

**DETERMINATION BY THE GAS AND ELECTRICITY MARKETS AUTHORITY  
OF A DISPUTE UNDER SECTION 27A OF THE GAS ACT 1986 CONCERNING  
THE TERMS OF AN ADVANCED RESERVATION OF CAPACITY AGREEMENT  
AND THE CHARGES ASSOCIATED WITH THE PROPOSED CONNECTION OF  
A POWER STATION TO THE NATIONAL GAS NATIONAL TRANSMISSION  
SYSTEM**

**1. INTRODUCTION**

- 1.1 Marchwood Power Limited (MPL) has been discussing with National Grid Gas plc<sup>1</sup> (NGG) the terms of a connection to the National Transmission System (NTS) for gas transportation to MPL's proposed 860MW gas fired power station at Marchwood, near Southampton. MPL and NGG NTS have been unable to reach an agreement on the terms of an Advanced Reservation of Capacity Agreement (ARCA) to be provided by MPL, in relation to reinforcement works required to the NTS resulting from the proposed connection for Marchwood.
- 1.2 MPL has formally requested that the Gas and Electricity Markets Authority (the "Authority") determine this dispute under sections 21 and 27A of the Gas Act 1986 (the "Gas Act") and Article 25(5) of the Gas Directive<sup>2</sup> 2003/55/EC.
- 1.3 The Office of Gas and Electricity Markets (Ofgem) is the office established to assist the Authority in discharging its statutory responsibilities.
- 1.4 This document sets out the views of both parties and the Authority on the issues in dispute. Chapter 2 sets out the regulatory framework underlying the dispute and chapter 3 provides the background to it. Chapter 4 provides an update on the connection charging point in light of evidence presented at an oral hearing and chapter 5 provides both parties' views on the relative risk of the Marchwood load. Chapter 6 summarises the power under which the Authority is determining this dispute. Chapter 7 contains

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<sup>1</sup> Previously known as Transco plc.

Ofgem's discussions and conclusions and chapter 8 provides the Authority's decision. This document also sets out the Authority's determination and the reasons for its decision, as required by section 38A of the Gas Act.

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<sup>2</sup> Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.

## 2. REGULATORY BACKGROUND

### The relevant provisions of the Gas Act

- 2.1 Section 9(1)(a) of the Gas Act requires NGG to develop and maintain an efficient and economical pipe-line system for the conveyance of gas. Section 9(1)(b) of the Gas Act requires NGG to comply, so far as is economical to do so, with any reasonable request for it to connect any premises to its system and convey gas by means of that system to the premises. Section 9(2) of the Gas Act requires NGG to avoid any undue preferences or undue discrimination in connections or the terms under which it undertakes the conveyance of gas through its system.
- 2.2 Section 21 of the Gas Act enables the Authority to make directions if it appears to the Authority, following an application, that the pipe-line system operated by a gas transporter (in this case NGG NTS) can and should be modified:
- (a) by installing a junction through which another pipe-line may be connected to the system; or
  - (b) by modifying apparatus and works associated with a high pressure pipe-line so as to increase the capacity of the pipe-line.

Such directions may:

- (a) specify the modifications which the Authority considers should be made;
- (b) specify the sums or methods of determining the sums which the Authority considers should be paid to NGG by the applicant by way of consideration for the modifications;
- (c) specify the arrangements which should be made by the applicant within a specified period for the purpose of securing that the sums will be paid to NGG if it carries out the modifications;
- (d) require NGG, if the applicant makes the arrangements within the period given in (c), to carry out the modifications within a specified period.

2.3 Section 27A of the Gas Act requires the Authority to determine, on referral, any dispute arising from, amongst other things,:

- (a) NGG's duty to comply, so far as it is economical to do so, with any reasonable request for it to connect any premises to and convey gas by means of its pipe-line system;
- (b) NGG's duty to connect certain premises; or
- (c) NGG's power to require security for payment of money which may become due in respect of supplying and laying gas pipe-line.

### **The adoption of a shallow connection policy**

2.4 The Office of Gas Supply (Ofgas<sup>3</sup>) consulted on connection policy between August 1996 and February 1997<sup>4</sup>. Following this consultation, Ofgas concluded that a 'shallow' definition of connection should be applied to all loads. The shallow connection policy commanded significant support.

2.5 Under this policy, the point of connection for charging purposes (the "Connection Charging Point") is the point where the new connection pipes join the existing main (that is, where the existing system has sufficient capacity to meet the connecting load, disregarding existing loads at that point). The costs of any reinforcement upstream of that point would be recovered through transportation charges. Any reinforcement downstream of that point would be included in the connection charge.

### **The offtake arrangements**

2.6 The arrangements that currently govern the reservation and allocation of existing and incremental capacity at NTS offtake points, are known as the transitional offtake arrangements. The following section discusses the transitional offtake arrangements as they currently apply to transmission connected customers (TCCs) and Gas Distribution Networks (GDNs) at the interface with NGG's NTS business.

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<sup>3</sup> Ofgas merged with the Office of Electricity Regulation to form Ofgem.

<sup>4</sup> 'British Gas Transco: connection and system extensions, Regulating for competition, A consultation document' Ofgas, August 1996; 'Transco: connections and system extensions, Regulating for competition, Follow-up to Ofgas' consultation document' Ofgas, February 1997.

*Background – GDN sales and enduring offtake arrangements*

- 2.7 In January 2005, in its decision to provide conditional approval to NGG's sale of four gas distribution networks (GDN sales), the Authority endorsed the continued development of enduring offtake arrangements and concluded that these arrangements are reasonable and necessary to protect the interests of customers in a divested industry environment.
- 2.8 The enduring offtake arrangements are intended to set out how the previously internalised interface between the NTS and the GDNs is externalised in a manner consistent with gas transporter statutory duties and licence obligations. The key features of the proposed new arrangements were that the NTS receives accurate and financially backed investment signals from users and that all parties have adequate and equal opportunities to gain access to the transmission network.
- 2.9 The proposed enduring offtake arrangements would allow GDN owners and TCCs (through their shippers) to purchase firm capacity rights for three years ahead (to take account of investment lead times) and beyond. Demand for offtake capacity through this process would provide NGG NTS with signals from its customers about the need to invest in the NTS thereby reducing stranded asset risk and facilitating efficient network development. In the short term, where there is a finite level of capacity available, it would be allocated on an efficient and non-discriminatory basis (i.e. through an auction).
- 2.10 The development of a high level framework for the enduring offtake arrangements was subject to a series of consultation documents undertaken through the GDN sales process.

*Decision to delay the enduring offtake arrangements*

- 2.11 In its decision to provide conditional approval to GDN sales in January 2005' the Authority concluded that the implementation of the enduring offtake arrangements should occur by September 2005 for the allocation of offtake rights from October 2008.
- 2.12 However, subsequently in June 2005 the Authority decided that further time should be allowed for consultation on the development of the enduring offtake arrangements with a view to their implementation from September 2007 in the form of allocations of offtake rights from October 2010 onwards. The Authority concluded that a revision to the timetable would allow for more consultation on the detail of the enduring offtake arrangements.
- 2.13 As a result of the decision to delay, it was necessary to develop arrangements by which NTS offtake rights are allocated to GDN owners and shippers acting on behalf of TCCs from 1 October 2008 to 30 September 2010. In addition, incentive arrangements needed to be developed for this period. The capacity reservation, investment and incentive arrangements for this period are known as the transitional offtake arrangements and they were introduced in January 2006. These arrangements are described below.

*Transitional offtake arrangements for TCCs*

- 2.14 The arrangements that govern the booking and allocation of NTS offtake capacity in the transitional offtake period are set out in the Uniform Network Code (UNC). These arrangements were implemented following Ofgem's acceptance of UNC modification proposal 0046, 'Extension of the sunset clauses for registration of capacity at NTS exit points'.
- 2.15 For NTS TCCs the transitional offtake arrangements remain substantially unchanged from those that existed prior to GDN sales. Under these arrangements capacity is allocated to shippers at supply points on an administered basis and specified in terms of a maximum daily offtake quantity – the supply offtake quantity of the site in question.

- 2.16 Under its present price control for April 2002 to March 2007, NGG NTS has been provided with funding, or allowed revenue, for the costs of investment in its pipe-line network. This allowed revenue is recovered through a combination of charges. NGG NTS recovers the costs associated with providing offtake capacity to TCCs through NTS exit capacity charges which are levied on gas shippers. The NTS exit capacity charge applying to each offtake point is determined by the exit zone to which a particular offtake belongs. Generally, individual exit zones and charges are set for TCCs. NGG NTS also enters into interruptible transportation arrangements. In return for having interruptible status a supply point receives relief from firm exit capacity charges.
- 2.17 Under the transitional offtake arrangements, sites directly connected to the NTS are able to 'roll-over' existing NTS exit capacity entitlements on a monthly basis. In the event that a TCC requires additional exit capacity they may request this through a process set out in the UNC. Under the terms of NGG NTS' Incremental Exit Capacity Release (IEXCR) methodology statement, to the extent that such an incremental capacity request necessitates network investment the user is required to enter into an ARCA<sup>5</sup>. These are discussed further below.

