



**ACCESS TO
THE SCOTLAND-ENGLAND
INTERCONNECTOR
CONSULTATION PAPER
OCTOBER 1998**

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FOREWORD

BNFL and National Power have separately asked that I determine their requests that capacity on the Scotland-England Interconnector be made available to them by ScottishPower. ScottishPower has asked that I approve all of the capacity available to its transmission business as being reserved to its own Generation Wholesale Division. This consultation paper invites views on these applications and the wider issues raised.

Briefly, under a pre-Vesting agreement known as the Chapelcross Agreement, which was due to expire on 31 March 1998, BNFL had access to up to 196 MW of export capacity for the output of the Chapelcross station. The capacity was provided out of both ScottishPower's and Scottish Hydro-Electric's shares of the Interconnector. Thereafter, under temporary arrangements until 30 September 1998, ScottishPower and Scottish Hydro-Electric provided BNFL with access to export capacity of up to 196 MW. For a limited period from 1 October 1998, a similar level of capacity is provided by an agreement described by ScottishPower and BNFL as an amendment to the Chapelcross Agreement. BNFL has asked for a determination on its request to ScottishPower for 196 MW of capacity for the remainder of the life of the station.

During 1997, National Power developed proposals for a CHP plant in Scotland, and applied to ScottishPower for access to the Interconnector to export power to England and Wales. ScottishPower has indicated that its request for capacity cannot be accommodated from the Interconnector capacity which exists now or will exist following the second upgrade. National Power has requested a determination on its application.

The present licence conditions require me, in making these determinations, to consider whether there is sufficient capacity on the Interconnector to accommodate the requests. In doing so, I am required to consider what is the relevant capacity of the Interconnector and whether any part should be considered to be already contracted to other persons or reserved to the Licensee. In the light of the requests for determinations, ScottishPower has asked that I consider reserving all the capacity available to its own Generation Wholesale Division.

I may need to consider whether the conduct of the Licensees, for example in setting charges, making or not making available capacity and entering agreements, has been consistent with their statutory and licence obligations and whether their published approach to these matters will continue to be appropriate. I may also need to consider, in furtherance of my own statutory duties, whether steps should be taken to modify the licence conditions pertaining to the Interconnector. If, as it intends, the Government brings forward proposals to modify the Electricity Act, changes might be considered with respect to the statutory position.

The issues go beyond the interests of the parties involved. They could have implications for the ability to enter the generation and supply markets in Scotland and in England and Wales, for the nature of competition in those markets, and for prices to customers.

I am therefore seeking views on the matters raised in this paper. Replies should be sent by 20 November 1998 to:

Mr David Wilson
Deputy Director General for Scotland
Office of Electricity Regulation
Regent Court
70 West Regent Street
Glasgow
G2 2QZ

I expect to publish the comments received by placing them in the OFFER Library.

PROFESSOR S C LITTLECHILD
Director General of Electricity Supply

October 1998

1 TECHNICAL BACKGROUND

Introduction

1.1 The Scotland-England Interconnector connects ScottishPower's and NGC's transmission systems. It consists of the following six transmission circuits:

- a 275 kV and a 400 kV transmission circuit between ScottishPower's transmission substation at Strathaven in Lanarkshire and NGC's transmission substation at Harker in Cumbria;
- a 275 kV transmission circuit between ScottishPower's transmission substation at Cockenzie in East Lothian and NGC's transmission substation at Stella in Tyne & Wear;
- a 400 kV transmission circuit between ScottishPower's transmission substation at Torness in East Lothian and NGC's transmission substation at Stella in Tyne & Wear; and
- two 132kV transmission circuits between ScottishPower's transmission substations at Chapelcross in Dumfriesshire and Galashiels in the Borders and NGC's transmission substation at Harker in Cumbria.

1.2 ScottishPower owns the part of the Interconnector that is in Scotland, referred to as the Scottish Interconnector, and NGC owns that part of the Interconnector in England, called the NGC Interconnector. Scottish Hydro-Electric and ScottishPower have separate but interconnected transmission systems. Users of the Interconnector who are based in Scottish Hydro-Electric's transmission area have access to the Interconnector through the interconnection circuits between the two transmission systems and a "corridor" through ScottishPower's transmission system to the Interconnector, as a result of the rights to capacity on the Interconnector given to Scottish Hydro-Electric under the Scottish Interconnector Agreement and the Use of Interconnector (Scotland) Agreement described in Chapter 3. Users in ScottishPower's transmission area have access to the Interconnector through the ScottishPower transmission system.

Pre-Vesting History

1.3 The first national transmission system in Great Britain was largely completed by 1935 and operated at 132 kV. It operated as an integrated system from 1938 and extended from the South of England to the central belt of Scotland. The interconnected system was originally intended to reduce the total amount of generating capacity that needs to be maintained as reserve and to enable an enhanced level of system stability and security to be achieved throughout Great Britain. It also allowed electricity to be traded. At various times between the early

1950s and 1986 the circuits described above were constructed and/or refurbished with some of the circuits operating at 275 kV or 400 kV. This work increased the capacity of the Interconnector, allowing the installation of larger generating sets to obtain economies of scale without compromising security of supply.

Post-Vesting History

- 1.4 The operation of the Interconnector is governed by the British Grid Systems Agreement (BGSA), between Scottish Hydro-Electric, ScottishPower and NGC. It contains planning criteria and operating procedures for the respective transmission systems and is designed to assist in the maintenance of security and stability across these systems.
- 1.5 Since Vesting in 1990, the Interconnector has been extensively used by BNFL, ScottishPower and Scottish Hydro-Electric for trading with the Pool in England and Wales. ScottishPower and Scottish Hydro-Electric have upgraded the Interconnector to enable such trading to increase.
- 1.6 The Government published a consultation document entitled Review of Energy Sources for Power Generation in June 1998, which includes advice by Merz & McLellan in respect of the security and stability of the England and Wales electricity grid system. It states, “The Scottish and French Interconnectors, although having quite different characteristics and operational responses, can contribute towards system stability and security services. However, the operators presently choose not to provide these services and it is expected that this position will not change under the present electricity trading arrangements.”
- 1.7 ScottishPower states that the Interconnector circuits supports the system stability and security services provided by all transmission system operators, including the Scottish companies. ScottishPower states that these services include:
 - (i) “Stability: fast response static exciters on Longannet and Hunterston generating units and power system stabilisers on all major Scottish units provide a stability service;
 - (ii) Security: Under the provisions of the British Grid Systems Agreement (BGSA), all parties, including the Scottish companies, agree to give mutual support under system emergency conditions; and
 - (iii) Reserve/Response: Under the BGSA, reserve and response are shared on a GB basis between the three transmission operators. As a result of the Scottish response, less reserve and response needs to be carried in England and Wales than would be the case were the NGC grid to be independent.”

- 1.8 The BGSA and the contractual agreements described in Chapter 3 reflect the fact that the Interconnector differs from the other transmission circuits in that it connects two electricity systems, which have different despatch centres, trading systems, regulatory structures and operational and planning standards. In addition, the access rights and charges applying to the Interconnector are different to those applying to either of the transmission systems that it connects.

Interconnector Capacity

- 1.9 The nominal capacity of the Interconnector is calculated under procedures laid down in the BGSA and is, in simple terms, the maximum sustainable transfer assuming a simultaneous outage of any two Interconnector circuits. The actual capacity available for use at any instant is determined under the BGSA. It depends, given the synchronisation of the transmission systems in Scotland and in England and Wales, on a range of factors including:
- the configuration and operating characteristics of the generating sets which are operating in Scotland and in England and Wales at the time;
 - outages on the Interconnector circuits, due to planned maintenance or faults;
 - outages on the Scottish and NGC transmission systems; and
 - transient stability, thermal capacity and voltage constraints on the Scottish and NGC transmission systems.
- 1.10 At present the forecast and the available capacity of the Interconnector are more often limited by the capacity constraint on NGC's system across the north of England than by the capacity of the Interconnector itself. In March 1998, the Secretary of State for Trade and Industry gave her decision on a new transmission line from Cleveland to North Yorkshire ("The North Yorkshire Line"). If NGC were able to proceed, it is likely to take a minimum of two years to complete the project and to relieve the capacity and voltage constraints in the north of England.
- 1.11 The nominal capacity of the Interconnector can be increased by, for instance, adding extra transmission circuits between Scotland and England or by increasing the operating voltage of some of the existing ones, always assuming that the NGC system is capable of accepting the increased flows. Such increases in capacity are referred to as upgrades. They can be identified by the level of nominal Interconnector capacity which ScottishPower, Scottish Hydro-Electric and NGC agreed to sustain following each upgrade. In terms of the Scottish Interconnector Agreement and the two Agreements dated 1991 and 1994 between ScottishPower, Scottish Hydro-Electric and NGC (described in Chapter 3), ScottishPower and Scottish Hydro-Electric have agreed to pay for the cost of two upgrades. The Prospectus indicated that the first upgrade was expected to involve capital

expenditure amounting to some £85 million spread over the period to 1993/94, of which Scottish Hydro-Electric would contribute some £28 million. As a result, the position is as follows:

- **850 MW.** This was the agreed nominal capacity of the Interconnector at the time of Vesting and is usually referred to as the “pre-Vesting” Interconnector capacity. This capacity still applies for much of the summer period.
- **850 MW to 1600 MW.** All the work on the Interconnector circuit for the 1600 MW upgrade was finished by the end of 1993. However, maintaining the agreed 1600 MW level requires the completion of the North Yorkshire line. At present the Interconnector’s nominal capacity is set at 1200 MW, consistent with the annual average capacity. The actual capacity varies considerably, and at certain times can be as high as 1800 MW, or as low as 850 MW.
- **1600 MW to 2200 MW.** To date there has been limited work on the 2200 MW upgrade as it requires the completion of the North Yorkshire line. However, a decision to proceed with the line would enable construction work to be put in hand so that the 2200 MW upgrade is operational at approximately the same time as the line is finished. ScottishPower says the upgrade will involve the uprating of the Cockenzie-Eccles-Stella West circuit from 275 kV to 400 kV. This circuit will be bussed with the Torness-Cockenzie and Torness-Stella West circuits by the creation of a new 400 kV substation at Eccles. ScottishPower says that the upgrade requires a 400 kV upgrade from Smeaton to Strathaven. The East Coast Interconnector will then become the double circuit overhead line between Eccles and NGC’s Stella-West transmission substation. ScottishPower also says the 2200 MW upgrade is a firm contractual entitlement based on consideration of expected stability limits, and applies to the months of September to April inclusive. The corresponding figure for the months May to August inclusive is 2000 MW.

2 THE STATUTORY AND REGULATORY FRAMEWORK

2.1 ScottishPower owns and operates the Scottish part of the Scotland-England Interconnector. It undertakes these functions against the background of its statutory duties under the Electricity Act 1989, and its obligations under its transmission licence. Scottish Hydro-Electric has a contract with ScottishPower to share the capacity on the Scottish Interconnector, and has broadly similar licence obligations to ScottishPower in terms of its share of the capacity. ScottishPower and Scottish Hydro-Electric have a contract with NGC which entitles their transmission businesses to the entire capacity of NGC Interconnector and requires them to undertake NGC's duties under the Act and NGC's licence. Chapter 3 outlines these contracts. This Chapter outlines the statutory and licence obligations relevant to the issues under consideration.

Statutory Requirements

2.2 Section 9 of The Electricity Act 1989 sets out the duties of a transmission Licensee:

“9.(2) It shall be the duty of the holder of a licence authorising him to transmit electricity -

- (a) to develop and maintain an efficient, co-ordinated and economical system of electricity transmission; and
- (b) subject to subsection (3) below, to facilitate competition in the supply and generation of electricity.”

2.3 In Scotland, but not in England and Wales, this second duty is qualified under the Act:

“9.(3) Subsection (2)(b) above shall apply in Scotland in relation to a person who is also the holder of a licence authorising him to supply or generate electricity as if the duty to facilitate competition in the supply or, as the case may be, the generation of electricity were a duty to make his transmission system available to his competitors on terms which neither prevent nor restrict such competition.”

