

Modification Report
3rd Party Proposal : Publication of Near Real Time Data at UK sub-terminals
Modification Reference Number 0006(0727)

Version 6.0

This Modification Report is made pursuant to Rule 7.3 of the Modification Rules and follows the format required under Rule 9.6.

1. The Modification Proposal

The Proposal was as follows:

"It is proposed that Transco publish real time flow data for each sub-terminal for the purposes of informing third parties via the Transco website. This would include; all entry points that are owned and operated by Transco (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 terminals deliveries) of accepting gas of accepting gas flows at rates greater than 10 mcmd and all individual sub terminals which are capable of accepting gas flows greater than 10 mcmd.

It is further proposed that flows are updated on a real time basis."

The following text was the Proposer's response to the representations

"Transco's Opinion

Transco is fully supportive of increased gas information provision to the wider market, in an equitable and timely manner where clear benefits (including cost) can be quantified. This support has been demonstrated by the recent Information Exchange Project that Transco initiated during 2002 and, by the significant contribution that Transco has provided to the DTI Information Initiative over the last three years.

Transco understands, and is sympathetic to the objectives of this Modification Proposal, but at this time it cannot provide support to a Proposal that would place it in breach of various contractual and legal obligations typically contained within bilateral agreements such as Network Entry Agreements.

Further, it is Transco's view that there are a number of commercial and technical issues that should be fully understood and addressed by the industry prior to the publication of detailed sub-terminal flow data. Ofgem has recently published a consultation document, *"Offshore gas production information disclosure, Initial consultation and draft impact assessment, February 2005"* in which it acknowledges the concerns and issues associated to the publication of the type of data that has been suggested by this Proposal.

Background Information:

1.1 DTI Information Initiative

As a consequence of the conclusions reached from its 2001 Consultation Document into the operation of the GB gas markets and high gas prices, the DTI established a joint working group (DTI, Ofgem, Transco and UKOOA) to examine the provision of offshore information to the wider market. Initially, only the provision of offshore information was considered but during the discussions this was extended to include information pertaining

to the offshore/onshore ‘interface’, e.g. sub-terminals, as it was considered by some that this could also provide important signals to the market.

The DTI Information Initiative consisted of three phases:

- **Phase 1** – standardisation and the improved provision of operational data to Transco in relation to planned and unplanned supply reductions from upstream parties.
- **Phase 2** – further provision of detailed information by upstream parties to support Transco in refining its annual Transporting Britain’s Energy (TBE) processes.
- **Phase 3** - Discussions have taken place over a three-year period and the DTI has gained agreement from Ofgem, UKOOA and Transco that four categories of information relating to the onshore/offshore interface should be considered for publication:

Category	Description	Publish
1	Real-time flows into the NTS at sub-terminals	01-07-2005*
2	Forecast flows into the NTS at sub-terminals	18-03-2005
3	Deliverability with respect to Planned Maintenance	01-10-2004
4	Sub-terminals ‘End of Day’ flow data	01-10-2004

** Transco anticipates that publication will commence from this date.*

The first two phases were completed during Summer 2004 whilst it is anticipated that the third phase, as currently agreed with the DTI and Ofgem, will be fully implemented by 1st July 2005.

Due to various commercial confidentiality, data ownership and liability issues associated with Phase 3, agreement was reached between the DTI, Ofgem, UKOOA and Transco that Categories 1, 2 and 3 would be published on an aggregated (North/South zone) basis. Further, due to physical and operational limitations e.g. capture, timing and accuracy of real-time data, it was agreed that Transco would publish Category 1 information on an hourly, rather than ‘real-time’ frequency.

1.2 Issues associated to the publication of 3rd Party Data

The DTI Information Initiative has highlighted two broad areas of concern relating to the publication of Category 1 data. The first area is primarily related to *commercial/statutory* issues, for example, the Utilities Act 2000, data ownership, commercial confidentiality and liabilities whilst the second area relates to *technical* issues, e.g. telemetry equipment and, the accuracy, timing and delivery of data.

Transco considers that this Modification Proposal is effectively an extension of the DTI Category 1 data. This extension would require Transco to publish the flow data at the detailed i.e. sub-terminal level, with no aggregation applied.

Commercial Issues

1.2.1 Utilities Act 2000/Gas Transporter Licence/Ancillary Agreements

Section 105 of the Utilities Act 2000 places an obligation on Transco to keep information that it receives, in its role as a gas transporter, confidential; where that information relates to a specific individual or business.

Transco is only able to disclose that information in particular circumstances, for example, where it is obliged to do so by virtue of its Gas Transporter Licence. Condition 4E of its Gas Transporter Licence places an obligation on Transco to comply with the information provision requirements of the Network Code. Therefore, where Transco is required to disclose information pursuant to the Network Code, it would not be liable under Section 105. However, this does not extend to any contractual liabilities that Transco may have under any Network Entry Agreements or Confidentiality Agreements.