*Transitional offtake arrangements for GDNs*

- 2.18 Under the transitional offtake arrangements, GDN owners are responsible for determining the level of NTS offtake capacity (including flat and flexibility offtake rights) required at each offtake point consistent with their 1 in 20 licence obligations<sup>6</sup>. In contrast to TCCs, GDN owners are required to request their total requirements for NTS exit rights for the gas years 2008/9 and 2009/10.
- 2.19 In the event that these requests require NGG NTS to undertake any project specific investment to deliver the level of offtake rights requested, then GDN owners will be required to enter into a contractual agreement with NGG known as a GDN ARCA. A GDN ARCA would outline the volume of NTS exit rights covered, the date on which these rights are required and

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<sup>5</sup> ARCAs are required for incremental exit capacity requests greater than 586,000,000 kwh per annum.

<sup>6</sup> NGG NTS is required to plan its pipeline network to meet the peak demand experienced on any given day over a 20 year period.

the implications of either NGG or the GDN owners defaulting on the terms of the agreement.

- 2.20 As part of the introduction of these transitional offtake arrangements, Ofgem also consulted upon the introduction of incentives on the GDN owners relating to GDN bookings of NTS offtake capacity.<sup>7</sup> These incentives are intended to expose GDNs to the costs of their purchases of NTS capacity so that they make efficient trade-offs between such purchases and investment on their own networks. In particular, these incentives were introduced for the duration of the transitional offtake period to mitigate a tendency for the GDN owners to over book NTS exit capacity rights. In the absence of such incentives GDN owners would be able to fully pass through the costs of the NTS capacity bookings to customers.

#### *IEXCR*

- 2.21 The arrangements governing the release of incremental offtake capacity rights are set out in the NGG NTS IEXCR methodology statement. It is noted that NGG NTS modified this statement in January 2006 to extend its application to the transitional offtake period. The revisions to the statement provided that where a request for incremental capacity from a TCC or GDN owners require NGG NTS to make a specific investment then NGG NTS will enter into a negotiated agreement with the requesting party, namely an ARCA. The statement indicates that to the extent that NGG NTS and the TCC or GDN owner are unable to agree the terms of an ARCA then the matter may be referred to the Authority for dispute resolution.

#### *ARCAs*

- 2.22 An ARCA is an agreement designed by NGG NTS to provide it with additional protection from the financial risks associated with reinforcing the NTS to supply new loads. In particular, ARCAs are intended to protect NGG NTS against incurring costs in preparing for the connection of a large load that subsequently decides not to flow gas.

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<sup>7</sup> See *Initial proposals on transitional incentive schemes supporting the offtake arrangements*, Ofgem, September 2005 and *Final proposals on transitional incentive schemes and formal licence consultation*, Ofgem, November 2005.



- 2.23 ARCA's are only available (indeed NGG NTS requires them) for new firm loads with a peak supply of 0.5mcm/d<sup>8</sup> or greater (roughly 20 million therms per annum) where specific system reinforcement has been identified as being necessary to meet the specific load requirements.
- 2.24 Under an ARCA, NGG NTS commits that the appropriate capacity will be available on the stated first day of the delivery of gas ('gas-on' date). To protect NGG NTS from some of the risk that, having made the relevant investment, the load will not result, an ARCA includes a guarantee that the signatory will give a commitment to paying exit capacity charges.
- 2.25 The 1997 Ofgas report on ARCA's<sup>9</sup> specifies that a commitment beyond one year is not normally necessary, as the network code only requires capacity to be booked on an annual basis. It also indicated that if Transco plc (as it then was) could demonstrate that a particular load is riskier than the overall portfolio of firm loads then an additional commitment may be appropriate.
- 2.26 There is no express power on the Authority to review or approve ARCA's. However, as noted above, if parties are unable to agree the terms of an ARCA then such disputes may be referred to the Authority provided that they fall within the Authority's legal powers. In December 2005, Ofgem published an open letter clarifying its role in respect of ARCA's.<sup>10</sup>
- 2.27 It is noted that NGG NTS's original proposals to revise the IEXCR methodology statement for the transitional offtake period included a proposed appendix to the IEXCR methodology statement which set out a series of principles that NGG NTS would apply to any ARCA it offered. In its letter vetoing these original proposals, Ofgem identified significant concerns with the proposed ARCA principles, including a concern that their acceptance by Ofgem would fetter the Authority's discretion in considering any dispute over the terms of an ARCA referred to it under the Gas Act.<sup>11</sup>

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<sup>8</sup> Mcm/d is used to denote million standard cubic metres per day.

<sup>9</sup> A report on agreements made pursuant to the network code, including Advance Reservation of Capacity Agreements (ARCA), Ofgas, October 1997.

<sup>10</sup> Clarification of Ofgem's role in relation to ARCA's, Ofgem, 15 December 2005.

<sup>11</sup> See 'Proposed Amendment to the Incremental Exit Capacity Release Methodology Statement to support the implementation of the transitional gas exit capacity arrangements', Ofgem decision, 12 January 2006.

- 2.28 In its letter of veto Ofgem indicated that in the absence of enduring offtake arrangements that provide for non-discriminatory allocations of offtake capacity to all users of the NTS including GDN owners and TCCs, any financial arrangements for the transitional period would need to be resolved on a case by case basis having regard to the *individual circumstances of each request for incremental offtake capacity*.
- 2.29 However, Ofgem also set out a series of high level principles that it was likely the Authority would have regard to in considering the terms and conditions of any ARCA that is referred to it for dispute resolution. These principles indicated that *NGG NTS should in determining the level of any financial commitments associated with an incremental offtake capacity request, have regard to the risk profile of the load making the request relative to other present and future loads in the area*.

*Langage determination*

- 2.30 In February 2003, Ofgem issued a determination with respect to a dispute between Transco and Wainstones Power Limited (WPL) regarding the connection of an 800 MW gas fired power station outside of Plymouth.<sup>12</sup> The dispute primarily related to the charges payable by WPL for a connection to Transco's NTS.
- 2.31 However, the dispute also raised issues regarding the appropriate level of ARCA commitment relating to pipeline reinforcements that Transco needed to undertake to supply gas to WPL. In this dispute, Ofgem ruled that a two year ARCA guaranteeing the payment of one year's exit capacity charges was appropriate.

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<sup>12</sup> Directions pursuant to section 21 and Order pursuant to section 27A given to Transco plc in connection with the modification of the Transco pipe-line system for the purpose of conveying gas to the proposed power station at Langage Energy Park, 18 February 2003

### **3. BACKGROUND TO THE DISPUTE**

3.1 MPL and NGG NTS have provided the following details on their understanding of the background to the dispute.

3.2 The Marchwood project is a proposal for a 860 MW Combined Cycle Gas Turbine (CCGT) generating station at Marchwood, near Southampton. In June 2004 MPL requested a connection for a load of 39,840,000 kWh per day from October 2008. NGG NTS identified works associated with the proposed connection.

3.3 MPL has stated that the works identified by NGG NTS fall into the following categories:

(a) A connection to the NTS: this will comprise two elements (both of which MPL advises are to be funded by MPL):

(i) a junction into the NTS and a relatively short stretch of pipe-line (approximately 400 metres) connecting MPL's above ground installation to the NTS. MPL has indicated that NGG NTS' projected cost for the works is in the region of £500,000. Ofgem understands that these works will be the subject of a connection agreement between NGG NTS and MPL; and

(ii) a 22km section of 610mm diameter pipe-line from Lockerley to Marchwood. MPL has indicated that the projected cost for these works is in the range of £20-40 million<sup>13</sup>.

(b) Reinforcement works to the NTS: MPL has stated that NGG NTS proposes to construct a 900mm section of pipe-line from Barton Stacey to Lockerley (approximately 28km). NGG has estimated that the projected cost for these works is £43 million, and NGG's proposed ARCA would commit MPL to take or pay for exit capacity over a 14 year period up to £43 million. To the extent that MPL fails to book the full capacity over that 14 year period, the balance of the £43 million would be payable by MPL at the end of that period.

