SCOTTISH TRANSMISSION
PRICE CONTROLS

CONSULTATION PAPER

February 1998
1 Introduction

1.1 Hydro-Electric and ScottishPower have transmission businesses which own and operate the network of high voltage transmission lines and associated equipment in their respective licensed transmission areas. These networks enable the bulk transfer of electricity from power stations to the distribution systems of each company. A very few large customers are connected directly to the transmission systems.

1.2 The first Scottish transmission price controls were put in place by the Government for the four year period April 1990 to March 1994. OFFER put in place revised controls for the five year period April 1994 to March 1999. Distribution and supply price controls were initially put in place by the Government for different periods and later revised by OFFER. The present distribution and supply price controls both extend to March 2000.

1.3 Initially, there was some advantage in examining each regulated business separately. But there were always difficult questions of cost allocation, and the inability to deal with all the businesses at the same time meant that decisions under one price control review were constrained by the approaches previously taken under the reviews of other controls.

1.4 The issue is particularly important in the case of the two Scottish public electricity suppliers, which are significantly more vertically integrated than those in England and Wales. Each company has now integrated the management of its transmission and distribution systems under a common ‘power systems’ business.

1.5 In the light of experience, I have concluded that the balance of advantage now lies in a simultaneous examination of all their price controlled businesses, with a view to setting transmission and distribution price controls (and supply price restraints if appropriate) to run from April 2000.

1.6 This will necessitate revised transmission price controls for the one year interim period April 1999 to March 2000. It would not be practicable to conduct a conventional discussion and appraisal of costs, revenues, risks and the scope for cost efficiencies over a one year period. Nor would it be a sensible use of resources to carry out a full transmission price control review for a one year period, on an allocated cost base which might be inappropriate, only to repeat the whole process the next year.
1.7 I therefore propose that, for the one year interim period, the transmission price controls be revised to allow the same level of total revenue in real terms in 1999/2000 as is presently allowed in 1998/99. This will provide reasonable assurance and stability both to customers and to the two companies.

1.8 The remainder of this paper summarises the nature and performance of the two transmission businesses, discusses the arguments put forward by the companies on the timing of the next full transmission price control review, and briefly notes the issues which will need to be fully discussed at the time of that review. I am inviting comments from all interested parties before making formal proposals for licence modifications.

2 Background

2.1 In Scotland, all electrical lines of 132 kV and above are included in the transmission system. In England and Wales the corresponding figure is 275 kV. The Hydro-Electric transmission system comprises 4,730 circuit kilometres and the ScottishPower transmission system some 4,590 kilometres. The ScottishPower transmission system includes circuits, known as the Scottish interconnector, which link with the transmission system of the National Grid Company (NGC) in England and Wales. These interconnector circuits enhance the security and stability of the Scottish and the NGC transmission systems, and enable generators in either system to supply into the other. In practice, the two Scottish companies have sold electricity into the Pool in England and Wales.

2.2 Hydro-Electric and ScottishPower are integrated electricity utilities. They generate electricity at their own power stations, as well as buying electricity from each other and from Scottish Nuclear Limited, they transmit and distribute electricity, and they supply electricity to customers.

2.3 Transmission charges account for about 4 per cent of the final cost of electricity to customers. Electrical losses in the transmission system account for a further 3 per cent.

2.4 Table 1 shows the turnover, CCA net assets and CCA operating profit of the transmission businesses of the two Scottish companies since privatisation, taken from the regulatory accounts. Hydro-Electric revalued its transmission assets during this period.
TABLE 1: Transmission Businesses of Hydro-Electric and ScottishPower since Privatisation

<table>
<thead>
<tr>
<th></th>
<th>Regulatory CCA Accounts for Year End 31 March</th>
<th>£M</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hydro-Electric</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Operating Profit</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Net Assets</td>
<td></td>
<td>406</td>
</tr>
<tr>
<td><strong>ScottishPower</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover</td>
<td></td>
<td>91</td>
</tr>
<tr>
<td>Operating Profit</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Net Assets</td>
<td></td>
<td>611</td>
</tr>
</tbody>
</table>

2.5 These figures do not include the windfall profit tax on regulated utilities which was announced in the July 1997 budget. The Scottish companies have not apportioned the windfall tax to the separate businesses.

2.6 The present price controls specify the maximum total regulated revenues of the transmission businesses in each year. The maximum revenues are derived by applying a specified average revenue per unit to a specified projection of number of units transmitted. The latter includes units exported across the interconnector. Given these projections, the controls constrain overall price per unit by WI-X. Table 2 shows the X factors applied to each company in each period.

TABLE 2: Transmission Price Control ‘X’ Factors

<table>
<thead>
<tr>
<th></th>
<th>‘X’ Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro-Electric</td>
<td>0.5</td>
</tr>
<tr>
<td>ScottishPower</td>
<td>1.0</td>
</tr>
</tbody>
</table>
2.7  The present price controls constrain the aggregate level of transmission charges. Within this, the structure of charges needs to comply with other relevant conditions of the transmission licence, such as the non-discrimination condition. The structure also needs to be consistent with the transmission licensees’ duties, including under Section 9(3) of the Electricity Act 1989, to develop and maintain an efficient, co-ordinated and economical system of electricity transmission and to facilitate competition in the supply and generation of electricity.

