3rd Party Proposal : Publication of Near Real Time Data at UK sub-terminals Modification Reference Number UNC 006 (0727)

Impact assessment

May 2005

Summary

Introduction

This document sets out for consultation Ofgem's Impact Assessment on the proposed modification to the uniform network code relating to the increased provision to the market of offshore gas production information; "3rd Party Proposal: Publication of Near Real Time Data at UK sub-terminals Modification Reference Number uniform network code 006" (the proposal).[1]

Background

The proposal was raised by energywatch and was submitted for consideration at the network code panel meeting on 18 November 2004. Following discussions at the National Transmission and Trading Workstream and at the network code panel the proposal was sent for consultation, with the Final Modification Report being sent to the Gas and Electricity Markets Authority (the Authority) for decision on 5 April 2005. This Impact Assessment and the responses to it will inform the Authority's decision to direct the implementation of the proposal or not.

The proposal would, if implemented, see Transco NTS[2] publishing the amount of gas being supplied at each of the main entry points to the gas network, known as sub-terminals, close to real time.

Ofgem's regulatory framework

Ofgem's principle objective is to protect the interests of consumers where appropriate by promoting effective competition. When making a decision on the proposal the Authority also needs to take into account Transco NTS's relevant objectives under standard special condition A11 of its National Transmission System gas transporter

[1] This modification proposal was originally raised as modification proposal 0727 to Transco's network code. For the purpose of this document, this modification is referred to as uniform network code (UNC) modification proposal 006.
[2] References in this document to Transco NTS relate to Transco's subsidiary that now holds the gas transporter licence relating to the National Transmission System (NTS).

licence.[3] These objectives included the efficient and economic operation of the pipeline system.

Section 5A of the Utilities Act 2000 places a duty on the Authority to carry out Impact Assessments on proposals that the Authority considers are "important". Ofgem considers that it is appropriate for an Impact Assessment to be undertaken for the proposal as its implementation could have a significant impact.[4,5] This Impact Assessment provides Ofgem's views on the potential costs and benefits of the proposal and the likely risks and unintended consequences to the achievement of those benefits.

Cost benefit analysis

Ofgem notes the comments raised in respect of the analysis as presented in the Modification Reports for the proposal, and recognises that concerns have been expressed by both Transco NTS and a number of respondents in relation to the cost benefit analysis presented by energywatch. Having carefully considered these views, Ofgem has undertaken further analysis of the potential costs and benefits, and specifically in respect of the likely incremental costs and benefits of the information that would be published under the proposal. This further analysis is included in chapter 5.

Ofgem's initial assessment of the proposal is summarised in the table below. The qualitative assessment is expressed as a rating that compares the costs and benefits implementing the proposal against the baseline. The spectrum of ratings used in the qualitative assessments is illustrated below.

[3] Details of the changes to Transco's gas transporter licence in response to NGT's proposed sale of four of its distribution networks are discussed in chapter 2.
[4] Section 6 of the Sustainable Energy Act 2003 amended the Utilities Act 2000 by inserting into it section 5A.
[5] Further information on the requirements of the Authority to undertake Impact Assessments are contained in Chapter 2.

Interpretation of qualitative assessment

Summary

Overall, Ofgem considers there are likely to be benefits to customers and the market more widely in respect of enhanced economy and efficiency and these are also likely to feed through to benefits of enhanced security of supply. Ofgem recognises there will be associated IT costs for Transco NTS and potentially costs of renegotiating contracts with respect to the provision of information required under the proposal to both Transco NTS and its contractual counterparties if the proposal is implemented. Ofgem further recognises there are a number of potential risks to the achievement of these benefits. However, Ofgem also considers that there are a number of mitigating factors that reduce the effects of these risks.

The following table summarises Ofgem's views of the costs and benefits of the proposal, above the current baseline. Where it has not been possible to quantify the coast and benefits a qualitative assessment has been made. It also outlines Ofgem's views of the likely risks and unintended consequences of implementing the proposal and attempts to assess the probability of these occurring.

Summary of Ofgem's estimated costs and benefits compared to the baseline

	the proposal	
Benefits		
♦ Economy and efficiency		
o Economic signals	✓✓	
o System balancing	£2.5m	
o Market volatility	>£3.8m	
o Market perception and liquidity	✓	
♦ Security of supply		
o Short term	✓	
o Long term	✓	
♦ Impact on customers	-	
♦ Environmental impact	-	
Costs		
♦ IT costs	£0.65m[6]	
♦ Contract renegotiation	××	
Risks	**Impact**	**Probability**
♦ Withdrawal of information	×××	**Low**
♦ Duplicate metering	××	**Low**
♦ Data accuracy	×	**Low**
♦ Ownership of data	×	**Low**

Way forward

Ofgem welcomes views on all aspects of this Impact Assessment in order to assist the Authority in making its decision on whether to accept or reject the proposal. In particular, Ofgem welcomes views on the assumptions used in this analysis and the overall assessment, including likelihood and materiality of risks and unintended consequences, to be received by close of business on 24 June 2005. Once respondents' views on this Impact Assessment have been carefully considered, Ofgem intends to make a timely decision on whether to accept or reject the proposal.

[6] In the FMR Transco notes that it would wish to undertake a full and detailed impact analysis in order to confirm the IS systems development effort, costs and timescales.

Table of contents

1. Introduction

Purpose of this document

1.1. The purpose of this document is to consult upon Ofgem's[7] Impact Assessment (IA) on the uniform network code modification proposal "3rd Party Proposal: Publication of Near Real Time Data at UK sub-terminals", UNC 006 (the proposal).[8]

Background

1.2. This proposal was raised by energywatch (the Proposer) and was submitted for consideration at the network code panel meeting (the meeting) on 18 November 2004. The proposal would, if implemented, introduce the publication of near real time flow information at sub-terminal level by Transco NTS to the market. At the meeting, the network code panel did not make a determination in respect of the proposal proceeding to consultation, therefore Transco NTS referred the proposal to the National Transmission and Trading (NT&T) Workstream to report back to the January 2005 panel meeting.

1.3. The NT&T Workstream discussed the proposal at its meetings on 2 December 2004 and 6 January 2005. The NT&T Workstream agreed that the proposal did not need further development and recommended to the network code panel that it should be sent for consultation. Following discussion at the January 2005 meeting, the network code panel voted unanimously for the proposal to proceed to consultation

1.4. Section 6 of the Sustainable Energy Act 2003 (the Sustainable Energy Act) amends the Utilities Act 2000 (the Utilities Act) by inserting into it section 5A. Section 5A places a duty on the Gas and Electricity Markets Authority (the

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[7] Ofgem is the office of the Authority. The terms 'Ofgem' and 'the Authority' are used interchangeably in this document.

[8] This modification proposal was originally raised as modification proposal 0727 to Transco's network code. Under the Unified Network Code (UNC) Transitional Rules, this proposal is deemed to be made in respect of the UNC in accordance with the modification rules and has been renumbered as UNC modification proposal 006. Further information relating to the UNC is contained from paragraph 2.51.

Authority) to carry out IAs. In all cases where the Authority is proposing to undertake an action for the purposes of, or in connection with, the carrying out of its functions under Parts I of the Gas Act 1986 (the Gas Act) or the Electricity Act 1989 (the Electricity Act) and it appears to the Authority that the proposal is "important", the Authority must carry out and publish an IA, or publish a statement setting out the reasons why it considers that it is unnecessary for it to carry out an IA. Ofgem has published guidance on IAs.[9]

1.5. Ofgem has carefully considered the requirements under section 5A of the Utilities Act. Transco NTS and a number of respondents (both in favour and in opposition to the proposal) have indicated that they consider the potential costs and benefits of this proposal to have a significant impact. Ofgem has carefully considered the costs and benefits as noted in the Final Modification Report (FMR)[10] for the proposal, and considered that these were of an order of magnitude such that it was appropriate to carry out a further wider impact assessment of the issues to better appreciate the potential costs and benefits of implementing this proposal. Ofgem has therefore decided that it is appropriate for an IA to be undertaken for the proposal as its implementation could have a significant impact on licensees or on persons engaged in commercial activities connected with licensable activities.

1.6. In recent years a number of discussions have taken place between Ofgem, the Department of Trade and Industry (DTI), Transco NTS and the offshore community in respect of the release of relevant information regarding offshore production facilities and their flows. These included the development of a DTI led voluntary arrangement for the disclosure of offshore information.[11] Further, in February 2005, Ofgem published a consultation document[12] that considered whether changes needed to be made to the current onshore regulatory arrangements relating to the release of offshore information.

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[9] 'Guidance on impact assessments', September 2004.
[10] Modification Report: 3rd Party Proposal: Publication of Near Real Time Data at UK sub-terminals: Modification Reference Number 0727: Version 2.0; Transco; 5 April 2005
[11] This is discussed further in sections 2.69 to 2.71.
[12] 'Offshore gas production information disclosure: Initial consultation and draft impact assessment: Ofgem', February 2005.

Structure of this document

1.7. This document is structured as follows:

- Chapter 2 sets out the background to this proposal including the related components of the regulatory framework and the current position regarding the disclosure of offshore information;
- Chapter 3 discusses the issues set out in the FMR;
- Chapter 4 describes the main impacts of information being released to the market;
- Chapter 5 evaluates the potential costs and benefits associated with the proposal;
- Chapter 6 sets out the way forward;
- Appendix 1 contains NGT's summary table of the information flows in the gas and electricity markets;
- Appendix 2 contains the draft of the legal text for the proposal;
- Appendix 3 contains a table illustrating the short term information that is available to gas market participants[13]; and
- Appendices 4, 5 and 6 provide additional information relating to the costs and benefits discussed in chapter 5.

Views invited

1.8. Ofgem would welcome views on all aspects of this IA, to be received by close of business 24 June 2005. Ofgem notes that this only represents a four week period for consultation. However, whilst in general it endeavours to consult for a period of six weeks, particularly in relation to Ofgem policy documents,

[13] This table is reproduced from the Oxera paper 'What are the costs and benefits of near real-time gas information?' prepared for UKOOA.

Ofgem notes that this IA is consulting on a modification proposal that has already been widely consulted upon, and through these consultations third parties have already had the opportunity to comment on the proposal and make representations on the estimated costs and benefits. Therefore, Ofgem considers, in the case of this document, a four week consultation period is appropriate and will help facilitate a timely decision making process in respect of the proposal by the Authority.

1.9. All responses will normally be published on Ofgem's website and held in the Research and Information Centre. However, if respondents do not wish their response to be made public then they should clearly mark their response as confidential. Ofgem prefers to receive responses in an electronic form so they can be placed easily on the Ofgem website.

1.10. Responses should be addressed to:

Sonia Brown

Director, Markets

Office of Gas and Electricity Markets

9 Millbank

London

SW1P 3GE

1.11. Electronic responses should be sent to wholesale.markets@ofgem.gov.uk.

1.12. If you wish to discuss any aspect of this paper, the following people would be pleased to help:

- Matthew Buffey (telephone 020 7901 7088);
- Ed Carter (telephone 020 7901 7304); and
- Olaf Islei (telephone 020 7901 7374).

Way forward

1.13. Ofgem will carefully consider responses received to this IA to help inform the Authority's final decision. Following this, the Authority will take its final decision whether to approve or reject the proposal.

Consultation code of practice

1.14. If respondents have comments or complaints about the way this consultation has been conducted these should be sent to:

Michael Fews

Head of Licensing

Office of Gas and Electricity Markets

9 Millbank

London

SW1P 3GE

Tel: 020 7901 7085

michael.fews@ofgem.gov.uk

2. Background

Legal and Regulatory Framework

Gas Act

2.1. The Gas Act, as amended by the Utilities Act and the Energy Act 2004 (the Energy Act), provides for the regulation of the onshore gas regime in Great Britain (GB) and for the separate licensing of gas transporters, gas shippers[14] and gas suppliers.

2.2. Section 4AA of the Gas Act sets out the principal objective and general duties of the Authority in respect of gas. The principal objective of the Authority in carrying out its functions under the Gas Act is to protect the interests of consumers in relation to gas conveyed through pipes, wherever appropriate, by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas so conveyed. In carrying out its functions under the Gas Act in a manner which furthers the principal objective, the Authority will have regard to the following:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met; and
- the need to secure that licence holders are able to finance the carrying on of the activities which they are authorised or required by their licences to carry on.

2.3. The Authority must carry out its functions in the manner it considers best calculated to:

- promote efficiency and economy on the part of authorised persons and the efficient use of gas;

[14]A company with a shipper's licence, buys gas from producers, sells it to suppliers and contracts with the gas transporter for transportation services

- protect the public from dangers arising from the conveyance of gas through pipes or the use of such gas; and
- secure a diverse and viable long term energy supply.

2.4. The Authority must also have regard to the effect on the environment of activities connected with the conveyance of gas through pipes. In addition, under section 4AB of the Gas Act, the Secretary of State gives guidance to the Authority as to the contribution which she/he considers the Authority should make towards the attainment of the Government's social and environmental policies. The Authority is required to have regard to this guidance when discharging its statutory functions to which its principal objective and main duties apply.[15]

2.5. The Authority can publish information under section 35 of the Gas Act in such manner as it may determine, provided that:

- it appears to the Authority that publication would "promote the interests of consumers in relation to gas conveyed through pipes";
- in publishing, Ofgem has regard to the need for excluding, so far as practicable, any matter relating to the affairs of a particular individual or body of persons where publication would or might, in the opinion of the Authority, "seriously and prejudicially affect the interests" of that individual or body; and
- before deciding to publish, Ofgem consults any individual or body of persons to which the information in question relates.

Utilities Act

2.6. Section 1 of the Utilities Act created the Authority.

2.7. The Utilities Act amended the Gas Act in a number of significant ways. The Utilities Act gave the Authority a new principal objective and general duties (as broadly outlined above) and functions in relation to licensing and setting

[15] To date the Authority has received guidance on two occasions. Most recently "Social and Environmental

performance standards. The Utilities Act also gave the Authority the power to impose financial penalties on companies found to be breaching, or to have been in breach of, licences issued to them under the Gas Act.

2.8. Section 105 of the Utilities Act sets out general restrictions on the disclosure of information. These restrictions apply to information obtained by a person under or by virtue of, among other things, the Gas Act and where that information relates to the affairs of any individual or to any particular business. It is considered that this restriction therefore is capable of applying not only to Ofgem, but also to Transco NTS and other market participants.

2.9. Broadly, section 105 provides that such a person is not able to disclose the relevant information, except through certain gateways (for example where consent of the relevant party to disclose is given and in relation to a licensee where disclosure is required to be made by a condition of its licence). Disclosure in breach of the prohibition is a criminal offence.

Energy Act

2.10. The Energy Act introduced a requirement that, subject to its principal objective and its general duties, the Authority (and the Secretary of State) should, amongst other things, carry out its functions in a manner best calculated to contribute to the achievement of sustainable development.

2.11. The Energy Act additionally requires that the Authority (and the Secretary of State) should carry out its functions having had regard to "the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed" and any other principles appearing to represent best regulatory practice.

2.12. Sections 173 to177 and Schedule 22 to the Energy Act provide for a right of appeal to the Competition Commission (CC) against decisions by the Authority on modifications to certain industry codes. It is considered that this will increase regulatory accountability for these decisions. The Energy Act provides for the

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Guidance to the Gas and Electricity Markets Authority" DTI, February 2004.

Secretary of State to lay an Order to designate which codes are subject to this right of appeal, and which decisions are excluded from this right of appeal. Before making such an Order, the Secretary of State must consult interested parties.

2.13. In October 2004, the DTI published a consultation document and draft Order.[16] In that document the DTI expressed its initial view that the appeals mechanism will be applicable to Transco NTS's network code,[17] the Balancing and Settlement Code (BSC) and the Connection and Use of System Code (CUSC). In the consultation document, the DTI also expressed the view that decisions should be excluded from appeal, where the delay caused by an appeal could impact on security of supply, or where the Authority's decision agrees with the recommendation of the panel in the case of the BSC, or with a certain proportion of participants in the case of the CUSC and Transco NTS's network code.

2.14. It is expected that the DTI will issue further documentation in relation to the appeals process shortly.

Sustainable Energy Act

2.15. Section 6 of the Sustainable Energy Act 2003 amended the Utilities Act by inserting into it section 5A. Section 5A places a duty on the Authority to carry out IAs.

2.16. Section 5A of the Utilities Act applies where:

- the Authority is proposing to do anything for the purposes of, or in connection with, the carrying out of any function exercisable by it under, or by virtue of, Part 1 of the Gas Act; and
- it appears to the Authority that the proposal is important.

[16] 'Appeals against Ofgem code modifications decisions' Consultation on draft order' DTI; 4 October 2004.
[17] The October 2004 document referred to Transco's network code, not the UNC.

2.17. Section 5A defines a proposal as important where its implementation would be likely to do one or more of the following:

- involve a major change in the activities carried out by the Authority;
- have a significant impact on participants in the gas or electricity sectors;
- have a significant impact upon persons engaged in commercial activities connected to the gas or electricity sectors;
- have a significant impact on the general public in Great Britain or in a part of Great Britain; or
- have significant effects on the environment.

2.18. Under section 5A:

- an IA must include an assessment of the likely effects on the environment of implementing the proposal and relate to such other matters as the Authority considers appropriate;
- Ofgem must, when it carries out an IA, have regard to such general guidance which relates to the carrying out of IAs as it considers appropriate; and
- where an IA is being published, Ofgem is required to consult about its proposal with the general public and any others who are likely to be affected to a significant extent by the proposal's implementation and must consider responses to that consultation before implementing any proposal.

Competition Act and Enterprise Act

2.19. The Competition Act 1998 (the Competition Act) introduced two prohibitions against anti-competitive behaviour. The Chapter I prohibition prohibits agreements between undertakings, decisions by associations of undertakings or concerted practices which may affect trade within the United Kingdom (UK) and have as their object or effect the prevention, restriction or distortion of competition in the UK. The Chapter II prohibition prohibits any conduct on the

part of one or more undertakings which amounts to the abuse of a dominant position if it may affect trade within the UK. Undertakings can be fined up to 10% of the undertaking's worldwide turnover for a breach of the Chapter I and Chapter II prohibitions.