3.4 Since 2002, discussions have been held regarding an ARCA commitment. MPL have stated that initially NGG NTS *proposed an ARCA commitment amounting to 1 year's entry and exit capacity charges*. MPL have also stated that, in the course of discussions, NGG NTS indicated to MPL that the transportation booking to be undertaken in the ARCA would mirror that in the ARCA entered into between NGG NTS and WPL in respect of Langage<sup>14</sup> power station, following the Authority's determination on the dispute between WPL and NGG NTS. MPL note that the effect of the Authority's determination on Langage was that WPL were required to commit to 1 year's exit charges for incremental NTS exit capacity payable over 2 years.

3.5 MPL states that in late 2005, NGG NTS advised MPL of two changes, these were that:

- NGG NTS submitted an amended ARCA to MPL. The amended ARCA proposal resulted in MPL being required to guarantee the payment of the total cost of the reinforcement works through the payment of exit capacity charges over 'n' years, the value of 'n' calculated from the level of the reinforcement costs and the expected revenue from exit capacity charges for that exit point. This is in contrast to the one year's exit capacity charges which MPL had previously been advised it would be required to underwrite.
- NGG NTS advised that the anticipated cost of the reinforcement works had increased from £23 million to around £40 million (subsequently confirmed to be approximately £43 million) due to increased steel (and other) costs.

3.6 MPL advise that further discussions did not result in a resolution of the issues. As a result on 31 March 2006 MPL applied to the Authority for a determination of the dispute under sections 21 and 27A of the Gas Act, or alternatively as a complaint against NGG NTS pursuant to Article 25(5) of the Gas Directive.

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<sup>13</sup> The actual figure is confidential.

<sup>14</sup> Directions pursuant to section 21 and Order pursuant to section 27A given to Transco plc in connection with the modification of the Transco pipe-line system for the purpose of conveying gas to

3.7 NGG NTS considers that the only issue in dispute is the commitment element in terms of the ARCA offered by NGG NTS to MPL.

### **Issues in dispute**

3.8 MPL and NGG NTS have given their views on issues which they feel are in dispute, and also certain issues which they feel are not being disputed, through various correspondence and their written submissions. At an oral hearing, Ofgem confirmed the issues in dispute with both parties. Both indicated that they did not consider the location of the connection charging point to be in dispute.

3.9 From the parties written and oral submissions, Ofgem considers that the only issue subject to determination is the level of commitment required under the ARCA.

3.10 Chapter 5 sets out the parties' views on this issue and chapter 7 sets out Ofgem's views.

#### **4. CONNECTION CHARGING POINT**

- 4.1 From their written submission, it appeared that MPL considered the location of the Connection Charging Point to be in dispute.
- 4.2 As part of any determination process, either party is entitled to request an oral hearing to expand on points raised in their initial submissions. NGG NTS requested an oral hearing in respect of this dispute. The hearing was held on 2 August 2006.
- 4.3 At that hearing Ofgem asked both parties to clarify whether they considered the location of the Connection Charging Point to be in dispute. MPL confirmed that it accepted that the connection point was the NTS connection at Lockerley and that the issue was not in dispute. As such, the Authority does not intend to make any comment on the issues raised by either party in relation to the Connection Charging Point. The Authority does not therefore consider any issue referred to it under section 21 of the Gas Act to be in dispute.

## **5. LEVEL OF COMMITMENT REQUIRED UNDER THE ARCA**

5.1 The Authority is required to determine the level of financial commitment required through the ARCA. MPL has disputed the level of commitment that is required of it under the ARCA proposed by NGG NTS in relation to the Barton Stacey to Lockerley reinforcement.

5.2 Ofgem considers that this issue can be divided into three sub issues, namely:

- Issue A: The approach and methodology to be applied in determining the level of financial commitment.
- Issue B: Assessing the risk associated with the Marchwood load.
- Issue C: Assessing the efficient costs of reinforcement.

5.3 In assessing the risk associated with the Marchwood load, Ofgem considers there are further three sub-issues, namely:

- what is the riskiness of the Marchwood load relative to the overall portfolio of loads;
- does the reinforcement undertaken to accommodate Marchwood deliver benefits to other system users; and
- is the Authority's decision in respect of Langage power station a useful comparator in assessing the risk of the Marchwood project?

### **MPL's views**

#### ***Issue A: Approach to determining the level of financial commitment***

5.4 MPL accepts that each application for an ARCA should be assessed on its merits but feels that it is equally clear that in circumstances where there are no objective differences in terms of risk profile between two projects (in this case, in MPL's view, as between Marchwood and Langage), they should be treated in the same way in terms of the level of financial commitment required.

- 5.5 MPL argues that this point was implicitly recognised in Ofgem's letter of 12 January 2006 on the IEXCR methodology statement<sup>15</sup>. Ofgem stated in that letter that, although it is important that connectees provide some form of financial commitment to underpin investments in the network that they benefit from, such financial commitments should not unduly discriminate between new and existing users.
- 5.6 MPL states that in Ofgem's initial thoughts document on enduring incentive schemes in the context of the GDN sales<sup>16</sup>, Ofgem explained that on 20 January 2005 the Authority had decided that enduring offtake arrangements should be implemented by September 2005. MPL feels that had that timetable been adhered to, Marchwood would have been subject to the new enduring offtake regime.
- 5.7 However, MPL continues by stating that the Authority's decision on 24 June 2005<sup>17</sup> to delay the implementation of the new regime has resulted in transitional offtake arrangements that, from MPL's perspective, represent the worst of both worlds. MPL feels that under the draft ARCAs proposed by NGG on 18 January and 16 February 2006, MPL's commitment is materially more onerous than its commitment would be under the most recent proposals for the enduring offtake arrangements: a 14 year commitment relating to the specific forecast of reinforcement costs, as opposed to a 3 year commitment relating to a capacity booking irrespective of reinforcement costs.

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<sup>15</sup> Letter of 12 January 2006 from Ofgem to NGG NTS and other interested parties in relation to the proposed amendment to the Incremental exit Capacity Release Methodology Statement to Support the implementation of the transitional gas exit capacity arrangements (attached as annex 17 to MPL's submission).

<sup>16</sup> 'National Grid Transco – Potential sale of gas distribution network businesses – Initial thoughts on enduring incentive schemes supporting the offtake arrangements (31/05)', February 2005 (attached as Annex 10 to MPL's submission); 'National Grid Transco – Potential sale of gas distribution network businesses – Initial proposals on interim incentive schemes supporting the offtake arrangements (79/05)' March 2005 (attached as annex 11 to MPL's submission).

<sup>17</sup> Letter of 24 June 2005 from Ofgem to Shippers, Transco, GDN owners and other interested parties in relation to enduring offtake arrangements (attached as annex 12 to MPL's submission).



## **Issue B : Assessing the risk associated with the Marchwood load**

### *Riskiness of loads in the Marchwood area*

5.8 MPL states that in Ofgem's letter of 12 January 2006<sup>18</sup>, Ofgem established some of the principles to which Ofgem considered parties should have regard in agreeing the terms and conditions of an ARCA throughout the transitional offtake arrangements:

"Ofgem considers that NGG NTS should, in determining the level of any financial commitments associated with an incremental off take capacity request, have regard to the risk profile of the load making the request relative to other present and future loads in the area, including:

1. The extent to which the investments or reinforcements in the relevant area in which the load making the request for incremental capacity (e.g. a new connecting load) is located would benefit other users in the future and the level of risk associated with these future loads. In this respect, any financial commitments should ensure that the load making the request for incremental capacity does not face a disproportionately high exposure to the costs of investment that does not take into account the benefits the relevant investments provide to other users; and

2. The nature and risks associated with the existing portfolio of load already in the area in which the connecting party is intending to locate. For example, whether there are other relatively risky loads in the area that may in the future reduce their usage of the network thereby releasing spare capacity to the party making the capacity request. Ofgem would note that this question should be determined on a case by case basis as existing users do not signal their future requirements for offtake capacity under the transitional offtake arrangements.

In summary, Ofgem considers that NGG NTS should request financial commitments that are commensurate with the risks identified associated with the load requesting the incremental capacity relative to other loads in the area."

5.9 As regards the nature and risks associated with the existing portfolio of load, MPL considers that customers in the Hampshire and Dorset area should be viewed as presenting a low risk profile. They are predominantly residential and commercial customers, whose demand tends to be very stable (as opposed e.g. to industrial customers, whose demand tends to

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<sup>18</sup> Letter of 12 January 2006 from Ofgem to NGG NTS and other interested parties in relation to the proposed amendment to the Incremental Exit Capacity Release (IECR) Methodology Statement to support the implementation of the transition gas exit capacity arrangements (attached as annex 17 to MPL's submission).

be much more volatile). Accordingly, MPL considers that the risk to NGG NTS that its reinforcement works will become stranded assets because of an over-estimate of capacity demand is low: power stations typically have stable and predictable capacity booking patterns.