2.4 Since ScottishPower holds transmission, generation and supply licences, the qualified version of this statutory duty applies to it, and must determine the way in which it makes the Interconnector available.

Licence Framework

- 2.5 The licence requirements with respect to the Scottish Interconnector are contained in Part VI, Conditions 3, 3A, 3B and 3(C) of ScottishPower’s composite licence. The requirements with respect to Scottish Hydro-Electric’s use of its share of the Interconnector are covered in the same conditions of their composite licence. In the following paragraphs, the “Licensee” referred to is ScottishPower and the licence conditions referred to are taken from ScottishPower’s licence (unless otherwise stated).
- 2.6 In paragraph 13(g) of Condition 3 of this part of the licence, the Interconnector is defined as the interconnection circuits existing at the date on which the licence comes into force and as from time to time maintained, repaired or renewed, together with any alteration, modification or addition (other than maintenance, repair or renewal) which is primarily designed to effect a permanent increase in one or more Particular Interconnection Capacities.
- 2.7 This includes the pre-Vesting Interconnector, the upgraded portion and any future upgrade that is or might be carried out.
- 2.8 Condition 3 requires that the Licensee prepare a statement setting out the basis on which charges will be made for use of the Licensee’s share of the Interconnector. Condition 3.2 states in part:
- “The Licensee shall as soon as practicable after the Transmission Licence has come into force, and, in any event, not later than such date as the Director shall specify, prepare a statement approved by the Director setting out the basis upon which charges for use of the Scottish interconnection will be made, such statement to be in such form and to contain such detail as shall be necessary to enable any person to make a reasonable estimate of the charges to which it would become liable for use of the Scottish interconnection ...”.
- 2.9 Charges are considered further in paragraphs 2.20 to 2.22 and 4.13 to 4.21 below.
- 2.10 Condition 3.6 states:
- “6. The Licensee shall as soon as practicable after the Transmission Licence has come into force and, in any event, not later than such date as the Director shall specify prepare a statement approved by the Director showing:
- (a) the amount of the capacity of the Scottish interconnection which the Licensee anticipates will be available for the transfer of electricity from Scotland to England and England to Scotland during each remaining week of the year ending on 31 March 1991 as notified by the Licensee to SHE pursuant to the Interconnector Agreement;

- (b) the amount of that capacity in relation to which SHE has a right to require the Licensee to receive and deliver electricity as referred to in sub-paragraph (b) of paragraph 13;
- (c) the Licensee's forecast of the amount of the remainder of the capacity of the Scottish interconnection which will be used for the transfer of electricity from Scotland to England and from England to Scotland during each week referred to in sub-paragraph (a) above; and
- (d) such other matters (if any) as the Director shall specify prior to his approve of the statement.

These Statements are considered further in paragraphs 4.9 to 4.11 below.

2.11 The obligations to prepare statements of charges and forecasts of likely use of capacity are supplemented by the obligation under Clause 14.3 of the Use of Interconnector Agreement (Scotland) 1991 between ScottishPower, Scottish Hydro-Electric and NGC to prepare an Access and Allocation Code to cover all material commercial aspects relating to making available rights to use the NGC Interconnector circuits. It is a requirement under the Use of Interconnector Agreement (Scotland) 1991 that the Access and Allocation Code should be prepared after consultation, including with the Director, and should be made available to persons requesting it. The Code is discussed in Chapter 3.

2.12 Condition 3B.1 in the composite licence provides that:

“On application made by any person, the Licensee shall ... offer to enter into an agreement for use of the Scottish interconnection ... in such quantities and for such periods as may be specified in the application.... specifying the charges for use of the Scottish Interconnector to be paid ...”.

2.13 Condition 3B.2 makes provision for circumstances where the Director determines that there is insufficient capacity for the Licensee to accommodate the request. It states:

“This paragraph applies in any case where, on the application of the Licensee or any person entitled or claiming to be entitled to an offer pursuant to an application under Paragraph 1, the Director shall determine that (having regard to the part of the capacity of the Scottish interconnection already contracted to persons other than the Licensee and affiliates and related undertakings of the Licensee and the part thereof approved by the Director as being reserved to the Licensee and affiliates and related undertakings of the Licensee for the purpose of the Supply Business, Second Scottish Hydro Supply Business and the Wholesaling Business) the capacity of the Scottish interconnection is insufficient to accommodate the

requirements of the person who has made application for an offer pursuant to paragraph 1”.

- 2.14 If the Director determines that there is insufficient capacity under the Condition above, Condition 3B.3(a) requires the Licensee to quote charges for an upgrade. It states:

“... the Licensee shall (subject to paragraph 12 of Condition 3), if requested by the person who has made application for an offer pursuant to paragraph 1 and within such period as the Director shall specify in his determination under paragraph 2, prepare a statement approved by the Director setting out the basis upon which charges will be made for the costs which the Licensee would incur if an Upgrade were to be carried out in accordance with the Interconnector Agreement to accommodate the requirements of the person who has made the application for an offer pursuant to paragraph 1, such statement to be in such form and to contain such detail as shall be necessary to enable such person to make a reasonable estimate of the charges to which he would become liable in respect of the Upgrade.”

- 2.15 If the applicant wishes to go ahead with an upgrade then Condition 3.B.3(b) requires the Licensee to do this. It states:

“Following the preparation of a statement under sub-paragraph (a) above, the Licensee shall, on the application of the person who has made the application for an offer pursuant to paragraph 1, offer to enter into:

- (i) an agreement pursuant to which the Licensee undertakes to exercise its rights under the Interconnector Agreement to require the carrying out of an Upgrade; and
- (ii) an agreement such as is referred to in paragraph 1, but so that the Licensee shall not be bound to make use of the Scottish interconnection available pursuant to such agreement until the time of completion of the Upgrade.”

- 2.16 If under Condition 3B after a reasonable period the Licensee has failed to enter into an agreement with a person who has requested capacity, then Condition 3C.1 permits the Director to settle any terms of the agreement in dispute between the Licensee and that person. It states:

“If, after a period which appears to the Director to be reasonable for the purpose the Licensee has failed to enter into an agreement with any person entitled or claiming to be entitled thereto pursuant to a request under Condition 3B the Director may, on the application of such person or the Licensee, settle any terms of the agreement in dispute between the Licensee and that person in such manner as appears to the Director to be reasonable

having (insofar as relevant) regard in particular to the following considerations...”.

- 2.17 If the person wishes to proceed with the agreement settled by the Director, Condition 3C.2 obliges the Licensee to enter into and implement it. It states:

“If the person wishes to proceed on the basis of the agreement as settled by the Director, the Licensee shall forthwith enter into and implement such agreement in accordance with its terms.”

Non-Discrimination and Competition Obligations

- 2.18 Under Conditions 3A.1 and 3A.2, the Licensee is obliged not to discriminate in the provision of use of the Interconnector or in setting charges. Condition 3A.1 states:

“In the provision of use of the Scottish interconnection the Licensee shall not discriminate:

- (a) between any person or class or persons; or
- (b) between the Licensee (in the provision of use of the Scottish interconnection by the Licensee as part of the Transmission Business to itself for the purpose of the Supply Business, Second Scottish Hydro Supply Business or Wholesaling Business) and any person or class or classes of persons.”

Condition 3A.2 states:

“Without prejudice to paragraph 1 and subject to paragraph 3, the Licensee shall not make charges for the provision of use of the Scottish interconnection to any person or class or classes of persons which differ from the charges for such provision:

- (a) to any other person or class or classes of persons; or
- (b) to the Licensee (in the provision of use of the Scottish interconnection by the Licensee to itself for the purposes of the Supply Business, Second Scottish Hydro Supply Business or Wholesaling Business);

except insofar as such differences reasonably reflect differences in the costs associated with such provision.”

2.19 Condition 3A.7 requires the Licensee to keep relevant records. It states:

“The Licensee shall keep and maintain such records concerning the provision of use of the Scottish interconnection as are, in the opinion of the Director, sufficient to enable the Director to assess whether the Licensee is performing its obligations under paragraph 1 and the Licensee furnish to the Director such records (or such of these as the Director may require), in such manner and at such times as the Director may require.”

Charging Arrangements

2.20 As indicated above, the definition of the Interconnector includes the capacity in place at Vesting and any upgrades. The charging arrangements for the pre-Vesting Interconnector and the upgrades can, however, differ to take account of the cost of building any upgrades.

2.21 Condition 3.1 sets out a limit on the charges to be made for use of the Interconnector,

“Unless (and except for so long as) the Director approves otherwise, charges for use of the Scottish interconnection shall be set at a level which will enable the Licensee to recover no more than a reasonable rate of return on the relevant proportion of the capital represented by the Scottish interconnection”.

2.22 Charges for the upgrades are covered in Condition 3B.4 and 5 which state:

“3B.4 Charges in respect of Upgrades carried out pursuant to an agreement such as is referred to in sub-paragraph (b)(i) of paragraph 3 will be set at a level which will enable the Licensee to recover:

- (a) the appropriate proportion of the costs directly incurred by the Licensee in connection with Upgrades; and
- (b) a reasonable rate of return on the capital represented by such costs.

3B.5 For the purpose of determining an appropriate proportion of the costs directly incurred in connection with an Upgrade, the Licensee shall have regard to:

- (a) the benefit (if any) to be obtained or likely in the future to be obtained by the Licensee or any other person from the increase in the capacity of the Scottish interconnection resulting from the Upgrade; and

- (b) the ability or likely future ability of the Licensee to recoup a proportion of such costs from third parties.”

2.23 The licence conditions on the pre-Vesting and upgraded Interconnector therefore differ, in that the rate of return on the pre-Vesting section should be no more than reasonable, whilst in the case of the upgraded Interconnector the rate of return should be reasonable. The licence takes account of the possibility that any upgrade would not be fully utilised immediately; and would be consistent with charges being set on the basis of an estimate of future third party use. There is no indication that an upgrade should be reserved or contracted in fully to the party who first requested the need for upgrade. The licence does not specify on what basis the Licensee should consider the scale of capacity additions at any time.

Scottish Hydro-Electric’s Licence Obligations

2.24 Scottish Hydro-Electric’s equivalent licence conditions differ in a limited number of respects, including with regard to the use of the Interconnector and the procedure for requesting an upgrade.

2.25 In ScottishPower’s licence the term “use of the Scottish interconnection” is used. In Scottish Hydro-Electric’s licence the expression “use of the Licensee’s share of the Scottish interconnection” is used and defined as follows:

“The exercise by the Licensee of the rights conferred upon it under the Interconnector Agreement to require SP:

- (a) to receive electricity from the Licensee at the Combined Delivery Point and deliver such electricity (less losses as referred to in the Interconnector Agreement) to the Transmission Company at the Southern Delivery Point; and/or
- (b) to receive electricity from the Transmission Company at the Southern Delivery Point and deliver such electricity (less losses as referred to in the Interconnector Agreement) to the Licensee at the Combined Delivery Point; and
- (c) any reference to “charges for use of the Licensee’s share of the Scottish Interconnection” shall be to charges payable by persons other than the Licensee in respect of the Licensee exercising such rights to require SP to receive and deliver electricity provided by or on behalf of such persons and cognate expressions shall be construed accordingly.”

2.26 The procedure in Scottish Hydro-Electric's licence for requesting an upgrade under condition 3B.3 differs from that in ScottishPower's licence in that it states in 3B3(b):

“following the preparation of a statement under sub-paragraph (a) above, the Licensee shall, on the application of the person who has made the application for an offer pursuant to paragraph 1, offer to enter into:

- (i) an agreement pursuant to which the Licensee undertakes to exercise its rights under the Interconnector Agreement to require the carrying out of an Upgrade; and
- (ii) an agreement such as is referred to in paragraph 1, but so that the Licensee shall not be bound to make use of the Scottish interconnection available pursuant to such agreement until the time of completion of the Upgrade.”