2.20. The Enterprise Act 2002 (the Enterprise Act) contains provision for market investigation references to the CC to be made by the OFT. The Authority (along with other specified sectoral regulators) has concurrent power with the OFT to make such references to the CC in respect of the gas and electricity markets if it has reasonable grounds for suspecting that any feature or combination of features of a market prevents, restricts or distorts competition in connection with the supply or acquisition of goods or services in the UK or part of the UK. Having received a reference, the CC is able to carry out an investigation to inquire into markets where it appears that the structure of the market or the conduct of suppliers or customers is harming competition. The Authority is able to accept undertakings in lieu of a reference to the CC (publishing its reasons for doing so).

Financial Services and Markets Act

2.21. The Financial Services and Markets Act 2000 (FSMA) gave statutory powers to the Financial Services Authority (FSA), an independent non-governmental body, established to regulate financial services and protect consumers. Among other things, the FSMA introduced a new financial penalties regime to address market abuse (as defined under that Act).

2.22. FSMA also requires the FSA to produce a code to give appropriate guidance on what conduct may or may not amount to market abuse. The Code of Market Conduct (the Code) details three broad types of behaviour that amount to market abuse: misuse of information; creating a false or misleading impression; and distorting the market.

2.23. The regime relating to market abuse applies to the behaviour of all legal persons in relation to qualifying investments traded on 'prescribed markets', regardless of

whether they require FSA authorisation. FSMA contains a regime for dealing with market abuse that may extend to markets such as the OCM[18] and trading upon such markets. The penalties for market abuse range from fines to censure. Individuals and companies are subject to the regime.

2.24. The Financial Services and Markets Act 2000 (Exemption) Order 2001 provides for certain persons to be exempt from the general prohibition which is imposed by section 19 of FSMA, which requires persons to be authorised to carry out regulated activities, which are specified by the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001.

2.25. In relation to the gas industry, the following exemptions apply in relation to dealing in certain investments as principal or agent or arranging deals in such investments:

- Transco NTS in its capacity as a gas transporter under its licence and for the purposes of enabling or facilitating gas shippers to buy or sell certain investments such as futures or contracts for differences;
- APX Gas Ltd. in its capacity as the operator of the balancing market[19] and for the purpose of enabling or facilitating Transco NTS and relevant gas shippers for the purpose of participating in the balancing market, to buy or sell certain investments;
- Transco NTS and relevant gas shippers in relation to certain activities insofar as that activity relates to certain investments and is carried on for the purpose of participating in the balancing market.

Freedom of Information Act 2000

2.26. The Freedom of Information Act 2000 (the FOI Act) came into force on 1 January 2005. It gives people the right to request recorded information held by public authorities. As an independent government department, Ofgem is

[18] On-the-day commodity market – a within day gas trading market operated by APX Gas Ltd.
[19] The balancing market is defined as the market to regulate the delivery and off-take of gas in Transco NTS's pipeline system for the purpose of balancing the volume of gas in that system.

treated as a public authority in this respect. The FOI Act is designed to help people get a better understanding of how public authorities carry out their duties and make decisions.

2.27. The FOI Act requires public authorities to produce a publication scheme that has been approved by the Information Commissioner. Publication schemes act as a guide in respect of the classes of information public authorities have published or intend to publish. Ofgem's publication scheme provides people with access to some areas of information without them needing to make a specific request. It specifies:

- the types of information that Ofgem publishes or intends to publish; and
- how this information can be accessed, for example, what is on the website.

2.28. Ofgem may be entitled to claim exemptions, as set out in the FOI Act, from releasing information, which can negate the requirement to provide information that falls within the defined exemptions.[20] Some exemptions are absolute whereas others are qualified, i.e. the public interest in not disclosing information outweighs the public interest in disclosing it. Examples of absolute exemptions include where information is provided in confidence or where the public authority is prohibited by or under any enactment. In Ofgem's case, such a prohibition may arise under section 105 of the Utilities Act. Examples of qualified exemptions include where the information relates to the formulation of government policy or where the information would, or would be likely to, prejudice the commercial interests of any person.

2.29. The Environmental Information Regulations 2004 (EIRs) also came into force on 1 January 2005. These regulations make provision for the freedom or access to,

[20] Sections 21 to 44 of the FOI Act define the circumstances for which this can occur. Exemptions apply to information that is reasonably accessible by other means to any person requesting that information, and to information that is intended for future publication. Other exemptions rely on the application of a prejudice test or other consequences of disclosure.

and dissemination of, environmental information[21] held by, or held by another person on behalf of, the public authority (including Ofgem).

2.30. In respect of the extent to which the FOI Act and EIRs extend to National Grid Transco (NGT),[22] as a private company acting under the direction and/or control of a public body (which may be Ofgem) in matters relating to the environment, NGT is captured by EIR legislation in respect of some information, however NGT is not captured by the requirements of the FOI Act. Therefore, while Ofgem is subject to the FOI Act and the EIRs, the FOI Act does not apply to NGT as it does not fall within the definition of "public authority" for the purposes of the Act. However, guidance suggests that public utilities involved in the supply of essential public services such as, among other things, electricity and gas fall within the scope of the EIRs. To the extent therefore that NGT holds environmental information as defined in the EIR, it may be required to disclose it in accordance with those regulations.

EU Legislation

2.31. As well as GB legislation, the activities of participants in the gas (and electricity) market are required to comply with the relevant European legislation. This includes Directive 2003/6/EC[23] and Directive 2003/55/EC.[24] These two Directives are intended to contribute to the further development of a single European market, in the case of Directive 2003/6/EC with respect to financial services and in the case of Directive 2003/55/EC with respect to natural gas.

2.32. EU Market Abuse Directive 2003/6/EC was adopted by EU Parliament and the Council of the European Union in January 2003 and implemented on 12 October 2004. With provisions that are similar but not identical to the UK's existing market abuse regime, the Directive's aim is to promote the integrity of

[21] The EIR definition of 'environmental information' is wide and covers not only direct elements of the environment, land, water, biological organisms etc, but also measures any activities which may affect these, including economic analysis of such measures and activities.
[22] Transco NTS is a wholly owned subsidiary of NGT.
[23] Directive 2003/6/EC of the European Parliament and of the Council of 28 January 2003 on insider dealing and market manipulation (market abuse).
[24] Directive 2003/55/E 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.

Europe's financial markets. It seeks to do this by introducing a common EU legal framework for preventing and detecting market abuse and for ensuring a proper flow of information to the market.

2.33. EU Gas Directive 2003/55/EC was adopted in June 2003 and implemented on 1 July 2004 with the aim of facilitating the introduction of further competition in the EU gas markets. The Directive includes provisions relating to: the ability for all gas customers to choose their supplier; non-discriminatory access to networks; the setting up of transparent market-based mechanisms for the supply and purchase of gas needed for balancing systems; and the effective regulation within Member States.

2.34. On 1 May 2004, the EU competition regime was reformed. Council Regulation 1/2003 decentralised the application and enforcement of Articles 81 and 82 in their entirety. A number of UK regulators (including the Authority) were designated as National Competition Authorities for the purposes of applying and enforcing Articles 81 and 82.

2.35. As a national competition authority,[25] the Authority has the ability to enforce (alongside national competition laws) European Community competition rules (specifically, Articles 81 and 82 of the EC Treaty) where conduct infringing these Articles has an effect on trade between Member States.

2.36. Article 81 of the EC Treaty deals with anti-competitive agreements between individuals and companies that have as their object or effect the prevention, restriction or distortion of competition within the common market and that may affect trade between Member States.

2.37. Article 82 prohibits conduct that amounts to an abuse of a dominant position within the common market insofar as it may affect trade between Member States.

[25] The Authority is a national competition authority for the purposes of EC Modernisation Regulations. This means that the Authority exercises concurrent powers with other sectoral regulators in Europe under Articles 81 and 82 of the Treaty.

The offshore regulatory regime

2.38. For upstream gas, the offshore regulatory regime is overseen by the DTI with the objective of maximising economic recovery. It regulates upstream exploration and development of fields by companies, including access to pipelines, under the Petroleum Act 1998 (the Petroleum Act).

2.39. The Petroleum Act, which consolidated a number of provisions previously contained in five separate pieces of primary legislation (including the Petroleum (Production) Act 1934), vests ownership of oil and gas within GB and its territorial sea in the Crown and enables the Secretary of State on behalf of the Crown to grant licences to explore for and exploit these resources and those on the UK Continental Shelf (UKCS). The DTI, on behalf of the Secretary of State, issues exploration and production licences, approves operators and issues production consents.

2.40. The Petroleum Act provides the basis for granting onshore (Landward) and offshore (Seaward) licences. These licences confer exclusive rights to "search and bore for and get" petroleum over a limited area and for a limited period of time. The two main types of offshore "Seaward" licences issued are for Production or Exploration.[26]

The regulatory interface between the offshore and onshore regimes

2.41. The legislative framework for the regulation of both the upstream (offshore) and downstream (onshore) gas markets is the responsibility of the DTI.

2.42. For downstream gas, the onshore regulatory regime is overseen by the Authority, as provided for by the Gas Act. As noted previously, the main relevant functions of Ofgem in this area are those regarding the downstream gas licensing regime including the issue, enforcement and the modification of licences. As stated above, Ofgem has powers, concurrent with the OFT in relation to competition

[26] See http://www.og.dti.gov.uk/upstream/licensing/index.htm for further information with respect to the offshore licensing regime.

law matters, and Ofgem must also have regard to the extent to which European Law may be applicable, e.g. where inter-state trade may be affected.

2.43. The main relevant functions of the DTI in regard to downstream gas are those concerned with the licence exemptions regime – e.g. the exemption from the requirement for a Public Gas Transporter licence.

2.44. Ofgem and the DTI work closely on all matters relating to the interaction of the onshore and offshore gas regimes. Since 2003 the two departments have worked together in forming the DTI information initiative voluntary offshore information release scheme (the DTI information initiative).[27]

The six relevant gas transporters licences

2.45. As a result of NGT's proposed sale of four of its Distribution Networks (DNs) there have been some recent changes to the gas regulatory architecture including the gas transporter (GT) licences held by NGT.

2.46. Following an application from Transco plc relating to the proposed sale of some of its DNs, in November 2004 the Authority granted five new additional GT licences to Transco plc. Four of these new additional licences have been modified and transferred to wholly owned Transco plc subsidiary companies that NGT is proposing to sell (the independent gas distribution networks (IDN) Licences).[28] The one other new additional licence has been modified so that it relates to the four DNs which Transco plc is proposing to retain (the retained distribution network (RDN) Licence).

2.47. The original Transco licence[29] has been modified so that it now relates to Transco's National Transmission System only (the NTS Licence).

2.48. These changes allow the six relevant GT licences to support a divested industry framework and seek to ensure that customers' interests are protected.

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[27] This is discussed further in sections 2.69 to 2.71.
[28] The Authority has this week given its consent to NGT's proposed share sale in these wholly owned subsidiary companies.
[29] Which was subject to a scheme made pursuant to paragraph 19 of Schedule 7 of the Utilities Act on 28 September 2001.

2.49. In order to ensure that customers' interests are protected in a divested industry structure, a number of modifications to the NTS Licence, the RDN Licence and the IDN Licences took effect on 1 May 2005. These modifications, amongst other things, included significant changes to the structure of the NTS Licence, the RDN Licence and the IDN Licences to separate out obligations relating to:

- transmission and distribution;
- transmission only;
- distribution only; and
- individual licensees only.

2.50. As the statutory Collective Licence Modification (CLM) procedure (set out in section 23 of the Gas Act) only applies to Standard Conditions to the extent that they are not modified, Ofgem was concerned that the scale of the changes to Transco's six licences would render the statutory CLM procedure largely ineffective in the majority of cases relating to collective modifications to GT licences. The licence modifications that took effect on 1 May 2005 therefore introduced a new "private" CLM procedure which would allow collective modification of NTS and DN GT licences. The "private" CLM procedures apply to a new class of licence conditions referred to as 'standard special conditions'. As such the NTS Licence, the RDN Licence and the four IDN Licences now include:

- standard conditions;
- standard special conditions for the NTS and DNs;
- standard special conditions for the NTS only;
- standard special conditions for the DNs only; and
- special conditions in respect of each of the NTS Licence, the RDN Licence and the four IDN Licences.

Standard special condition A11 – network code and uniform network code

2.51. Under standard special condition A11 of the NTS Licence, the RDN Licence and the IDN Licences, Transco (in respect of the NTS and the RDN Licences) and each of the four relevant wholly owned subsidiary companies (in respect of the IDN Licences) (relevant GTs) are required to establish transportation arrangements which are calculated to facilitate the achievement of a number of objectives relating to, among other things:

- the efficient and economic operation of its pipeline system;
- the co-ordinated, efficient and economic operation of the combined pipeline system;
- the efficient discharge of licence obligations; and
- the securing of effective competition between relevant shippers and relevant suppliers and DN operators.[30]

2.52. Standard special condition A11 requires relevant GTs to prepare a network code setting out the terms of its transportation arrangements as well as procedures for the modification of its network code.[31]

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[30] Standard Special Condition A11, paragraph 1. Transco NTS's relevant objectives are:
(a) the efficient and economic operation of the pipeline system to which the licence relates:
(b) so far as is consistent with sub-paragraph (a), the coordinated, efficient and economic operation of (i) the combined pipeline system, and/or (ii) the pipeline system of one or more other relevant gas transporters
(c) so far as it is consistent with sub-paragraphs (a) and (b), the efficient discharge of the licensee's obligations under its licence;
(d) so far as is consistent with sub-paragraphs (a) to (c) the securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers;
(e) so far as is consistent with sub-paragraphs (a) to (d), the provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards (within the meaning of paragraph 4 of standard condition 32A of the Gas Suppliers' licences) are satisfied as respects the availability of gas to their domestic customers; and
(f) so far as is consistent with sub-paragraphs (a) to (e), the promotion of efficiency in the implementation and administration of the network code and/or the uniform network code.

[31] Standard Special Condition A11, paragraph 3.

2.53. In addition, there is a requirement in standard special condition A11 for relevant GTs to together prepare a uniform network code (UNC) which sets out the terms of the transportation arrangements and modification procedures to the extent that such terms are common between these relevant gas transporters, unless the Authority agrees otherwise.[32]

2.54. At present, all transportation arrangements and modification procedures are set out in the UNC. Transco's individual network code (in respect of the NTS and the RDNs) and each wholly owned subsidiary company's network code (in respect of the IDNs) takes the form of a "short form" network code which simply incorporates the UNC by reference.

Standard special condition A7– Requirement to enter into transportation arrangements in conformity with network code

2.55. Standard special condition A7 of the relevant GT includes, amongst other things, an obligation to comply with any network code obligation to provide relevant information to the market. This paragraph was introduced into this licence condition in April 2002, following a licence amendment[33] (paragraph 5). Paragraph 5 of standard special condition A7 states that the licensee shall comply with any obligation in the network code to disclose information relating to:

(i) the operation of the licensee's pipe-line system, or

(ii) any market relating to the licensee's pipe-line system.

2.56. The licence condition therefore requires relevant GTs to comply with network code obligations relating to the disclosure of a potentially wide range of information. To accompany the introduction of this licence change, Ofgem set out guidance on the information that could be included, this is discussed further in sections 2.64 to 2.65.

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[32] Standard special condition A11, paragraph 6.
[33] Prior to the section 8AA and section 23 modifications taking effect on 1 May 2005, this condition existed as standard condition 4E in Transco's GT licence. References in this document to standard condition 4E and standard special condition A7 therefore refer to the same drafting of the licence condition.

2.57. Paragraph 5 in standard special condition A7 was considered desirable because the release of information was seen as necessary to support the changes to Transco NTS's System Operation (SO) incentives and to promote efficient market operation and to facilitate competition. Following consultation it was considered desirable that the basis for considering obligations to release information should be via the network code governance arrangements.

2.58. Without the licence amendment, the general restrictions on the disclosure of information explained above in relation to GT duties under section 105 of the Utilities Act may have prevented it from releasing that information. However, section 105 provides for the release of information to the market where it has a licence requirement to do so. On this basis, a specific licence condition was necessary to ensure the release of appropriate and relevant information to the wider market.

Information Flows

2.59. The availability and quality of information within the system is important, particularly with respect to the information available to Transco NTS to balance its pipeline system and for shippers to balance their inputs and offtakes to Transco's NTS.

2.60. Sub-terminal operators run facilities that control the volume and the quality of gas being delivered onto the NTS. Sub-terminal operators do not take commercial decisions about the volume of gas to be delivered, these decisions are taken by producers (field owners) based on the contracts that they have struck with shippers. The producers make their nominations, which are aggregated by the operator of the field (field operator), this aggregate nomination is then passed to the relevant sub-terminal operator.

2.61. Each of the operators of the fourteen main beach sub-terminals estimate the hourly flow rates from their sub-terminal to the NTS in the form of Daily Flow Nominations (DFNs). The DFNs are calculated by the sub-terminal operators who aggregate the nominations they receive from the field operators. DFNs are updated throughout the gas day.

2.62. Each shipper also makes nominations to Transco NTS in respect of the amount of gas that they intend to put on to the NTS and off take from the NTS each day, it is against these nominations that shippers' positions are measured in terms of whether they are "balanced" at the end of the gas day.

2.63. Recent developments in respect of the release of further information to both Transco NTS and the market are discussed from paragraph 2.69 onwards.

Guidance on information release

2.64. In April 2002,[34] Ofgem provided guidance on the information it considered may be specified in the network code and, if so, would therefore need to be provided by Transco NTS. The guidance noted that this would include (but need not be limited to) the disclosure of the information with indicative data provided ahead of a gas day and actual data provided during the day on balancing information; entry capacity market information to be provided during the day; and exit capacity market information.

2.65. With respect to this information, the guidance noted that Transco NTS could provide updates of relevant information at regular intervals (for example, on an hourly basis throughout the day) but that it was for parties to the network code to develop the details of the information to be released, including the timing of its release, through proposed modifications to the network code.

Release of offshore information

2.66. In recent years a number of discussions have taken place between Ofgem, DTI, Transco NTS and the offshore community in respect of the release of relevant information regarding offshore production facilities and their flows.

2.67. Supply interruptions that occurred during the summer of 2003 (summer 2003 interruptions) provided additional stimulus to the discussion about the level of information available to the market in this respect. In its conclusions document

[34] "Transco Price Control and SO incentives 2002-7, Explanatory notes to accompany the section 23 notice of proposed modifications to NGT's gas transporters licence" Ofgem, April 2002.

in respect of these interruptions,[35] Ofgem stated that it would continue its discussions with the DTI to highlight the necessity for a standardised framework for the release of offshore outage information.

