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Dear Bob,

**Transmission Price Control Review – Capital Expenditure Projections**

I am writing in response to Ofgem's open letter on the capital expenditure projections for the transmission licensees.

While there are large increases in capital expenditure forecast, these can be separated into two distinct areas: non load-related capex which is for the replacement of ageing assets, and; load-related capex which covers the investment needed to ensure the gas and electricity transmission networks can continue to meet the changing needs of gas and electricity producers and consumers.

**Non Load-Related expenditure**

Non load-related capex be dealt with through the existing mechanisms of an ex ante-allowance in the price control. To ensure that this expenditure is efficient, it will have to be supported by robust analysis using the established principles of prudent asset management. To this end, the investment plans should be validated by consultants experienced in the various asset risk management techniques. This would address Ofgem's concern that fully depreciated pre-Vesting assets are replaced according to need. Having completed this assessment an ex ante allowance at an appropriate costs of capital can be calculated.

This process could also be supplemented by introducing a sliding scale incentive on capex forecasting, similar to the mechanism introduced at the last electricity distribution price control review. Broadly speaking, that framework provides for different returns for companies depending on the results of the review of capex forecasts by Ofgem’s consultants and the difference between outturn and forecast

plans. We believe that a similar mechanism for transmission investment could have strong incentive properties in relation to capex forecasts as part of the review.

This would be in addition to the capex roller incentive to ensure that any saving (overspend) are retained (funded) by the licensee for five years. The combined effect of these schemes is to ensure that licensees are incentivised to submit appropriate investment plans at the price reviews and to ensure efficient delivery of these plans during the five year review period.

Different licensees will clearly have different requirements going forward due to the age and condition of their plant, but SHETL's requirements are broadly in line with historic levels.

**Load Related expenditure**

Some load-related expenditure can be forecast in advance and is capable of funding through the normal ex-ante allowance. In particular, the electricity transmission licensees are now working through a very large number of generation connection applications. In the case of the north of Scotland the total volume exceeds not only the present capability of the system but also the capacity that can feasibly be constructed in the price control period. Clearly, not all will obtain planning consent and while it will not be possible to identify the particular projects that are likely to succeed, it is possible to estimate the likely volume. This being the case, we believe it will be appropriate to make an ex ante allowance for the capex associated with the local infrastructure work (as is the case for the demand related projects) and for the pre construction work for any infrastructure projects identified in the connection offers.

However, there is a great deal of uncertainty around the major infrastructure projects that may be required to meet the requirements of the particular combination of renewable generators that gain consent. Investment in these projects presents a different challenge in that the need for the investment is driven by user requirements and this requirement can often be conditional, for example, on a new generator obtaining planning consent and financing for its project. The timing of the investment is primarily driven by user requirements but also depends on the transmission licensee itself obtaining the necessary consents. The amount of expenditure required depends on the detailed engineering solution to the capacity requirement constrained by any other requirements identified in the detailed planning processes such as environmental considerations. It is also dependent on the geographical disposition of users' requirements.

The framework for funding such major investments should therefore have the following properties:

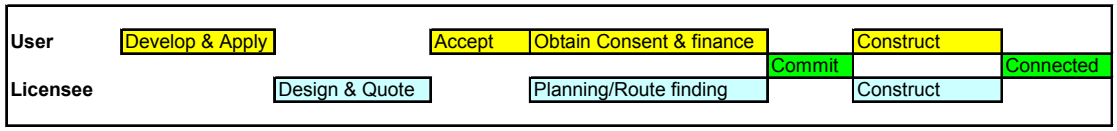
1. The need for the investment has to be identified against the requirements of users

2. Necessary pre-planning work for the investment should be carried out and funded through the normal ex-ante allowance
3. The pre-planning work should identify the trigger point for the particular infrastructure investment envisaged
4. Construction should only commence when users requirements have been confirmed
5. Additional revenues should be released according to the construction programme
6. The revenue should as far as possible enable the licensee to fund the project without reopening the price control

The first three points above form part of the current licence obligations on the licensees to plan an efficient transmission system. To a large extent the work has already been carried out, particularly in electricity, where potential users were encouraged to apply for capacity before a deadline of 31st December 2004. SHETL in particular has identified a range of transmission investments building on the baseline Beauly-Denny project already approved by Ofgem to enable further generation to connect in the north of Scotland. It would therefore be possible to establish a matrix of possible transmission reinforcements in the north of Scotland, including the level and location of generation that would make each reinforcement necessary, either to comply with security standards or simply because there is no existing infrastructure.

