# Appendix 8

## The Interconnectors

**A8.1** The GB - Continent Interconnector
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# Appendix 8: The Interconnectors

By the end of 1998, the Transco NTS will be connected to continental Europe, Northern Ireland and the Republic of Ireland. It is anticipated that in the short term all three pipelines will export gas, although the UK - Continent Interconnector is also capable of importing gas from Europe. In the longer term the Continental Interconnector is expected to flow gas in to the UK. This Appendix looks at the contractual issues surrounding the operation of the three Interconnectors, while Chapter 4 considers some of the impacts on the UK and European gas markets.

## A8.1 The GB - Continent Interconnector

In February 1996 Interconnector (UK) Ltd obtained planning permission for its compression terminal at Bacton. The project is on schedule for first flows in October 1998. The designed capacity of the 240 km, 40 inch pipeline to Zeebrugge in Belgium is 20 bcm per annum.

### A8.1.1 Connection to Transco System

Transco's facility at Bacton will provide for the following:

- Both export and import flow will be possible from October 1998
- Transco will be able to supply gas to the Interconnector from Bacton or from other UK terminals, via King's Lynn
- King's Lynn compressor station is being reconfigured to allow flows to and from Bacton

Other pipelines, not owned by Transco, will be able to connect directly to the Interconnector terminal at Bacton.

The following diagram shows the configuration of the Interconnector terminal and Transco's system.

### Figure A8.1.1a - Interconnector Configuration

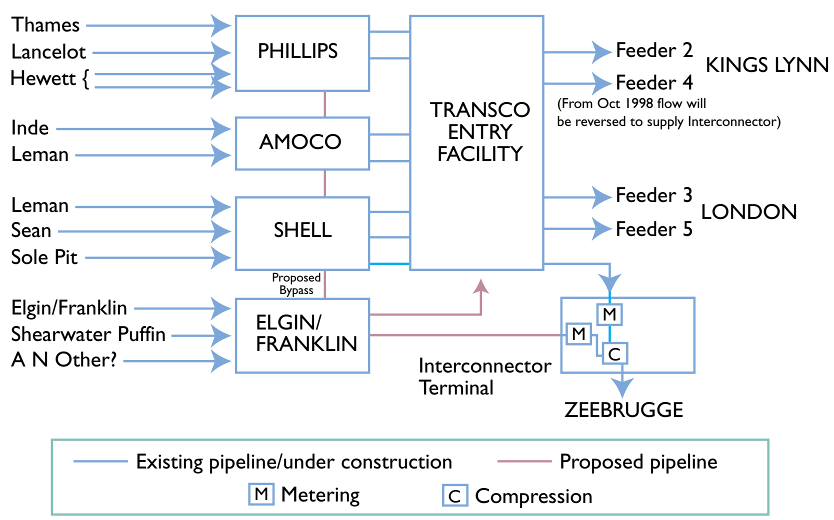


**Figure A8.1.1b - Progress Photograph as at January 1998.**

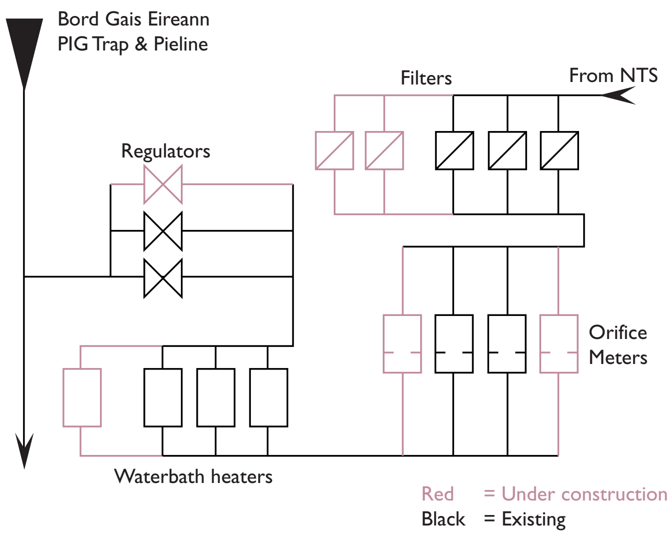
## A8.2 GB - Ireland Interconnector

The Interconnector to Ireland has been flowing gas since 1993 and is connected to the NTS at Moffat in Scotland. The pipeline is owned and operated by Bord Gais Eireann (BGE) and serves the Republic of Ireland. There is an offtake from the BGE pipeline at Twynholm in Scotland which has allowed gas to flow to Northern Ireland since October 1996. The pipeline to Northern Ireland is known as the Scotland to Northern Ireland Pipeline (SNIP) and is owned and operated by Premier Transco Limited, part of BG plc.