2.68. In October 2004, Ofgem published the findings of its detailed assessment into the gas price rises that occurred in the GB wholesale gas market during Winter 2003/04.[36] Ofgem's analysis helped to explain most of the main drivers of these price movements. Nevertheless, the large movements in gas price rises heightened the call from market participants for greater transparency in relation to the offshore regime amid concerns that this lack of transparency was causing additional and unnecessary volatility in gas prices.

DTI information initiative

2.69. Following the summer interruptions and subsequent analysis of the causes of the high prices experienced over this period, the DTI led a body of work involving Ofgem, UKOOA, terminal operators and Transco NTS to consider the effectiveness of communications and information release between the offshore and onshore gas industries. During these discussions, Ofgem indicated a preference for a legislative route (a view it has maintained throughout these discussions and continues to hold as its first preference) requiring increased disclosure of offshore information. However, Ofgem supported the DTI (and continues to do so) in seeking a voluntary arrangement for the disclosure of offshore information as a means to progress the issue.

2.70. The implementation of the DTI information initiative has been split into three phases. These are summarised in Table 2.1 below.

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[35] 'Summer Interruptions 17 and 18 June 2003: Conclusions', Ofgem, August 2003.
[36] 'Ofgem's probe into wholesale gas prices: Conclusions and next steps', Ofgem, October 2004.

Table 2.1 Summary of DTI information initiative

Phase/category	Information	Recipient	Timing	Aggregation	Publication
Phase 1	Demand Forecasts; Indicated Demand, Generation and Imbalance; System Information, Price.	Producers to Transco NTS	Ahead of day, daily, monthly	Aggregation on zonal, national and system basis	11 November 2003
Phase 2	Field data, annual production, peak production, gas quality, annual delivery, peak delivery, maximum capacity, delivery profile	Producers and terminal operators to Transco NTS	Voluntary questionnaires sent out annually as part of annual NGT's Ten Year Statement consultation process	Aggregation on terminal, zonal, national and system basis	NGT 2004 TBE[37] Ten Year Statement
Phase 3 Category 1	Real time flows into the NTS	Transco NTS to the market	Hourly[38]	Aggregation on national and zonal[39] basis	July 2005
Phase 3 Category 2	Forecast flows into the NTS	Transco NTS to the market	Ahead of day Updated hourly through the day	Aggregation on national and zonal basis	Q1 2005
Phase 3 Category 3	Deliverability, reflecting planned	Transco NTS to the	Ahead of time	Aggregation on national and zonal	1 October 2004

[37] Transporting Britain's Energy.
[38] Originally these flows were to be made available on a real time basis, however, it was subsequently agreed that they would be made available hourly.
[39] Aggregation to be done into two zones, "north" and "south". North comprising of St. Fergus, Barrow, Teesside, Burton Point, Partington and Glenmavis, south comprising of Easington (including Rough), Theddlethorpe, Bacton, Isle of Grain, Dynevor, Avonmouth and Hornsea.

'3rd Party Proposal: Publication of Near Real Time Data at UK sub-terminals - Modification Reference Number 006', Impact Assessment

	maintenance	market	Quarterly, with material updates as they become known to Transco NTS	basis	
Phase 3 Category 4	Daily flows into the NTS	Transco NTS to the market	Daily at 16:00 hours on D+1	By sub-terminal	1 October 2004

2.71. It should be noted, that in relation to the proposal, the most relevant information to be released under the DTI information initiative is that to be released under phase 3, category 1. This information relates to hourly flows into the NTS to be released by Transco NTS on an aggregated national and zonal (north–south) basis. Chapter 3 provides further detail in relation to the information flows intended for release to the market under the proposal compared with the DTI's information initiative.

Informal derogation letter

2.72. Due to concerns that under standard special condition A7 of its GT licence Transco NTS would be required to release potentially commercially sensitive information, UKOOA requested that a confidentiality agreement between gas producers and Transco NTS be signed to protect the disclosure to the wider market of operational and planning information used by Transco NTS for long term planning purposes. Ofgem held concerns that the confidentiality agreement being proposed between Transco NTS and the producers could give rise to a breach of Transco NTS's GT licence. To facilitate the implementation of the DTI's information initiative, Ofgem therefore wrote to shippers, Transco NTS and other interested parties in a short open consultation[40] on whether it would

[40] 'Access to offshore information: Consultation on a possible derogation to Standard Condition 4E of

be appropriate to issue a temporary derogation to paragraph 5 of standard special condition A7 of Transco NTS's gas transporter licence in relation to certain information.

2.73. Following consideration of consultation views and issues, on 15 April 2004 Ofgem issued Transco NTS with a six month derogation with respect to paragraph 5 of standard special condition A7 in Transco NTS's GT licence. The derogation related specifically to field information collected by Transco NTS for the purposes of producing its long term planning and forecasts and was issued to facilitate phase 2 of the DTI information initiative, by enabling Transco NTS to enter into a confidentiality agreement with gas producers without the risk of breaching its GT licence.

2.74. It should be noted that Ofgem has clearly indicated that there is no statutory basis in the GT licence that enables Ofgem to grant any formal derogation or direction and as such this derogation was informally issued without prejudice to any later statutory consultation on amendments to standard special condition A7 of Transco NTS's GT licence. In its decision on 15 April 2004 the Authority stated that the derogation would elapse in six months, within which period Ofgem would expect to issue a formal consultation on whether standard special condition A7 should be amended. Ofgem subsequently extended the derogation until 30 April 2005.

Licence consultation

2.75. On 1 February 2005 Ofgem published a consultation document[41] (the 'February document') that considered whether changes need to be made to the current onshore regulatory arrangements relating to the release of offshore information. The document invited views on three options.

- Option 1 – to leave the current arrangements unchanged and withdraw the temporary derogation. Under this option Ofgem would also seek to provide further guidance;

Transco's Gas Transporters Licence', Ofgem, March 2004.

[41] 'Offshore gas production information disclosure: Initial consultation and draft impact assessment: Ofgem', 1 February 2005.

- Option 2 – amend Transco's GT licence to give the Authority a formal power to provide for derogation from certain information being disclosed;

- Option 3 – specify in Transco's GT licence particular categories of information that should be subject to disclosure and the associated levels of dis-aggregation, thereby limiting the information which the network code could provide for the disclosure of.

2.76. The Authority is currently considering responses received to this licence consultation and whether changes should be made to Transco NTS's GT licence[42], and Ofgem will shortly publish any decision the Authority may make, formally consulting on any licence amendments if the Authority considers these to be appropriate.

2.77. For the avoidance of doubt, any decision taken by the Authority on potential amendments to standard special condition A7 of GT licences shall be taken separately from any decision on UNC modification proposal 006. The Authority's decision on any of these licence modifications will be taken by way of standard process with the Authority having regard to, among other things, its principal objective and wider statutory duties and in light of all the circumstances of the case (including any consideration of modification proposal 006 only to the extent appropriate).[43]

2.78. Further, as the Authority decision soon to be taken in respect of Transco NTS's licence obligations is not considering any option to exempt the release of information flows relevant to the proposal, Ofgem considers it is appropriate that the baseline for its consideration reflects that the current licence obligations are in place (i.e. the status quo).[44] For the purpose of clarity, as the proposal does not seek to release any information covered by the temporary informal derogation in respect of standard special condition A7 of Transco NTS's gas

[42] The February document made reference to potential modification to Transco's Gas Transporters licence and not other relevant Gas Transporters licences. Following 'hive-down' on 1 May 2005, the relevant licensees include Transco NTS, Transco RDN and IDNs.
[43] It should be noted that the additional analysis contained in this Impact Assessment (undertaken as a result of the responses received to the February document and to the DMR for UNC 006) has been made available to the Authority, and to the extent relevant may be taken into account by the Authority when considering its decision on any of these licence modifications.

transporter licence (i.e. the TBE information), any decision taken by the Authority in respect of the derogation will not affect this proposal. Therefore, the baseline for assessing this proposal is unaffected by any decision taken by the Authority in respect of the derogation.

Modification proposal 0593

2.79. As noted above, the issues in relation to offshore information release have been discussed in a number of areas. This includes previous network code modification proposals,[45] and most recently in network code modification proposal 0593.[46]

2.80. On 24 October 2002, AEP Energy Services Ltd raised modification proposal 0593 "Obligation on Transco to publish TFA data". This modification proposal required Transco NTS to publish additional information in relation to Terminal flow advices (TFAs).

2.81. In assessing this modification proposal, Ofgem considered that the publication of further detailed information on TFAs could, in principle, provide additional transparency and competitive benefits. Ofgem was also of the view that there should be a greater expectation of transparency with respect to Transco NTS's activities, given its role as monopoly system operator. However, in assessing the proposal, Ofgem also considered the potential adverse impact its implementation might have on the DTI information initiative for the disclosure of offshore information.

2.82. In reaching its decision to reject the proposed modification, Ofgem recognised the concerns raised by producers and the DTI in respect of the DTI's information initiative, and whilst Ofgem has always expressed a preference for a legislative route, Ofgem noted the role it had played in the development of the voluntary agreement. In particular, Ofgem made reference to its open letter of 23 October 2003 that set out guidance as to how it might approach modification

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[44] The 'baseline' for Ofgem's consideration of the proposal is discussed further in Chapter 5.
[45] Including network code modification proposals: 0560, 0561, 0562, 0587 and 0588.
[46] 'Network Code Modification Proposal 0593 'Obligation on Transco to publish TFA data' , Ofgem, 30 July 2004.

proposals to which standard special condition A7 of Transco NTS's GT licence would apply.

2.83. In taking its decision Ofgem considered that it would be unlikely to approve modification proposals which required Transco NTS to disclose information which was provided to it on a confidential basis, if it could be demonstrated that acceptance of such proposal threatened the continued provision of such information to Transco NTS or if it placed Transco NTS in breach of pre-existing confidentiality obligations.

2.84. Ofgem considered that modification proposal 0593 could fall under this category and therefore its approval could weaken one of the bases of the DTI information initiative. In particular, both Transco NTS and respondents to the consultations regarding modification proposal 0593 had repeatedly stated that the implementation of the modification proposal would cause a breach of confidentiality clauses in Network Entry Agreements (NEAs) where gas quality requirements are specified and it could lead to the release of commercially sensitive information.

2.85. Based on the consultation and discussions with interested parties, Ofgem was concerned that the implementation of modification proposal 0593 could adversely affect the implementation of the DTI information initiative by weakening Ofgem's reassurance in its letter of 23 October 2003[47] that it would endeavour to protect commercially sensitive and confidential information. In particular, that the costs of disrupting the DTI information initiative on the release of offshore information would outweigh the potential benefits associated with the proposal.

[47] 'The disclosure of offshore information', Ofgem open letter, 23 October 2003.

3. The Modification Report including respondent's views

Introduction

3.1. This chapter sets out the background of modification proposal UNC 006 "3rd Party Proposal: Publication of Near Real Time Data at UK sub-terminals" (the proposal) raised by energywatch (the Proposer).[48] It additionally summarises the key issues that were highlighted in the Final Modification Report (FMR) for the proposal and discusses the views of Transco NTS and other market participants' responses to the Draft Modification Report (DMR) with respect to these issues. These issues are:

- transparency of information and market efficiency;
- data ownership, confidentiality and liabilities;
- Cost Benefit Analysis;
- technical considerations; and
- harmonisation of information between gas and electricity markets.

The proposal

3.2. It is the intent of the proposal that Transco NTS publishes real time flow data for each sub-terminal for the purposes of informing third parties via the Transco NTS website. This would include all entry points that are owned and operated by

[48] The proposal was originally raised in respect of Transco's network code, and followed the modification rules pertaining to that code. Following the implementation of modification proposal 0745 (see www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/11299_745_letter.pdf), and in accordance with Part IV, paragraph 2.1 of the UNC Transitional Rules, the proposal is deemed to be made in respect of the UNC in accordance with the modification rules. At its meeting of 3 May 2005, the UNC Modification Panel agreed to the re-numbering of live modifications carried over into the UNC under the Transitional Rules, with network code modification proposal 727 being re-numbered as UNC modification proposal 006. It should be noted that on the understanding that this modification proposal was shortly to be the subject of an Ofgem IA, the UNC Modification Panel also voted for this modification proposal to proceed without being separately re-consulted upon by the Joint Office.

Transco NTS (i.e. storage entry points operated as part of the gas transportation system that are currently subject to price control regulation); entry points which are capable (aggregating all relevant sub-terminal deliveries) of accepting gas flows at rates greater than 10 mcm/day and all individual sub-terminals which are capable of accepting gas flows greater than 10 mcm/day.[49] It is proposed that flows are updated on a real time basis.

3.3. The proposal is therefore an extension of the information to be released under phase 3 category 1 of the DTI information initiative. This is because the proposal will result in disaggregated sub terminal information being released rather than the north-south level of aggregation proposed for release under the DTI information initiative.[50]

3.4. It was the view of the Proposer that the proposal will go some way towards:-

- harmonising information provision across gas and electricity markets;
- empowering gas consumers to make rational purchasing decisions;
- levelling the competitive playing field between producer affiliates and non integrated market participants;
- improving Transco NTS's performance incentives to lower costs regarding balancing; and
- increasing shippers ability to balance and therefore reduce their costs.

3.5. The Proposer considered that the proposal would, if implemented, better facilitate the relevant objectives of Transco's network code[51] by improving the efficient and economic operation of the pipeline system by permitting the shipping community to understand and consider, within day, changing flows through each of the sub-terminals. Further the Proposer considered that this

[49] Under the UNC all entry points are contractually entry points to the NTS, not to the DNs.
[50] See Table 2.1 in chapter 2.
[51] As set out in chapter 2, the relevant objectives of the UNC and Transco's network code are broadly the same but have been changed to reflect the existence of DN operators. Therefore, whereas previously there was one objective relating to the efficient and economic operation by the licensee of its pipeline system, under Standard Special Condition A11 a further objective exists for the co-ordinated, efficient and economic

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would allow users to react to potential offshore problems and re-schedule flows and better assist Transco NTS in achieving a system balance. The Proposer considered that Transco NTS would benefit from Users reacting quicker to offshore flow changes enabling them to physically balance and offer gas via the OCM (promoting greater liquidity in this essential balancing market) and that at a secondary level, the provision of this information would provide Ofgem with the ability to better monitor the market.[52]

3.6. The Proposer considered that the consequence of not making this change, and therefore this information not being published, would be that the wholesale trading markets would continue to be undermined and skewed leading to potentially higher gas prices. By not providing entry flow information, the Proposer considered that the market will be denied access to key supply information which is contradictory to the objective of creating a fully competitive UK gas market at numerous levels of the gas supply chain i.e. gas shipping, trading and supply.

Issues raised in the modification reports

Transparency of information and market efficiency

Respondents' views

3.7. Most market participants supported the principle of increased provision of information to the GB gas market. In relation to the information proposed to be provided to the market under the proposal, several market participants considered that it would reduce barriers to entry and create a level playing field which should result in the market operating more efficiently. In particular, in relation to the fact that the gas trading arrangements provide incentives on shippers to self-balance, where shippers are trading on the basis of limited information as well as information asymmetries they will be making sub-optimal decisions.

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operation of the combined pipe-line system and the pipeline system or one or more other relevant GTs.
[52] The Authority can already receive this information under the provisions of the Gas Act.

3.8. However, in relation to the proposal, a number of market participants, notably many with offshore interests, considered that the information to be released might be misleading and misinterpreted by the market. For example, as a consequence of a lack of historical reference points by which to assess the data, some respondents have suggested that the publication of data on this basis might lead to increased volatility in gas prices and introduce inefficiencies in the market.

3.9. Those respondents in favour of the proposal, notably those with consumer based profiles or interests, considered that market transparency and the provision of information to all market participants on an equal basis were the basic ingredients for a market to function properly and efficiently and that the proposal would improve overall market confidence.

3.10. Furthermore, respondents considered that terminal level data is essential if all market participants are to see the "real picture" of evolving supply and demand including information on the breakdown of the supply stack rather than just aggregate supplies.

3.11. Respondents in favour of the proposal also considered that it should make it easier for new participants to enter the market and give non-producers access to better data on which to carry out their business activities. Transco NTS's own actions should become more efficient as they will more reasonably be able to expect players to balance themselves, responding to the actual supply position on the day. Where Transco NTS is forced to take balancing actions it should see greater liquidity in the within-day market as players, such as traders who may not be trying to balance a portfolio, will be more aware that balancing could be required and may offer their gas from store or from alternative supplies they can access.

3.12. One respondent noted that they found that current data is at best around 1.5 hours behind the market (in the case of demand and closing linepack "PCLP" data[53]) and in most cases two days behind (e.g. in relation to terminal supplies). This respondent considered that this confirmed how disadvantaged consumers

are, as they are only able to look at the data after the event and then try and assess price movements. Another respondent noted that they often become aware of rumours and speculation that feed the market, but without substantiation of these rumours through real-time information. This respondent considered that this lack of transparency results in a perceived distrust of the market by consumers.

3.13. Respondents in favour of the proposal considered that over time market participants would develop a greater understanding of the physical realities of the gas market and the benefits of this in the long term would outweigh any effects of the misreading of the information in the short term.

3.14. A number of respondents that were not in favour of the proposal (and also referenced in the Oxera paper[54]) considered that it would be appropriate to review the benefits of the DTI information initiative before considering any further change, particularly given the obstacles which would need to be overcome.

3.15. One respondent highlighted that one of the current issues regarding data release by Transco NTS to the market is the poor quality of the method of release, with different platforms used, different standards in the quality of information and poor resilience. This respondent considered that there are benefits that can be simply achieved by learning the lessons from the electricity market where there is a single database, not operated by the TSO.[55] This respondent noted that they would like to see an open and frank discussion regarding the requirements of the market in this matter.

Transco NTS's views

3.16. Transco NTS, whilst supporting the increased provision of information to the market where clear benefits can be quantified, considered that the release of information under the proposal might lead to inefficiencies in the market. Whilst agreeing that markets operate efficiently where an optimal release of

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[53] Projected closing linepack.
[54] The Oxera paper is referenced in more detail in section 3.37.

information can be achieved, Transco NTS stated that the value of this information to the market is directly proportionate to the availability, timing, accuracy and credibility of the underlying data.