2.8  In practice the transmission charges per unit have increased by more than the RPI-1 or RPI-1.5 levels. This is primarily because the growth in export units has been less than the volumes used in the formulae to determine the maximum permitted regulated transmission revenue. The main reason for this is that NGC has not yet received permission to strengthen its system in North Yorkshire which would accommodate the projected expansion of the interconnector. In consequence, although the total revenues have been within the constraints set by the price controls, the lower than projected volumes have resulted in real price increases per unit, rather than the reductions forecast.

3  **Discussion of Timing of Next Review**

3.1  OFFER has put to the companies the advantages of deferring the next full review of the transmission price control to coincide with the reviews of the distribution and supply business controls.

3.2  In discussions, ScottishPower and Hydro-Electric have made the following points:

- Vertical integration and the creation of a unified systems management structure should present no risk of cross-subsidy between the respective regulated businesses provided that agreed rules are in place and these are applied in a consistent fashion at all price reviews.

- The duration of a price review should not be compromised for short term convenience or to manage fluctuations in workload.

- From an investor’s viewpoint, price reviews represent a period of uncertainty over the future returns from these businesses, so delaying the transmission price control would increase business risk.

- There would be advantage in rebalancing transmission charges and introducing system operating service charges with effect from 1 April 1998 rather than delaying these for one year.

- The proposed Scottish Trading Arrangements concluded that examination of the costs incurred in developing System Data Provision and Generation Registration
Services should be undertaken at the next review of the distribution and transmission price controls. Delaying the transmission price control will delay examination of the precise treatment of such costs.

3.3 Against these arguments, the following points can be made:

- Since the last transmission price control ScottishPower has restructured its transmission and distribution management unit into a single power systems business. This follows a similar initiative undertaken by Hydro-Electric in 1993. These organisational changes have resulted in more costs being incurred jointly and requiring to be allocated between the two businesses.

- Since the last review, ScottishPower has acquired Manweb and Southern Water, and developed its unregulated businesses such as gas, telecoms, contracting and retail. The extension of such activities has made it more difficult to ensure a proper assessment of the level and allocation of costs between the various regulated and unregulated businesses.

- The comprehensive and simultaneous examination of all businesses will assist in the definition and appraisal of costs and their allocation, and the development and application of allocation rules.

- The acquisition programme of ScottishPower plc has itself increased ScottishPower’s exposure to regulatory review. Compared to this, deferring the transmission review by a year should not increase business risk.

- The 1995 distribution price control review, and subsequent Monopolies and Mergers Commission enquiry following Hydro-Electric’s decision not to accept the OFFER proposals, highlighted difficulties in comparing Hydro-Electric’s distribution system with that of other PESs. This arose, in part, because in Scotland 132 kV lines are included in the transmission business whereas in England this voltage would be classified as distribution. A joint review of transmission and distribution would help to overcome such difficulties.

- Deferring a transmission review until 2000 will enable work to progress on unbundling system and other ancillary services from the present wholesale energy price and consideration of constraint payments and various scheduling and despatch issues.

- A joint review of transmission and distribution would facilitate consideration of the structure of all use of system charges adopted by ScottishPower and Hydro-Electric, alongside the review of REC charging structures.

- Hydro-Electric is consulting generators and customers about a possible change to its deep connection policy. A one year extension of the existing control
would enable these discussions to be further progressed to inform the scope of the new control.

- The joint nature of the systems costs for the System Data Provision and Generation Registration Services means it is more appropriate to review these as part of a combined transmission and distribution review.

3.4 For these reasons, the balance of advantage lies with deferring the transmission price control review for a year.

4 **Form and Level of Interim Control**

4.1 An RPI-X type of control continues to be appropriate for NGC’s main transmission price control. No arguments have been made by the Scottish companies to adopt a different approach. It seems appropriate to retain the existing form of the control during the interim year 1999/2000.

4.2 The present transmission price control determines the total regulated revenues of the transmission businesses. This is translated into a maximum constraint on the average price charged by means of dividing the regulated revenue by a specified projection of volume of units transmitted. This aspect will need discussion in the full review leading up to April 2000. For the interim control it seems appropriate to continue a similar form of control, which specifies the maximum allowed transmission revenues in 1999/2000.

4.3 OFFER has held initial discussion with the companies about the determinants of the level of the next transmission price control. The companies have argued, amongst other things, that their cost of capital has increased over time and should in any case be higher than assumed in the present transmission price control. These factors would, in their view, imply a higher level for a new control in the next full review.

4.4 As part of the next review, OFFER expects to examine thoroughly these and other arguments put forward by the companies and challenge them wherever appropriate. Reference will be made to experience to date - for example, on cost reduction in the transmission and other businesses compared to that achieved in comparable companies. Cost of capital, asset valuation, asset lives and regulated revenues will all need scrutiny.

4.5 All these issues will be thoroughly discussed with the companies in the full reviews of transmission, distribution and supply leading up to April 2000, allowing an opportunity for interested parties to express their views. Elements of the reviews are already under way, and OFFER will shortly publish a programme of work with an outline timetable. In the meantime, a reasonable level for the interim one year
control would be to hold maximum allowed revenue constant in real terms from 1998/99 to 1999/2000. This will protect customers and companies, and provide an important element of stability.

5 Next Steps

5.1 I expect to make final proposals to Hydro-Electric and ScottishPower in late March. It would be helpful to have any views by 3 March 1998 on the matters raised in this paper. Replies should be sent to:

Ms Joyce Craig
OFFER Scotland
Regent Court
70 West Regent Street
GLASGOW
G2 2QZ

PROFESSOR S C LITTLECHILD
Director General of Electricity Supply

10 February 1998