**User Commitment**

Before construction start on a particular reinforcement, it is clear that the need has to be established either through the overwhelming level of demand for capacity (as for Beauly-Denny) or through users confirming their requirements at a particular stage in the process. The simplified flowchart is illustrated below:




This commitment stage is particularly important because it enables the user to confirm that all necessary consents have been obtained and the project is ready to construct. It is also important for the transmission licensee to confirm the user's commitment before embarking on the construction phase. At present, the "user commitment" is manifested in the obligation to pay "final sums" should the project terminate. Ofgem have consulted on user commitment models going forward but, whatever the form of user commitment, it is clear that it merely serves as evidence that a transmission investment is required. It does not, of itself, provide an incentive for timely and efficient investment.

To incentivise the transmission licensees to invest in the necessary infrastructure, the licensee would require certainty of incremental revenues to fund the investment at an appropriate cost of capital. Ideally, this should be done without the need for

reopening the price control for every major project that was triggered. Also the revenue increment should be released according to the actual construction timescales of the project so that income and expenditure is matched as far as possible.

**Funding options**

***Ex-ante Allowance***

Such is the range of investment levels compared to historic trends that it is difficult to balance these conflicting interests: firstly of the transmission licensees to ensure that the funding is adequate to cover the investment; and secondly customers who do not want to pay for a planned investment that has not materialised. Against this background it is clear that the traditional ex-ante revenue allowance to fund forecast expenditure would not be appropriate since this would provide additional revenue which may not be required should the need for investment not arise. Similarly, if the investment need exceeds the forecast then the revenue would be insufficient to fund the investment.

***Revenue Driver***

At present, National Grid's revenue allowance is set on an ex ante basis, but supplemented by a revenue driver – the Gt term. This automatically increments the allowed price controlled revenue according to the volume of new generation connecting to the system. At present this is just a broad-brush sum such that wherever the generator connects, the revenue increment is triggered even if the connection location is where there is a deficit in generation and no investment is triggered.

Clearly there are refinements to this model that could look at more regional or zonal increments linked to the investment requirements in each zone. However, flaws still remain due to the lumpiness of transmission investment and the timing of additional revenues against the investment requirement. Some projects will take several years to complete, and funding is only released in this mechanism after the investment has been made and incremental generation connects to the system. It is therefore clear that a simple revenue driver, such as the one currently in place for NG, would not have the desired incentive properties. We also do not see how such a revenue driver could be devised given the significant cost differences of individual projects.

***Semi-Automatic Mechanisms***

Given the fundamental flaws in the ex-ante allowance and revenue driver approaches, we firmly believe that Ofgem should consider a semi-automatic revenue adjustment model where the projects are pre-identified in a matrix such as we have described above. The individual projects would be linked to specific investment triggers and, once user commitment exceeding the trigger level in a particular area had been established, the licensee would be able to commence construction on the project.

During construction, the licensee would identify expenditure on the particular project and add a sum equal to the cost of capital on the cumulative capex on the project to its

allowed revenue for the next year. For projects completed during the price control period, depreciation would also be charged in the year following completion. This would clearly need to be supplemented by further reporting through the usual price control returns.

We believe such a model would provide the necessary incentives on the licensees while providing assurances through the user commitment model that the investment is both necessary and efficient. We therefore believe that this should be further developed in conjunction with Ofgem's consultants who are reviewing the capital expenditure plans.

The above proposal has been described in the context of electricity transmission, but we believe that similar arrangements should also be introduced in gas.

The detailed critique of the different options for funding investment in electricity and gas transmission and for obtaining a degree of user commitment which better balances the risks between transmission licensees, users and customers was included in our response to Ofgem's December consultation on the transmission price controls and the particular sections are attached to this letter for ease of reference.

Please give me a call if you would like to discuss any of the above.

Yours sincerely,

Rob McDonald
Director of Regulation