50km the TNUoS saving would be £113k, which equates to the generator losing two days revenue $100\text{MW} \times 0.3 \times 45 \times 35 \times 48 = £114\text{k}$.

Figure 2: TNUoS discount compared to the possible revenue lost at circuit km.



*Depending on line length (calculated from 20km to 150km)

In summary, we agree with the ECM09 proposals in that the SQSS design variations on customer request should be encouraged and this should be implemented through a TNUoS discount.

In summary, we believe that the TNUoS charging discount method proposed by National Grid is the most pragmatic solution to encouraging developers to opt for a single circuit connection. We consider the level of discount appears reasonably cost reflective and fair.

If you have any questions on the above comments, please do not hesitate to contact me.

Yours sincerely,

David Scott
Electricity Analyst
Energy Market Strategy, Energy Branch