3 CONTRACTUAL FRAMEWORK

3.1 At Vesting ScottishPower, Scottish Hydro-Electric and NGC entered into certain agreements covering access to the Interconnector;

- **Scottish Interconnector Agreement 1990 (SIA).** This is an agreement between ScottishPower and Scottish Hydro-Electric. It provides Scottish Hydro-Electric with access through ScottishPower's transmission system, including the Scottish Interconnector, to the NGC Interconnector. It gives Scottish Hydro-Electric the right to use 46 per cent of the capacity of the pre-Vesting Interconnector, which until 31 March 1998 was calculated after deduction of the Actual Chapelcross Output. (This is explained further in paragraph 3.11 below). It also gives Scottish Hydro-Electric the right to participate in any upgrade on the basis of agreed shares. The percentage for Scottish Hydro-Electric of the 1600 MW and 2200 MW upgrades has been agreed as 25 per cent of each of the upgrades, with Scottish Hydro-Electric meeting a proportionate share of the costs. The SIA gives ScottishPower the remaining capacity of the pre-Vesting Interconnector and of any upgrade. The SIA is of indefinite duration.
- **Use of Interconnector Agreement (Scotland) 1991 (UOIA).** This agreement is between ScottishPower, Scottish Hydro-Electric and NGC. It superseded the agreement made in 1990 between the parties in order to deal with the upgrading of the NGC Interconnector from 850 MW to 1600 MW, and provides ScottishPower and Scottish Hydro-Electric with access to all of the available capacity of the NGC Interconnector. It permits ScottishPower and Scottish Hydro-Electric to use or to sub-contract the use of the NGC Interconnector in such shares as they jointly notify to NGC. In 1991 this capacity was shared between ScottishPower and Scottish Hydro-Electric in the respective proportions of 54 per cent and 46 per cent, subject to each making capacity available in these proportions to BNFL for the purpose of the Chapelcross Agreement or any amendment or replacement thereof. The additional capacity resulting from the 1600 MW upgrade is shared in the proportions of 75 per cent and 25 per cent respectively. The NGC charges in respect of these shares are paid by ScottishPower and Scottish Hydro-Electric in the same proportions. There is provision for the two Scottish companies to change these proportions on notification to NGC and to sub-contract the capacity on the NGC Interconnector to other users. The UOIA 1991 terminates on 31 March 2034.

3.2 The Use of Interconnector Agreement (Scotland) 1994 deals with the upgrading of the Interconnector (both the Scottish and NGC Interconnection circuits) to 2200 MW and the terms under which the capacity on the NGC Interconnector may be utilised. It has been signed and is effective in respect of the construction phase. The parties say they envisage that it will supersede the 1991 Agreement in respect of the operational phase once the upgrade is completed. It provides that ScottishPower and Scottish Hydro-Electric will share the additional capacity resulting from the 2200 MW upgrade and the associated NGC charges between

them in the proportions of 75 per cent and 25 per cent respectively. The Use of Interconnector Agreement (Scotland) 1994 terminates on 31 March 2034.

3.3 Summaries of the first two agreements were given in the Prospectus of the Scottish Companies and are repeated in Annexes 1 and 2. Both agreements recognise that at times the companies may be required to make available part of their share of capacity to third persons wishing to transfer electricity between Scotland and England and Wales.

3.4 The Scottish Interconnector Agreement sets out the contractual relationship between Scottish Hydro-Electric and ScottishPower in relation to the ScottishPower interconnection circuits. Clause 25 of that Agreement specifies that:

“For the avoidance of doubt, the Parties acknowledge and agree that nothing in this Agreement shall exclude or restrict the rights, powers, privileges, remedies, duties and obligations of the Secretary of State or the Director under the Act or under the Licences”.

3.5 By virtue of Clause 3 of that agreement, a proportion of the export and import capacity of the pre-Vesting Interconnector is contracted for the use of Scottish Hydro-Electric for the duration of the agreement. This agreement is specified under Condition 7 of Part II of the licence, which required the licence holder to enter into certain agreements. Condition 7.1 states:

“1. The Licensee shall enter into the specified agreements as soon as practicable after the date of grant of this Licence Document and shall, not later than 1 June 1990 or such later date (if any) as the Secretary of State shall agree, submit the specified agreements so entered into to the Director.”

The specified agreement in this case is:

“7.5(a)(iv) the provision by the Licensee to SHE of a share (initially 46 per cent) of the export and import capacity of the Interconnector with England and Wales (after deduction of an allowance for the share of such capacity dedicated to the existing agreement between South of Scotland Electricity Board and British Nuclear Fuels plc relative to the transmission of output from Chapelcross Power Station)”.

3.6 Clause 14.1 of The Use of Interconnector Agreement (Scotland) 1991 provides that ScottishPower and Scottish Hydro-Electric shall undertake NGC’s duties under Section 9(2)(b) of the Act and the NGC transmission licence obligation in respect of competition in relation to the NGC Interconnector Circuits. Under Clause 14.3 of the Agreement, ScottishPower and Scottish Hydro-Electric:

“shall, as soon as reasonably practical after the date of this Agreement in consultation with NGC, with all users likely to be materially affected and the Director, prepare and at all times publish and have in force and shall implement and comply with the access and allocation code which is to cover all material commercial aspects relating to making available to Users the rights to use of NGC Interconnector Circuits and compliance with SP’s and SHE’s respective licence obligations and their obligations hereunder”.

These Codes are considered in Chapter 4 of this Paper.

- 3.7 Clause 14.6 of the Agreement gives the Director certain powers to modify the agreement:

“The Director shall have the power either in response to any representation by a Party or materially affected User or otherwise to vary or substitute any provision of this Agreement at any time to ensure that at all times NGC, SHE and SP comply with the provisions of this Clause 6 and with the statutory and licence obligations of NGC and/or SHE and/or SP”.

Scottish Hydro-Electric’s Share of Interconnector Capacity

- 3.8 Scottish Hydro-Electric’s share of 46 per cent of the pre-Vesting Interconnector capacity is set out in the SIA. The Use of Interconnector Agreement (Scotland) 1990, which was superseded by the Agreement of that name dated 1991, stated in paragraph 4.1:

“In consideration of the payment of Use of Interconnector Charges by SHE and SP to NGC hereunder, NGC shall permit the use of the NGC Interconnector Circuits by SHE and SP (and/or Users under Subcontracts) in the proportion 35.4 per cent to SHE and 64.6 per cent to SP (as such shares are altered in accordance with Clause 4.2)...”.

- 3.9 The proportions of 35.4 per cent for HE and 64.6 per cent for SP broadly equated to the proportions of overall Scottish customers in each company’s area. These proportions were initially used to allocate the 850 MW pre-Vesting Interconnector in the Use of Interconnector Agreement (Scotland) 1990 which was signed on 30 March 1990. Allocation on the basis of these proportions would, after rounding, give 300 MW to HE and 550 MW to SP. However if BNFL’s capacity of 196 MW for its Chapelcross station is deducted first, ScottishPower’s 54 per cent of the remainder is 353 MW and Scottish Hydro-Electric’s 46 per cent is 301 MW.
- 3.10 The Use of Interconnector Agreement (Scotland) 1991 does not further clarify the allocation of capacity, but a covering letter dated 30 April 1991 from Scottish Hydro-Electric to ScottishPower which fulfils certain provisions in the Agreement, states at paragraph 2.2:

“Until completion of the Works the parties shall share the capacity of the ScottishPower Interconnector Circuits and the NGC Interconnector Circuits in the proportions 46 per cent Scottish Hydro-Electric and 54 per cent ScottishPower.

Following the Completion Date the respective MW proportions shall be calculated in accordance with Clause 3.6.1 of the Scottish Interconnector Agreement. Following completion of the Project the respective MW proportions shall be calculated in accordance with Clause 3.6.1 of the Scottish Interconnector Agreement as if this were the first recalculation pursuant to the First Upgrade on the basis of the Pre-Upgrade Base Case Figure which would have applied but for the completion of the Works.

For the avoidance of doubt we confirm that for flows southwards on the NGC Interconnector Circuits, Scottish Hydro-Electric and ScottishPower shall make available out of each of the parties’ respective entitlements, in the proportions 46 per cent and 54 per cent respectively, up to 196 MW of the Interconnector Capability, to BNFL as required for the purposes of the Chapelcross Agreement (as defined in the Scottish Interconnector Agreement) or any amendment or replacement thereof. For the avoidance of doubt such Interconnection Capability shall be deemed to be made available out of the Original Capacity (as defined under Clause 10.5.1 of the Agreement).”

- 3.11 Clause 3.6.1 of the Scottish Interconnector Agreement which was signed on 1 June 1990 primarily relates to the calculation of the proportion of the upgrade. The calculation itself is set out in Clause 3.2.1 and 3.2.1.1 which states:

“During the Pre-Upgrade Period Scottish Hydro-Electric’s MW Entitlement at any time or for any period of time on any Day shall be forty six per cent (46%) of:-

In the case of the Export Capacity:

E-B

where:

E = The Export Capacity notified by ScottishPower pursuant to paragraph 8 of Part 3 of the Schedule for that time or period of time; and

B = the Actual Chapelcross Output for that time or period or time.”

3.12 The contract therefore provides that in the absence of Chapelcross, the pre-Vesting Interconnector would be shared by Scottish Hydro-Electric and ScottishPower (as transmission Licensees) on the basis of 46 per cent: 54 per cent.

3.13 “Actual Chapelcross Output” is defined in the Scottish Interconnector Agreement as follows:

“in respect of any time or period of time, the MW amount of electricity which is being generated by Chapelcross at that time or for that period for Export (subject to a maximum of 196MW) provided always that, with effect from the time of termination of the Chapelcross Agreement, such amount shall at all times be deemed to be zero (0) MW”.

3.14 These arrangements were reflected in the Prospectus for the flotation of Scottish Hydro-Electric and ScottishPower at page 131 which stated:

“The proposed increase in the nominal capacity of the Interconnector from 850 MW to approximately 1600 MW by the end of 1994 will, once fully commissioned, increase Scottish Hydro-Electric’s share of the capacity of the Interconnector to approximately 490 MW for exports and a slightly greater level for imports although some increase over the current capacity may be available for certain periods before this date. The completion of the proposed upgrade is dependent upon appropriate planning and other consents being granted within the currently envisaged timetable. Scottish Hydro-Electric’s export entitlement will further increase to 580 MW in 1998 when BNFL’s existing Interconnector capacity entitlement terminates.”

3.15 The covering letter quoted above referred to Scottish Hydro-Electric and ScottishPower making available capacity on the Interconnector for the purposes of the Chapelcross Agreement or any amendment or replacement thereof. Scottish Hydro-Electric says that negotiations took place from the immediate post privatisation period to replace the Chapelcross Agreement with a more commercial arrangement and that in this context an “amendment or replacement” was considered possible. Scottish Hydro-Electric says that the side letter does not in any way deal with an extension of arrangements with Chapelcross after April 1998.

Superposition and Imports

3.16 The Pool Rules were changed in 1997 to recognise explicitly the principle of superposition when calculating Interconnector capability. The superposition rules allow generators in Scotland to increase their offered availability to the Pool by the amount of any Scottish demand which is being supplied over the Interconnector by Pool generation. However, the demand in Scotland to be supplied from the Pool must not be allowed to exceed the physical capacity of the Interconnector on the grounds that, in the absence of any exports to the Pool from Scottish generators, this demand must still be supplied.

- 3.17 Superposition thus does not mean that the notional maximum physical capacity for imports in to Scotland, that is, physical plus Scottish exports, can be utilised in the presence of Scottish generator exports, because the rules assume that the Scottish demand is firm but generation in the Pool (including Scottish exports) is non-firm.
- 3.18 At present, the Interconnector is mainly used to export electricity from Scotland to the Pool. In 1996/97, exports accounted for about 97 per cent of the available export capacity of the Interconnector and imports accounted for less than 5 per cent of the available import capacity. Under superposition, an increase in imports would effectively increase the export capacity of the Interconnector.
- 3.19 The supply businesses of ScottishPower and Scottish Hydro-Electric are the only existing importers of electricity over the Interconnector. The use of Interconnector charges for imports are included in the amount they pay to their transmission businesses.
- 3.20 ScottishPower says that, in the light of the Pool decision on superposition, it has considered a basis for the allocation of interconnector costs as between importers and exporters. In a proposed section to its Access and Allocation Code, ScottishPower proposed the following principles:
- Importers must contract with ScottishPower for ‘firm’ (i.e. post-upgrade) capacity.
 - They will be liable to pay ScottishPower’s Use of Interconnector charges which presently fall on Exporters alone (there being as yet no Importers).
 - In line with the Director’s determination on superposition, booked import/export capacity will be added volumetrically rather than netted off.
 - Use of Interconnector tariffs will be scaled by the ratio of nominal (or forecast) interconnection capacity to the sum of booked import capacity (I) and export capacity (E).
 - All users of ScottishPower’s interconnector capacity will pay a share (in the same ratio) of NGC’s Zone 1 transmission charges (paid by ScottishPower to NGC).