### A8.2.1 Connection to the NTS

The GB - Ireland Interconnector is designed to transport up to 26 mcm/d (approximately 282 GWh/d) Currently 13 mcm/d (141 GWh/d) of firm NTS exit capacity is booked at the Moffat exit zone. Transco currently has investment planned to increase the transportation capacity to Moffat from 1999. In addition, the offtake facilities at Moffat are currently not capable of delivering flows of 26 mcm/d. To allow for gas flows up to 26 mcm/d the equipment at Moffat is being modified during summer 1998. The diagram below shows offtake facilities at Moffat and the effect of the planned upgrades.

### Figure A8.2.1 Schematic Of Moffat Above Ground Installation




## A8.3 Interconnector Flows

Transco has established a number of possible flow scenarios for Interconnectors and their impact on NTS throughput. These have been developed in conjunction with external consultants and represent Transco's latest view.

The tables below illustrate the relative importance of the Interconnectors with regard to both projected NTS flows and NTS peak.

### Table A8.3a Interconnector Annual Flows in relation to Total UK Demand (TWh)

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|---|---|---|---|---|---|
| Total NTS Flows | 882 | 918 | 980 | 1,020 | 1,052 | 1,080 |
| of which Moffat | 22 | 30 | 35 | 40 | 45 | 48 |
| of which Bacton | 0 | 11 | 41 | 33 | 40 | 40 |
| Interconnector Flows as a percentage of NTS Flows | 2% | 4% | 8% | 7% | 8% | 8% |

Note:

- Figures for the Bacton demand are based on Transco's central case, this assumes that initially half of the annual demand for the Interconnector will by-pass the NTS. Transco assumes that by-pass will eventually represent some 70% of annual Bacton Interconnector demand.

### Table A8.3b Interconnector Flows in Relation to Total UK Peak Demand (GWh/d)

| | 1997/98 | 1998/89 | 1999/00 | 2000/01 | 2001/02 | 2002/03 |
|---|---|---|---|---|---|---|
| Total NTS Flows | 4,872 | 5,262 | 5,556 | 5,939 | 6,195 | 6,284 |
| of which Moffat | 133 | 156 | 178 | 199 | 222 | 227 |
| of which Bacton | 0 | 250 | 300 | 420 | 490 | 500 |
| Interconnector Flows as a percentage of NTS Flows | 3% | 8% | 9% | 10% | 11% | 12% |

Note

- At peak demand, all Bacton Interconnector demand is assumed to flow through Transco's network.

## A8.4 Contractual Arrangements

Ofgas issued a consultation document 'Shipping Arrangements for the Interconnector' in February 1998 and subsequently published their conclusions. Draft copies of the agreements detailed below have been issued to shippers. At the time of going to press, it is expected that the documents will receive Ofgas approval and were signed at the end of August 1998.

### A8.4.1 Amendments to the Network Code

The Network Code does not make specific provisions for Interconnectors. In early 1997 Transco proposed a modification to the Network Code specifically targeted at Interconnectors. The modification (number 0117) provided a framework of principles for the development of more detailed rules. The Network Code provisions for each Interconnector will be contained in a Network Code CSEP Ancillary Agreement.

### A8.4.2 CSEP Ancillary Agreement

A Network Code Review Group (0117R) is developing the CSEP Ancillary Agreement. The Agreement will contain specific commercial terms for NTS shippers transporting to the Interconnector. In particular, the CSEP Ancillary Agreement will contain rules governing the booking of capacity at the exit points, the principles of gas allocation and treatment of Network Code interruption.

### A8.4.3 Connection Agreements

At the point where an Interconnector and the NTS connect there is also a requirement for an agreement detailing the physical nature of the connection. For offtake from the NTS the Network Code defines such agreements as Network Exit Agreements (NExA) and for entry points the agreements are Network Entry Agreements (NEA).

For the GB - Ireland Interconnector, a Connected Systems agreement which covers the provisions of a NExA is being developed with Bord Gais Eireann and at the UK - Continent Interconnector, an Interconnection Agreement covering both NExA and NEA terms is being developed with Interconnector (UK).

In summary these agreements cover items such as, standards to which offtake equipment should be maintained, rates of offtake, flow rate flexibility from the NTS and any special offtake circumstances such as enhanced pressure or gas blending services.

### A8.4.4 Agency Agreements

During the last 12 months two groups of shippers have been reviewing the role for an Agent at the UK - Continent and GB - Ireland Interconnectors. The key aim associated with the concept of an Agent will be to reduce the risk associated with the matching of upstream and downstream nomination information and allocations.

Both Agent Groups (Moffat Administration Work Group and the Bacton Agent Group) have held open forum meetings to begin the process of industry consultation. It is envisaged that Agents at both Interconnectors will be in operation from 1st October 1998. It is anticipated that the appointment of an Agent will be mandatory for all Shippers wishing to ship gas to or from an Interconnector. This will require new shippers to accede to Transco's CSEP Ancillary Agreement and the Agency Agreement before transportation may commence.

Transco support the development of Agents at these points and are actively supporting the development of the business principles.