- 5.10 MPL argues that the level of costs already incurred by MPL as well as the level of financial security provided to National Grid Electricity Transmission (NGET) clearly demonstrates that MPL is committed to developing the Marchwood project, making it highly unlikely that MPL would build the plant, but then choose not to operate it. They state that these commitments increased considerably between 31 March 2006 and 23 June 2006. They continue by stating that these will continue to increase sharply in the coming weeks.
- 5.11 For all the above reasons, MPL feels that the risk profile of the Marchwood load should be regarded as low, and certainly no different from that of any other generator.

*Benefits to other users*

- 5.12 MPL argue that the works to be undertaken to reinforce the NTS, proposed by NGG NTS as a result of the Marchwood connection, will benefit other users, not just MPL. As a result, MPL considers that the cost of these works should be underwritten by all users that will benefit from these works.
- 5.13 MPL notes that Ofgem's stated rationale for a shallow connection policy is to avoid discrimination between new and existing loads. MPL considers that Ofgem confirmed this point in the Langage determination: NGG NTS pleaded that WPL, the applicant in that case, should be required to pay a contribution to the upstream reinforcement cost in order to prevent cross-subsidies by other users in favour of WPL. MPL states that Ofgem, however, countered that the reinforcements would also benefit existing users, and that the cost of the reinforcements could be recovered by way of increased exit capacity charges. Ofgem did not consider that there would be cross-subsidies.

- 5.14 MPL feels that the same is true in the present case. MPL considers that the reinforcement works which NGG NTS is proposing will not only benefit Marchwood. *MPL considers that these works will result in a more robust network with increased security of supply for all users. MPL states that there will be two parallel sections of pipe-line between Barton Stacey and Lockerley. MPL considers that if there is an interruption of supply on one length of pipe-line, the other pipe-line can continue to provide gas to the area. In addition, MPL considers that the scale of the proposed reinforcement works will increase capacity substantially beyond that required purely for Marchwood, thus in MPL's view benefiting future loads.*
- 5.15 To support their view, MPL states that NGG NTS has indicated that it is committed to certain pressures at Michelmersh, Braishfield and Lyneham (MPL notes that this is despite Ofgem not requesting NGG NTS' minimum permissible operational pressure at Lyneham). *MPL continues by stating that they feel that NGG NTS has not provided a justification of these values, despite NGG NTS' claims that Ofgem made specific request to that effect. MPL also feels that these commitments may be driving the requirement for reinforcement of the Barton Stacey to Lockerley pipe-line, with Barton Stacey to Michelmersh being related to the pressure commitment at Craishfield, and the Michelmersh to Lockerley reinforcement being related to the pressure commitment at Lyneham. MPL concludes that they should not be required to underwrite or pay for works that are required to maintain pressures for the new and existing customers.*
- 5.16 MPL feels that in NGG NTS' submission of 26 May 2006, NGG NTS confirms that these pressure commitments were driving the requirement of a 900mm pipe-line. *MPL continues by stating that they feel NGG NTS stated in certain years of the analysis the Barton Stacey reinforcement was identified as being required in 2009, in any case, to provide exit capacity attributed to other loads and demand growth in the area.*

*Langage*

- 5.17 MPL feels that a commitment imposed on MPL which goes beyond the commitment required by WPL under the Langage determination would be discriminatory. *MPL continues by stating that the principle of non-*

discrimination is set out in section 9(2) of the Gas Act and is also a basic principle of European Community law, reflected in Article 25(1) of the Gas Directive. MPL states that Articles 10 and 82 of the EC Treaty, read in combination, require the Authority to ensure that it exercises its functions in a manner which does not result in dominant firms, which MPL believes NGG is, being permitted to abuse their dominant position. MPL concludes by arguing that the Authority should not sanction the terms of the ARCA proposed by NGG NTS, which MPL feels are discriminatory.

5.18 MPL feels that the following features of the Marchwood project strongly indicate that it should be treated on the same basis as, or a less onerous basis than, Langage, because Marchwood is either similarly or better placed than Langage:

- The Langage and Marchwood projects are concurrent in development timescales and status (both Langage and Marchwood project have a commissioning date in 2009).
- The underlying risk facing NGG NTS is similar: In both cases, the NTS investment is associated with a single power station development. As the majority of demand in both the south coast (Marchwood) and south west (Langage) areas is represented by domestic and commercial customers, neither organic growth nor any other specific load is relevant.
- The Langage and Marchwood reinforcement schemes are interdependent: Marchwood is located on the NTS number 7 feeder. Further downstream, the same number 7 feeder provides a proportion of the flow to Langage. NGG has advised that it is the combined demand of the two projects which leads to a forecast shortfall of pressure in the network supplying Devon and Cornwall and which leads to the reinforcement need, as well as the requirements of customers in the Hampshire/Dorset area.
  - MPL understands that the majority of Langage gas offtake will flow via Lockerley and the Barton Stacey to Lockerley reinforcement that MPL is being requested to underwrite.

- Langage and other users are also driving the need for the Barton Stacey to Lockerley reinforcement which Marchwood would not require, disregarding such loads.
- The Barton Stacey to Lockerley reinforcement is therefore predicated on more than just the Marchwood load and the cost should be recovered through the general transportation charge.
- The developer financial status of MPL is at least as strong as that of WPL at the time of the Langage determination.
- The network reinforcement investment associated with Langage was considerably greater than that for Marchwood: £75 million compared with £23-43 million. By contrast, the connection cost borne by WPL for Langage, as determined by the Authority, was much lower than the connection cost borne by MPL for Marchwood: £513,800 compared with between £20-40 million<sup>19</sup>.
- Whereas the Langage project required an extension of the NTS, this is not the case for the Marchwood project. MPL is developing and funding the construction of its own 22km pipe-line from the NTS to its plant at a cost to MPL of between £20-40 million<sup>20</sup>. This is in contrast with WPL, which successfully argued that the NTS should be extended to reach a point only 3km from its site, the previously nearest point on the NTS being located 50km away.

5.19 MPL argues that if Marchwood were to be treated on an equal basis with Langage, MPL would be required to contribute £3.1 million by way of a financial commitment under an ARCA. However, the proposal which NGG NTS has submitted to MPL increases MPL's liability to £43 million.

5.20 MPL states that the increase in financial commitment adds heavily to the total cost of the Marchwood project. They feel that this clearly means that Marchwood will suffer a competitive disadvantage vis-à-vis its competitors who do not face such charges.

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<sup>19</sup> The actual figure has been removed for reasons of confidentiality.

<sup>20</sup> The actual figure has been removed for reasons of confidentiality.

### ***Issue C : Assessing the efficient costs of reinforcement***

- 5.21 MPL feels that the estimated costs of the reinforcement works are only relevant to this dispute to the extent that the Authority considers that MPL's undertaking under the ARCA should be linked to the cost of the reinforcement works. As indicated in its submission of 31 March 2006, MPL believes in principle that this should not be the case, and that MPL's undertaking under the ARCA should be based on transportation charges alone (as in the case of Langage).
- 5.22 MPL states that the reinforcement project cost estimates underlying NGG NTS' proposed Marchwood ARCA terms are inconsistent with those recently published for the relevant reinforcement project (Barton Stacey to Lockerley) within NGG's December 2005 Ten Year Statement (£43 million versus £23 million)<sup>21</sup>. MPL feels that it is not credible for NGG NTS to suggest that the cost of the works has increased by £20 million between December 2005 and February 2006.
- 5.23 MPL finds it surprising that the average cost per kilometre for a 13.2 km pipe-line is the same as the average cost for a 31 km pipe-line and concludes that they would expect to see the average pipe-line cost decrease for larger construction works.
- 5.24 MPL quotes NGG NTS' cost estimate as including a contingency of £6 million which MPL feels is not only excessive but that NGG NTS fails to provide a breakdown or explanation of why this contingency is needed.
- 5.25 MPL also questions NGG NTS' referral to the Barton Stacey to Lockerley reinforcement as a 31 km pipe-line, whereas MPL states that on page 52 of NGG's December 2005 Ten Year Statement there is reference to a 28km reinforcement. MPL argue that there is no justification offered for the extended pipe-line requirements, which result in increased costs.
- 5.26 MPL's assessment is that NGG NTS would appear to be engineering a scheme which is in excess of that specifically required to satisfy the Marchwood load increment: Marchwood states that their own 22km pipe-line is 610mm in diameter and involves minimal pressure loss, whereas