Data Ownership, Confidentiality and Liabilities

3.17. As discussed in chapter 2, there are a number of obligations on Transco NTS in relation to the release of information. In the FMR, Transco NTS explained that during the development of the DTI information initiative, the position regarding ownership and publication of sub-terminal flow data was discussed, with all parties to those discussions agreeing that:

- where the Delivery Facility Operator (DFO) owns the metering equipment and provides Transco NTS with access to real-time flow data, this data belongs to the DFO and the ability by Transco NTS to disclose that data to others is restricted by the provisions of section 105 of the Utilities Act and the provisions of the relevant NEA;

- where Transco NTS owns the metering or has installed duplicate metering, Transco NTS would be utilising its own equipment to derive the data and would therefore own the data. However, Transco NTS's legal advice was that this could still be deemed to be confidential data as its publication to the wider market could reveal the commercial position of a particular business entity; and

- where Transco NTS aggregates individual sub-terminal flows, it then has legal ownership of the aggregated figure. However, the provisions of section 105 of the Utilities Act would still apply to that aggregated figure to the extent that information relating to a particular business entity could be identified from it.

3.18. Transco NTS took the view that publishing the sub-terminal flow data on an aggregated north-south basis would afford it protection under section 105 of the Utilities Act. However, during the discussions, the view was expressed that

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[55] TSO, Transmission System Operator.

Transco NTS did not own the data, even at the aggregated level, but it was recognised that Transco NTS could not be prevented from disclosing such aggregated flow information.

3.19. In the FMR Transco NTS noted that the various bilateral contractual agreements that are in place between itself and upstream parties remain outside the jurisdiction of the network code governance.

Respondents' views

3.20. Respondents in favour of the proposal considered that there are a number of terminals and sub-terminals where there are more than one party involved and therefore did not consider that these confidentiality clauses would likely apply at some terminals, given aggregated flows which do not disclose any single party's commercial position. One respondent considered that a way of addressing the confidentiality issues at single stream sub-terminals would be to have the data published in aggregate by terminal. A number of respondents also considered that the inclusion of the 10 mcm/d threshold for information disclosure was a pragmatic step that would preserve the commercial interests of market players at small entry points without withholding information from the market that could materially affect the understanding of the supply-demand position. However, respondents also noted that the contractual holdings of various shippers at various entry points are widely known or can be quickly deduced from trading activity in locational gas or capacity, and therefore real time disaggregated information would effectively give the wider market information on the position of shippers with known physical flows at a sub-terminal.

3.21. Respondents that were in favour of the proposal considered that if this approach resulted in the offshore community withdrawing from the DTI information initiative, it should be replaced by a suitable regulated agreement. Some respondents considered that such a threat of withholding information was not consistent with an efficient and competitive market. One respondent noted that the suggestion that producers may withdraw the information that is currently being provided illustrated the voluntary nature and therefore key weakness of the scheme. One respondent suggested that the DTI put an information

provision licence obligation onto producers to ensure that Transco NTS is always given access to the information it needs to safely manage the UK's gas network whilst another respondent commented that the information required by Transco NTS for the economic and efficient use of the NTS system must be governed by regulation, and so should not be able to be withdrawn at any time.

3.22. Another respondent questioned that if the status quo was to release disaggregated data, whether anyone would seriously entertain a move back to a situation where producers are able to buy gas based on asymmetric access to more detailed information in advance of a market response to a supply shortfall.

3.23. One respondent noted that Transco NTS has a significant amount of its own metering equipment at terminal level which aids Transco NTS in balancing the system on a real time basis. This data could already be published to the industry with the use of DFOs' metered data to validate the accuracy of Transco NTS metering. This respondent considered that this would not be breaching any confidentiality clauses as it would essentially be data from Transco NTS's meters that was being made available. This respondent did not consider however that duplicate metering would be a necessary nor efficient solution and would be surprised if the information disclosure envisaged under the proposal would jeopardise the voluntary agreements that currently exist.

3.24. A number of respondents that were not in favour of the proposal considered that it would cut across the agreements reached as part of the DTI information initiative. If the proposal was accepted a number of respondents considered that it would be necessary for them to consider their position within the terms of the undertakings given by the company under the DTI information initiative. In particular, in the event of non aggregated disclosure of information, it is likely that operators would have to consider whether it was necessary to recall information previously disclosed and to re-consider whether appropriate safeguards were in place to permit them to continue to provide the data.

3.25. Another respondent considered that there were substantial obstacles to be overcome in terms of legal, contractual and technical issues and ones of data ownership and accuracy, confidentiality and liability. Some respondents also noted that there are a complex array of contractual and commercial

arrangements between a large number of parties, every one of whom would have to be willing to take part in an extensive exercise of renegotiations were the proposal to be implemented. It was also considered that it would potentially expose Transco NTS and others to claims for breaches of confidentiality and liability risks relating to accuracy and use of such information.

3.26. In relation to such concerns, one respondent considered it remarkable that Transco NTS continues to be reliant on non-contractual information flows to balance the system since this is such a central part of its compliance with its licence to operate the system in an efficient manner.

3.27. A further respondent noted that throughout discussions regarding phase 3 of the DTI information initiative, there was recognition by and agreement among all parties that, if detailed information relating to individual company's operations were to be released deliberately or inadvertently to the market, it would cause legitimate and significant concerns regarding commercial confidentiality and liability for any resultant use of the information.

3.28. One respondent noted that as this proposal is under the network code, Transco NTS will be protected from the Utilities Act requirements. Whilst another respondent noted that Transco NTS's bilateral contractual arrangements are likely to include provisions that deal with changes in the respective obligations of the parties under the network code and other licence-related provisions and that even if the contracts did not provide for this contingency an obligation under the network code would override any bilateral obligations which in turn should precipitate the renegotiations of these agreements.

Transco NTS's views

3.29. Transco NTS stated that its main basis for not supporting this proposal would be that it would place it in breach of various contractual and legal obligations typically contained within bilateral agreements such as NEAs.

3.30. Transco NTS noted it would not be subject to liability under section 105 where paragraph 5 of standard special condition A7 of its GT Licence required it to release information. However, Transco NTS noted that it could still be liable for

any contractual conditions it may have under any NEAs or Confidentiality Agreements. In its response Transco NTS stated that these bilateral agreements (and confidentiality clauses) remain outside the jurisdiction of the network code governance, and, as such, any information provided by an upstream party to Transco NTS under the terms of these agreements remains confidential unless that party provides its prior consent for Transco NTS to publish.

3.31. Transco NTS indicated that it has received legal advice that whilst it would own the data, because of the nature of the information and the position of the metering, it would still be deemed to be commercially confidential. Transco NTS considered that it would still not have the right to publish that data without the permission of the relevant DFO.

Cost Benefit Analysis

3.32. In the NT&T Workstream on 2 December 2004, energywatch, as Proposer, was requested to provide additional information on the benefits of the data flows requested in the proposal. energywatch subsequently presented a paper at the NT&T Workstream on 6 January 2005 in which it put forward some high level costs and benefits generated by the proposal. The benefits that energywatch considered in its paper were based on those discussed in a previous paper produced by Barclays Capital in December 2003

3.33. In its paper energywatch concluded that "given the benefits of around £265 million annually, excluding the benefit of better outage co-ordination that would take longer to achieve, and a one off cost of £20.1 million, with a minor ongoing operational cost, gives the modification a considerable benefit to UK customers" and therefore that it had "clearly demonstrated that the provision of real time flow data will have a net benefit to gas customers. Some of the benefit will arise relatively quickly; some will take time as the participants learn to respond rationally to the market signals provided. However, decisions made on the basis of good information are likely to be considerably better than those made on the basis of rumour and data provided after the event".

Respondents' views

3.34. Market participants views on the energywatch paper were strongly divided along the lines of those that were in favour of the proposal (i.e. those that agreed with the energywatch cost benefit analysis) and those that did not support the proposal (i.e. those that did not agree with the energywatch cost benefit analysis).

3.35. A number of respondents considered that the paper failed to establish the incremental benefits obtained from implementing the proposal in addition to those already obtained (and those to be obtained) from implementation of the DTI's information initiative. Nor did the paper separate out the benefits anticipated to result from full implementation of phase 3 information disclosure and therefore that the costs/benefits for the proposal have been calculated using an incorrect baseline and that as a result the possible benefits of the proposal are overstated.

3.36. One respondent commented that it was led to believe that some opposition to the proposal has been based on claims of high costs of IT systems necessary to provide the information, and in their opinion these costs were being exaggerated.

3.37. Subsequent to the publication of the FMR, UKOOA commissioned a report by Oxera, in which Oxera assessed the costs and benefits of the proposal (the Oxera paper).[56]

Transco NTS's views

3.38. Transco NTS did not consider that the cost benefit savings identified and used to support the proposal were as significant as those that had been suggested. In particular, Transco NTS considered that the majority of the benefits put forward within the cost benefit analysis would be forthcoming as a result of the DTI information initiative.

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[56] 'What are the costs and benefits of near real-time gas information?', Report prepared for UK Offshore Operators Association', Oxera, May 2005.

Technical considerations

3.39. Transco NTS does not own the majority of measurement equipment that is used to monitor flow data and Transco NTS considers that the accuracy and reliability of this equipment is not guaranteed. Ofgem understands from Transco NTS that the metering arrangements and telemetry equipment vary between sub-terminals and are of the following types:

- Instantaneous metering ('speedometer') which provides actual sub-terminal flow data effectively in real time.
- Integrated metering ('odometer') records the amount of flow that has already occurred, and is usually triggered by pulses.

3.40. Transco NTS considers that the different metering arrangements and types of sub-terminal flow metering within those arrangements will inevitably lead to issues with the frequency and publication of the flow data. Therefore Transco NTS considers that for market participants to correctly interpret the sub-terminal flow data, it would be necessary to understand the various parameters associated to those meters, for example, the type of metering, pulse rates, quantities, meter accuracy and measurement tolerances.

Respondents' views

3.41. Respondents were concerned that Transco NTS considers it might be necessary to install duplicate metering in order to provide the required information and therefore raised concerns regarding the cost and timing implications this might have. One respondent expected parties involved to be able to come to agreement over the release of information to provide this at lower cost and with a shorter lead time such that the competitive benefits might be realised at the earliest opportunity.

3.42. One respondent commented that any concerns over the accuracy of the data should represent a technical issue that needs to be overcome, and not a reason to not implement the proposal

Transco NTS's views

3.43. Transco NTS has indicated that should Ofgem direct the implementation of the proposal it would wish to undertake a full and detailed impact assessment and confirm these development costs with the community.

Harmonisation of information between gas and electricity markets

3.44. As part of its justification for the proposal, the Proposer suggested that it is seeking to align the provision of information across the gas and electricity markets.

Respondents' views

3.45. A number of respondents to the DMR considered that there were significant physical differences between gas and electricity when comparing types of information release and therefore did not accept that such comparisons were relevant. Respondents commented that it was inappropriate to make reference to, or compare, the electricity market with the gas market since both the nature of the product, its source and the associated balancing regimes are completely different.

3.46. Several respondents commented on the link between the two markets with one respondent noting that over recent months the upward movement in electricity prices has been closely associated with the rise in natural gas prices and that the movements in gas prices can be seen to be reflected in power prices.

3.47. One respondent noted that the analogy with the power sector is directly relevant, where the real time information provided on physical notifications and maximum export limits provides the electricity market with real time information not just about the aggregate unexpected supply loss, but the power station affected. Another respondent commented that shippers can already deduce how much gas fired power stations are offtaking off the system via Elexon's Balancing

Mechanism website and saw no reason why all shippers should not have access to real time entry flow data by entry point either.

Transco NTS's views

3.48. Transco NTS notes that these points should be carefully considered in the context of the different physical arrangements and commercial regimes that exist between the two markets; and in particular, the difference between gas and electricity in respect to trading within the balancing period. Transco NTS also notes that the equivalent level of sub-terminal flow information that the proposal is seeking to have published is not published in the electricity market. Transco NTS considers that a more appropriate comparison as to what is published in the electricity market might be the publication of the forecast sub-terminal flows that the DFOs provide to Transco NTS for operational purposes.

3.49. Transco NTS notes that from 18 March 2005, Transco NTS commenced the publication of the DFNs as part of the DTI Category 2 deliverable, albeit on an aggregated, national (north-south) basis. Subsequent to Ofgem's receipt of the FMR for the proposal Transco NTS provided Ofgem with a table showing the gas and electricity information that is made available to Transco NTS or National Grid Company[57] (as appropriate) and to the market. This table is included in Appendix 1.

Implementation timescales

3.50. In the FMR, Transco NTS states that with respect to the timescales for the implementation of the changes to the information systems, the initial impact assessment indicates that Transco NTS could commence the publication of sub-terminal flow data from Q2/Q3 2006. Transco NTS notes that this timescale does not take into account the resolution of the commercial and technical issues, nor delays as a consequence of any requirement for the installation of duplicate metering equipment.

4. Key Issues

Introduction

4.1. This chapter outlines the key issues which Ofgem views should be taken into consideration in respect to the wider release of information to the market. These impacts, which are considered in turn below, are:

- economy and efficiency;
- security of supply;
- customers;
- the environment;
- the costs of implementation; and
- any risks and unintended consequences of implementation.

4.2. This chapter seeks to qualify the wider effects resulting from increased information transparency to the market in general. Chapter 5 considers these effects further specifically in respect of the information intended to be released under the proposal together with the actual costs and benefits of the proposal.

Economy and efficiency

4.3. There are a number of features that affect the economy and efficiency of the operation of markets. Ofgem considers that the extent to which information is transparent and available to the market is one such factor.

4.4. In respect of wholesale gas (and electricity) markets, the effect of the release of information (including those information flows as envisaged under the proposal) can be considered in relation to:

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[57] The SO in the GB electricity market.

- the potential for enhanced economic signals to the market;
- the effect on decisions taken by the system operator (SO) and/or shippers in balancing their positions;
- the potential for market volatility; and
- the effect on market perception and liquidity in the market.

These aspects are considered in turn below.

Economic signals

4.5. Two of the key sources of benefits that could be expected to materialise as a result of increased information to the market are:

- an improved understanding of the supply curve by a significant number of market participants; and
- an increased level of responsiveness by market participants to changing market conditions.

4.6. In order to consider the effect of information on economic signals to the market Ofgem considers it is useful to explore how increased information released to the market may have affected the examples of two separate situations that have occurred in recent years.

4.7. In the case of the summer 2003 interruptions, Transco NTS needed to resolve a gas supply shortfall offshore, but its ability to do so was made more difficult by limited response from shippers in the OCM. Due to this limited market response, Transco NTS needed to source gas supplies higher up the supply curve, leading to customers on interruptible contracts having their interruption rights exercised.

4.8. As part of its analysis of the activities over this period, Ofgem considers that this limited response appears to have been partly a function of a lack of sufficient information made available to the market. That is, because only a limited number of parties had access to the information regarding the relevant offshore

situation at that time, these were the only market participants that could have reasonably responded in a timely manner to assist the SO's requirements. Given asymmetric access to relevant information, other parties were not sufficiently informed as to where the offshore failure occurred in enough time to respond.

4.9. More recently, the wholesale gas price movements that were experienced during late February and early March 2005 have heightened the calls from customers and downstream shippers for greater transparency in relation to offshore information.[58] Although demand over this period was broadly in line with expectations and seasonal averages, the beach supply situation was tighter than anticipated and there were rumours of supply disruptions combined with colder weather in Continental Europe.

4.10. Market participants seeking to better understand the supply and demand conditions over this period have expressed concerns to Ofgem about the lack of timely information on beach availability and the likely magnitude and direction of flows across the interconnector. For market participants seeking to respond to developments within day, the lack of economic signals limits their ability to respond to where gas is most needed, and is likely to increase costs and the potential for inefficient decisions.

4.11. Ofgem considers that these examples illustrate how the market can respond to timely, accurate and transparent information. To consider the opposite situation these examples also illustrate the potential for additional costs to Transco NTS, the market and ultimately customers, where there is a lack of such information made widely available.

System balancing decisions

4.12. The wholesale gas cash out arrangements provide incentives on shippers to manage their portfolios to ensure that their total inputs and offtakes to the system match on a daily basis. Therefore shippers may need to fine tune their positions within-day due to uncertainty regarding offtakes and the availability of supplies.

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[58]Day-ahead prices reached a peak of 116p/therm on 3 March 2005, whilst SAP reached a peak of 119p/therm on the same day. Ofgem recently hosted a seminar to discuss the increases in prices observed

Where shippers need to fine tune their positions, they will have to make decisions about the demand and supply situation and the likely movement in prices in order to make efficient decisions about procuring more gas, reducing demand or selling any surplus gas.

4.13. However, while shippers are incentivised to balance their system inputs and offtakes by the end of the 'gas day', their positions are not always maintained in balance throughout the day. This means that Transco NTS, in its role as SO, may need to buy and sell gas on the OCM to ensure the system remains within safe operating limits.[59] This daily buying and selling of gas to keep the system within safe operational limits is referred to as the residual balancing function of the SO and Transco NTS is incentivised to minimise the costs that it incurs performing its role.[60] However, despite being incentivised to minimise these costs it is likely that Transco NTS will not buy and sell gas as efficiently as other market participants and therefore minimising the requirement for Transco NTS to enter the market is likely to reduce the costs to consumers of system balancing.

4.14. The availability of timely and accurate information regarding activities affecting levels of supply and demand (e.g. an outage at an offshore production facility), may increase the ability of shippers to react to and address any potential shortfalls and therefore enable them to more efficiently balance their positions at the end of the gas day (for example they may be able to start purchasing additional supplies earlier than they would otherwise have done). In so doing, it is likely that less reliance would be placed on Transco NTS in its role as SO to address any such supply or demand shortfalls over short time frames, therefore also potentially reducing the costs to customers of system operation.

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during the period and will shortly publish a paper on these prices.

[59] Throughout the day, Transco NTS produces estimates of closing linepack for that day. This forecast of closing linepack is based on detailed data Transco NTS receives from the offshore production (which is not made available to the market) for example in relation to outages. Transco NTS is incentivised to maintain total linepack on the system at the end of each gas day close to the starting level through the linepack balancing incentive.