An implication of ScottishPower’s proposals is that assuming that booked exports remain at their present level or increase along with booked imports, the effect of imports would be to reduce Use of Interconnector charges to all users whilst maintaining ScottishPower’s allowed return on capital and cost recovery.

4 INTERCONNECTOR USAGE AND CHARGES

- 4.1 Chapter 2 outlined the obligations on the transmission Licensees to publish statements on the amount of capacity available on the Interconnector and on the basis of charges for use of the Interconnector. Chapter 3 outlined the obligation in the Use of Interconnector Agreement (Scotland) 1991 to publish Access and Allocation Codes to “cover all material commercial aspects relating to making available to Users rights to use the NGC Interconnector circuits and compliance with ScottishPower’s and Scottish Hydro-Electric’s respective licence obligations and obligations hereunder”. This Chapter outlines the Codes and summarises the information they provide on the charges for and usage of the Interconnector. It also outlines the arrangements for trading Interconnector capacity between parties to the Trading Code.
- 4.2 ScottishPower’s and Scottish Hydro-Electric’s present Access and Allocation Codes were published in 1995 and 1997 respectively, after consultation with the Director.
- 4.3 ScottishPower’s Access and Allocation Code sets out the contractual obligations under the Use of Interconnector Agreement (Scotland) 1991, and under Condition 3 of its transmission licence. The Code outlines the process for making an application to ScottishPower’s transmission business for capacity on the Interconnector, the charges for use of the Interconnector, the issues related to Pool membership, charges and capacity restrictions on the NGC portion of the Interconnector.
- 4.4 Condition 3B.1 and 3B.2 of Part VI of the Combined Licence Document are met by paragraph 4.3 in the Code, which state:

“Not later than 28 days after receipt of such an application or within such longer period at the Director may determine, ScottishPower will either:

- (a) make an offer of terms for Use of System and Use of Scotland-England Interconnection, inclusive of the NGC Interconnector circuits; or
- (b) inform the applicant that a reference has been made to the Director stating that the capacity of the Scotland-England interconnection is insufficient to accommodate the requirements of the applicant in addition to capacity already contracted to Users, including ScottishPower businesses.”

- 4.5 A further alternative is then given in paragraph 4.4:

“Where ScottishPower believes that the applicant’s capacity request can be accommodated partially but not totally, the applicant will be informed

accordingly and will be entitled to request an offer of terms in accordance with 4.3 (a) hereof up to the restricted capacity available. The Director will be informed at the same time in accordance with 4.3(b) of the capacity shortfall against the applicant's total requirements."

4.6 However 5.2.5 emphasises that:

"Prospective users should take particular note of the fact that the exporting capacity of the Scotland/England interconnection is intensively utilised on a daily basis by existing Users and that this high level of utilisation is expected to continue for the foreseeable future. Without prejudice to the powers of the Director to determine allocations, prospective Users should not assume that allocations of existing capacity will be readily available".

4.7 Scottish Hydro-Electric's Access and Allocation Code contains similar provisions. It states:

"When an application for terms to use the Scotland-England interconnection is received, Scottish Hydro-Electric will either:

- (a) offer terms for use of a portion of Scottish Hydro-Electric's share of the Scotland/England interconnection (which terms shall then be incorporated in any subsequent use of Interconnector Agreement): or
- (b) state that there is insufficient capacity available to accommodate the requirements of the applicant and offer terms (including charges) for an upgrade of the Scotland/England interconnection capacity."

4.8 In terms of present capacity utilisation, it states:

"Scottish Hydro-Electric's share of the capacity for southern flows on the Scotland/England interconnection is extensively utilised on a daily basis by existing Users. This high level of utilisation is expected to continue for the foreseeable future. Applicants should not therefore assume that such capacity is readily available".

4.9 Under Condition 3 of Part VI of the licence, both ScottishPower and Scottish Hydro-Electric are obliged to prepare a statement setting out the basis upon which charges for use of the Interconnector are set, a forecast of overall capacity available and an estimate of the proportion of that capacity which will be used. The table overleaf provides a summary of the latest information on Interconnector transfers, and the utilisation by the respective generators of the interconnector capacity available to them.

Year	SCOTTISHPOWER			SCOTTISH HYDRO-ELECTRIC			BNF CHAPELCROSS		
	Export GWh	Import GWh	Export Util'n	Export GWh	Import GWh	Export Util'n	Export GWh	Import GWh	Export Util'n
90/91	1196	317	65%	1169	300	45%	1403	-	100%
91/92	2749	102	93%	2138	6	85%	1351	-	100%
92/93	2670	100	85%	2403	1	90%	1464	-	100%
93/94	2808	113	63%	2081	5	66%	1513	-	100%
94/95	3887	385	77%	2939	13	87%	1551	-	100%
95/96	5530	136	92%	3151	64	86%	1546	-	100%
96/97	5823	116	92%	2845	95	78%	1547	-	100%
97/98	5607	110	91%	3260	27	92%	1253	-	100%

Note: The utilisation figures reflect trades accepted by the Pool. Comparable figures based on bids into the Pool as a proportion of capacity are likely to be greater.

- 4.10 ScottishPower's latest approved Scottish Interconnector Capacity Statement was published in June 1997. It set out on a weekly basis the amount of the capacity which ScottishPower anticipated would be available for the transfer of electricity from Scotland to England and England to Scotland, the amount of capacity in relation to which Scottish Hydro-Electric has the right to require ScottishPower to receive and deliver electricity on behalf of users located within Scottish Hydro-Electric's licensed area, and ScottishPower's forecast of the amount of the remainder of the capacity which will be used for the transfer of electricity from Scotland to England and England to Scotland during the year to end March 1998. In terms of utilisation it indicated:

"ScottishPower's utilisation of its Interconnector share on a week by week basis is dependent upon pool price variations and cannot therefore be predicated accurately for individual weeks. It should be noted however that the utilisation of ScottishPower's export share is generally high, the predicted overall export utilisation for 1997/98 being between 88 per cent and 93 per cent".

- 4.11 Scottish Hydro-Electric's Interconnector Capacity Statement is to similar effect, and in terms of utilisation states:

" the export plan for 1997/98 indicates an overall Interconnector utilisation of between 85 per cent and 95 per cent, with 100 per cent capacity in use at some time in each week. High quantities of export will be required to meet Miller gas and SNL contracts and must-run Scottish Hydro output. The outturn figure for 1996/97 was 79.1 per cent. During any period the actual utilisation of the Interconnector depends on a number of factors and cannot be accurately predicted."

- 4.12 ScottishPower and Scottish Hydro-Electric submitted their draft Interconnector Capacity Statements for 1998/99 in September 1998. ScottishPower's draft Statement stated, "ScottishPower's Interconnector capacity share is fully utilised by its "Generation Wholesale Division". In the light of the agreement reached between ScottishPower and BNFL to amend the Chapelcross Agreement, this is no longer accurate. Scottish Hydro-Electric's Statements state that the opportunity to import exists only during non-exporting periods. In the light of the determination on superposition, this is no longer accurate. OFFER has written to ScottishPower and Scottish Hydro-Electric withholding approval of the draft Statements, setting out the areas where further consideration is required.

Charges

- 4.13 ScottishPower and Scottish Hydro-Electric, under Condition 2 of Part VI of the composite licence, each have to prepare, to provide to any person, and at least annually to revise, a statement approved by the Director setting out the basis of charges for use of and connection to its transmission system. Each has chosen to meet the requirements to prepare a statement of charges for use of the Interconnector by incorporating this within its statement of charges for use of and connection to the transmission system. Each of these statements has been approved by the Director.
- 4.14 ScottishPower's annual statement of charges states that the pre-Vesting (that is, pre-March 1990) Interconnector assets provide economic and security benefits to all ScottishPower customers and, as such, are treated as part of its infrastructure asset base. Similarly, payments to NGC in respect of pre-Vesting capacity between the border and the main NGC system are included within the infrastructure cost base. In respect of pre-Vesting capacity, charges for transmission from ScottishPower's area to England (and vice versa) are the same as those applied to transfers within ScottishPower's area (including entry and exit charges where appropriate).
- 4.15 ScottishPower also states that post-Vesting assets (to upgrade the Interconnector) are funded by separate charges, referred to as use of Interconnector charges, payable only by customers using the upgraded portion of capacity. These charges were more fully described in ScottishPower's Interconnector Access and Allocation Code published in 1995.
- 4.16 The charges for the use of the upgrades are not under price control and are set out in the Use of Interconnector Agreements, dated 1991 and 1994. ScottishPower's transmission business says that its wholesale business has the use of, and pays for, the 1600 MW upgrade under a 40 year agreement, which was designed to back the 40 year UOIA with NGC. ScottishPower says that the agreement between its transmission and wholesale business was the mechanism used to secure a return to the transmission business for its investment in the upgrade. Under this

arrangement, the wholesale business pays ScottishPower's share of the annual charges, set out in the UOIA, for using the NGC Interconnector.

4.17 Scottish Hydro-Electric states that it pays annual charges to ScottishPower and NGC for use of its share of the Interconnector as follows:

- a capacity charge to ScottishPower representing a rate of return on capital and operating costs for the Interconnector in ScottishPower's area
- an Annual Fixed Charge to ScottishPower which is a MW-related charge for use of the "ScottishPower corridor", and an annual charge to NGC representing a rate of return on capital and operating costs for the Interconnector in NGC's area.

4.18 Scottish Hydro-Electric also states that all of the above costs are recovered within its use of transmission system charges, that is

for export	-	Infrastructure (Demand) and System Service charges
for import	-	Infrastructure (Generation) charges

(applied pro-rata where Interconnector capacity is allocated on a daily basis, and on the basis described in Scottish Hydro-Electric's Access and Allocation Code).

4.19 In addition to its own transmission loss adjustment factor of 1.03, Scottish Hydro-Electric applies additional losses of 3 per cent (loss adjustment factor 1.031) to transfers across the Interconnector.

4.20 In respect of post-Vesting assets (to upgrade the Interconnector), Scottish Hydro-Electric has advised the Director that payments are made by its Wholesale Business under a service level agreement with its Transmission Business which cover additional ScottishPower corridor costs, charges on Scottish Hydro-Electric's capital investment to provide the upgrade, and additional NGC upgrade costs.

4.21 In all of the above cases, NGC use of system charges also apply.

Scottish Trading System

4.22 Part IV of the composite licences make provision for ScottishPower and Scottish Hydro-Electric to trade electrical energy under a Trading Code. Part IV, Condition 5.1 states:

- “1. The Licensee shall, jointly with the other Founder Member, adopt a Trading Code designated by the Director for the purposes of this Condition not later than such date as shall be specified in directions issued by the Director for the purposes of this Condition and the

Licensee shall comply with the terms of such Trading Code as from time to time revised (including any directions, consents, approvals or determinations thereunder by the Director).”