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<sup>21</sup> Attached as annex 28 to MPL's application for determination.

the NGG NTS 28km Barton Stacey to Lockerley scheme is 900mm in diameter; if NGG NTS is engineering a scheme which provides capacity for future growth, MPL argues that this should not be a Marchwood cost. Specifically, MPL notes that:

- NGG NTS' number 7 feeder runs south from Aylesbury compressor and is the high pressure transmission line serving Hampshire, Dorset and surrounding areas. From Aylesbury, most of the route has been subject to reinforcement since original construction in the 1970s, leaving the 29km run from Barton Stacey, immediately upstream of Marchwood's point of connection at Lockerley, remaining as a single 750mm pipe-line; the section beyond Lockerley is also 750mm. MPL's own pipe-line from Lockerley to Marchwood is to be constructed in 610mm diameter; MPL has concluded that the chosen diameter is more than sufficient and allows scope for further expansion of the site; design data from 2003 shows an expected pressure drop over 22km of pipe-line of 610mm diameter of 1 Barg.
- NGG NTS' proposed reinforcement from Barton Stacey to Lockerley is shown in the 10 Year Statement as 900mm, which upon completion will mean that this part of the route comprises two parallel pipe-lines, of 750mm and 900mm. The effective flow capacity of a gas pipe-line increases sharply with each increment of pipe diameter. As a consequence, the capacity of the 900mm reinforcement which NGG NTS is proposing is likely to represent an increment of capacity substantially greater than the capacity of the existing 750mm pipe-line and many times that strictly required for the additional Marchwood flow, even without accounting for any surplus capacity in the existing pipe-line.
- As pipe-line costs generally rise as size increases, this raises the question as to why NGG NTS is requiring MPL to underwrite the entire cost of the reinforcement.
- Although the costs of installing a 900mm line would be higher than for the smaller diameter alternatives, that fact on its own does not account for the disparity between NGG NTS' projected costs and those of MPL.

5.27 MPL contracted Penspen to estimate the capital cost of reinforcing the NTS between Barton Stacey and Lockerley. They estimated that a 36" x 65" pipe-line over 31 km would cost approximately £22.1 million, using a steel price of \$900 per tonne.

## **NGG NTS' views**

### ***Issue A: Approach to determining the level of financial commitment***

5.28 Based upon discussions between NGG NTS and MPL, NGG NTS considers that the only issue in dispute is the commitment element of the terms of the ARCA offered by NGG NTS to MPL. Hence NGG NTS requests the Authority to determine the terms required to satisfy the purpose of the ARCA. Specifically NGG NTS considers that the Authority should determine on what basis, and over what duration, the ARCA should provide financial commitment to NGG NTS such that the system reinforcement works costs to be incurred by NGG NTS may be considered economically and efficiently incurred expenditure.

5.29 NGG NTS considers that the ARCA serves two principal objectives:

- to provide the counter-party (usually a developer) with certainty of the future availability of NTS exit capacity; and
- to provide NGG NTS with a financial signal of the commitment of the counter-party such that the risk of under-use of incremental capacity and stranding of assets is low. This reduces NGG NTS' and other system users' exposure to such risks.

5.30 As such NGG NTS believes that in accordance with its connection charging methodology<sup>22</sup> an ARCA is required in respect of the proposed Marchwood connection.

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<sup>22</sup> Standard condition 4B of the Gas Transporter transmission Licence. NGG NTS Statement of the Principles and Methods to be used to Determine Charges for NTS Connection Services.



***Issue B : Assessing the risk associated with the Marchwood load***

*Riskiness of loads in the Marchwood area*

- 5.31 NGG NTS states that when compiling the ARCA for Marchwood the specific risk of the Marchwood load was considered. NGG NTS' network analysis shows that specific reinforcement is required to support this new connection. The extent of the risk to NGG NTS is given by the anticipated cost of works identified. These costs, together with the site specific NTS exit capacity charge, are fundamental in determining the length of "n", the number of years of NTS exit capacity charges which are required under the ARCA.
- 5.32 NGG NTS argues that whilst other loads in the Marchwood area may cease or reduce consumption, this is unlikely to free up sufficient capacity for Marchwood. Further, NGG NTS considers that it would be unacceptable for NGG NTS not to invest in increased capacity for Marchwood without convincing evidence of a future reduction in capacity use in the area.
- 5.33 In assessing the risk of the Marchwood project coming to fruition, NGG NTS believes that security provided by MPL in respect of its electricity connection should not be considered. To do so would potentially discriminate against non-power developers. Also, to suggest that electricity security is sufficient to securitise works on the gas system implies that the electricity security is excessive and that cross-subsidies between the two networks are acceptable. NGG NTS considers such implications to be inappropriate.

*Benefits to other users*

- 5.34 Although not considered by NGG NTS as part of the dispute, NGG NTS believes that the specific reinforcement works to be undertaken, as identified in the ARCA, are solely (subject to the normal planning tolerances) for the benefit of the Marchwood power station connection. NGG NTS comments that it believes that the technical analysis it has undertaken supports this conclusion.

5.35 However, in its' submission NGG NTS argues that using a 750mm diameter pipe-line or a pipe-line shorter than the proposed 31 km would result in breaches of pressure commitments downstream of Braishfield and Lyneham.

*Langage*

5.36 NGG NTS considers that the nature of dispute with MPL is only in respect of the extent to which the reinforcement costs should be underpinned by MPL and the period over which the financial commitment should be met. As such NGG NTS did not comment specifically on consistency with Langage except regarding different ARCA terms which NGG NTS states were derived on the basis of Ofgem guidance.

***Issue C : Assessing the efficient costs of reinforcement***

5.37 NGG NTS does not consider the identified specific reinforcement project, or the estimation of the cost of this project to be in dispute with MPL as part of negotiations for terms of connection of the Marchwood power station. However, NGG NTS believes that the costs of the specific reinforcement works are reasonable and not excessive.

5.38 NGG NTS states that the amount of the cost of the necessary reinforcement works has not been in dispute as evidenced by recent correspondence and minutes of meetings with MPL<sup>23</sup> where such issues have not been raised, and accordingly NGG NTS considers that it should not form the basis of an issue for determination by the Authority.

5.39 NGG NTS states that the annual ten year planning cycle between 2001 and 2005 identified reinforcement schemes associated with Marchwood exit capacity. These options have been included in the Ten Year Statements (TYS) for each of the plans and are summarised in Table 1 below. Marchwood initially intended to take firm gas from 2004, therefore specific reinforcement was originally identified for this year. Marchwood is currently requesting a connection in October 2008; hence the reinforcement has now been identified for that year.

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<sup>23</sup> E-mail of meeting notes from Martin Read MPL to Matt Golding NGG NTS, dated 30 January 2006 (reference O of NGG NTS' submission).

5.40 NGG NTS is of the opinion that the reinforcement is specific to the Marchwood exit load; if MPL were not to connect to the system, then no reinforcement would be required to support the south-west loads above and beyond the planned projects submitted in the current Price Control Review.

Year Identified	Year Required	Scheme Name	Scheme Details	£M <sup>24</sup>
2001	2004	Barton Stacey to Michelmersh	20km x 900mm	14.48
		Steppingley to Slapton	18km x 900mm	13.03
		Lockerley compressor rewheel		0.50
			<b>TOTAL</b>	<b>28.01</b>
2002	2004	Lockerley compressor rewheel		1.35
		Barton Stacey to Lockerley	31km x 900mm	25.9
			<b>TOTAL</b>	<b>27.25</b>
2003	2007	Lockerley rewheel + high flow mods		2.4
				<b>TOTAL</b>
2004	2008	Lockerley rewheel + high flow mods		2.4
		Barton Stacey to Lockerley	28km x 900mm	22.9
				<b>TOTAL</b>
2005	2008	Barton Stacey to Lockerley		22.6
		Lockerley rewheel + high flow mods	28km x 900mm	2.4
			<b>TOTAL</b>	<b>25</b>

**Table 1 – Summary of reinforcements identified in TYS<sup>25</sup>**

5.41 In its submission NGG NTS highlights four reinforcement options:

- Option 1 - Barton Stacey to Lockerley (31km long x 900mm diameter): reinforcement pipe-line at an estimated capital cost of £43.03M based

<sup>24</sup> The costs provided in the table above are preliminary budgetary indications based upon planning assumptions at the time of publishing in NGG's Ten Year Statement and are based on an estimated unit rate. They are not reflective of current market costs or recent tender prices.