[60] Transco NTS's SO incentive has two components. The first component (referred to as 'deep' SO incentives) provides incentives to improve timely investment in the NTS by Transco NTS in response to changing patterns of demand. The second component (referred to as 'shallow' incentives) provides for improved incentives on Transco NTS to carry out its role of operating the NTS on a day to day basis in an economic and efficient manner.

Market volatility

4.15. As with all markets, when taking decisions to buy or sell gas, market participants need to understand whether any sudden price rises are likely to persist or whether these represent a short-term movement. Without timely and accurate information on available gas supplies, market participants are likely to have more difficulty in understanding the reasons behind such movements in wholesale prices. A lack of transparent and available information may therefore also contribute towards greater volatility in forward and wholesale gas prices, as market participants act (or choose not to act) on the basis of limited information. To cover their perceived risks, parties may choose to factor higher risk premia into their pricing. Ofgem notes that large industrial customers have highlighted at different times (including during the recent gas price rises in February and March 2005) that a better understanding of price movements could improve their ability to take informed decisions; for example, whether to opt for fixed price contracts or contracts linked to spot prices.

4.16. Whenever additional information is provided to a market there is likely to be an increase in market volatility as market participants take time to understand the information that they now have available to them. Conversely, market participants may initially choose not to act on the new information that they have available to them, until they better understand the implications of that information as part of forming a bigger picture of the real time operation of the market. However, as market participants learn to better understand the information that they now have available to them it is likely that the level of inefficient volatility in the market (i.e. volatility as a result of actions taken that do not reflect the underlying commodity charges) will reduce.

Market perception and liquidity

4.17. Market confidence in respect of the extent to which information flows are open and transparent is likely to feed into the perceptions of new entrants of whether they are able to understand and appreciate the market they are seeking to operate in, and therefore the extent to which they can identify profitable opportunities for trading. A lack of information means that market participants

need to manage risks that they are not well placed to manage and as a result participants' "search costs" may increase, as resources need to be expended on deriving information on supply and demand less directly.

4.18. Where it imposes additional costs on market participants to develop alternative ways to better understand the supply and demand positions, a lack of information transparency can therefore be of concern. Increasing the availability of information to the wider market can therefore be seen to reduce barriers to entry, which will in turn increase competition and liquidity, reducing the ability of any one participant to move the market price. Increased liquidity will therefore also act to improve the spread of information, improving the 'rationality' of the market, and therefore lessening the impact of any short term market volatility.

Security of supply

4.19. The impact of information release on security of supply can be considered in both the short term and the long term. In both scenarios greater market transparency can help the market function more effectively in support of security of supply and assist Transco NTS (and NGC in the electricity market) in its role as SO in maintaining a safe and secure network.

Short term security of supply

4.20. In the short term, security of supply concerns generally relate to unanticipated demand and supply imbalances or shocks that emerge over timescales where the market is unable to respond to provide new infrastructure or supply sources.

4.21. The more timely and accurate information that market participants have made widely available to them to aid their understanding of unanticipated changes in the supply-demand balance, the greater the possibility is of market participants being able to respond (e.g. by offering extra supplies or reducing demand) and hence reduce risk.

Long term security of supply

4.22. In the longer term, security of supply relies on the availability of gas (and electricity) supplies and relevant infrastructure.

4.23. As the UKCS continues to decline and new import infrastructure is built to offset this decline in supplies, it will be increasingly important that timely and accurate information regarding the actual supply levels (and therefore the level at which these sources are available) is made available to enable the market to factor these considerations into its investment decisions.

4.24. Investment decisions that impact on long-term security of supply will be based on the markets assessment of future requirements for new fields, storage facilities and import infrastructure. If the market is able to learn in greater detail about the reliability, swing and the location of offshore failures this could provide important signals to determine the amount of flexibility required, such as storage, and/or the location of new facilities.

4.25. However, whilst this type of physical information will help market participants to build a bigger picture and aid investment decisions, Ofgem recognises that it would not be the only conclusive information in respect of taking investment decisions itself.

Overall impact on customers

4.26. As noted earlier in the chapter, the increased availability of timely and accurate information is, in general, likely to have a beneficial impact upon market confidence, improving trading activity, removing possible barriers to entry, and increasing competition and liquidity. These factors would benefit customers either directly (such as large I&C customers being better informed in taking their contracting decisions) or indirectly (with smaller commercial or domestic customers realising the increased efficiency gains experienced in the market through reduced bills).

4.27. In addition, the level of demand-side participation in the wholesale gas (and electricity) market may be hampered by the lack and level of timely and accurate

information available). In the absence of sufficient information, very few industrial firms (either directly or via their supplier) are able or willing to participate in the within-day or balancing markets because of the perceived complexity, risk and therefore potential costs involved.

Environmental Impact

4.28. Ofgem considers that enhanced information provision to the market is likely to yield benefits associated with improved system balancing, which could result in more efficient production and market operation in electricity and gas. However, Ofgem recognises there may be an element of double counting in respect of these benefits and other more direct benefits such as increased competition or reduced balancing costs and considers that, for the most part, there are not likely to be material environmental impacts in respect of releasing information to the market.

Costs of implementation

4.29. In relation to the likely costs of releasing information to the market, Ofgem considers that direct costs are likely to be incurred in respect of IT and in the renegotiation of contracts that may be required to enable the necessary information to be released. Other costs may also be borne where additional metering is required to monitor the relevant information flows.

Risks and unintended consequences

4.30. When considering the potential benefits of information release it is important to consider whether there are any risks or unintended consequences that may occur as a result of releasing information to the market. Such risks may result in the identified benefits not being fully achieved.

5. Costs and benefits of the proposal

Introduction

5.1. As outlined in chapter 2, Ofgem has obligations under the Sustainable Energy Act to carry out IAs on proposals it considers to be important. In line with those obligations, this chapter provides Ofgem's initial assessment of what it considers would be likely to be the main impacts of implementation of the proposal.

Options

5.2. In assessing the proposal Ofgem has considered the following two options:

- implementation of the proposal;
- rejection of the proposal and maintenance of the status quo.

5.3. In carrying out this assessment, it is therefore important to establish the baseline against which the proposal is being considered (i.e. what is the status quo); and then consider whether the proposal provides net benefits above that baseline.

Current baseline

5.4. The baseline in respect of what information is currently released to the market is undergoing change as a result of information soon to be released under the DTI Information Initiative.

5.5. Having considered these factors, Ofgem is of the view that it is appropriate to assess the costs and benefits of the proposal against the baseline of full implementation of the DTI information initiative (i.e. including the phase 2 category 1 information due to be made available to the market from 1 July 2005).

Information intended for release under the proposal

5.6. As described in chapter 3, the proposal, if implemented, would require Transco NTS to publish (near to) real time flow data for each sub-terminal on its website.

In order to assess the likely impacts of implementing the proposal, it is important to first clarify the extent to which it would result in additional information being made available relative to the current baseline.

5.7. When comparing the proposal against the baseline, it is useful to distinguish between the three dimensions in relation to information provision that are particularly relevant:

- the level of dis-aggregation of supplies by source (e.g. system total, north-south, by entry point/sub-terminal);
- the time period to which the measurements apply (e.g. daily total, hourly total); and
- the time-lag before data is published (e.g. x hours after the end of the relevant time period).

Table 5.1 below compares the data intended for release under the proposal with the most closely related data that is available under the current baseline.

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Table 5.1: Comparison between information flows intended for release in the proposal and those available under the current baseline

	Level of dis-aggregation by source	Time period	Time lag to publication	Publication
Phase 3 Category 1 (DTI information initiative)	North-south	Hourly 'snapshot'	Near to real time (around 5 minute delay)	July 2005
Phase 3 Category 4 (DTI information initiative)	Sub-terminal	Daily	10 hours (16:00 on D + 1)	October 2004
Modification proposal 006	Sub-terminal if capable of > 10 mcm/d	To be confirmed	'Close to real time'	

5.8. Therefore, compared to phase 3 category 1 information, the proposal would provide an increase in the level of dis-aggregated information provided to the market. However, it is not clear to Ofgem whether the proposal would provide

any change in terms of the timing of the information being provided compared to phase 3 category 1, as this has yet to be confirmed in respect of the proposal. Appendix 2 contains a copy of the draft legal text for the proposal provided to Ofgem by Transco NTS. Ofgem considers, however, the current draft text is ambiguous in the timing of information release and would welcome respondents' views on the clarity of this text. Ofgem notes that Transco NTS has indicated that it will seek to discuss the draft legal text at a modification workstream for further industry consideration.

5.9. Compared to phase 3 category 4 information, information to be released (irrespective of the details as discussed above) under the proposal would be released earlier. However, the requirement for releasing all flows only where capacity is greater than 10 mcm/day in the proposal means that the publication of close to real time flows would not be required by the proposal at a number of smaller entry points, whilst the phase 3 category 4 information relates to all NTS entry points irrespective of the defined flow capability.

Approach

5.10. In conducting this assessment, Ofgem has had regard to the information and responses provided by the Proposer, Transco NTS and other market participants during the assessment procedure for the proposal (discussed in chapter 3).

5.11. Ofgem has endeavoured, where possible, to quantify likely costs and benefits associated with the proposal. However, in instances where factors relevant to the assessment are difficult to quantify or where there is significant uncertainty as to the exact impact, Ofgem has made a qualitative assessment.

5.12. The assessment presented in this chapter is expressed as a rating that compares the performance of the proposal against the current baseline. The spectrum of ratings used in the assessments in the remainder of this chapter is illustrated in Figure 5.1.

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Figure 5.1: Interpretation of qualitative assessment

Assessment of costs and benefits

5.13. As discussed previously, when considering the potential costs and benefits of the proposal Ofgem considers it is important to ensure that the impacts being considered are those that result from the implementation of the actual proposal.[61]

5.14. Therefore, Ofgem has carefully considered estimates of the potential costs and benefits, and respondents' views in respect of those estimates, which could result from implementation of the proposal. Ofgem has also considered the perceived risks in respect of the proposal, having at times considered some of the 'costs' identified in the FMR as 'risks'. This is because, in some cases, the costs are not tangible or definite and, in Ofgem's view, reflect more of a risk to the achievement of the identified potential benefits of implementing the proposal, than a direct cost.

5.15. Figure 5.2 provides a schematic illustration of the potential costs and benefits that may result from the implementation of the proposal, indicating also the element of risk that may affect the achievement of any potential benefits.

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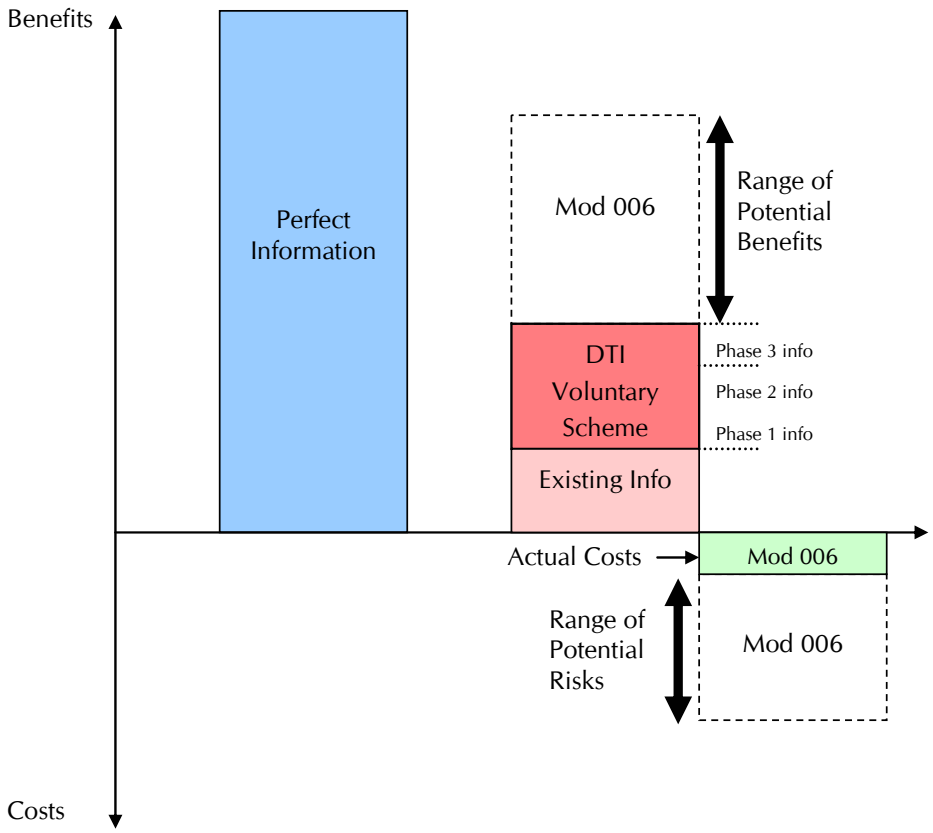
[61] For the purpose of clarity, the draft Impact Assessment contained in the February document discussed the costs and benefits that could be attributable to the release of information more widely (i.e. not those related incremental costs and benefits attributable to this proposal).

Figure 5.2 Schematic illustration of the potential costs and benefits resulting from the proposal



5.16. Figure 5.2 illustrates Ofgem's view of the potential benefits of information provision and transparency to the market. 'Perfect' or full information provision, i.e. where all parties have equal access to all information, would provide the greatest benefits overall to customers.[62] Ofgem considers that the proposal is likely to provide one component of the potential benefits to customers that would result from perfect information availability. Ofgem notes that the Oxera paper also recognises that the information to be made available to the market under the proposal illustrates additional information provision above that already made available to the market.[63]

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[62] Ofgem notes that there would also be costs associated with the provision of 'perfect' or full information.
[63] The Oxera paper provided tables illustrating both the short-term and long-term information available to

5.17. To put the potential benefits of the proposal in context, this diagram also illustrates Ofgem's view that the information released under the DTI information initiative is also likely to provide a separate and additional component of the overall benefits that would be provided by full information. Ofgem's assessment has therefore considered the potential incremental benefits of the proposal above the baseline, i.e. above those already achieved through other general information provision or that achieved under the DTI information initiative. Ofgem notes that the Oxera paper has also sought to measure this same increment of costs and benefits. The extent to which these incremental benefits are likely to be achieved has been considered in respect of the identified costs and the perceived risks and/or potential unintended consequences of implementing the proposal.

5.18. This chapter therefore details Ofgem's views in respect of the potential incremental benefits and costs of implementing the proposal and also in respect of the perceived risks to achieving those benefits.

5.19. Ofgem welcomes respondents views on the baseline used for this assessment.

Benefits

5.20. Ofgem considers the key areas where incremental benefits of the proposal could be achieved, relate to the fact that the release of the proposed additional information on entry flows could:

- allow for an improved understanding of the supply curve by a significant number of market participants; and
- allow for an increased level of responsiveness to short term market conditions.

5.21. As described earlier in this chapter, to a large extent the proposal combines the timeliness and short time period focus of phase 3 category 1 data, with the dis-aggregation of entry sources of phase 3 category 4 data. Therefore, the potential benefits of the proposal will depend to a significant extent on the benefits of

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gas market participants. A copy of the short-term information table is replicated in Appendix 3.

'3rd Party Proposal: Publication of Near Real Time Data at UK sub-terminals - Modification Reference Number 006', Impact Assessment

market participants being able to observe - after only a short time delay - short-term fluctuations in the level of supply by entry point, rather than simply being able to observe short-term fluctuations in the level of north-south aggregated flows.

5.22. The increase in the level of dis-aggregation under the proposal should also enable market participants to more readily identify actual supply issues from the "noise" of movements in supply and therefore respond accordingly. However, as the proposal does not require the publication of information where capacity is under 10 mcm/day there would be limitations in respect of the level of information to which market participants could respond.

5.23. Having considered this, Ofgem's assessment of the potential incremental benefits of the proposal compared with the baseline has focussed on the following four key areas:

- Economy and efficiency, which more specifically includes:
  - Economic signals;
  - System balancing;
  - Market volatility; and
  - Market perception and liquidity;
- Security of supply;
- Impact on customers – specifically the demand side; and
- Environmental impact.

Economy and efficiency

5.24. Ofgem considers that the release of timely and accurate information can improve the efficient operation of the wholesale gas (and electricity) market including the efficiency of actions taken by the SO.

Economic signals

5.25. In developing trading strategies, market participants, whether parties with physical positions or simply trading parties, can be expected to take into account all the information in the market place available to them relevant to supply and demand fundamentals. Since offshore gas production is currently the dominant source of supply in the GB gas market, the ability to understand factors relating to the state of offshore supplies, for instance offshore reliability and the economics of flexible supply, is clearly important in allowing market participants to make well informed trading decisions. An absence, or inadequacy, of such timely and accurate information is likely to result in a detriment in relation to the achievement of effective competition. Ofgem notes that Oxera has also noted in its paper that the main impact of the additional information to be made available under the proposal would be expected to be on the price signals produced by the market, in terms of making these signals more efficient and increasing the transparency of the key drivers of prices.[64]

5.26. Supporters of the proposal, including the Proposer, have expressed the view that, in some cases, market price movements are driven by rumours (e.g. the rumour of a likely offshore outage), which turn out to be unfounded, rather than being based on supply and demand fundamentals. These parties considered that better information flows regarding offshore supplies would reduce the likelihood of such events occurring and would therefore yield benefits in relation to more effective competition.

Summer 2003 Interruptions

5.27. As discussed in chapter 4, in the case of the summer 2003 interruptions, Transco NTS needed to resolve a gas supply shortfall offshore, but its ability to do so was made more difficult by limited response from shippers on the OCM. It appears that a lack of information at sub-terminal level may have impacted on the ability of market participants to provide timely and effective responses to the market situation, thereby requiring Transco NTS to enter the market and trade on the OCM. This trading however did not prompt subsequent response from market participants to address the situation in full.

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[64] Oxera paper section 2.5.

5.28. This example highlights the potential for timely economic signals to improve the efficient operation of the market. Had timely and enhanced information been available to the market at sub-terminal level over this period, the market may have been able to respond earlier and with alternative supply sources potentially lower down the supply curve.[65] This is not to say that the interruptible rights under those contracts would not have been exercised, however had increased information been available to the market, there is potential that the demand side may have been able to respond to that information in a more timely manner and/or other supply sources may have been made available to Transco.

5.29. Ofgem notes that in customer responses to both the proposal and Ofgem's consultation on the summer 2003 interruptions, customers have also confirmed that the lack of information available means that they are not able to make as informed decisions as they might otherwise be able to. Further, customers have also noted that as a result they are required to attempt to interpret Transco NTS's actions in order to understand what is happening in relation to offshore supplies.

