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Dear Patrick,

GB Charging Condition 2

I am writing in response to National Grid's report on its progress towards reviewing the technical basis for a range of alternative methods of estimating and reflecting in locational charges the incremental cost of capacity. The main focus of the report is on the cost reflectivity of the expansion constant, which comprises the estimate of capital costs of new transmission capacity and the factors that feed into converting this capital cost into an annual cost for using in the tariff model.

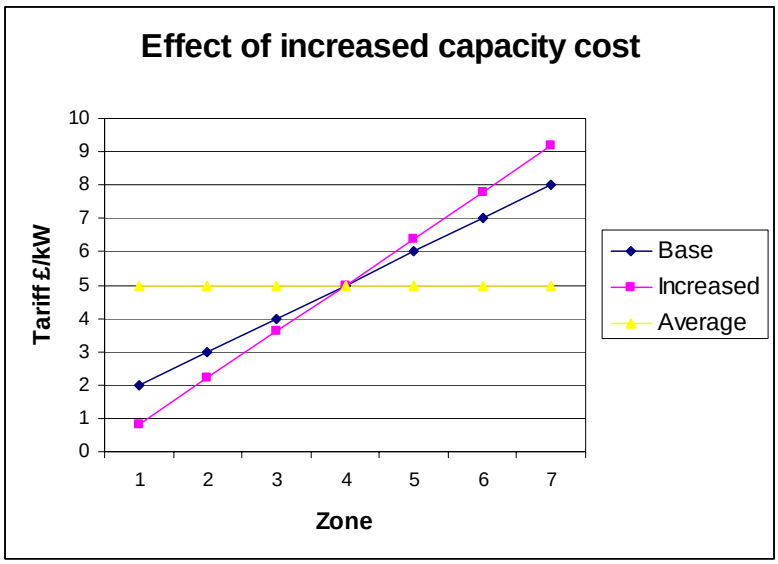
While we have commented on these specific points below, we are concerned that the review against the specific conditions imposed by Ofgem is losing sight of the overall requirements of Ofgem's approval of the transmission charging methodology for BETTA. For example, Ofgem has also commented in the transmission price control review that the charging methodology should restore the signals to users that was a feature of the earlier deeper charging methodology to accept a more economical system design, rather than a fully duplicated network which is the default requirement of the GBSQSS. By considering each condition of Ofgem's approval of the methodology separately, NG are in our view be missing an opportunity to carry out a wider review of the methodology to capture these issues. We would therefore urge NG to undertake a thorough "bottom up" review of the methodology.

Putting this aside, we comment below on the specific questions raised in the consultation paper.

Cost of New Transmission Capacity

NG state in paragraph 8.2 that the "incremental cost of capacity calculated to be as forward looking as possible provides… the best forecast cost". In our view, the main problem with using forward-looking costs is volatility. This point can be illustrated by a static transmission network (i.e. where there is no new investment to cater for demand growth). In this scenario, if equipment costs were forecast to significantly increase, the implication is that the capacity costs in the tariff model would be increased by the same amount. This would mean increased locational differentials and increased tariffs for users, before any adjustments to bring the revenue recovery into line with that allowed in the price control.

However, in this example there would be no increase in costs to be recovered through the tariff, therefore the average tariff would remain the same. The result would be that users paying more than the average would see their charges increase, while users paying less than the average would see a reduction, even though actual costs had remained the same.



The chart above shows a hypothetical system with an average tariff of £5/kW. The chart show base tariffs vary from £2/kW to £8/kW, and charges with an increased capacity cost increasing the locational differentials in the tariff. Users would therefore be faced with windfall gains and losses as a result of reflecting the potential increased equipment cost in the capacity cost in the tariff model even though the average tariff would remain the same. We therefore believe it would not be cost reflective to simply use a forward looking cost.