<sup>25</sup> It can be seen that Barton Stacey to Lockerley was not identified in 2003 as specific reinforcement for 2007, it was identified instead as an exit scheme for 2009. This difference can be attributed to the phasing of other power station loads in the area and assumed demand growth. The forecasts changed the following year, resulting in the Barton Stacey to Lockerley pipe-line being identified again as specific reinforcement for the Marchwood power station.

on current tender costs of £1.4M per kilometre of 900mm diameter pipe-line.

- Option 2 - 85 barg uprating from Aylesbury to Barton Stacey: based on the cost assumptions quoted for the previous uprating option cited above, this equated to an estimated capital cost of £54.4M. It should be noted that this is purely a capital cost and does not represent the whole life costs. Although an area of land was put aside in the original design of Aylesbury compressor station for a third unit there is a local sensitivity regarding noise emissions. Provision of a third compressor unit may increase noise levels in the locality as the pipe-work is located above ground and measures may have to be provided to minimise the noise levels generated, which would have cost implications. Again it is proposed that this option be discounted on the basis of costs (£54.4M) when compared with the recommended Barton Stacey to Lockerley 31km long x 900mm diameter pipe-line reinforcement solution.
- Option 3 - Sapperton to Pucklechurch Pipe-line (45km long x 1200mm diameter): this equates to an estimated capital cost of £72M based on recent tender prices of £1.6M per kilometre of 1200mm diameter pipe-line. Additional costs would be incurred in utilising LNG from storage at Avonmouth. Again it should be noted that the costs quoted here are purely a capital cost and do not represent the anticipated whole life costs. The estimated capital cost for this option is far in excess of that identified to construct the Barton Stacey to Lockerley pipe-line (£43.03M); therefore it is recommended that this option be discounted.
- Option 4 - do nothing: once the ARCA has been offered and signed by MPL, NGG NTS is committed to providing exit capacity at the levels specified within the agreement. If the specific reinforcement identified is not in place, then NGG NTS will fail to make gas available for offtake at peak demand conditions to the levels set out within the ARCA and hence will be liable for ten times the relevant daily exit capacity charges in respect of the capacity not made available - section J 3.5 of UNC. This option would also mean that NGG NTS would fail to satisfy

its wider security of supply obligations (standard special condition A9 – Pipe-line System Security Standards).

5.42 Table 2 shows the costs of the four options.

Option		Capital Cost (£M)
1	Barton Stacey to Lockerley pipe-line (31km x 900mm)	43.03
2	85 barg uprating from Aylesbury to Barton Stacey	54.40
3	Sapperton to Pucklechurch pipe-line (45km x 1200mm)	72.00
4	Do nothing	-

**Table 2 – Cost of reinforcement options**

5.43 From analysis of the strategic options, NGG NTS believes that the proposed Barton Stacey to Lockerley reinforcement pipe-line should be progressed for completion in October 2008. This has been identified by NGG NTS as being the most economic and efficient of the options considered. NGG NTS has stated that it will be necessary for MPL to commit to an ARCA, thus providing NGG NTS with the requisite signal to build the specific reinforcement in line with the prevailing exit regime.

5.44 NGG NTS states that a number of sensitivities around the connection of Marchwood power station have been investigated. These have included shorter reinforcement pipe-line lengths or smaller diameters, the interaction with the phasing of other power station loads in the area, as well as the effect of storage sites and the selection of an alternative connection point. The sensitivities undertaken demonstrated to NGG NTS' satisfaction that the 900mm Barton Stacey to Lockerley system reinforcement project is the most economic and efficient option.

5.45 NGG NTS lists a number of major constraints on the proposed pipe-line in their submission, mainly for environmental purposes and provides further detail on how these factors impact on the costs of the identified reinforcement works.

5.46 NGG NTS states that they held a pre-contract risk workshop. Following this they produced a quantitative cost risk model. This is used to add risk costs to the base cost to get a total cost for the project. In their submission NGG provides further details of the workings of the model along with base costs estimates and the results of the pre-contract risk workshop. A post-contract risk workshop was also held by NGG NTS. Similarly, NGG NTS provides the base cost estimate and the results of the post-contract risk workshop.

5.47 NGG NTS argues that the costs of construction were operating at a low base in the period of 2002 and 2003 due to low market place activity, NGG's introduction of new working techniques/practices and the utilisation of high strength pipe-line materials. However, following the substantial and rapid increase in world steel prices in 2004 and world and UK market place increased activity these benefits were relatively short lived. In 2005, NGG NTS commissioned consultants EC Harris to investigate contractor and steel prices. The consultant's November 2005 report predicts that UK pipe-line costs will double over the period 2003/4 to 2010/11; these factors are expanded further, together with extracts from the report, as below:

- Pipe-line/steel prices - a rapid increase was experienced in steel prices from 2003 (predominantly due to economic expansion in the Far East) and although there were reductions in the second and third quarters of 2005, steel prices have continued to increase due to demand and the cost/availability of raw materials. Costs are predicted to continue to increase above the rate of inflation due to the ongoing high levels of demand in China and around the world, and with the high price for oil affecting transport, energy and material costs in the future.
- Market conditions - the construction workload saw a substantial increase in 2004/2005 both in the UK and worldwide, and contractors remain positive about the workload going forward, particularly with infrastructure type works, which is reflected in current tender prices. The present buoyant market and limited availability of the skilled manpower required, resources can command a cost premium and this trend is forecast to continue.

- 5.48 NGG NTS further notes that, in its view, contractors are also taking the opportunity of this active market to become more selective on tendering and to increase margins, while labour shortages continue to cause further sub-contract pressures on market prices and linked with contractors' reluctance about taking on additional risk with material prices. The specialist nature of pipe-line construction and the limited supply chain that is able to deliver it, has exacerbated the situation, with increases above the construction sector norm as other opportunities and work streams are available to the supply chain.
- 5.49 NGG NTS concludes that the combination of the factors set out above have increased this and other similar scheme costs from 2002 to 2006 by circa 75%. The proposed Barton Stacey to Lockerley scheme is in line with other projects of a similar nature currently planned for 2008 construction.
- 5.50 NGG NTS believes that it has correctly identified the most economic and efficient scheme by which the NTS can be reinforced to provide additional capacity to support the Marchwood power station project.
- 5.51 NGG NTS believes that it has demonstrated that the cost of the proposed Barton Stacey to Lockerley Scheme is as accurate as can reasonably be expected based on available information.
- 5.52 NGG NTS considers therefore that if an ARCA is required in respect of the Marchwood project that, subject to Lockerley being the Connection Charging Point, the system reinforcement costs identified in the agreement of £43,016,588 are appropriate<sup>26</sup>.

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<sup>26</sup> NGG states that the scheme costs have now risen to £45.8M based on the Main Works Contractor information.

## **6. STATUTORY OBLIGATIONS**

- 6.1 This determination was referred to the Authority under sections 21 and 27A of the Gas Act and Article 25(5) of the Gas Directive 2003/55/EC. Written submissions were received and an oral hearing was held whereby the parties made additional representations.
  
- 6.2 Further to those submissions and representations, the only issue that remains in dispute between the parties relates to the level of financial commitment under the ARCA. As such, this dispute shall be determined by an order made pursuant to section 27A of the Gas Act.



## **7. DISCUSSIONS AND CONCLUSIONS**

- 7.1 In addition to the written arguments set out above, both parties provided further verbal clarification of these issues at an oral hearing. That hearing was attended by the Ofgem Managing Director acting as the Authority's decision maker in respect of this dispute. Where appropriate, and as set out below, the Authority has taken this further clarification into account in reaching its decisions on the matter in dispute.
- 7.2 The Authority's comments and conclusions on the relevant issues associated with the dispute are set out below.

### **The level of commitment required under the ARCA**

#### ***Issue A: Approach to determining the level of financial commitment***

- 7.3 Ofgem considers that, in determining the appropriate level of ARCA commitment to be applied to MPL, it is important to consider previous policy statements on ARCAs. These statements include the Ofgas 1997 conclusions on ARCAs, the Langage determination and Ofgem's letter of 12 January 2006 on NGG's IEXCR.

#### *Application of the 1997 Ofgas principles*

- 7.4 As outlined in chapter 2, Ofgas set out its position on ARCA principles in October 1997.<sup>27</sup>
- 7.5 The October 1997 document outlined the dual role of ARCAs. It indicated that ARCAs allow signatories to reserve capacity in advance of the first gas flow day and in return Transco commits that capacity will be made available. The document also explained that the ARCA is intended to protect Transco from some of the risk that a load (e.g. a power station) will not connect to and use an investment which has been made.

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<sup>27</sup> A report on agreements made pursuant to the network code, including Advance Reservation of Capacity Agreements (ARCA), Ofgas, October 1997.