5.30. Therefore, had more information been made available more widely to market participants in respect of the level of flows at sub-terminal level, market participants may have reacted earlier to these signals and in different ways to what was actually experienced during the summer 2003 interruptions.[66] As a result, Transco NTS's position may not have needed to trade in the manner in which it did, and therefore any inefficiencies existing in Transco's trades may have been eliminated. However, it is likely that the magnitude of the benefit in this situation would have been small.

Gas and electricity market interactions

5.31. Ofgem recognises that a number of differences exist between the gas and electricity markets, both in terms of the physical characteristics and the associated trading arrangements. However, Ofgem also considers that in

[65] Historically, for a stylised GB gas supply curve, beach gas and the interconnector have typically been the cheapest sources of gas, with more expensive storage and LNG storage utilised next and demand-side response typically utilised last as the most expensive "supply" source. In reality there are quite complex interactions which mean that this order may vary for legitimate economic reasons.
[66] Since this time additional information has been made available to the market under the DTI information initiative.

assessing the effect of signals on the market more widely, it is important to consider the interactions between the two markets (where more than 30 per cent of GB generation capacity is gas fired), particularly where these assist in producing efficient outcomes in both markets.

5.32. These interactions further demonstrate the need to understand supply-demand fundamentals within-day and at a detailed level. For example, as electricity can be traded on a half-hourly basis, within-day price movements in gas can be an important determinant, among other things, as to whether gas fired generation chooses to generate or sell its contracted gas back to the market (where it is able to do so). These signals therefore affect the economics and efficiency of decisions taken in both the gas and electricity markets, which ultimately impact on customers.

5.33. To consider a recent example, over the period of 21 February 2005 to 4 March 2005 there were significant increases in prompt gas prices, with prompt electricity prices also increasing over the same period. Over the majority of this period, the spark spread[67] was positive and rose to a maximum of just under £20/MWh indicating that, for those generators with gas-fired power stations, it remained profitable to generate electricity rather than where possible sell the gas. However, at the time of the highest prompt gas prices on 3 March 2005, the spark spread was approximately £0/MWh, reflecting the increases in the prompt gas price.

5.34. This demonstrates the potential volatility of the spark spread, and hence the importance in terms of economically efficient decisions of generators having an up to date understanding of the underlying gas market supply conditions. Lack of such information may result in inappropriate gas prices which will in turn feed through to inefficient prices in both the gas and electricity markets. Ofgem notes that a number of respondents to the DMR also highlighted how, over recent months, the upward movement in electricity prices has been closely associated with the rise in natural gas prices, some of which have resulted from a lack of information rather than the underlying supply and demand conditions.

5.35. Ofgem notes comments made by a number of respondents, including Transco NTS, that equivalent information to that being considered for release to the gas market under the proposal is not currently made available in the electricity market. However, Ofgem considers that whether or not the information is currently available in the electricity market does not imply that it is or is not appropriate for this information to be made available in the gas market.

Market rumours

5.36. Ofgem has also considered the impact of market 'rumours' on wholesale gas prices. Having made an assessment of where rumours have been indicated in the trade press, Ofgem considers these tend to suggest that there is a price premium reflected in the near side of the forward curve, usually day-ahead, to account for the risk of offshore outages occurring. By their very nature unplanned outages are unexpected and therefore market participants, incentivised by the cash out arrangements, may wish to secure additional volumes of gas in advance of the day to mitigate the effect of an outage, offshore or otherwise, on their position.

5.37. However, in a highly transparent market in relation to offshore production, market participants would have the opportunity to develop, over time, well informed views as to the reliability of offshore production. Therefore, in such circumstances, it is likely that the risk premium would be less than would be the case seen in a market with inadequate information.

5.38. It is difficult to determine the extent to which rumours do impact on gas prices, as there are difficulties in establishing which days the market was aware ex ante of the rumoured gas outage. To some extent this can be assessed by reviewing the trade press, however, this has deficiencies in that these only report ex post what some traders may have understood. These clearly also do not capture any "unreported" market rumours.

5.39. Appendix 6 sets out Ofgem's assessment of what would be the likely impact on effective competition in relation to substantiating market rumours as a result of moving to a highly transparent market.

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[67] The difference between the wholesale price of electricity and the cost of generating that electricity (taking

5.40. Having considered the results of this analysis, while Ofgem still considers there is a possibility that there is some price impact of this type of information, Ofgem considers it is unclear as to what extent this is the case. From the days considered by Ofgem, it was not possible to fully quantify the impact of reported rumours on price.

System balancing

5.41. Transco NTS's role in balancing the system is one of "residual balancer". Therefore, Transco NTS will only have a role where market participants have not balanced their individual positions at the end of the day (or within-day if necessary). Market participants are incentivised to balance their own positions by the end of the gas day and therefore, if they have not done so, the resulting balancing costs are likely to be more expensive to customers than if they had achieved balanced positions.

5.42. Overall therefore a reduction in Transco NTS's system balancing actions would likely lead to a reduction in Transco NTS's system balancing costs and therefore benefits to the market and ultimately customers.[68]

Reduction in gas flows

5.43. In instances where there is a reduction in gas flows as a result of an unexpected offshore outage, the 'lost gas' will need to be made up from other sources of supply (including demand-side response) in order to ensure that supply and demand are balanced. In a highly transparent market, it would be apparent to market participants when an unexpected loss of offshore production occurred, and market participants could appropriately adjust their cash out exposure to this incident and would also be likely to offer gas on the OCM to assist Transco NTS in making up the supply shortfall.

5.44. However, in the GB gas market, where there is not full information transparency, it will not always be obvious to all market participants when a loss of offshore

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into account such items as fuel costs and power station efficiency).

[68] During 2004/05 Transco paid £17million to buy gas to balance the system and was paid £26 million for selling gas to balance the system. It should be noted that both of these amounts make up part of the

supply has occurred or what the magnitude of such a loss may be. Therefore, in such circumstances, market participants may not be able (if they have no knowledge of the event occurring) or willing (if they suspect that an event has occurred but are not sufficiently confident of what the magnitude of that event is) to adjust their positions to appropriately take account of the change in the supply-demand balance.

5.45. Currently, in instances where Transco NTS is aware of an offshore outage occurring but, in its view, the market is not responding sufficiently in respect of volume or timing, or in respect of sourcing additional gas to cover the expected shortfall, Transco NTS is able to buy gas on the OCM to address the situation. In its role as residual balancer, Transco NTS's strategy may not be to purchase the entire volume of the shortfall, but rather its entry into the market to buy gas may have the effect of alerting market participants that there is likely to be a shortfall of supply over demand and may stimulate market participants to buy gas and thereby appropriately reduce their exposure to what is likely to be an increased cash out price.

5.46. The fact that Transco NTS actions can have a substantially greater impact on market prices is related to the fact that the action will often have a significant level of 'information content' for market participants. For example, a Transco NTS action may cause market participants to revise their view of the supply position.

Efficiency of actions

5.47. As noted previously, Ofgem considers that Transco NTS actions are unlikely to be the most efficient compared to market participants balancing their own positions. This also relates to the efficiency of the OCM as a mechanism for transmitting information on changes in the supply position.

5.48. Appendix 5 sets out Ofgem's assessment of what increase in efficiency in relation to system balancing could be expected as a result of moving to a highly

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neutrality pot.

transparent market. Ofgem has estimated this benefit to be around £5m per year.

5.49. In undertaking its assessment, Ofgem's hypothesis was that, in a highly transparent market in respect of offshore production, it would be apparent to market participants when an unexpected loss of offshore production occurred and, on the basis of this information, the market could seek to address any resultant shortfall. In order to realise this estimated benefit of £5m, the market would therefore need to be informed, in real time, of the magnitude and expected duration of any offshore outage that is likely to cause an imbalance on the system to arise.

5.50. To appreciate the extent to which this is an incremental benefit of the proposal above the current baseline, Ofgem has considered the relevant information flows released under the DTI information initiative.

5.51. Under phase 3 category 2 of the DTI information initiative, Transco NTS publishes to the market the forecast flows on to the NTS, ahead of the day, updated hourly through the day, aggregated on a national and north-south basis. Although not directly comparable, Ofgem considers that this information would realise some of the benefit indicated above as changes in forecast flows on to the NTS are observable to the market. In addition, under phase 3 category 1 of the DTI information initiative, Transco NTS will publish (near) real time flows on to the NTS, aggregated on a national and north-south basis, which should allow the market to verify the forecast flows under the phase 3 category 2 information, allowing the market to further develop its understanding of offshore supply. However, the level of locational aggregation in phase 3 categories 1 and 2 of the DTI information initiative means that it is unlikely that all of the identified £5m benefit would be realised.

5.52. Ofgem considers that the proposal, in providing dis-aggregation by entry point / sub-terminals with a capacity of 10mcm/day, will allow market participants significantly more certainty in relation to identifying offshore outages. Therefore Ofgem considers, in this instance, that it is appropriate that half of the £5m (i.e. £2.5m) of the system balancing benefit is attributed as being achieved through implementation of the proposal.

Market volatility

5.53. It is important that wholesale market prices reflect the underlying commodity situation as opposed to other factors, such as rumours of supply constraints (as discussed previously in terms of the potential impact of rumours on market pricing). If prices are cost reflective and result in a degree of volatility then that should not cause undue concern. However, any effects of inefficient volatility in the wholesale market, whereby the prices do not reflect actual underlying charges, should be minimised.

5.54. Ofgem notes that by virtue of having greater levels of information available at lower levels of aggregation, this may in itself have the potential to increase short term market volatility. In respect of the release of flows at sub-terminal level, there is likely to be variation in these flows throughout the day either due to planned or unplanned operational issues. In the short term, the market may consider that these variations imply supply shortfalls offshore and potentially take actions on the basis of this information.

5.55. Ofgem notes respondents views that there is a potential risk that, in the short term, volatility of prices could increase as market participants learn how best to determine and use improved information, particularly given the availability of limited historical reference points with which to judge this data.

5.56. However, as in all markets, individual participants can and will develop their own views on optimal trading strategies and learn from past behaviour. This could include combining the information as intended for release under the proposal, for example, with other forms of data available (such as Transco NTS's estimates of closing linepack) in order to further confirm their own views regarding the supply situation. If participants are able to take a more accurate view of the supply-demand balance on any given day, it would be anticipated that, as the market develops its understanding of the new information streams over time, the market would be able to interpret and react to this information more efficiently.

5.57. Ofgem further considers that these risks could be managed considerably by having information relating to the accuracy and timeliness of the data also

released in conjunction with the information flows, in order to aid market participants in taking their own views on the effectiveness and usability of the data. Historic data may also assist market participants to make initial assessments in respect of whether to act or trade upon the information being released. Further, Ofgem notes that while the increased information flows would be made available to the whole market, market participants would obviously retain the option of whether or not they choose to act on that new information.

5.58. Ofgem therefore considers that any potential costs associated with a short-term increase in market volatility and balancing costs, as a result of market participants misinterpreting the new information stream, are unlikely to be material and are unlikely to persist.

5.59. Ofgem notes that Barclays Capital, energywatch and Oxera all estimated this benefit to the market in terms of the reduction in the spread of prices. All three papers considered that a reduction in the spread of prices of 0.05 p/therm was appropriate. Barclays Capital and energywatch considered that this reduction could be achieved on the total traded volume of 400 billion therms and thereby the benefit would be £200 million per annum. However, the Oxera paper considered that the spread was only likely to be reduced for trades during uncertain periods in the market and therefore the benefits would be in the range of £3.8 - £17.3 million per annum.

Comparisons of market volatility

5.60. An example of a market adapting its behaviour appropriately to new circumstances and information is the observed gradual reduction in balancing costs and the traded spread between electricity imbalance prices, following the introduction of New Electricity Trading Arrangements (NETA).[69] Clearly, the reform of NETA was a far greater change in the wholesale electricity market trading arrangements than the information intended for release under the proposal. However, the key conclusion that can be drawn from the introduction

[69] As set out in Ofgem's review of the first year of NETA, Ofgem (July 2002 – 48/02) "The review of the first year of NETA" Volume 1.

of NETA was that the market, in general and as a whole, quickly learned and adapted to the new arrangements to improve the efficiency of their behaviour.

Meter Accuracy

5.61. Transco NTS raised concerns regarding meter accuracy and meter failures that may also result in misleading information being published to the market contributing to price volatility. Ofgem considers that these meters are likely to be very accurate but that on a small number of occasions the readings received by Transco NTS (including allowing for telemetry issues) may not be accurate. In such cases it is expected that Transco NTS would take measures to obtain confirmation of the readings as received. Whilst not common, consideration should be given as to the actions that Transco NTS should take on such occasions (for example posting a message regarding its confidence in the information or of a potential error). As regards normal circumstances where the readings received are regarded by Transco as representative of the actual flows, Ofgem considers that information could be provided to the market in respect of the accuracy of the data released thereby allowing it to take its own views as to whether to trade on the information provided.

5.62. In respect of failures of meters or associated telemetry, Ofgem notes that there could be occasions where it would take time for Transco NTS to establish that the failure had occurred. In some cases, this could take up to a couple of hours to establish and indicate to the market and smaller errors could take longer to identify. Whilst Transco NTS is making investigations to establish whether a failure has occurred, it is likely that the published information will have an impact on market volatility in the short term. However, it should be noted that the number of such failures that actually occur is likely to be very low.

Market perception and liquidity

5.63. Increased information is likely to have a beneficial impact on market confidence, which may attract new entrants into the market, increasing competition in the market and improving trading activity and liquidity. This may occur for two reasons:

- Reducing the information asymmetry between those shippers with producer affiliates and those without, would reduce the risk associated with trading in a market characterised by uncertainty where some participants have greater knowledge of the actual supply position; and

- Market players would have greater confidence that price movements reflect market fundamentals rather than anti-competitive behaviour, the perception of which may increase price volatility and barriers to entry for all participants.

5.64. Ofgem notes that market participants have expressed a desire to be better able to determine and act upon information when faced with potential price movements and on this basis have called for greater transparency in relation to the offshore regime.[70] This highlights that the current level of transparency in the market does not provide market participants confidence that price movements reflect underlying fundamentals. Ofgem notes that a number of respondents to the DMR highlighted how they were unable to make informed decisions with respect to the price rises in February and March 2005, as they did not have access to the appropriate information.

5.65. Ofgem welcomes respondents views in respect of each of the sub-sections for 'Economy and Efficiency' listed above; i.e., in respect of Economic Signals, System Balancing, Market Volatility and Market Perception and Liquidity. Ofgem also welcomes views in respect of the case study analysis undertaken, the assumptions used and the results of these assessments.

Security of supply

5.66. Ofgem considers that effective and efficient wholesale market operation is one of the primary means of delivering security of supply. It could be expected that a highly transparent offshore production market would enable market participants to improve their understanding of gas supplies, improving market confidence, and ultimately allowing the market to appropriately value supply

[70] See responses to the Ofgem summer 2003 interruptions consultation and to the FMR relating to the February and March 2005 high prices.

security. Ofgem considers that such transparency would yield security of supply benefits in a number of areas, both in the short and longer term.

5.67. Ofgem therefore considers that the level of dis-aggregation for publication of information flows as intended by the proposal is likely to yield additional security of supply benefits in both the short and long term.

Short term security of supply

5.68. Ofgem considers that through increasing the transparency and availability of information this will better assist market participants in balancing their positions and therefore enhance short term security of supply.

Long term security of supply

5.69. Information regarding flows at a sub-terminal is likely to better enable the market to better understand the reliability of existing sources or infrastructure compared to information made available on a north-south level. This information is likely to also aid market participants in forming their own view as to whether new supply sources or infrastructure facilities would be economic and efficient in the medium to long term. The release of flow information at sub-terminal level would potentially also provide signals to the market as to the location of likely areas for future investment (i.e. where flows indicate that supply sources are 'reliable' or are in decline). It should be noted that whilst the information to be published under the proposal is likely to assist market participants in developing a more informed overall picture of the supply situation, which will in turn aid investment decisions, the provision of this information is unlikely to be conclusive in itself.

5.70. Ofgem welcomes respondents views in respect to the identified impacts of the proposal on security of supply.

Impact on Customers

5.71. As noted previously, the increased availability of timely and accurate information is, in general, likely to have a beneficial impact upon market confidence, improving trading activity, removing possible barriers to entry, and

increasing competition and liquidity. These factors would benefit customers either directly (such as large I&C customers being better informed in taking their contracting decisions) or indirectly (with smaller commercial or domestic customers realising the increased efficiency gains experienced in the market through reduced bills).

5.72. In respect of the ability of the demand side to respond to information, over the period of high wholesale gas prices in February and March 2005, the demand side did respond to very high prices (with an estimated 16 mcm of demand side having responded over this period). To consider also the example of the summer 2003 interruptions; if the demand side had had access to timely and accurate information at sub-terminal level over that period, it is likely that these parties may have been able (or willing) to respond more quickly to the situation that arose. As noted previously, a number of customers (or customer groups) in their responses to the FMR noted that if they had had access to this information then they would have been able to respond to the supply shortfalls.

5.73. Such a response could have been in the form of demand side activity on the OCM, with bids being made available to Transco NTS in respect of voluntary interruption of their demand. If the proposal had been implemented at that time, given the disaggregated nature of the sub-terminal flow data, this response may also have enabled locational decisions to be taken by Transco NTS to reflect where supply shortfalls were being experienced. Responses of this nature may therefore have led to increased efficiencies in Transco NTS's actions and could also have prevented the loss of supply to those customers on interruptible contracts.

5.74. It should also be noted that had the demand side had access to increased disaggregated flow information over this period, the potential for increased price volatility as parties sought to respond to the supply shortfalls may also have increased. While there is potential for such volatility in the short term, it is likely that the market (including the demand side) would learn to respond to such volatility and these effects would even out in the longer term as parties adapted their strategies.

5.75. Ofgem welcomes respondents' views in respect to the identified impact on consumers arising from the proposal.

Environmental impact

5.76. The transportation and use of gas has significant environmental impacts. Ofgem considers the proposal is likely to yield benefits associated with improved system balancing, which could result in more efficient production and market operation in electricity and gas. However, while this is beneficial, it is likely that these benefits will already have been accounted for in respect of the improved efficiencies relating to reduced balancing costs. Ofgem recognises this may imply a degree of double counting and therefore considers there to be no material environmental impact related to this proposal.