4.23 Part IV, Condition 5.2 sets out that:

“The Trading Code shall include:

- (a) arrangements for the establishment of facilities and procedures for effecting trading of electricity between the Founder Members and between and among the Founder Members and other persons who become members of the trading system after the date of the coming into force of the Trading Code;
- (b) arrangements for effecting trading of electricity between members of the trading system;
- (c) arrangements for the establishment of a Trading Committee to carry out the general management and supervision of the trading system and its operation;
- (d) arrangements for the admission to membership of the trading system of:
 - (i) any person authorised to generate electricity by a licence granted under Section 6(1)(a) of the Act:
 - (aa) who operates a generating station of a net capacity not less than 50 MW (or such other net capacity as the Director shall direct time to time); and
 - (bb) who satisfies such other (if any) requirements as the Director shall direct from time to time; and
 - (cc) applies for such membership and agrees to be bound by the provisions of the Trading Code; and
 - (dd) whose said licence contains a Condition requiring it to comply with the provisions of the Trading Code in the terms mutatis mutandis of Condition 7 of Part III; and
 - (ii) any licence holder specified or of a description specified by the Director:

- (aa) who applies for such membership and agrees to be bound by the provisions of the Trading Code; and
 - (bb) whose licence contains a Condition requiring it to comply with the provisions of the Trading Code in the terms mutatis mutandis of Condition 7 of Part III;
- (e) arrangements for charging members for the costs of the trading system;
- (f) provisions for the giving of directions by the Director to the members of the trading system including (without limitation) directions in relation to the responsibilities of the Trading Committee, the contents of reports to be prepared by the Trading Committee pursuant to the Trading Code, the confidentiality and prevention of disclosure of information and matters relating to the trading system and trading of electricity under the trading system and the criteria for membership of the trading system;
- (g) provisions for the approval by the Director of certain matters including (without limitation) approval of the resignation of a Founder Member from membership of the trading system, the cessation of the membership of other members in certain circumstances, the admission of persons to membership in certain circumstances and any adjustment by the Trading Committee to the amount of the membership contributions or other sums payable by members pursuant to the Trading Code;
- (h) provisions for referring certain matters to the Director for his determination including (without limitation) certain disagreements arising under the Trading Code concerning the admission of persons to membership of the trading system and the cessation of the membership of members;
- (i) provisions for delivering to the Director copies of reports prepared by the Trading Committee pursuant to the Trading Code;
- (j) administration procedures for the trading system.”

4.24 In October 1991, ScottishPower and Scottish Hydro-Electric issued a Trading Code. The Code was designated by the Director, under Condition 5 of the Licence Part IV. It has not been revised since then.

4.25 The Trading Code states that:

“In addition, it covers arrangements for the trading of Interconnector capacity in compliance with Part VI, Conditions 3-3C.”

4.26 It also states that there are two Founder Members of the trading system, Scottish Hydro-Electric and ScottishPower, and

“Any party wishing to become a member of the trading system should apply in writing to the Company Secretary of the appropriate Founder Member. The Company Secretary will then undertake to inform the other Founder Member, any other members of the Trading System and the Director General of this application.

At such time that any party applies to join the trading system, procedures will be reviewed as necessary and revisions presented for the approval of the Director General of Electricity Supply to maintain fair trading between all members.”

4.27 The trading procedures are set out as follows:

“Items Available

Either party has the right to initiate a trading exchange either to buy or to sell. The items available to be traded may include, inter alia:

Energy

Reserve Capacity - Spinning
- Standing

Interconnector Capacity - Import
- Export

Period of Offer

Recognising the potential limited life of certain of the items, either party shall have the right to set a time limit at the end of which an offer to buy or to sell shall expire.

Conditions

Where appropriate, Suppliers or Purchasers can indicate that an offer is for

a firm or interruptible supply or,
a Dispatchable or Non-Dispatchable purchase or,
subject to other conditions.

Mechanisms

For such time as there are only two members of the trading system, all enquiries and offers to buy and sell items may be made at any time by telephone or fax between Central Control at Port-na-Craig for Scottish Hydro-Electric and System Operation at Strathkelvin House for ScottishPower.

The supplier will complete a Trading Agreement Form (TAF1) for all accepted sales and a copy of the form will be faxed to the Purchaser.”

- 4.28 The provisions for Interconnector trading are not often used. There were no Interconnector capacity trades in 1994/95 and 1995/96. In 1996/97, Scottish Hydro-Electric sold 41,968 MWh of capacity to ScottishPower and there were no sales of capacity by ScottishPower in that year [1997/98].
- 4.29 On 17 March 1998, BNFL applied to ScottishPower for membership of the Trading Code. ScottishPower has now confirmed “that BNFL Magnox Generation in respect of their power station at Chapelcross are a member of the Scottish Trading Code and that their membership is deemed to have taken effect on 1 April 1998”.

Review of England and Wales Trading Arrangements

- 4.30 In July 1998, OFFER published Proposals in the light of the Review of Electricity Trading Arrangements. On 8 October, the Government announced that it intended to proceed with the proposed change in trading arrangements in England and Wales. OFFER intends to consult on Scottish Trading Arrangements including on the prospect for GB-wide trading arrangements.
- 4.31 In circumstances in which there continues to be separate trading arrangements in England and Wales and Scotland, allocation of capacity on the Interconnector might be determined on the basis of bids. One possibility would be a system of bidding for Interconnector capacity in circumstances where demand for capacity exceeds available capacity. This would raise questions about how bidding arrangements might be organised and to whom the proceeds of bidding might accrue. Some change might be achieved through further development of the Trading Code, with or without the need for licence modifications.

5 APPLICATIONS FOR ACCESS

- 5.1 This Chapter consists of three sections. The first outlines the requests by renewable generators for access to the Interconnector. The second section sets out the issues arising from the determination requested by BNFL and the concluding section addresses the National Power application for determination.

Requests by Renewable Generators

- 5.2 In 1994, during the third round of the NFFO, a number of applicants developed projects based in Scotland with the intention of using the Scotland-England Interconnector. These included projects in both ScottishPower's and Scottish Hydro-Electric's areas. The applicants involved were Ecogen Ltd, Highland Light and Power, R & M Partners, Mr R Young, Mr T Copland, Atlantic Energy and Forrest Estates.

- 5.3 The NFFO process required these applicants, amongst other things, to set out their arrangements for transporting their output across Scotland and over the Interconnector to the NGC Grid. Those applicants in Scottish Hydro-Electric's area applied to Scottish Hydro-Electric, and Scottish Hydro-Electric's response included an explanation of its position on the Interconnector. For example in its response to Atlantic Energy it explained that:

“HE's share of Interconnector capability is fully utilised and no reduction in the requirement for capacity is anticipated in the foreseeable future. Developers wishing interconnection capacity may apply to Scottish Hydro-Electric for a upgrade. In such circumstances Scottish Hydro-Electric will approach ScottishPower and the National Grid Company seeking terms and conditions which would apply in achieving the capacity required. The costs quoted in this document specifically exclude any amount which may be due to you for the provision of capacity on the Interconnector.”

- 5.4 Applicants in ScottishPower's area applied to ScottishPower. In response to an application for Interconnector capacity from Forrest Estate, ScottishPower stated:

“Please note that within the existing Interconnector, all export capacity available for allocation by ScottishPower is already being fully utilised. In addition, a capacity upgrade is under construction and, when complete, will be allocated in full to the existing users who have funded the project in full. In these circumstances I have to inform you that your capacity request cannot be accommodated at this time.”

- 5.5 Both ScottishPower and Scottish Hydro-Electric gave similar responses to other applicants requesting access to the Interconnector. Some of them sought a determination from the Director on their requests, and OFFER therefore wrote to

the relevant parties, including ScottishPower and Scottish Hydro-Electric, in August 1994 to invite views on the issues. In response the prospective independent generators argued that it was in the commercial interests of the companies holding both a transmission and a generation licence to restrict access to the Interconnector and that in doing so the Licensees were frustrating the Government's stated intention of developing renewable energy resources and the Director's remit to develop competition in electricity generation and supply. In addition the prospective generators said that the prohibitive charges for use of the Interconnector would negate the potential of renewable generation in Scotland to meet demands in England and Wales.

- 5.6 ScottishPower and Scottish Hydro-Electric indicated that they had refused requests by the generators for access to the Interconnector on the grounds that there was insufficient capacity available for use by third parties. The companies pointed out that they make full use of the existing allocation and that renewable generation would inevitably displace high load factor generation in favour of low load factor generation. The result would be to compromise the efficient operation of the Interconnector, damage the companies' commercial interests and reduce competition in England and Wales. In addition the companies pointed out that their respective Access and Allocation Codes set out arrangements for third party access to the Interconnector, and that the licence provision for upgrading the Interconnector in circumstances where available capacity was fully utilised was an option available to independent generators. In particular ScottishPower said that its level of capacity utilisation was frequently 100 per cent and had averaged over 96 per cent in the two years up to 1994, and argued:

“It is therefore inevitable that any determination which [the Director] makes which reallocates capacity to new applicants will be at the expense of ScottishPower's existing commercial trading activities. ScottishPower believes that such a determination could impose an unreasonable restriction on its established commercial activities”.

- 5.7 In the light of the consultations, the Director made the following statement on 27 September 1994:

“Certain generators with facilities located in Scotland have qualified to bid into NFFO3. In each case they have applied to their local PES for use of the Interconnector between Scotland and England and, having failed to persuade their local PES to offer capacity, have referred their request to OFFER with a view to the Director making a determination of the capacity (if any) which must be made available to each generator.

The purpose of this note is to indicate the way in which the Director intends to deal with these determinations. I have already received from the parties the evidence and representations which they wish me to consider. By the end of this month, the bids into NFFO3 will have been made, and OFFER

will then know the maximum size of the problem. Once the Order is made, OFFER will know which of those bids would be likely to succeed if capacity on the Interconnector is made available.

The Director's determination will be made in sufficient time to enable any bid to be accepted if the other terms of the bid appear acceptable".

- 5.8 In the event, none of the NFFO3 projects in Scotland were included in the Order and a determination was therefore not required.
- 5.9 In 1998, proposals to develop renewable projects in Scotland have been made in the context of the fifth Order of NFFO. In the development of their NFFO proposals, one company applied to Scottish Hydro-Electric for access to the Interconnector. In response to that application, Scottish Hydro-Electric advised:
- "At present the Interconnector capacity is fully committed to existing users and this situation is expected to continue for the foreseeable future. There is therefore no spare capacity that can be allocated to new users".
- 5.10 The company has now been successful under the NFFO and has now re-iterated its request for capacity. At this stage the company concerned has not asked the Director to intervene.

Determination Requested by BNFL

- 5.11 BNFL owns and operates a power station at Chapelcross, located in the south of Scotland with a net capacity of 196 MW. From when Chapelcross first started production until 1988, its output was sold to the South of Scotland Electricity Board (SSEB). In 1988, BNFL and SSEB signed the Chapelcross Agreement, which entitled BNFL to use SSEB's transmission system to transmit up to 196 MW of electricity from Chapelcross to North Western Electricity Board (Norweb), other BNFL premises, and, subject to certain conditions, other customers. Since then, Chapelcross has exported all of its output to England and Wales. In 1990, with the introduction of the Pool in England and Wales (which prevented direct sales of electricity to Norweb), the parties agreed that BNFL could export its output to the Pool at the charges specified in the Chapelcross Agreement. These charges were lower than those applicable under the statements of charges for use of Interconnector published by ScottishPower. The Agreement was due to expire on 31 March 1998.
- 5.12 As explained above, BNFL's 196 MW of Interconnector capacity was deducted from the pre-Vesting capacity before Scottish Hydro-Electric's share was calculated. This is reflected in ScottishPower's and Scottish Hydro-Electric's licence, in the SIA and in the UOIA. BNFL says it was not involved in the drafting of the licence conditions and relevant agreements under the Electricity Act. It

should be noted that Clause 2(ii) of the Use of Interconnector Agreement (Scotland) 1990, which has been superseded, states that a Condition Precedent of the Agreement is:

“British Nuclear Fuels PLC entering or having entered into a Subcontract in respect of its output from Chapelcross power station, a User Agreement and the Pooling and Settlement Agreement.”