- 7.6 The document states that in order to protect Transco from this risk “an ARCA includes a guarantee that the signatory will pay one year’s exit capacity charges.....even if gas does not flow”.
- 7.7 The 1997 Ofgas report on ARCAs specifies that a commitment beyond one year is not normally necessary, as the network code (now the Uniform Network Code (“UNC”)) only requires capacity to be booked on an annual basis. The document goes on to note that Transco has obligations to operate in an efficient manner and hence should not invest if there is insufficient evidence to suggest that a load which requires network reinforcement may not materialise as planned. In this context the document also indicates that if Transco could demonstrate that a particular load is riskier than the overall portfolio of firm loads then an additional commitment may be appropriate.
- 7.8 *We consider that the level of financial commitment which should be applied to loads entering into ARCAs during the period for which the transitional offtake arrangements are in place should be determined through the application of the Ofgas 1997 ARCA principles. As such, we consider that a commitment to paying one year’s exit capacity charges is normally appropriate.*
- 7.9 Ofgem considers that the 1997 principles were intended to protect parties from the risk of undue discrimination in obtaining access to the gas network. In particular, the one year ARCA commitment is intended to ensure that all classes of users, both new and existing, are treated on a non-discriminatory basis. To impose greater levels of user commitment on new users, in order to underpin significant transmission reinforcement costs, whilst existing NTS daily metered users are able to roll over their existing capacity rights on a monthly basis could potentially result in *undue discrimination*.
- 7.10 *However, it is important to note that a one year commitment may not be appropriate in all cases and that a greater commitment may be necessary where a load poses significant risk. As such, consistent with the 1997 Ofgas principles, an additional commitment to paying exit capacity charges may be appropriate where NGG NTS can demonstrate to Ofgem that a particular load is riskier than the overall portfolio of firm loads.*

- 7.11 We therefore consider that in determining the terms of each ARCA entered into during the transitional offtake period, it is important that NGG NTS assesses the level of financial commitment on a case by case basis. In assessing each ARCA on a case by case basis NGG NTS should undertake a detailed and robust assessment of the risk profile of the relevant load relative to the overall portfolio of firm loads.
- 7.12 In all cases it is incumbent on NGG NTS to justify any additional level of commitment beyond one year.
- 7.13 Ofgem would note that the risk assessment is necessary to protect the interests of customers. For example, if there is a significant risk that a reinforcement project may become stranded, then customers may need to be protected through additional user commitments.

*User commitment models and enduring offtake*

- 7.14 In recent months, through the Transmission Price Control Review process, Ofgem has undertaken significant consultation on the introduction of a *non-discriminatory user commitment framework* in the context of the development of enduring NTS offtake arrangements. Under this framework, all classes of user would provide long term firm financial user commitments for incremental capacity as well as increased commitments in respect of existing capacity.
- 7.15 Following discussion of an enduring offtake framework through the Ofgem chaired *Enduring Offtake Working Group*, NGG NTS has now raised UNC modification proposal 0116 'Reform of the NTS Offtake Arrangements'<sup>28</sup>. This proposal provides for the introduction of enduring offtake arrangements from 1 October 2010.
- 7.16 The enduring offtake framework therefore remains the subject of an ongoing consultation process with industry participants both through the transmission price control, in terms of incentive arrangements, and UNC processes, with respect to the commercial allocation arrangements. Given

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<sup>28</sup> An alternative modification proposal UNC 0116a: 'Reform of the NTS offtake arrangements' has also been raised.

this, Ofgem does not consider it would be appropriate for the transitional offtake arrangements to depart from the principles which were set out by Ofgas in 1997.

7.17 Ofgem recognises that the introduction of more significant user commitments in the transitional offtake period could assist in ensuring that the risks of stranded assets, which are ultimately paid for by consumers, are minimised. However, it is also important that NGG NTS has regard to its statutory and licence obligations with respect to non-discrimination, including between new and existing users. It is for this reason that we consider that the 1997 Ofgas principles should remain in place for the transitional offtake arrangements.

7.18 Clearly, were enduring offtake arrangements introduced along the lines set out above, the Ofgas 1997 principles would no longer apply.

7.19 It is noted that the transitional offtake arrangements are due to end on 30 September 2010<sup>29</sup> and that the introduction of the enduring offtake arrangements from 1 October 2010 is subject to Ofgem's consideration of UNC modification proposal 0116. Nothing in this document should be construed as fettering the discretion of the Authority with respect to the consideration of this proposal.

*Transitional offtake arrangements – IEXCR letter – January 2006*

7.20 In a letter of 12 January 2006, vetoing a series of proposals to amend the IEXCR methodology statement, Ofgem indicated that in the absence of enduring offtake arrangements that provide for non-discriminatory allocations of offtake capacity to all users of the NTS including GDN owners and TCCs, any financial arrangements for the transitional period would need to be resolved on a case by case basis having regard to the individual circumstances of each request for incremental offtake capacity. That letter also noted that, in agreeing the terms of and conditions of any ARCA, NGG NTS is subject to its statutory and licence obligations; including those relating to non-discrimination and the efficient development and maintenance of the pipeline system.

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<sup>29</sup> See UNC modification proposal 0046, 'Extension of the sunset clauses for registration of capacity at NTS exit points'.

7.21 Ofgem also set out a series of high level principles that it was likely the Authority would have regard to in considering the terms and conditions of any ARCA that is referred to it for dispute resolution.

7.22 Ofgem stated that it considers that NGG NTS should, in determining the level of any financial commitments associated with an *incremental* offtake capacity request, have regard to the risk profile of the load making the request relative to *other present and future loads in the area*, including:

- the extent to which the investments or reinforcements in the relevant area in which the load making the request for incremental capacity (e.g. a new connecting load) is located would benefit other users in the future and the level of risk associated with these future loads. In this respect, any financial commitments should ensure that the load making the request for incremental capacity does not face a disproportionately high exposure to the costs of investment that does *not take into account the benefits the relevant investments provide to other users*; and
- the nature and risks associated with the existing portfolio of load already in the area in which the connecting party is intending to locate. *For example, whether there are other relatively risky loads in the area that may in the future reduce their usage of the network thereby releasing spare capacity to the party making the capacity request.* Ofgem would note that this question should be determined on a case by case basis as existing users do not signal their future requirements for offtake capacity under the transitional offtake arrangements.

7.23 In summary, Ofgem considered that NGG NTS should request financial commitments that are commensurate with the risks identified associated with the load *requesting the incremental capacity relative to the overall portfolio of firm loads.*

7.24 Ofgem also noted that it was important that connectees provide some *form of financial commitment to underpin investments in the network that they benefit from.* It stated that such financial commitments should

facilitate efficient investment and reduce the risk of stranded assets. However, Ofgem stressed that it is also important that any such financial commitments do not unduly discriminate between new and existing users.

- 7.25 Ofgem continues to consider that NGG NTS should continue to have regard to the high level principles set out in the 12 January IEXCR letter when conducting risk assessments for the purposes of determining ARCA commitments consistent with Ofgas' 1997 document.

***Issue B : Assessing the risk associated with the Marchwood load***

*Riskiness of loads in the Marchwood area*

- 7.26 Based on the principles outlined above, the key issue to address is whether the Authority considers that MPL should be required to enter into an ARCA that guarantees the payment of greater than one year's exit capacity charges. In considering this issue it is necessary to consider whether NGG NTS has demonstrated that the load in question is riskier than the overall portfolio of firm loads.
- 7.27 Ofgem notes the views presented in MPL's written submission that the predominantly domestic load profile in the Marchwood area suggests that the chance that investment will be stranded due to changing demand patterns is low and that the material level of financial commitment provided by MPL to date reduces the risk associated with the project.
- 7.28 Ofgem further notes that NGG NTS did not provide evidence that it had specifically considered the relative risk of the Marchwood load but notes the view that reinforcement is required purely to accommodate the Marchwood load.
- 7.29 Ofgem wrote to both parties in advance of the oral hearing highlighting a number of issues which it considered that it may be appropriate for the parties to cover in their oral submissions. These questions focussed to a large extent on the parties' views of the risk associated with the project. Ofgem also took the opportunity to question both parties on their perceptions of risk at the oral hearing.

7.30 Having regard to the information submitted by MPL at the oral hearing and in its submissions, we consider the following factors may be relevant in determining the risk of the Marchwood load relative to the overall portfolio of firm loads, namely:

- The proposed power station utilises new and highly efficient CCGT technology. The use of this technology should reduce the cost profile of the station relative to other generating plant in the electricity sector. This suggests that the load is less likely to exit the wholesale electricity market and may adopt a higher position in the generating merit order relative to other generating plant.
- The proposed power station is favourably located in the south west area of the electricity transmission network. In this respect, MPL has highlighted that Marchwood would receive a transmission network use of system payment due to its location and may be available to exploit opportunities in ancillary service markets due to the relative scarcity of such providers in the south west area.
- The proposed power station may also derive benefits from the EU Emissions Trading Scheme (ETS) due to its relative efficiency.