As part of the DTI Information Initiative, and to satisfy the concerns of upstream parties, Ofgem has granted Transco a temporary derogation from Licence Condition 4E in respect of data provided to it by the Delivery Facility Operators (DFOs). This derogation applies in respect to upstream information that upstream parties now provide to Transco, under a voluntary basis, as part of Phase 2 of the DTI Information Initiative.

1.2.2 Data Ownership, Confidentiality and Liabilities

Data Ownership

Transco has access to instantaneous physical flow rate data, often via telemetry, at the majority of the sub-terminals. The Delivery Facility Operators (DFOs) generally own the metering equipment at the sub-terminals and provide the flow data to Transco for use in its operational control activities, on a non-contractual basis. Where Transco does not have access to flow data at a sub-terminal, it utilises data derived from Transco-owned flow equipment that is located downstream of that point.

During the DTI Information Initiative, the position described above was discussed in respect of the ownership and publication of the sub-terminal flow data. All parties to these discussions agreed that:

- where the DFO owns the metering equipment and provides Transco with access to the real-time flow data, this data belongs to the DFO and the ability by Transco to disclose that data to others is restricted by the provisions of Section 105 of the Utilities Act 2000 and the provisions of the relevant Network Entry Agreement;
- where Transco owns the metering or has installed duplicate metering, Transco would be utilising its own equipment to derive the data and would therefore, own the data. However, advice from the Transco Legal Department is 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;
- where Transco aggregates individual sub-terminal data flows, it then has legal ownership of the aggregated figure. However, the provisions of Section 105 will still apply to that aggregated figure to the extent that information relating to a particular business entity could be identified from it.

Transco took the view that publishing the sub-terminal flow data on an aggregated, North/South basis would afford protection from any action under Section 105. However, during the DTI Initiative discussions, there was a view expressed that Transco does not

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

Confidentiality and Liabilities

Both the DTI and Ofgem have acknowledged the issues surrounding the publication of this data and have agreed to the aggregation on a North/South zone basis thereby ensuring that the commercial confidentiality of source data (relating to individual sub-terminals) is maintained. By adopting this approach, the 'primary' data owners e.g. DFOs, will be protected from any risks pertaining to commercial confidentiality and/or liabilities arising from the use of the data.

Technical Issues

1.2.3 Physical/Operational Issues

Metering Arrangements, Telemetry and Data Accuracy

Transco does not own the majority of measurement equipment that is used to monitor flow data and the accuracy and reliability of the equipment is not guaranteed. The telemetry included within the measurement equipment varies and may momentarily miss electronic 'pulses' that are used to record instantaneous flows and thus register the flow as zero or, not register the flow at all. Dependent on the timing and the sub-terminal at which this particular problem might occur, any flow data that is subsequently published would be inaccurate and potentially provide misleading signals to the market. The metering arrangements and telemetry equipment vary between sub-terminals and are of various types.

- **Instantaneous** metering ('speedometer') provides actual sub-terminal flow data effectively in 'real time'. The instantaneous metering can be categorised as Volume, CV or Energy and a sub-terminal may have none, or any combination of these categories.
- **Integrated** metering ('odometer') records the amount of flow that has already occurred, and is usually triggered by pulses. These pulses are generally parameterised by the amount of flow that is required to take place before the pulse is triggered. It is also important to note that the value of the pulse may vary between the categories (Energy, Volume) and it also varies between the sub-terminals.

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. A simple analogy in relation to the varying metering arrangements would be to consider the flow data from four sub-terminals as readings from speedometers and odometers, with two meters calibrated in 'miles' and two in 'kilometres'. The publication of four readings, say, Meter 1 (odometer, km), Meter 2 (speedometer, mph), Meter 3 (speedometer, kph) and Meter 4 (odometer, miles) would not necessarily provide an accurate assessment of what was actually occurring at a point in time.

In order 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 (integrated versus instantaneous), pulse rates, quantities, meter

accuracy and measurement tolerances. Of further consideration is that several of these parameters might be affected by factors such as the physical operation of the pipeline or mechanical failure.

1.2.4 Frequency of Data Publication

It is essential that all market participants understand that any definition of 'near real-time' will need to consider numerous physical and operational factors and is dependent on the timing of the existing business processes, the update and refresh rates of the underlying source data and the differing telemetry/metering arrangements that are in place.

During the DTI Initiative, the frequency of data publication was discussed in relation to the physical metering and telemetry arrangements, the capture, timing and accuracy of flow data, and, the requirement for complex validation/data substitution processes to be applied prior to the Category 1 information being published. There was a consensus that the closer to 'real-time' that this information was published, the more prone it would become to inaccuracy, even with complex validation/data substitution processes. As a consequence of this, it was agreed by the DTI, Ofgem and Transco that, in order to provide the market with accurate flow data, Transco should publish the Category 1 information on an hourly basis.