- 5.13 In the early 1990s BNFL entered discussions with ScottishPower about extending the Chapelcross Agreement, reflecting the possibility of extensions to the life of the plant. In March 1993, BNFL applied to ScottishPower under Condition 3B, Part VI of ScottishPower’s licence for an agreement for use of the Interconnector in respect of the output of the Chapelcross station for the period after 1 April 1998. This formal application was repeated in a letter of 15 November 1993.
- 5.14 The formal applications to ScottishPower included an application for an annual quantity of 196 MW and a period described as “indefinite”, which BNFL explained was intended to refer to and cover the operational lifetime of the Chapelcross station. BNFL has made other applications, including to Scottish Hydro-Electric, but said that this was its primary application for capacity.
- 5.15 On 3 December 1993, ScottishPower replied to BNFL setting out the principles to be applied by ScottishPower in determining the terms of a firm offer at that time. In summary, these were that:
- ScottishPower and Scottish Hydro-Electric accepted a shared obligation to reserve sufficient capacity to permit the operation of the Chapelcross Agreement;
 - it was assumed that the Chapelcross Agreement matched in time and capacity the expected life of a station and thus;
 - ScottishPower had fully allocated all Interconnector capacity beyond March 1998 released by the termination of the Chapelcross obligation to a customer other than BNFL;
 - having been advised that Chapelcross had been given a life extension until March 2000, ScottishPower had offered to BNFL subject to certain precedent conditions, 54 per cent of BNFL’s requirements (ie 106 MW) for the period from 1 April 1998 to 31 March 2000 with any capacity in excess of this to be provided if BNFL paid for an upgrade; and
 - and that further capacity (in excess of that described above) in the period beyond April 2000 would only be provided if BNFL paid for an upgrade for that further capacity.

- 5.16 In the absence of a satisfactory resolution of this request, BNFL wrote to OFFER in July 1994 indicating that a determination under the relevant terms of ScottishPower's licence conditions (in particular, Part VI, Conditions 3B.2, 3A and 3C) might be required. Negotiations between ScottishPower, Scottish Hydro-Electric and BNFL have been ongoing since then.
- 5.17 In July 1996, the Nuclear Installation Inspectorate (NII) announced that, subject to satisfactory performance, BNFL was licensed to run the reactors beyond the 40 years for which it had previously been licensed. In February 1997, ScottishPower, Scottish Hydro-Electric and BNFL signed a Memorandum of Understanding (MoU) which outlined arrangements that would, when the necessary agreements were in place, give BNFL access to the pre-Vesting Interconnector for the operational lifetime of the Chapelcross reactors. Under the MoU, ScottishPower would provide 54 per cent and Scottish Hydro-Electric would provide the remaining 46 per cent of the capacity used by BNFL from their shares of the pre-Vesting capacity.
- 5.18 The MoU was shown to OFFER, who indicated, in May 1997, an intention to consult on issues related to it. In February 1998, the Director advised ScottishPower, Scottish Hydro-Electric and BNFL as follows:

“We do not accept that the existing agreement with BNFL entitles that company to Interconnector access for the plant's operational lifetime, and are not convinced that the proposed arrangements for BNFL would be consistent with your statutory and licence obligations concerning competition and non-discrimination. At the same time, we consider it important that suppliers other than ScottishPower and Scottish Hydro-Electric have adequate access to the Interconnector. In view of the potential interest in access to the Interconnector, I intend to consult on the issues involved. I expect that the consultation paper will include the following topics:

- the issues raised by a third party's request for a determination following its application to ScottishPower for Interconnector capacity;
- arrangements for the Interconnector's export capacity to be allocated amongst those persons who request it;
- extent of access to the initial capacity and subsequent upgrades and
- charges and other terms of access to the Interconnector.

It will take time to receive and consider responses to the issues raised in the consultation paper. In the meantime, I would not object to ScottishPower, Scottish Hydro-Electric and BNFL putting in place an agreement for Chapelcross to have

continued access to the Interconnector for one year beyond the existing termination date of 31 March 1998.”

5.19 Shortly before the Chapelcross Agreement expired on 31 March 1998, Scottish Hydro-Electric withdrew its offer of capacity under the MoU and ScottishPower then also withdrew its own offer. In April 1998, ScottishPower, Scottish Hydro-Electric and BNFL put in place an arrangement to provide BNFL with access to the Interconnector until 30 September 1998. Under this arrangement, it was proposed that the wholesaling businesses of ScottishPower and Scottish Hydro-Electric would sell directly to BNFL, under the terms of the Trading Code, export capacity on the pre-Vesting Interconnector.

5.20 In May 1998 BNFL formally applied for a determination in the following terms:

“We now therefore request that the Director make the following determinations under ScottishPower’s licence Conditions:

Under Part VI Condition 3B2:

What part of the capacity of the Scottish interconnection is already contracted to persons other than ScottishPower and its affiliates and related undertakings.

What part of the capacity of Scottish interconnection has been approved by the Director as being reserved to ScottishPower and its affiliates and related undertakings for the purpose of ScottishPower’s Supply Business, Second Scottish Hydro Supply Business and Wholesaling Business.

Having regard to (a) and (b), whether the capacity of the Scottish interconnection is insufficient to accommodate the requirements of BNFL.

Under Part VI Condition 3C1:

To settle the terms of the agreement in dispute between BNFL and ScottishPower.

(The principal terms which BNFL wishes the Director to settle under Condition 3C1 are the terms as to the quantity of Interconnector capacity and the period of use of the Interconnector under the agreement. BNFL anticipates that other terms (eg as to charging) may be capable of being agreed between BNFL and ScottishPower once the principal terms as to quantity of capacity and the period for which such capacity is made available have been settled by the Director.)”

- 5.21 A number of issues remained unresolved on the detail of the interim arrangements. In the light of this, the Deputy Director General for Scotland wrote to the companies concerned on 28 July 1998 stating:

“As regards the agreement in dispute between BNFL and ScottishPower, the Director General will need more time to settle the issues for the medium term. However he would be minded, without prejudice to his further decision, to settle the principal terms in respect of the period 1 April 1998 to 31 March 1999 so as to make 196 MW of capacity available from ScottishPower to BNFL.”

- 5.22 The letter also noted:

“Clause 2.2 of the side letter dated 30 April 1991 to the Use of Interconnector Agreement (Scotland) as amended also refers to the Chapelcross agreement and to “any amendment or replacement thereof”. I would expect these documents also to be taken into account by ScottishPower and Scottish Hydro-Electric in resolving this issue.”

- 5.23 Further discussions took place between Scottish Hydro-Electric, ScottishPower, BNFL and OFFER. The Deputy Director General for Scotland wrote on 23 September 1998 to these companies with a draft determination as indicated in the letter of 28 July 1998. In the light of this, ScottishPower and BNFL held negotiations about a contractual arrangement to be put in place for the six months from October 1998 to March 1999 which ensured the availability of 196 MW of Interconnector capacity to BNFL. An agreement between BNFL and ScottishPower for this period was reached and BNFL formally asked that the determination not be issued pending this consultation exercise. ScottishPower and BNFL said that the contract which was put in place was an amendment of the Chapelcross agreement. ScottishPower wrote to Scottish Hydro-Electric stating that:

“ScottishPower is [now] operating the Scottish Interconnector Agreement (the “SIA”) in its terms and that, in doing so, we are accommodating the “Actual Chapelcross Output” as we are required and entitled to do due to the continuing existence of the “Chapelcross Agreement” referred to within the SIA.

Please note that, in considering the applicability of these continuing arrangements to the capacity requirements of Chapelcross, we have taken careful account of the commitments given by both our companies in a side letter dated 30 April 1991 to the Use of Interconnector Agreement (Scotland) 1991”.

- 5.24 The amendment of the Chapelcross Agreement also includes a termination clause which indicates that if ScottishPower is not satisfied that Scottish Hydro-Electric accept that the capacity of 196 MW should, on the basis of the arrangements relating to the operation of the original Interconnector, be provided to BNFL on a pro rata basis in the proportions of 54 per cent by ScottishPower and 46 per cent

by Scottish Hydro-Electric, then ScottishPower should be entitled at any time after, but not before, 31 December 1998 to terminate this agreement giving BNFL at least 15 working days' notice.

- 5.25 Scottish Hydro-Electric has indicated that it does not agree with ScottishPower's interpretation of the Scottish Interconnector Agreement and is considering a dispute procedure under that Agreement.

Determination Requested by National Power

- 5.26 During 1997, National Power developed proposals for a combined Heat and Power (CHP) plant, embedded in ScottishPower's distribution network. National Power states that the viability of any such CHP plant depends on finding customers for the spill electrical power, that is the difference between the amount of "waste" heat from an electrical generator and the customer requirements for process heat on site. It says that this is more difficult in Scotland than in England and Wales owing to the absence of a central wholesale energy market. National Power states that access to the Interconnector is an important part of a generator's strategy in trading in the market and could determine the viability of generation entry to the Scottish market. On 30 September 1997, National Power Cogeneration (Trading) Ltd applied for use of the pre-Vesting Interconnector to export from Scotland to the Pool from 1 September 1999.

- 5.27 ScottishPower responded on 14 October 1997:

"As indicated in our Access and Allocation Code, all of the export capacity of the existing Interconnector is fully utilised on a daily basis by Scottish exporters for bidding into the England and Wales Pool. A second capacity upgrade is under construction and, when complete, will be allocated in full to the existing users who have funded the project. Under the circumstances, I have to inform you that your capacity request cannot be accommodated from the capacity which exists or will exist following the second upgrade.

There may be an opportunity, subject to the necessary lead time, for additional Interconnector capacity to be made available by the construction of a further upgrade to accommodate your requirements. Should you wish to pursue this possibility, I would be pleased to provide you with a statement of charges which ScottishPower would make for the necessary further upgrade works."

- 5.28 On 14 November 1997, National Power asked for a determination from the Director. It said:

"We contest SP's proposition that the pre-Vesting Interconnector is fully allocated as at the date included in our application. We do not believe that

SP can provide substantiated reasons for its refusal to grant access as required by European Directive 96/92EC concerning common rules for the internal market in electricity. We further believe that competition is frustrated when a vertically integrated company such as SP refuses access to competitors to an essential monopoly part of its business. In his recent speech to the Pool Members Conference, the DGES noted that access to the Pool has assisted new generators entering the market. Access to the Pool would also assist new generators seeking to enter the market in Scotland. But Pool access also requires access to the Interconnector for such generators.”

5.29 National Power asked:

“In accordance with the DGES’s functions under Condition 3C of the Transmission licence section of SP’s licence we therefore request a determination from the DGES that SP shall grant our request for Interconnector access. We also request that the determination makes provision for the charges payable for such access.”

5.30 Responding on the specific point raised by National Power on the frustration of competition, ScottishPower said:

“The beneficial impact of the Interconnector on competition and prices in the Pool is already well-documented. Acting under our Transmission licence and through our Power Systems business, we interpret our licence responsibilities and respond to applications without regard to any perception of competition between applicants and other parties. We interpret the non-discrimination obligations set out in Part VI, Condition 3A as prohibiting us from discriminating either in favour of, or against, other ScottishPower businesses.”

5.31 National Power also indicated the need for “substantiated reasons” in ScottishPower’s response, and queried whether the framework for allocating capacity on the Interconnector was consistent with the EU Directive 96/92/EC. Article 8 of the Directive states:

“the use of Interconnectors shall be determined on the basis of criteria which may be approved by the Member State and which must be objective, published and applied in a non-discriminatory manner which ensures the proper functioning of the internal market in electricity.”