5.77. Ofgem welcomes respondents' views in respect of the identified environmental impacts of the proposal.

Costs

5.78. In relation to the likely costs, having carefully considered the FMR in respect of the proposal, and having had regard to the views of the Proposer, Transco NTS and consultation respondents, Ofgem has identified two main areas in which costs directly associated with the implementation of the proposal are likely to be incurred:[71]

- IT costs; and
- contract renegotiation.

IT costs

5.79. Transco NTS has indicated that the publication of dis-aggregated near to real time sub-terminal flows will have more complex information system requirements than that of publishing hourly sub-terminal flows into the NTS

[71] The Proposer and the Oxera paper both include the costs of Transco installing duplicate metering as a direct cost to the implementation of the proposal, however, Ofgem considers that they should be considered

aggregated on a north-south basis (as per the phase 2 requirements of the DTI information initiative).

5.80. Transco NTS considered that in order to support the publication of this data to this level and frequency, it will be necessary for it to undertake a number of system development activities and enhancements. Therefore Transco NTS has carried out an initial assessment of the system developments required, beyond those already planned for under the DTI information initiative.

5.81. Transco NTS has produced a high level estimate of £650,000 for the system development costs, which accounts for its current requirement to publish real time flow data and any previous information exchange work undertaken as a result of the DTI information initiative. However, Transco NTS has indicated that a comprehensive assessment of the IT costs associated with the publication of real time sub-terminal flow data is yet to be undertaken.

5.82. Ofgem understands from Transco NTS the primary data source is the Gas Transmission Management System, which is part of an internal IT redevelopment project known as the Integrated Gas Management System. This project will require a development time in excess of 18 months once the project has been scoped and sanctioned.

5.83. Ofgem considers that these timescales appear excessive and therefore agrees that it would be useful for Transco NTS to assess these requirements in further detail to enable Ofgem and the market to better understand whether these timescales are appropriate or whether they could be reduced, potentially also leading to lower costs. As part of this assessment, Ofgem considers that it would be useful for Transco NTS to consider what further detail is required and whether there are alternative scenarios, including associated costs, which may expedite this process.

5.84. Ofgem welcomes respondents' views in respect of the identified IT costs of the proposal.

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as a risk to the benefits being realised and therefore are discussed in the following section.

Contract renegotiation

5.85. Ofgem notes the issues raised by respondents and Transco NTS in respect to the potential risk of liability to Transco NTS from breach of contracts or confidentiality agreements. Further, Ofgem also notes that concerns have been raised regarding the commercially sensitive or confidential nature of the information itself. Ofgem has considered each of these issues in turn below, and has also considered the potential costs indicated for renegotiating the relevant contracts by Transco NTS and other contractual counterparties that may result from these issues. To the extent that Ofgem considers these potential costs to instead be risks (i.e. including in respect of the issue of ownership of the metered data), these issues are also considered further in section 5.102 onwards (risks and unintended consequences).

Risk of liability to Transco NTS

5.86. As part of its assessment of the proposal, Ofgem requested and received copies of all relevant contractual agreements from Transco NTS. These agreements enable Transco NTS to (among other things) obtain information on sub-terminal flows from DFOs. Ofgem has undertaken a preliminary assessment of these agreements, particularly in respect of the issue of confidentiality and the potential liability risk to Transco NTS if it had to release information that the agreements covered.

5.87. Ofgem notes that Transco NTS has indicated to Ofgem that it has not undertaken its own detailed contract by contract analysis of these agreements from which to judge the likely level of liability risk.

5.88. Overall, Ofgem's preliminary assessment is that the majority of these contracts enable the disclosure of information by Transco NTS to third parties because they either contain no confidentiality provisions, or the confidentiality provisions enable disclosure where Transco NTS is required to do so by a "legal requirement" or "by law", or they specify the wider release of any relevant information, provided Transco NTS obtains the permission of the other party.

5.89. In respect of the small number of older legacy agreements, Ofgem's assessment of these contracts indicates that there may be limited means by which Transco NTS can disclose information provided to it under these contracts. However, it is not clear from Ofgem's assessment whether these legacy agreements make provision for the disclosure of the relevant information. In addition, Ofgem also understands from correspondence with Transco NTS that there remains a question as to whether Transco NTS is in fact the counter-party to these legacy agreements. In either case, it may be that such contracts do not prevent disclosure of the relevant information by Transco NTS.

5.90. To the extent therefore that these contracts do not have explicit confidentiality clauses in respect of the relevant information, it is not clear that there would be any risk of liability to Transco NTS for breach of such contracts. Where the contracts specify that the information can be released where required 'by law' or 'legal requirement', Ofgem's assessment is that a licence requirement to release the information would be a requirement "by law" or a "legal requirement". Therefore, it is again not clear to Ofgem that, in such circumstances, Transco NTS would be exposed to liability under these contracts.

5.91. Ofgem's preliminary assessment means that Transco NTS needs to make the case with regards to this issue further than it has done in the FMR. Ofgem therefore remains to be convinced that this is a material consideration given the measures that Transco NTS could put in place to mitigate these risks.

5.92. Ofgem welcomes views in respect of its preliminary assessment of the level of risk of liability to Transco NTS and also in respect of the probability of those risks materialising in legal dispute.

Renegotiation of contracts

5.93. In respect of renegotiating the relevant entry agreements, whilst Transco NTS indicated that this was possible, it further indicated that this would likely be on protracted timescales due to the number of agreements, complexity and legal issues involved. In addition, Transco NTS was of the view that any renegotiation of agreements between it and the upstream counter-parties would potentially lead to a requirement for the producers and the DFOs to renegotiate any

associated 'back-to-back' contractual arrangements between themselves and their own customers.

5.94. Whilst Ofgem recognises that there may be some risk of liability to Transco NTS in respect of a small number of its legacy agreements, Ofgem questions whether it is appropriate for Transco NTS to continue to rely on these agreements and also whether its different treatment of contracting parties is appropriate. Ofgem does not however consider that it is necessary for all such contracts to be identical, as different parties will take a different commercial view of their contract requirements than others, including the potential risk to their business of information release).

5.95. While Ofgem recognises that renegotiating these remaining contracts would potentially still be a sizeable task, and therefore that it would incur costs in respect of time to renegotiate the contracts, potential buy-out costs and likely legal costs; Ofgem considers that Transco NTS does have the option to seek to renegotiate its remaining relevant legacy agreements (as it has with other earlier contracts). Further, Ofgem considers the risk of material costs of renegotiating these would likely be lower than had earlier been anticipated (given the smaller number of relevant contracts). Ofgem also recognises that there would also be costs for renegotiating these contracts on the part of Transco NTS's contractual counterparties.

5.96. To the extent Transco NTS continues to perceive there to be a material risk of liability in respect of being in breach of its relevant contractual obligations, Ofgem welcomes views from it and other counterparties to these relevant contracts in respect of the potential for Transco NTS to address these contracts through renegotiation.

5.97. Ofgem further considers that, in its role as SO, Transco NTS may wish to also consider whether it is more appropriate to ensure that it has continued and ongoing contractual access to these information flows if the information is indeed integral from a system operation, and therefore potentially security of supply, perspective.

Commercial sensitivities

5.98. In respect to concerns raised regarding the commercially sensitive or confidential nature of the information itself, Ofgem notes that there may be a small number of instances where there may be increased exposure for some parties at sub-terminal level as a result of the number of participants at a sub-terminal, and therefore a party's individual commercial position may be known to the market. However, broadly speaking, Ofgem concurs with the view held by a number of respondents that consider the aggregation of flow data to 10 mcm/day at the sub-terminal level would provide sufficient protection for the commercial position of most parties.

5.99. In respect of those parties that may face increased commercial exposure at the sub-terminal level as a result of the proposal, Ofgem notes the points made by the Proposer (and also a number of respondents) in respect of alternative contracting options (to obscure the commercial breakdown of any particular flow figure) to address these concerns. Ofgem recognises that this may also require the renegotiating of some contracts and therefore would likely incur costs to participants.

5.100. In respect of producers' concerns regarding exposure of their position (e.g. in a situation of outage), where all parties face the same risk, Ofgem considers this would likely incentivise parties to regularly monitor their own maintenance regimes to ensure that their plant was as reliable as possible. Ofgem also notes the comparison with the electricity market where information relating to unplanned generation outages is readily available.

5.101. Ofgem welcomes respondents' views in respect of the potential costs related to contract renegotiation and also specifically in respect of the potential risk of liability to Transco NTS arising from the proposal.

Risks and unintended consequences

5.102. Ofgem considers that there may be elements of risk in respect to whether the potential benefits identified above would be realised as a result of implementing the proposal. The key risks identified by Ofgem are discussed below.

5.103. It should be noted that some of the risks that are discussed in this section have previously been identified as costs to the proposal. However, Ofgem does not consider that they are direct costs relating to the implementation of the proposal, but are more likely to be risks to the realisation of the potential benefits of the proposal.

5.104. Ofgem welcomes respondents views in respect of the risks or unintended consequences identified in this section.

Withdrawal of information

5.105. Currently, Transco NTS receives information regarding the state of offshore supply from a number of sources. For instance, terminal operators provide Transco NTS with information on a bilateral basis concerning actual and forecast flows on to the NTS. In addition, and as discussed in chapter 2, via the DTI information initiative, offshore producers voluntarily provide Transco NTS with information regarding their short and longer term supply positions. This information is used by Transco NTS to assist it in its role as SO.

5.106. Some of this information is being (or will shortly be) released by Transco NTS to the market through the DTI information initiative on either an aggregated north-south basis or after the day in the case of more detailed sub-terminal flow data. One of the main concerns highlighted by Transco NTS and other respondents to the DMR is that implementation of the proposal could threaten the provision of information to Transco NTS under the DTI information initiative, i.e. terminal operators and/or producers may withdraw some or all of the information currently supplied to Transco NTS. In particular, Ofgem notes that some of the producers have raised the issue as to whether they will continue to provide the information to Transco NTS under phase 2 of the DTI information initiative which relates to information provided to aid developing its TBE forecasts.

5.107. Ofgem recognises the view held by a number of respondents that it may be prudent to wait to assess the effects of the DTI information initiative. However, Ofgem also recognises the risks inherent in information being provided to Transco NTS, and to the market, on a voluntary basis; particularly when considering points made by Transco NTS that the information it currently

receives on a 'grace and favour' basis is integral to its role as SO. Therefore, at a high level, Ofgem continues to hold a preference for a guaranteed basis (i.e. via either a regulatory or legislative route or on a contractual basis) for release of relevant information to the market.

5.108. Ofgem has given careful consideration to the likely issues that would arise were this offshore information to be withdrawn as a result of the implementation of the proposal. Ofgem considers that, in terms of impact, a complete withdrawal of offshore information would be likely to result in significant costs to Transco NTS and the market through the damage that such action would be likely to cause on the effective and efficient operation of the market and overall market confidence. Ofgem also understands from subsequent discussions with Transco NTS that some producers have further indicated to Transco NTS their intention to withdraw their provision of this information.

5.109. It should be noted that the TBE information (i.e. the TBE information to which the informal temporary licence derogation relates) is separate to that which Transco NTS will be required to release if the proposal is approved by the Authority. Ofgem therefore does not consider the link is entirely clear between the information provided voluntarily to Transco NTS by producers to aid the TBE process, and that covered by the proposal.

5.110. However, in terms of the likelihood of such a withdrawal of information occurring, Ofgem is of the view that there are a number of mitigating factors which mean that this event is unlikely to occur:

- **Value of the information:** Transco NTS has indicated that the information currently provided to it subject to the derogation is 'integral' to its system operation role and that this information has enabled the 2004 TBE planning year to be the most successful year to date. Further, Ofgem notes that nearly all the respondents with offshore interests have indicated that they support the overall objective of greater transparency in the market. Ofgem also notes comments made by respondents (including those not in support of the proposal itself) in relation to the benefits of Transco NTS having access to the relevant TBE information

(particularly in respect to the strength of support for its 2004 TBE analysis resulting from this additional information).

- **Reasonable conduct:** In Ofgem's view it would not necessarily be reasonable behaviour on the part of offshore parties that currently provide information to Transco NTS, in particular that supplied under the DTI information initiative, to restrict the flow of this information. Ofgem considers that such conduct would not necessarily be reasonable unless it could be demonstrated that release of information under the proposal would somehow, when combined with the information released under the DTI information initiative and elsewhere, result in a commercial detriment to the parties involved in the provision of this information. In particular, Ofgem considers that, since much of the information provided under the DTI information initiative is provided to Transco NTS for its planning purposes (and is also not information relevant to the proposal), such a commercial detriment is unlikely to arise.

- **Potential for future mandatory arrangements**: A number of respondents to the consultation on the proposal expressed concern that the DTI information initiative arrangements (and other bilateral arrangements for the provision of information) enabled the offshore producers to withdraw their cooperation on the basis that they do not agree with certain levels of information release (for instance as under the proposal), even where a clear benefit from the release of that information had been demonstrated.

  As discussed previously, Ofgem considers that a general withdrawal of offshore information, in particular that provided under the DTI information initiative, would be damaging for security of supply, the operation of the market, and overall market confidence. In light of this, Ofgem considers that such action on the part of offshore producers could lead to the implementation of a mandatory arrangement for the provision of offshore information. Indeed, Ofgem considers that the fact that the current arrangements are not mandatory, and therefore there is a possibility that this situation could arise, highlights a key weakness in the current voluntary arrangements for the provision of information.

In relation to the potential implementation of a mandatory arrangement, Ofgem notes that DTI could implement such an arrangement via legislative or licensing routes. Ofgem would welcome further consideration of this issue by the DTI and would be happy to continue to work together to further progress this issue.

- **Aggregation**: As discussed previously, parties not in support of the proposal have raised concerns that the level of dis-aggregation required by the proposal could expose their individual commercial positions which could ultimately have a detrimental effect on their businesses.

  However, Ofgem considers that, apart from in a small number of instances, the information released under the proposal is already likely to be aggregated to a significant degree. Ofgem considers this to be the case for a number of reasons. First, the proposal has a threshold of 10 mcm/day and therefore information relating to any entry point or sub-terminal accepting less than this level is excluded from publication. Second, in the case of entry points and sub-terminals accepting flows above 10 mcm/day, these flows arise from a number of diverse sources in respect of field ownership. For instance, those sub-terminals accepting flows above 10 mcm/day that are caught by the proposal are supplied by over a dozen fields on average. These fields in turn are, in general, owned by a number of offshore producers. Analysis of the average magnitude of offshore outages as compared with winter 2004/05 maximum flows at sub-terminal level shows that outages typically represent less than 20 per cent of maximum flows.

  Conversely, however, the limitation of flows at 10 mcm/day in the proposal could also be considered as potentially protecting the interests of parties with smaller flow capacity. Ofgem considers this could also lead to discriminatory treatment in favour of these parties. Ofgem welcomes views on the extent to which this may be discriminatory.

  Ofgem therefore considers that, in the majority of cases, the risk of exposing companies' individual commercial positions as a result of implementation of the proposal is relatively low. Ofgem notes however,

that there are a number of instances in which an entry point or sub-terminal is served by a single gas source, for instance a storage facility. Ofgem considers that, in these cases, the risk of exposing individual commercial positions may be material.

5.111. Ofgem therefore considers the risk of the TBE information being withheld by producers is likely to be lower than may have earlier been anticipated. Ofgem also notes comments made by respondents in support of this information in the context of security of supply and would therefore not anticipate a serious movement to withhold this valuable information from Transco NTS to aid its role as SO.

5.112. Ofgem welcomes respondents' views in respect of the identified risk of withdrawal of information by producers arising from the proposal.

Duplicate Metering

5.113. In order to gather physical gas flow data at sub-terminal level Transco NTS relies upon flow data from the DFOs who, in general, own the sub-terminal metering equipment. If the DFOs withdraw the provision of this information due to concerns regarding commercial sensitivities and potential breaches of the confidentiality agreements (as discussed above), it would be necessary for Transco NTS to install duplicate metering equipment at sub-terminals and, potentially, other NTS entry points. Therefore Ofgem considers that the cost of installing duplicate metering is not a direct cost to the implementation of the proposal, but is a risk to the achievement of its potential benefits. This would be the situation that Transco NTS continues to view its risks of liability as high, but cannot successfully renegotiate its relevant contracts.

5.114. The Proposer has estimated the cost of this duplicate metering equipment to be approximately £20 million, together with ongoing maintenance costs. This estimate is based on the approximate cost of installing metering equipment at all NTS entry points. Market participants including Transco NTS consider that this appears to be a reasonable estimate of the costs that would be occurred if this metering was required. Ofgem's technical directorate's preliminary view is that it would be necessary to perform more study work to confirm the estimated

costs. However, the stated costs appear to be within the broad range of costs that could reasonably be expected.

5.115. However, Ofgem considers that given that the renegotiation of entry contracts remains a viable option to Transco NTS, the installation of duplicate metering equipment would be a relatively inefficient way of acquiring physical gas flow data at sub-terminal level. In addition, the potential time lag for installing duplicate meters, given planning consent requirements etc., is likely to delay the potential benefits of the proposal being realised. Ofgem therefore considers, that whilst the costs of installing duplicate meters appear to be significant, this may not be the most effective and efficient method for Transco NTS to acquire the information that it would be required to provide to the market under the proposal.

5.116. Ofgem welcomes respondents' views in respect to the identified risk of requiring duplicate metering.

Data Accuracy

5.117. Ofgem recognises the concerns raised regarding the accuracy of the data to be released and the potential for inaccurate data to prove misleading. Ofgem therefore considers it important that the accuracy of the data being released needs to be understood by the market. Ofgem does not consider that the potential for data inaccuracy alone should mean that information is not released and further considers that if the market is informed regarding the level of accuracy of the information released, parties will take their own views in respect of the extent they will rely on that information in taking commercial decisions.

5.118. Further, Ofgem has considered some of the technical points raised associated with metering at sub-terminal level. Ofgem understands that meters at sub-terminal level are highly accurate and resilient and likely to be accurate to within one per cent. Ofgem notes points made by Transco NTS in the FMR in respect of the potential for "missed pulses" from meters. Ofgem recognises that there may be occasions where meters or associated data transmission equipment fail. As noted previously, Ofgem considers that as long as market participants are made fully aware of the estimated level of confidence in the published

information, the relevant information should not be held back for reasons of caution.

