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Dear Tom,

Consultation document for the charging arrangements associated with SQSS design variations based on customer requests

Thank you for the opportunity to respond to the above consultation document. Whilst E.ON UK supports the concept of nodal security factors if such a discount is deemed necessary, we are concerned that the solutions proposed in the latest consultation have changed from those outlined in the pre consultation, so as to be inconsistent with the underlying principles of the charging methodology.

Applicability of the discount

We agree with National Grid's conclusion that any discount should be applied across GB in respect of all stations which have opted for a non SQSS compliant design. We also agree that should a generator's connection design change so that it becomes compliant, then the discount should no longer apply, even if this is as a result of the connection of another generator. The SQSS is clear that generators can opt for non compliant connection designs as long as it does not result affect another generator's connection. We believe that this is an important principle which should continue to hold regardless of which generator connects first to the system.

It has been argued that this approach would be discriminatory. We do not agree. This is a principle which should hold at all times. It would not be right to grandfather exemptions from this to certain parties. The true discrimination would occur if the charges did not change in these circumstances as parties benefiting from a compliant connection would also be provided with the discount, whereas others with equivalent connections would not. Similarly, parties subject to the same discount but with non compliant connections would also be discriminated against. Therefore, National Grid's proposal is the correct approach.

Circuit Discount

We agree with National Grid's initial conclusion that the best way to reflect a lower connection design would be through nodal security factors as proposed. However, we do not support the solution outlined in the latest consultation. The approach to calculating the discount is inconsistent with the charging methodology and that outlined in the original pre consultation paper. The latest analysis assumes that a security factor of 2 would be applied to the calculated locational charge of a compliant connection. This is not the case. We agree with National Grid that the circuit concerned is most likely to be a double circuit. However, the charging methodology would actually have applied the national average security factor, which is presently 1.8, to this part of the connection. Therefore the calculation of the discount presented appendix 1 of the consultation should actually be as follows:

As in the example in appendix 1, gen A has a compliant double circuit whilst gen B has single circuit.
The marginal MWkm of relevant circuit is Y for each generator.
The MWkm of the zone is X.

Tariff = Security Factor x Marginal km of connecting circuit x Expansion Constant

Tariff @ gen A = 1.8 * (X+Y) * EC

= (1.8X + 1.8Y) * EC

Tariff @ gen B = $\frac{(1.8X + Y)}{(X+Y)}$ * (X+Y) * EC

= (1.8X + Y) * EC

Therefore, differential/discount = tariff A – tariff B
= [(1.8X + 1.8Y) * EC] – [(1.8X + Y) * EC]
= 0.8Y * EC

National Grid's analysis results in a discount of Y * EC which is 25 percent higher than the level that should apply. We would support a methodology change with a calculation of circuit discount as outlined above.

The Substation Discount

We questioned the concept of a substation discount in our previous response. We stated that it was unclear how a discount could be applied when the costs of substations were spread across all users and that generators are only exposed to 27 percent of this. National Grid's response to this appears to refer to the locational element of the tariff correctly pointing out that this does not include any smearing in this way. However, this argument does not make sense as the substation assets do not appear in the locational element of the charges. If a new substation is built, the result is that the residual tariffs increase so that 27 percent of the cost is recovered from generators and 73 percent from suppliers. The generator who caused the substation to be built will pick up a proportion of this cost.

For example, if an extra £1m is incurred by National Grid in substation costs, generators as a class will only be exposed to £270K of this. If a particular generator with a share of the total TEC of 1 percent caused this increased cost, it would see an increased charge of £2700. All other users would underwrite the remaining £997.3K. National Grid's proposal in respect of costs saved, however, is for the individual generator to receive the full £1m benefit. In other words, in this case (which equates to a generator of over 700MW capacity) the size of any benefit the generator would receive for a saving in substation costs would be 370 times the cost it would be exposed to for any similar sized increase.

An additional problem with what is being proposed is that generators will be offered a discount which is specific to the voltage level at which they connect. However, generators are exposed to the average cost of substations through the residual tariff. Substations for generators connected at lower voltages may well have a higher cost per kW of installed capacity, but these generators are still only allocated a proportion of the national average charge which is lower than this. There is no separate residual tariff for each different voltage level. This element of the proposal increases the distortion associated with the substation discount even further.

We also have a number of concerns about other elements of the calculation of the substation discount. Firstly, it is unclear why a transmission charging methodology should relate to voltages below 132kV. We have considered whether the consultation was referring to the lower voltage side of the connection, but have discounted this as the voltages quoted go as high as 400kV. Therefore, it would be helpful if National Grid could provide an explanation as to why 33kV is counted as a transmission voltage in this instance.

Additionally, we would recommend that National Grid rechecks the figures for expected cost savings that it has used. For instance, we note that the expected capital cost saving associated with a 132kV substation is lower than the equivalent saving for a 33kV substation. This seems to be counterintuitive. The document also does not mention the cost savings associated with a 275kV substation.

Conclusions

In summary, we support the principle of a TNUoS discount for SQSS design variations based on customer requests. However, the size of the circuit discount which has been calculated is too high.

We do not support the substation discount as described as it is wholly inconsistent with the charging methodology and results in deep discounts being applied to a shallow charging methodology. We are uncertain how this can be demonstrated to be cost reflective.

Should you wish to discuss this further please contact me on the above number.

Yours sincerely

Paul Jones