6. APPLICATION BY SCOTTISHPOWER FOR A CAPACITY RESERVATION

- 6.1 On 10 August 1998, ScottishPower's Power Systems Division asked the Director to reserve all the capacity available to it under the Scottish Interconnector Agreement to ScottishPower's Generation Wholesale Division. Attached to this letter was a copy of an internal ScottishPower memorandum and a copy of an inter-Divisional agreement signed in April 1993 between ScottishPower's Transmission and Generation Wholesale Division in relation to use of the full capacity of the Interconnector, including the pre-Vesting and upgraded tranches. This Chapter outlines the basis of this request and the responses of other companies potentially involved.
- 6.2 As set out in Chapter 2, an applicant or the Licensee can seek a determination on whether the capacity of the Interconnector is insufficient to accommodate the requirements of the person who has made an application. The licence distinguishes between contracts that the Licensee has entered into with third parties, and capacity "approved by the Director as being reserved to the Licensee". The latter may arise in the case of ScottishPower and Scottish Hydro-Electric who hold both a transmission licence and a supply licence in the same legal entity and, in law, a single legal entity cannot contract with itself. Under the licence, the Director must have regard to capacity contracted and reserved in considering such a determination. While the Licensees have consulted the Director on the Access and Allocation Code and the annual statements of capacity and usage of the Interconnector have been approved, neither ScottishPower nor Scottish Hydro-Electric has hitherto formally sought the Director's approval to such a capacity reservation.
- 6.3 In the internal ScottishPower memorandum dated 7 August 1998, the Generation Wholesale Division asked the Transmission Licensee to seek the Director's approval of a reservation of Interconnector capacity. In its memorandum, the Generation Wholesale Division stated that the Chapelcross Agreement "has not been replaced by any other formal agreement" and "accordingly, I am formally requesting you to reserve to the Generation Wholesale Division, (GWD) the whole of the capacity of the interconnection to which ScottishPower is contractually entitled under the SIA, including that previously deducted in respect of the Chapelcross Agreement. GWD has a requirement for the total amount of the available capacity, as evidenced by its commitment to meet the cost of two upgrades to the interconnection and its successful history of sales of electricity from its Scottish generation to the England & Wales market. GWD would, of course, meet any additional charges payable for this additional capacity."
- 6.4 The memorandum sets out the regulatory requirements, as summarised in Chapter 3. It states, "In order to allow GWD to plan and operate in a predictable environment, it is important to know that the capacity of the interconnection reserved to it by Power Systems Division (PSD) is firm and cannot be reduced by

the application of a third party. I therefore ask you to obtain the approval of the Director General of Electricity Supply (“the Director”) to the reservation of the capacity requested above.”

- 6.5 The memorandum also indicates that the Director has not previously been asked formally to approve the existing reservation of capacity. It says that “the reservation of the capacity has de facto been approved by OFFER. However, the letter of the 28 July 1998 to BNFL from the Deputy Director General for Scotland implies that in the light of BNFL’s request for a determination about the sufficiency of capacity, formal approval is now required.”
- 6.6 The letter continues: “Noting that you are now minded to make an interim determination on interconnector access in the very near future, there would appear to be a clear requirement for the entitlements of all existing traders to be clarified and taken into account in that determination. I therefore refer this matter to you for consideration by the Director and would be grateful to have it dealt with as a matter of urgency.”
- 6.7 The letter of 10 August does not provide detailed criteria which the Licensee considers are relevant to its preference to allocate capacity to the Generation Wholesale Division, rather than to sign contracts with third parties. It states that:
- the Generation Wholesale Division has engaged in Interconnector trading without interruption since the inception of the present trading arrangements; and
 - the inter-Divisional Agreement for the full capacity was signed between the Licensee and the Generation Wholesale Division in April 1993.
- 6.8 OFFER invited comments from BNFL, National Power and Scottish Hydro-Electric on the letter and memorandum. The inter-Divisional agreement was referred to in this correspondence but ScottishPower requested that it should not be circulated to other parties.
- 6.9 BNFL says that it has also engaged in Interconnector trading since the inception of the present trading arrangements and formally requested 196 MW of capacity a month before the signing of the inter-Divisional Agreement. BNFL says that it strongly opposes any approval by the Director of reservation of capacity in favour of ScottishPower’s Generation Wholesale Division. It considers that ScottishPower has breached and continues to breach its licence obligation and ScottishPower’s contractual obligation to respect NGC’s licence obligations. BNFL also says that the decision-making process as set out in ScottishPower’s letter reinforces concerns about inadequate separation of businesses within ScottishPower.
- 6.10 National Power says that the application made by ScottishPower to reserve all the capacity to its Generation Wholesale Division is consistent with ScottishPower’s

previous position which, National Power claims, is designed to deter potential applicants. National Power notes that the Trading Code envisages a secondary market for potential market entrants, but that such a market is non-existent. National Power suggests that the option which is given to applicants to seek an upgrade has three major flaws. These are:

- it cannot be assumed that an upgrade would receive planning permission;
- even if permission is gained, it may not be gained on a timetable consistent with the NFFO timetable or the needs of on-site heat and electricity consumers; and
- upgrades come in disproportionately large discrete chunks.

6.11 Scottish Hydro-Electric did not comment on the correspondence.

7 ISSUES FOR CONSIDERATION

7.1 In considering the applications from BNFL, National Power and ScottishPower, the Director must be guided by his statutory duties. These include duties to promote competition in electricity generation and supply, to protect customers in respect of prices and continuity of supply, to secure Licensees are able to finance their licensed activities and to promote efficiency and economy on the part of persons authorised by licences to supply or transmit electricity.

7.2 The issues for consideration may be considered in four parts:

- what considerations the Director should take into account in deciding on the applications from BNFL, National Power and ScottishPower, against the background of the existing licence conditions;
- whether the two Scottish Licensees have acted in accordance with their duties under the Act and the licence, and whether, in future, amendments should be made to the statements on Interconnector capacity and usage required under the licence and the Access and Allocation Code required under the Use of Interconnector Agreement (Scotland);
- whether the relevant licence conditions themselves remain appropriate, and provide a suitable framework for the Licensees, or should be modified; and
- whether since the Government has indicated its intention to bring forward proposals to amend the Electricity Act 1989, amendments should be sought to the provisions of the Act in respect of aspects relevant to interconnections.

7.3 The applications are made with respect to provisions in ScottishPower's licence. The Director has not at this time been asked to determine any matters under Scottish Hydro-Electric's licence, though his decisions on the present applications may be relevant to any present or future applications to Scottish Hydro-Electric. Issues of compliance with statutory and licence conditions, and possible licence amendments, are potentially relevant to both ScottishPower and Scottish Hydro-Electric; and to both the pre-Vesting Interconnector and the upgrade.

Consideration of the Applications

7.4 BNFL and National Power have asked the Director to determine whether there is insufficient export capacity on the interconnector. ScottishPower has asked the Director to approve that all of the capacity available to its transmission business should be reserved to its Generation Wholesale Division.

- 7.5 The applications under consideration each raise important issues for competition in generation and supply in Scotland. Comments are invited on, what considerations the Director should take into account, and in particular
- the relevance or otherwise of the Director's duty to promote competition in generation and supply, the present and prospective state of that competition, and the possible implications for the decisions presently under consideration.
- 7.6 The Director will need to consider what is the relevant available capacity on the Interconnector. Views are invited on what considerations should be taken into account including:
- whether the licence obligations, set out in Chapter 3 apply to each of the different tranches of the Interconnector;
 - whether different considerations apply to the availability and allocation of each tranche, and the relevance or otherwise of funding arrangements for different tranches of the Interconnector;
 - whether the applications made by BNFL and National Power should be for access to a particular tranche of the Interconnector;
 - whether in the event of closure of Chapelcross the effective capacity of the Interconnector would be reduced and, if so, whether this is a relevant consideration;
 - whether any contracts described in this paper or elsewhere constitute parts of the Scottish Interconnection already contracted to persons other than ScottishPower;
 - the appropriate duration of any commitments with respect to availability of capacity.
- 7.7 The Director will need to consider the extent to which, if any, ScottishPower's application that all the available capacity should be reserved to its Generation Wholesale Division is accommodated. Views are invited on what considerations he should take into account, including:
- what criteria the Director should take account in consideration of whether to reserve capacity to the Licensee's own affiliates;
 - whether or how far decisions on the above applications should take into account previous use of the Interconnector, any previous or existing agreements including the inter-Divisional agreement referred to above, and any prior claims of existing users;

- the weight and treatment to be accorded to possible future users, whether notified, under construction, applied for or in contemplation, including as a result of Government policy on, for example, renewables;
- whether capacity made available under contract or reserved to the Licensee should be firm and therefore not be reduced as a result of any subsequent application for access;
- the means of assessing and dealing with likely future requirements or requests to use the Interconnector and the assessment of the Licensee's ability to recover costs;
- the relevance or otherwise of different methods of allocation, including first come first served, pro rata allocations and bidding for capacity;
- the appropriate duration of any commitments with respect to reservations of capacity.

These are in addition to the considerations set out in paragraph 7.5.

7.8 The Director will need to consider, in the case of the application from BNFL, whether Scottish Hydro-Electric continue to have any obligation to provide capacity. Views are invited on what considerations he should take into account, including;

- whether the Director has the power to and, if so, should require Scottish Hydro-Electric to provide 46 per cent of any capacity requested by BNFL of ScottishPower, under this determination, or through change to the Scottish Interconnector Agreement.

Compatibility with Statutory and Licence Obligations

7.9 Previous Chapters have explained that relevant statutory and licence obligations include:

- obligations on ScottishPower to make their transmission system (which includes the Interconnector) available (Section 9(3) of the Electricity Act);
- the obligations on NGC to facilitate competition (Section 9(2)(b) of the Electricity Act), for which the Scottish companies have assumed responsibility as regards the NGC Interconnector;
- licence obligations relating to access to the Interconnector (Part IV, Condition 3).

7.10 The Director may need to consider whether the conduct of the Licensees has been consistent with their statutory and licence obligations. Views are invited on what considerations he should take into account including:

- whether procedures which the Scottish companies have in place for discharging these obligations are adequate;
- whether the companies have adequately set out the basis and terms on which third parties may use the Interconnector, and whether the existing Access and Allocation Codes continue to be appropriate, and if not what further information these Codes should contain;
- whether Statements of Charges for use of the Interconnector continue to be appropriate;
- whether the allowances for electrical losses on the Interconnector remain appropriate;
- whether the proposed allocation of interconnector costs between importers and exporters outlined in paragraph 3.20 above would be consistent with statutory and licence obligations.
- the relevance and assessment of a reasonable rate of return, and the extent of which different methods of allocation (for example, bidding for capacity) would be consistent with the licence or other requirements.

Possible Licence Modifications

7.11 The Director will wish to consider whether the present licence conditions and other arrangements relating to the Interconnector are those best suited to promoting competition in generation in England and Wales, potentially and Scotland.

7.12 Independent generators and second tier suppliers have expressed concern about the limited development of competition in generation in Scotland, including with regard to trading arrangements and the Interconnector. OFFER proposes to consult on trading arrangements, including possible licence modifications.

7.13 Comments are invited on possible licence modifications on the Interconnector, either to clarify the existing arrangements or to change them, including:

- whether any aspect of the existing licence framework should be changed to clarify, enhance or reduce the obligations of the Licensees;
- whether a licence modification is required to ensure that each Licensee is obliged to prepare a statement of its approach to allocating capacity on the

Interconnector and to publish criteria for any decisions it takes regarding access to the Interconnector. This might be included in an expanded and enhanced Access and Allocation Code;

- whether the Licensees should, in the light of the role of the interconnector in promoting competition in generation, be obliged to separate more strictly than at present the operational responsibilities for the interconnector from other businesses within ScottishPower;
- whether the costs and revenues of the Interconnector should be separately apportioned in the Regulatory Accounts, and whether consideration should be given to a separate price control for the Interconnector business from the remainder of the transmission business;
- whether the Licensees should be obliged to have in place means of assessing and dealing with likely future requirements or requests to use the Interconnector;
- whether the Licence should be modified to ensure the Licensees conform to the requirements under Article 8 of the EU Directive on Liberalising the Internal Electricity Market;
- whether the existing contractual arrangement whereby ScottishPower and Scottish Hydro-Electric discharge the statutory and licence obligations of NGC in respect of the interconnector continue to be appropriate, and whether alternative arrangements should be put in place;
- whether implementation of any revised arrangements should become the responsibility of the National Grid Company, rather than ScottishPower.

Possible Statutory Amendment

7.14 The Government has indicated its intention to amend the Electricity Act 1989, in the light of the Utility Review and the Green Paper, “A Fair Deal for Consumers”. In May 1998, OFFER published a consultation paper on Separation of Businesses, which noted the duty to promote competition imposed by Section 9 of the Electricity Act, was qualified in the case of the Scottish transmission Licensees. In their case the duty is to make the transmission system available to competitors on terms which neither prevent nor restrict competition. In October, the Government published a consultation paper on The Future of Regulation of Gas and Electricity, including an intention to provide views on a change to the Electricity Act to remove the qualification of the duty of transmission Licensees in Scotland. Views are invited on:

- whether the issues raised in this consultation paper are relevant to the suggestion to change the Electricity Act in this way;

- whether any further aspect of the Act as it relates to the transmission Licensee should be amended.