In this same example, if a non-locational tariff (i.e. average cost) had been used, tariffs would remain the same. Carrying this non-locational tariff model forward where new investment was required to cater for growth, the costs to be recovered would comprise a mix of new assets (at the higher unit cost) and older assets with a

lower unit cost (and potentially different funding mechanisms). The average transportation cost would therefore be a mix of the old and new asset costs, but would be expected to increase due to the new investment being at a higher cost than the historical average. We believe that the effect of this weighting between old and new assets should be carried over into the tariff model.

Going forward, there is a question as to how potential changes in plant and equipment costs should be factored into the capacity charge.

(a) Deep Connection

Under a deep connection model, the costs of the new investment would be charged directly to the new users. However, this would be a substantial reform that Ofgem would be unlikely to accept.

(b) Route specific Cost

It would be possible to design a charging model where unit costs of particular circuits reflected the costs incurred and so provide a more cost reflective signal to users of the new assets. However, this would add a further degree of complexity, reducing overall transparency and therefore be contrary to the condition imposed by Ofgem on NG to improve the transparency of the calculation of the capacity cost.

Also, future costs are unauditable. E.g. Ofgem disallowed some capex in the rollover. If this spend is not allowed in the final determination, but had been allowed in setting charges, tariffs would have been distorted.

We do not believe this would be appropriate.

(c) Include in the Capacity Cost

This is the existing arrangement, where NG's "TR3" report is used to establish capacity costs based on projects proposed by NG and to recalculate the capacity cost. By applying new information about unit costs, it is conceivable that commodity cost fluctuations significantly greater than RPI could be experienced. As discussed above, this would simply increase differentials for existing customer and not reflect the actual costs of financing the network already in place for those customers. We do not believe that this would be appropriate and therefore disagree with NG's view that forward looking costs should be used.

(d) Use current information with historic data to create a weighted average

In the average charge methodology, increasing (or decreasing) unit costs are socialised across all users, rather than targeted at new users only (deep connection). In our view, it is therefore necessary to ensure that the capacity cost is a weighted average of both existing and forward looking assets. To do otherwise would not be

cost reflective and could result in volatility, leading to windfall gains and losses to users.

Converting Capital costs into annual costs

Once the capital costs of capacity have been determined from the "TR3" figures, they have to be converted into an annual charge for the tariff model. The assumptions underlying this calculation are the second issue in calculating the capacity charge and include the asset life, WACC, and overhead charge.

Rather than address these issues individually, we believe that there is information largely in the public domain, which would address all these issues including the weighted average cost mentioned above.

Firstly, NG's allowed revenues are set on the basis of forecast costs of running the network. This includes the new investment, (thus capturing the old/new cost mix) the overheads, the average asset life and the WACC.

Secondly, the TNUoS model (and indeed the seven year statement) has the total MWkm transmission capacity of the transmission network. This amounts to some 30 million MWkm.

With an allowed revenue of approximately £1,200m to be recovered through the TNUoS methodology this equates to an average cost of capacity of around £38/MWkm for the whole GB transmission system. This consists not only of lines and cables, but also substation plant, which is not part of the locational cost of capacity, since this is only determined by lines and cables.

We believe that it should be possible to disaggregate this sum further, using the relative factors for lines and cables, and determining the proportion of allowed revenue that could be attributed to lines and cables. For example, using the current value of £10/MWkm for 400kV lines together with the lengths and capacities would recover approximately 50% of National Grid's allowed TNUoS revenue. This appears to be a reasonable cross check of the methodology, since at least half of the network would consist of substation assets that do not feature in the locational element.

In this way, the expansion factor would remove any issues about how the WACC, asset life and overhead factor was determined in the calculation. Linking to the allowed expenditure in the price control would automatically compensate for the weighting between old and new assets. This would alleviate the main concern regarding volatility of capacity prices resulting from the model (although the volatility caused by locational choices of new users would remain). It would also improve transparency since the confidentiality issues with NGET's "TR3" report would be removed.

If you need any further information or require calrification on any of the above points, please give me a call.

Yours sincerely,

David Densley
Regulation Manager