7.31 Ofgem also notes MPL's view that the recent agreement of the terms of a 15 year tolling agreement with SSE further reduces the risk associated with the load.

7.32 However, Ofgem also notes that there are a number of factors present in the market place which may indicate that the project poses a greater risk to consumers than the overall portfolio of loads. These include:

- the Government's ongoing Energy Review process;
- uncertainty over allowances for EU ETS (although we note this is a concern for all generators); and
- greater gas price volatility as the UK becomes increasingly reliant on international sources of supply and is thus exposed to volatility in international markets.

7.33 Ofgem notes that these effects are difficult to forecast with any degree of accuracy. However, on balance, it does not appear that the Marchwood load is significantly more risky than the overall portfolio of firm loads, including other firm generating loads. As such, we do not consider that MPL should be required to commit to paying greater than one year's exit capacity charges, particularly where other existing generators that are directly connected to the NTS are not required to make greater commitments.

*Benefits to other users*

7.34 Ofgem considers it important to assess the potential benefits to other users as a result of the reinforcement to accommodate the Marchwood load. This assessment will influence the extent to which the investment would be stranded (or under-utilised) were the load to fail to connect or disconnect. It is also important to consider whether there are other relatively risky loads in the area that may in the future reduce their usage of the network thereby releasing spare capacity.

7.35 Ofgem notes that NGG NTS considers that its technical analysis proves that the reinforcement necessary to accommodate the Marchwood load will provide benefits solely to MPL, while MPL contend that other system users, particularly those in the south west of the country, will derive security of supply benefits from the reinforcement.

7.36 Ofgem questioned NGG NTS on benefits accruing to other users at the oral hearing. NGG NTS explained that while reinforcement of the Barton Stacey to Lockerley pipeline had originally been included in the ten year statement as a demand driven project, recent increases in gas prices had reduced domestic demand and meant this was no longer the case. Ofgem notes that MPL considered that they were at a considerable informational disadvantage in assessing the extent of benefits to other users.

7.37 In the absence of an enduring offtake framework under which all users provide signals to the NTS of their future requirements it is difficult for Ofgem to make a judgement of whether the reinforcements are necessary or whether the Marchwood project is the sole driver for the reinforcement.



For example, it is difficult to assess whether there are other loads in the area that may reduce their usage thereby releasing additional capacity in the south west. The presence of such signals would assist in forming a view as to whether the Marchwood reinforcements are indeed risky.

- 7.38 On balance, Ofgem does not consider that there is sufficient evidence available to suggest that the reinforcement required to accommodate the Marchwood load will provide benefits to other users.

#### *Langage*

- 7.39 As outlined previously, MPL has stated that applying a greater level of ARCA commitment to the Marchwood project than was applied in respect of Langage without justification that the Marchwood load presented a greater level of risk would be discriminatory and therefore put Marchwood at a competitive disadvantage.
- 7.40 As noted in Ofgem's 12 January IEXCR letter, it remains Ofgem's view that prior determinations such as Langage should not necessarily be viewed as a precedent for all future ARCAs. Each case must be assessed on its merits having regard to the risks associated with the load in question.
- 7.41 Nevertheless, Ofgem agrees that Langage is a relevant comparator to consider in assessing the risk presented by the Marchwood project.
- 7.42 Ofgem notes MPL's views on the similarities between the two projects and that MPL considers that the market conditions at the time of the Langage dispute are not substantially different to those in place today.
- 7.43 As noted above, both the Langage and the Marchwood power station are in favourable positions in the south west for the purposes of electricity transmission system support and utilise efficient CCGT technology.
- 7.44 Another relevant factor to consider in this context is the spark spread, which is measured as the difference between gas and electricity prices. This is an indicator of whether it is profitable to generate electricity from gas. Whilst it is difficult to forecast future changes in the relative prices,

we would note that the spark spread today is similar to that at the time of the Langage determination, if not marginally more favourable.

- 7.45 Having regard to these factors, Ofgem does not consider that the Marchwood project involves a level of risk greater than was the case with Langage.

*Conclusions on risk*

- 7.46 Having considered the level of risk presented by the Marchwood load, Ofgem considers that the Marchwood load is not demonstrably riskier than the overall portfolio of firm loads.
- 7.47 In light of these conclusions, and having regard to the level of commitment provided by existing system users, Ofgem considers that NGG NTS should enter into an ARCA for one year's worth of exit capacity charges. Ofgem considers that such a commitment would be non-discriminatory and reflect a commitment commensurate with the level of risk posed by the project given the existing transitional offtake framework.
- 7.48 It should be noted that Ofgem has significant concerns that NGG did not undertake a bona fide assessment of the riskiness of this project to customers and instead requested Marchwood underwrite 100% of the reinforcement costs through the proposed ARCA thereby triggering this dispute.
- 7.49 Ofgem considers that a comprehensive risk assessment would have concluded that a reduced user commitment was appropriate, thereby reducing the likelihood that this matter would have been referred to the Authority for resolution.
- 7.50 Going forward Ofgem would expect NGG to undertake risk assessments in the transitional offtake period on a case by case basis having regard to the principles set out in this document (i.e. the Ofgas 1997 principles and the 12 January IEXCR letter). Any failure to undertake these assessments and the imposition of unreasonable user commitment requirements on users could trigger further disputes and could in the extreme delay future generation projects. This would clearly be detrimental to security of

supply in the electricity sector. In addition, the management of such disputes also creates significant costs for Ofgem and the parties involved. These costs are ultimately recovered from customers.

7.51 Ofgem considers that the circumstances that have led to a determination being requested in this instance clearly demonstrate the need for reform of the existing arrangements for securing exit capacity.

7.52 The absence of a structure in which demands for capacity are backed by appropriate and proportionate financial commitments from all classes of users places Ofgem in the position of assessing the risks to customers associated with transmission reinforcement and in particular with whether a load, in this case a power station, is likely to go ahead.

7.53 Ofgem considers that it is more appropriate for the risks associated with transmission reinforcement to be managed by those parties best able to manage them. In particular, we consider that users of the NTS are in a better position to signal their long term requirements for transmission capacity through a non-discriminatory user commitment framework. Such a framework should provide better information to NGG NTS associated with future demand and should reduce the likelihood of disputes and improve clarity over the requirements for securing access to the transmission network.

7.54 Ofgem therefore considers that enduring offtake arrangements remain an important aspect of the regulatory, commercial and operational frameworks necessary to protect consumers.

### ***Issue C : Assessing the efficient costs of reinforcement***

7.55 Ofgem notes that, at the oral hearing, MPL confirmed that it only considered the efficient cost of reinforcement to be an issue in dispute if it is a determinant of the level of ARCA commitment. NGG NTS confirmed that they had sought to cover the total efficient costs of reinforcement in calculating the level of financial commitment required.

7.56 In light of these comments, Ofgem asked NGG NTS to provide details of its methodology for determining charges and to confirm whether the efficient

cost of reinforcement had an impact on the exit capacity charge that would apply in the charging zone in which the Marchwood power station is located.

7.57 NGG NTS confirmed that there is no direct linkage between the costs of the reinforcements and the NTS exit capacity charge. Instead, NGG NTS has indicated that the calculation of the NTS exit capacity charge is determined by the application of the 'Transcost' model which is used to calculate long run marginal costs of reinforcing the transmission system. NGG NTS has indicated that the charges are determined in part by the total level of revenue to be recovered, and that to the extent that actual costs of specific reinforcements are included in the regulatory asset base through the transmission price control preview process then the long run marginal cost at each exit point is scaled up to meet the additional revenue allowance.

7.58 Given that the Authority considers that the level of ARCA commitment should be determined via an application of the 1997 principles, Ofgem considers that the question of the efficient cost of reinforcement is no longer a relevant factor in the dispute. However Ofgem will be assessing these costs in the context of the ongoing Transmission Price Control Review.

## **8. DECISION**

- 8.1 Ofgem has consistently stated the need for ARCA commitments to be assessed on a case by case basis, having regard to the risk profile of the load in question. Ofgem has also stated that financial commitments should *facilitate efficient investment and not unduly discriminate between new and existing users.*
- 8.2 On the basis of the application of this approach, the Authority has determined that it is appropriate for the parties to enter into an ARCA for one year's exit capacity charges. The terms of this ARCA should be negotiated between the parties and put in place as soon as reasonably practicable and no later than 1 December 2006.