SUMMARY OF THE SCOTTISH INTERCONNECTOR AGREEMENT**The Scottish Interconnector Agreement: Excerpt from the Prospectus for the two Scottish Electricity Companies, May 1991.****(a) Introduction**

The parties to the Scottish Interconnector Agreement, dated 1 June 1990, are ScottishPower and Scottish Hydro-Electric. The Scottish Interconnector Agreement provides Scottish Hydro-Electric with access to the NGC Interconnector through ScottishPower's transmission system, including the Scottish Interconnector. It is of indefinite duration.

(b) Principal Terms**(i) Primary entitlements and commitments****(1) Scottish Hydro-Electric has the right to require ScottishPower:**

- to receive electricity from Scottish Hydro-Electric at the boundary between the Companies' respective authorised transmission areas and at those generating stations connected to ScottishPower's transmission system in respect of which Scottish Hydro-Electric has contractual rights to generating capacity under the Coal Agreement and the Nuclear Energy Agreement and to deliver such electricity to NGC at the boundary between the authorised transmission areas of NGC and ScottishPower; and/or
- to receive electricity from NGC at the boundary between the authorised transmission areas of NGC and ScottishPower and deliver such electricity to Scottish Hydro-Electric's transmission system or to points on ScottishPower's transmission system in respect of which Scottish Hydro-Electric has entered into a use of system agreement with ScottishPower.

(2) Scottish Hydro-Electric has the right:

- to utilise 46 per cent of the existing capacity of the Scottish Interconnector for transfers of electricity from Scotland to the national grid in England and Wales (calculated by deducting the actual amount of capacity being utilised by BNFL for transfers of electricity from its Chapelcross generating station to the national grid in England and Wales from the capacity that would otherwise be available to the Companies); and

- to utilise 46 per cent of the existing capacity of the Scottish Interconnector for transfers of electricity from the national grid in England and Wales to Scotland (calculated by adding the actual amount of capacity which is being utilised by BNFL for transfers of electricity from its Chapelcross generating station to the national grid in England and Wales to the capacity that would otherwise be available to the Companies).

For the purpose of calculating Scottish Hydro-Electric's entitlement under the Scottish Interconnector Agreement the amount of capacity utilised by BNFL is deemed to be subject to a maximum of 196 MW until termination of an existing agreement between BNFL and ScottishPower (which will be not later than 31 March, 1998) after which BNFL's capacity utilisation will be deemed to be nil.

(3) ScottishPower is entitled to the remainder of the capacity of the Scottish Interconnector for transfers of electricity both to and from the national grid in England and Wales.

(4) ScottishPower must notify Scottish Hydro-Electric each day of the available capacity of the Scottish Interconnector for the following day on the basis of notifications between them of the generating stations from which they expect to generate the next day. The Scottish Interconnector Agreement contains a table of the capacities which are deemed to be available (or a procedure for the determination of such capacities) for each configuration of generation and for each combination of circuit outages on the Scottish Interconnector. The tables will be reviewed at least annually on the basis of system models agreed by the Companies to establish the differing capacities of the Scottish Interconnector in different operating circumstances. Subject to certain exceptions, if any unnotified outage or change in generating configuration (not arising by reason of force majeure) affects either Company's electrical power system or is made by either Company, any resultant reduction in capacity will be borne by the Company whose system is affected by the outage or the Company which has made the change in generating configuration.

(5) If the Interconnector capacity is reduced by reason of a Company making a permanent change to its transmission system or generating station (not being a change required by law) that Company's capacity entitlement will be reduced by an amount equal to two thirds of the reduction in capacity. The other Company's capacity entitlement will be reduced by one third of such reduction.

(ii) Charges

The charges payable under the Scottish Interconnector Agreement are as follows:-

(1) a **fixed charge**, which is the means by which ScottishPower is paid for Scottish Hydro-Electric's use of part of ScottishPower's transmission system for the transfer of electricity from the boundary between the Companies' respective

authorised transmission areas and the Scottish Interconnector. The charge is calculated by reference to a formula which is linked to RPI and is also dependent to some extent on the amount of export capacity available on the Scottish Interconnector during each contract. The charge will be varied if there is a change in the percentage amount (currently 46 per cent.) of Scottish Hydro-Electric's entitlement to the capacity of the Scottish Interconnector; and

(2) a **capacity charge**, which enables ScottishPower to recover a proportion of certain costs associated with the Scottish Interconnector (including: maintenance expenditure; administration expenditure; local authority charges; wayleave payments; insurance costs; depreciation; and a notional cost intended to provide ScottishPower with a return on the depreciated net book values of the assets comprising the Scottish Interconnector). The revenues received by ScottishPower from BNFL under the agreement referred to in (i) (2) above are deducted from those costs and Scottish Hydro-Electric is obliged to pay in each contract year a proportion of the resulting figure corresponding to its percentage entitlement to the capacity of the Scottish Interconnector for that year. After the expiry of such agreement, any revenues received by ScottishPower from BNFL will cease to be deductible. The amount of the capacity charge may be reduced in the event that the average annual capacity notified to Scottish Hydro-Electric falls below 96 per cent. of the available maximum as determined in accordance with the Scottish Interconnector Agreement.

iii) Upgrade of capacity

Any works which are primarily designed to effect a permanent increase in the capacity of the Scottish Interconnector (an "upgrade"), must be carried out in accordance with the Scottish Interconnector Agreement, which gives each Company the opportunity to contribute to the cost in return for a share of the resultant increase in capacity. If a Company wishes to contribute to the cost of an upgrade but has not contributed to the cost of a previous upgrade it may, in certain circumstances, be required to pay to the other Company an additional capital contribution calculated on a basis set out in the Scottish Interconnector Agreement. Either Company may opt to proceed with an upgrade at its sole cost if the other Company declines to contribute and, if it proceeds with such upgrade, it will receive the full benefit of such upgrade. Where both Companies contribute to the cost of an upgrade (unless they agree otherwise at the time) the Companies will be entitled to share in the resultant increase in capacity in specified proportions. Except in limited circumstances, the costs of carrying out an upgrade will be shared between the Companies in proportion to the percentages in which they are respectively entitled to share in the increase in capacity resulting from the upgrade.

iv) Liability for loss or damage

The Scottish Interconnector Agreement contains a provision similar to that described in (the Restructuring Contracts) below except that in agreeing to forego claims against each other in respect of physical loss or damage to the property of any third party, the parties

have also agreed to forgo claims for consequential loss arising from such damage. The Scottish Interconnector Agreement provides that neither Company shall be liable for failure to perform any non-monetary obligation under the Scottish Interconnector Agreement where the failure is caused by a number of specified events, including certain curtailments of transfers of electricity across the Interconnector.

SUMMARY OF THE USE OF INTERCONNECTOR AGREEMENT (SCOTLAND) 1991

The Use of Interconnector Agreement (Scotland): Excerpt from the Prospectus for the two Scottish Electricity Companies, May 1991.

(a) Introduction

The Use of Interconnector Agreement (Scotland) was entered into among the ScottishPower, Scottish Hydro-Electric and NGC on 30 April, 1991. It replaces the first Use of Interconnector Agreement (Scotland) entered into on 30 March, 1990. Its principal purposes are to provide the Scottish Companies with the entire existing capacity of the NGC Interconnector, which is to be increased by the construction of an upgrade (“upgrade”), and to provide to ScottishPower and Scottish Hydro-Electric the entire increased capacity. The Use of Interconnector Agreement (Scotland) expires on 31 March, 2034.

(b) Principal Terms

(i) Primary entitlements and commitments

Scottish Hydro-Electric and ScottishPower are entitled to the entire existing capacity of the NGC Interconnector in the respective proportions of 46 per cent. and 54 per cent. or in such other proportions as the two Scottish Companies shall agree between themselves and jointly notify to NGC. Scottish Hydro-Electric and ScottishPower will be entitled to the extra capacity, over and above the existing capacity, after the upgrade is completed, and shall bear the costs relating to the construction of the upgrade, in the respective proportions of 25 per cent and 75 per cent or in such other proportions as the Scottish Companies shall agree between themselves and jointly notify to NGC, through the annual charge referred to in (ii) below. The Use of Interconnector Agreement (Scotland) requires ScottishPower and Scottish Hydro-Electric to undertake NGC’s duty to facilitate competition under section 9(2)(b) of the Electricity Act and its Transmission Licence in relation to the NGC’s Interconnector, subject only to any conflicting obligation in their Composite Licences. It also requires the Scottish Companies to produce, for approval by Director General, an allocation and access code relating to third party use of the NGC Interconnector.

(ii) Charges

The Scottish Companies are required to pay the following charges under the Use of Interconnector Agreement (Scotland):

- **An annual charge** for use of the NGC Interconnector. The annual charge comprises a fixed charge for the use of the existing capacity of the NGC

Interconnector and additional charges for the construction and use of the upgrade. The annual fixed charge will be increased from 1 April, 1997 but thereafter will remain fixed for the duration of the Use of Interconnector Agreement (Scotland). The additional charges may be varied in the event that granting of any planning permission or consents or other rights requires the carrying out of work which would vary items of construction costs by more than 2 per cent. The amount of the annual charge may be modified upwards or downwards in the event that the monthly average availability of the NGC Interconnector exceeds or falls below 91 per cent. of its maximum capability as determined in accordance with the Use of Interconnector Agreement (Scotland) and is adjusted in each contract year by reference to a formula linked to RPI. The annual charge is payable by ScottishPower and Scottish Hydro-Electric in the respective proportions in which the capacity of the NGC Interconnector is allocated to them at the relevant time as notified to NGC; and

- **Use of System Charges** for use of the national grid in England and Wales. These charges are payable by ScottishPower and Scottish Hydro-Electric in the respective proportions in which the capacity of the NGC Interconnector is allocated to them at the relevant time as jointly notified to NGC and are calculated in accordance with the Use of Interconnector Agreement (Scotland) and NGC's published use of system charging statement.

In addition, ScottishPower and Scottish Hydro-Electric will be responsible for such modifications including excitation and stabilisation work as may be required in Scotland to permit the increase in capacity. Such costs will be borne in the proportion of 25 per cent. and 75 per cent. to Scottish Hydro-Electric and ScottishPower respectively or in such other proportions as the Scottish Companies shall agree between themselves and notify to NGC.

(c) Other Provisions

(i) Force majeure relief and liability

The Use of Interconnector Agreement (Scotland) contains force majeure and limitation of liability provisions which are broadly similar to those contained in the Pooling and Settlement Agreement.

(ii) Termination and cancellation

(1) The Use of Interconnector Agreement (Scotland) contains provisions which entitle NGC:

- to terminate ScottishPower and Scottish Hydro-Electric right to transfer electricity or cause electricity to be transferred across the NGC Interconnector if that Company is in default of its payment obligations to NGC or commits specified breaches of NGC's Grid Code or, broadly, is insolvent or in liquidation. On termination of the transfer rights, the Company is required to use all reasonable endeavours to assign its rights

and obligations under the Use of Interconnector Agreement (Scotland), subject to obtaining NGC's consent which is not to be unreasonably withheld or delayed;

- to de-energise the NGC Interconnector if ScottishPower commits certain breaches of the Pooling and Settlement Agreement; and
- to terminate the Use of Interconnector Agreement (Scotland) in relation to the defaulting Company if the cessation of the right to transfer electricity or the de-energisation, as described above, continues for six months.

(2) ScottishPower and Scottish Hydro-Electric may terminate the Use of Interconnector Agreement (Scotland) either:

- jointly by giving one month's notice to NGC during the period of construction of the upgrade, subject to payment of NGC's costs incurred in respect of the upgrade; or
- individually in respect to their own rights and obligations, on two years' advance notice after construction of the upgrade, subject to payment of a termination charge calculated in accordance with the provisions of the Use of Interconnector Agreement (Scotland).

In both the above cases the party terminating shall retain the right to use the relevant proportion of the pre-upgrade capacity of the NGC Interconnector until the later of 31 March 1997 or the period of three years from the date of termination as the case may be.