5.119. Further, Ofgem considers that it is important that the information to be released should display the following characteristics: user friendly; transparent; understandable; usable; timely and available to all. Ofgem notes the concerns raised by some respondents regarding the form and usability of the data currently being released to the market by Transco NTS and is of the view that Transco NTS should be considering ways in which the release of this data could be more in line with the characteristics listed above.

5.120. Having carefully considered the issues raised by both Transco NTS in the FMR and also those made by respondents to the DMR, and having also undertaken its own preliminary technical assessment of the issues covered in the FMR, Ofgem considers that a number of the statements in relation to technical considerations in the FMR have the potential to be misinterpreted.

5.121. Ofgem has also considered points raised in respect of different conversion factors. Ofgem understands that although different conversion factors may need to be applied, simple computerised calculations can be used to convert these and therefore this may also not be a substantive issue. Ofgem notes that readings from gas quality measuring devices will also be required.

5.122. Ofgem notes that issues may arise in the case of a meter failure, where market participants misinterpret or rely on potentially inaccurate data. For example, reduced flows may be shown whereas no physical reduction had actually occurred in practice. There may be some risk of time delay between where Transco NTS established that a meter failure had occurred and its signalling of this to the market. Ofgem also notes however, that such failures are likely to be infrequent given the reliability of the technology.

5.123. Ofgem therefore considers that, in relation to the potential risks regarding the accuracy of the data to be released under the proposal and the potential for inaccurate data to prove misleading, these risks are likely to be small.

5.124. Ofgem welcomes respondents' views in respect of the identified risk of data accuracy arising from the proposal.

Ownership of data

5.125. In respect of the concerns raised regarding the ownership of the metered data, Ofgem considers that it is not clear that Transco NTS would not be able to release the information in an aggregated form to 10 mcm/day at sub-terminal level. Ofgem notes that Transco NTS states it has taken legal advice on this matter (of which Ofgem has not had an opportunity to consider as part of this assessment), however, having considered the question of ownership of the aggregated sub-terminal flow information, Ofgem considers that it would be useful for Transco NTS to further explore its legal position in respect of whether it can release its own metered data (in a disaggregated form as intended for publication in the proposal), particularly when considering the results of Ofgem's preliminary assessment of the contractual and liability issues.

5.126. Ofgem notes the views of respondents regarding its previously made statements that it would be unlikely to approve modification proposals which required Transco NTS to disclose information which was provided to it on a confidential basis, if it could be demonstrated that acceptance of such a proposal threatened the continued provision of such information to Transco NTS or if it placed Transco NTS in breach of pre-existing confidentiality obligations. However, Ofgem considers that having now had an opportunity to consider the relevant agreements that relate to the disclosure of such information that the acceptance of such a modification proposal (including the proposal) is less likely to result in Transco NTS being exposed to material risks of contractual liability (with the exception of a small number of older legacy agreements that may be able to be addressed in other ways).

5.127. Ofgem welcomes respondents' views in respect of the identified risk of data ownership arising from the proposal.

Summary of costs and benefits

5.128. Ofgem has assessed the potential benefits and costs of the implementation of the proposal compared to the baseline. Ofgem has also considered the potential or perceived risks that may effect the achievement of those benefits.

5.129. Overall, Ofgem considers there are likely to be benefits to customers and the market more widely in respect of enhanced economy and efficiency and these are also likely to feed through to benefits of enhanced security of supply. Ofgem recognises there will be associated IT costs for Transco NTS and potentially costs of renegotiating contracts to both Transco NTS and its contractual counterparties if the proposal is implemented. Ofgem further recognises there are a number of potential risks to the achievement of these benefits. However, Ofgem also considers that there are a number of mitigating factors that reduce the effects of these risks.

5.130. Table 5.2 therefore summarises Ofgem's views of the costs and benefits of the proposal, above the current baseline. Where it has not been possible to quantify the costs and benefits a qualitative assessment has been made. This table also outlines Ofgem's views of the likely risks and unintended consequences of implementing the proposal and also attempts to assess the probability of these occurring.

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5.131. Ofgem welcomes views on this summary of costs and benefits and also in respect of its assessment of the likely risks and unintended consequences of implementing the proposal.

Table 5.2: Summary of the costs / benefits of the proposal compared to the baseline

	the proposal	
Benefits		
♦ Economy and efficiency		
o Economic signals	✓✓	
o System balancing	£2.5m	
o Market volatility	>£3.8m	
o Market perception and liquidity	✓	
♦ Security of supply		
o Short term	✓	
o Long term	✓	
♦ Impact on customers	-	
♦ Environmental impact	-	
Costs		
♦ IT costs	£0.65m[72]	
♦ Contract renegotiation	××	
Risks	**Impact**	**Probability**
♦ Withdrawal of information	×××	**Low**
♦ Duplicate metering	××	**Low**
♦ Data accuracy	×	**Low**
♦ Ownership of data	×	**Low**

[72] In the FMR Transco notes that it would wish to undertake a full and detailed impact analysis in order to confirm the IS systems development effort, costs and timescales.

6. Way Forward

Ofgem welcomes views on all aspects of this IA including Ofgem's views on the costs and benefits of the proposal, to be received by close of business on 24 June 2005, which will assist the Authority in deciding whether to accept or reject the proposal. Following careful consideration of respondents' views to the IA, Ofgem intends to make and publish its decision on whether to accept or reject Network Code Modification Proposal UNC 006.

Appendix 1 NGT comparison of information

Information	**Provided to NGC by generation**	Published to the market	Provided to Transco by upstream /DFOs	Published to the market
Forecast	Output usable provided from 5 years ahead of real time to 2 days ahead of real time (via OC2 of Grid Code) from each generator. Used by NGC for system security studies.	Yes Aggregated zonal information provided to show zonal generation availability (up to 5 years ahead) and surpluses/margins (up to 2 years ahead) - (via BMRS) Aggregated national information provided to show national generation availability (up to 5 years ahead) and surpluses/margins (up to 52 weeks ahead) - (via BMRS)	Detailed, field–specific, data. Transco uses this extensively for long term planning.	Yes, but planning/beach availability is published at terminal-level; Annual 10 Year Statement.
	Outage data (start date and end date of outage) for each generating unit from 5 years ahead of real time to 2 days ahead of real time (via OC2 of Grid Code). Used by NGC for system security studies.	No Outage information provided to affected parties only	Field, terminal, sub-terminal; planned outage and maintenance data.	Yes DTI Category 3 - Deliverability with respect to Planned Maintenance (agg North/South). Detailed information on planned maintenance (NTS side) is published in the annual Transco 10 Year Statement

	Physical Notification (IPN) and Maximum Export Limit (MEL) data provided at 11:00 at the day ahead. Used by NGC for system planning and operational studies	Yes Aggregated IPN and MEL information provided with demand forecast. Zonal information also provided (via BMRS) This information updated half hourly up to Gate Closure	Technical data e.g. the physical attributes and operational parameters of the NTS entry point e.g. plate ratings. Information is provided viz obligations in the bilateral Network Entry Agreements (NEAs).	No, not the physical attributes. Transco *does* however publish (real-time) the availability of terminal-level (ASEP) transmission capacity through the entry capacity auctions; annual, monthly, daily, within-day (inc buy-backs).
	Final Physical Notification (FPN) frozen at Gate Closure (1 hour ahead of real time). Bid-offer data (prices and volumes) also provided	Yes FPN, MEL and bid-offer data published on BMU basis (via BMRS)	Delivery Forecast Notifications (DFNs) sub-terminal flow profiles (hourly), D-1 and D with updates as required.	Yes a. DTI Category 2 - aggregated DFN information (North/South) b. System Status (Linepack) based on DFNs and forecast demand; published hourly D-1 and D.
Real time/ Physical (metered)	MEL data re-submitted in real-time by generator as required	Yes MEL published on BMU basis (via BMRS)	Transco has access to 3rd party physical metering and data flows	Yes DTI Category 1 – aggregated sub-terminal entry flows into the NTS (North/South). Note. Will commence publication from 1st July 2005

	Generator dynamic parameters updated in real-time as necessary by the generator and provided to NGC. Data comprises of the generator's technical operational parameters (e.g. run-up/run-down rates).	Yes Data published on BMU basis (via BMRS)	Technical data e.g. the physical attributes and operational parameters of the NTS entry point e.g. plate ratings. Information is provided viz obligations in the bilateral Network Entry Agreements (NEAs).	No, not the physical attributes. Transco *does* however publish (real-time) the availability of terminal-level (ASEP) transmission capacity through the entry capacity auctions; annual, monthly, daily, within-day (inc buy-backs).
	NGC trades taken on the Balancing Mechanism	Yes Bid-offer acceptances (expected profile) published as they are accepted	a. Transco energy balancing trades undertaken on the OCM. b. Transco undertakes capacity buy-backs, within-day.	Yes a. Energy (details of traded quantities, prices), daily, after the day b. Capacity buy-backs - within day
	Actual generation data	Yes Actual generator metered volumes (half hour MWhs) derived from settlement quality metering. Contained in Elexon settlement flows available approximately 5 days after the event (initial) and 29 days after the event (final)	Sub-terminal 'end-of-day' (EOD) flow measurement.	Yes a. DTI Category 4 - daily from D+1 with updates (as necessary) up to closeout. b. NTS entry (aggregated) physical and allocated position from D+1 to closeout.

Appendix 2 Draft legal text

SUBJECT TO CONTRACT **DRAFT DATE:17.03.05**

Modification Proposal Number 0727

3rd Party Proposal: Publication of Near Real Time Data at UK sub-terminals

Draft Legal text

Section V

Amend paragraph 5.9.1 to read as follows:-

5.9.1 Subject to the provisions of paragraph 5.9.2 and the other provisions of the Network Code, Transco shall arrange for the data referred to in Annex V-1 ("**operational and market data**") to be published or made available in the manner specified in Annex V-1.

Amend paragraph 5.9.2 to read as follows:-

5.9.2 Transco shall not be obliged to publish or make available operational and market data pursuant to paragraph 5.9.1 where:

(a) that data is not available to Transco; or

(b) Transco reasonably believes that such data is erroneous; or

(c) Transco reasonably believes that such data could be misleading if it were published or made available by Transco; or

(d) Transco is prevented from disclosing such data by virtue of an obligation of confidentiality owed by Transco to the person who provided such data to Transco or by Transco to the owner of such data.

Insert the following as new paragraph 5.9.3:-

5.9.3 Where operational and market data is sent to Transco on a day that is not a Business Day Transco shall publish such data on the next following Business Day.

Annex V-1: Table of Operational and Market Data

Column	Name	Description
1	Data	data definition and indication of the time period to which the data corresponds
2	Timing	initial publication timing and where appropriate, timing of updates if the data is subject to any change
3	Format	tabular, graphical, other
4	Presentation	downloadable, viewable or both
5	Disclosure	public or restricted (and if restricted, list of entities to whom the data can be

released)

Data	Timing	Format	Presentation	Disclosure
The average rate of flow of gas (in MSCM per Day) into the NTS during each hour of the Gas Day from each Storage Facility	Within [one (1)] hour of the end of the hour to which the data relates.	[Tabular]	[Viewable]	[Public]
The average rate of flow of gas (in MSCM per Day) into the NTS during each hour of the Gas Day at each Individual System Entry Point capable of flowing more than 10 MSCM per Day of gas into the System.	Within [one (1)] hour of the end of the hour to which the data relates.	[Tabular]	[Viewable]	[Public]
The average rate of flow of gas (in MSCM per Day) into the NTS during each hour of the Gas Day at each Aggregate System Entry Point capable of flowing (in aggregate) more than 10 MSCM per Day of gas into the System.	Within [one (1)] hour of the end of the hour to which the data relates.	[Tabular]	[Viewable]	[Public]

Appendix 3 Oxera paper table of information[73]

Day-ahead	On the day	One-day lag
Interruptible capacity available	Likelihood of interruption	Daily balance report
Likelihood of interruption	Forecast demand by each LDZ and in aggregate[74]	MSEC auctions
Forecast demand by each LDZ and in aggregate	End-of-day aggregate forecast flows into the NTS, disaggregated by north/south (hourly)	Actual demand
End-of-day aggregate forecast flows into the NTS, disaggregated by north/south	System nomination balance (incl. requested energy and scheduled energy) (hourly)	Entry and exit capacity trading (within-day and futures)
System nomination balance (including requested energy and scheduled energy) (hourly)	Projected closing linepack and opening linepack	Projected throughput
Projected closing linepack and opening linepack (hourly)	Auction capacity available	Weather correction factor
	Capacity volume and price for active within-day firm capacity bids by ASEP	Price information (eg, data on bilateral deals via Heren)
	System nomination balance	Customer nominations for Hornsea
	Aggregate site nominations for Rough storage site[75]	Natural gas price index
	Aggregate site nominations for Hornsea storage site2	Number of trades on OCM, WAP, energy (th), values (£)
	Price information (eg, via screentraded markets)	SMP Buy, SAP and SMP Sell
	Hourly data on actual flows into the NTS, aggregated into north/south zones[76]	Actual flows into the NTS at individual sub-terminals

[73] The Oxera paper also contains a further more detailed table describing information that is made available between various market participants (Appendix One, Summary of Gas Market Data Availability, Oxera paper).
[74] LDZs are now known as distribution networks (DNs). Information reported here as presented on Transco's website.
[75] The data highlighted for Hornsea and Rough storage sites is indicative. It does not present the only data available from storage sites based on an exhaustive search.
[76] Phase 3 data to be provided in July 2005.
[77] Data proposed under the proposal.

Appendix 4 Pass through of wholesale price increases

4.1 Gas customers that are directly exposed to wholesale prices via the contractual arrangements that they have with their suppliers would clearly be exposed to the pass through of wholesale price increases immediately. Domestic customers, however, may not be immediately impacted by such increase in wholesale prices as there are often lags between movements in wholesale prices and suppliers making changes to retail prices.

4.2 According to Transco's Ten Year Statement 2003, for 2004 small user demand was forecast to be 541TWh and total throughput to be 1220TWh. Therefore the balance, 679TWh, is attributable to very large daily metered loads, such as power stations, and I&C customers.

4.3 It is difficult to asses exactly what proportion of these customers are directly exposed to any increase in wholesale gas prices (for instance through indexed contracts). However, for the purpose of its cost benefit analysis, Ofgem has assumed that two thirds of this volume is directly exposed to wholesale price increases, equating to around 400TWh or 13.8 billion therms. Therefore, for example, a 1p/therm increase in prices across the year would, if it is assumed that the level of non small user demand is uniform over the year, lead to a total annual cost of £138m.

Appendix 5 Assessment of system balancing benefits

Methodology

5.1 Ofgem initially analysed OCM trading data in order to determine those days on which Transco NTS took a large volume of actions in the OCM. Ofgem then cross-checked these dates against its database of offshore outages in order to determine the days on which Transco NTS took a large volume of actions in the OCM and there was an unexpected loss in offshore supplies. As a comparator, Ofgem also examined linepack data from the days in question in order to confirm that an impact on the NTS was expected.

5.2 Ofgem has then assumed that the days identified pursuant to the methodology above are days in which an offshore outage has been identified by Transco NTS as likely to result in a shortfall of supply over demand on the NTS and therefore, as a consequence, Transco NTS bought gas in the OCM in order to 'stimulate' the market.

5.3 Ofgem has then assumed that, on each of the days identified above, the market would have been able to trade out the shortfall more economically had it been aware that the outage had occurred, and on this basis derived a cost saving.

Analysis

5.4 Pursuant to the methodology above, Ofgem determined that, for the winter 2004/05 period, there were thirty six occasions on which Transco NTS purchased gas on the OCM. On seven of these occasions Ofgem identified that Transco NTS's purchase of gas coincided with an actual loss of offshore supplies and, in response to Transco NTS's actions, the price of gas on the day showed an increase of between 1.3p/therm to 7.3p/therm. Ofgem assumed that these seven occasions represent the instances in which Transco NTS has had to 'stimulate' the market to address a supply shortfall. On these occasions the impact on the market on the day was to increase the gas price by an average of 3.2p/therm.

5.5 As set out previously, Ofgem's methodology assumes that the market would have been able to trade out the shortfall more economically had it been aware that the outage had occurred. It is clearly extremely difficult to derive a single figure representative of this saving. Using the methodology for the pass through of wholesale prices set out in Appendix 24, and an assumption of a 1p/therm range of saving, this would lead to a total cost of around £5.3m per year.

Appendix 6 Assessment of benefits of reduced market rumours

Methodology

6.1 The objective of this analysis is to determine what the likely forward price premium is that can be attributed to the risk of a loss of offshore supplies.

6.2 As a first step, Ofgem has assumed that the price premium is only reflected in the day-ahead price rather than being reflected throughout the forward curve. Ofgem considers that this is a reasonable assumption since rumours of future offshore outages are only likely to arise a short period before the day on which the event is rumoured to be likely to occur.

6.3 Ofgem acknowledges that there will be a (potentially significant) number of reasons why outturn prices differ from expected (i.e. day-ahead) prices. However, Ofgem considers that factors such as uncertainty in demand are likely to be symmetric, that is, in general these factors would be just as likely to result in outturn prices higher than the day-ahead price as lower than the day-ahead price. Ofgem considers that factors such as the loss of production, including offshore production, will only be exhibited as a price premium, that is, where the day-ahead price is greater than the outturn price.

6.4 In light of this argument, Ofgem determined the average price difference between the day-ahead price and the outturn price on days when the price difference was positive (i.e. where there was a price premium) and when it was negative (i.e. where there was a price discount) on each day for the winter period. Assuming that all factors influencing the day-ahead price are symmetric other than the risk of a loss of supply, a portion of the average positive price difference should be attributed to symmetric risks (i.e. uncertainty in demand) and that this portion is equivalent to the magnitude of the average negative price difference. Subtracting the average negative price difference from the average positive price difference should leave the price premium associated with

asymmetric factors, which Ofgem has assumed in this methodology to be a loss of supply.

Analysis

6.5 Pursuant to the methodology above, Ofgem determined that, for the winter 2004/5 period, on around two thirds of the days the day-ahead price traded at a premium to the daily price. However, subtracting the average negative price difference from the average positive price difference did not yield a premium – the average negative and positive prices were approximately equivalent in magnitude.