Transco supports the view expressed by the DTI "*... immediate but inaccurate information is less useful to the market than less rapid but accurate information.*". Ref: Gas: A Consultation on concerns about Gas Prices and Possible Improvements to Market Efficiency, published in November 2001. This view has also been supported by some participants at the NT&T Workstream Meetings held during 2001 and early 2002 at which the Information Exchange Project was discussed.

1.3 Harmonisation of information across the gas and electricity markets

As part of its justification for this Modification Proposal, the Proposer suggests that it is seeking to align the provision of information across the gas and electricity markets. This 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.

Whilst this Modification Proposal is seeking the publication of sub-terminal flow information, it is worth noting that this type of information (telemetry /real-time flow) is not published in the electricity market. Rather, the electricity market is provided with forecasts based on the users' own estimates of generation. A more appropriate comparison within the gas market might be the publication of the *forecast* sub-terminal flows that the DFOs provide to Transco for operational purposes. Further, the forecast flow information that is provided by 'generator' users to NGC is required under the auspices of formalised, contractual frameworks, for example, the Balancing & Settlement Code whereas the sub-terminal Delivery Flow Notifications (DFNs) are provided by DFOs to Transco under voluntary, bilateral agreements which invariably contain confidentiality clauses.

From 18th March 2005, Transco commenced the publication of the DFNs as part of the DTI Category 2 deliverable, albeit on an aggregated, national (North/South) basis.

1.4 Development of the Proposal To-date

This Modification Proposal has been discussed in a number of meetings including the Network Code Modification Panel held in November 2004 and at the NT&T Workstream meetings held in December 2004 and January 2005.

energywatch Cost/Benefit Analysis

energywatch, as the initiator of the Modification Proposal, presented a paper at the NT&T Workstream meeting held on January 6th 2005 that provided its view of the potential costs and, the benefits that the market participants would gain from the implementation of the Proposal. energywatch suggested that these benefits would include; harmonising the provision of information 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 and, increasing the shippers' ability to balance and therefore reduce their costs.

There was a view expressed by some participants at the meeting that whilst the paper had provided the theoretical economic argument, it had failed to recognise the progress of the DTI Information Initiative to-date insofar as it had not identified any additional benefits that the implementation of this Modification Proposal might achieve over and above that agreed for the DTI Initiative Category 1 deliverable.

Installation of Duplicate Metering

The installation of duplicate metering is not a stated requirement for this Modification Proposal. However, it has been included within this Modification Report to provide additional background information to help facilitate an understanding of the breadth of the discussions that have taken place to-date, in relation to the publication of sub-terminal flow data.

During the NT&T Workstream meetings, there has also been broad discussion in relation to the potential commercial and technical issues associated with this data and suggestions as to how these issues could be addressed. Several participants have suggested that to circumvent the 3rd party data ownership and liability issues, Transco should consider installing its own, duplicate flow metering equipment at each of the sub-terminals.

This suggestion has previously been explored by the DTI Initiative working group (DTI, Ofgem, UKOOA and Transco) during 2003-2004.

The opinion from the respective Transco and UKOOA legal departments was that although Transco could install its own duplicate metering equipment, it would effectively be registering the flows of the sub-terminals. Therefore, whilst it might own the duplicate metering equipment, and therefore, own the data, under Section 105 of the Utilities Act 2000, Transco would still not have the right to publish the sub-terminal flow data without the approval of the DFOs."

2. Extent to which implementation of the proposed modification would better facilitate the relevant objectives

The Proposer considers that;

"The proposal would, if implemented, better facilitate the relevant objectives of 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".

3. The implications of implementing the Modification Proposal on security of supply, operation of the Total System and industry fragmentation

No comment made here as this section was not included when the report was submitted to Ofgem.

4. The implications for Transporters and each Transporter of implementing the Modification Proposal , including

a) implications for operation of the System:

Transco is currently provided (through voluntary arrangements with the DFOs) with upstream operational flow and maintenance information. The provision of this information is central to Transco's network balancing activities and it is made available by the DFOs to Transco only for the purposes of operating the GB gas system in an efficient and economic manner.

There is a concern that if Ofgem should direct the implementation of this Modification Proposal, upstream parties might decide to withhold information from Transco in order to protect their commercial interests and this would have a detrimental impact on Transco's ability to balance the gas network in an efficient and economic manner. Further, it might undermine the progress that has been achieved by the DTI Information Initiative over the last three years and, adversely impact the voluntary information provision agreements that are now in place between Transco, the DFOs and other, relevant upstream parties.

b) development and capital cost and operating cost implications:

IS Development

Transco has, as part of Phase 3 of the DTI Information Initiative, estimated the development costs for the Category 1 and Category 2 deliverables as approximately £135,000. The development and planned implementation for Category 1 has a direct dependency on the internal O&T iGMS (Integrated Gas Management System) Project that is currently planned for implementation in June 2005.

From an IS technical perspective, a high level view of the systems development costs of implementing this Modification Proposal i.e. extending the DTI Category 1 deliverable has been estimated at approximately £650,000. These costs arise because the requirement to publish the flow data at the sub-terminal level and the increased frequency is significantly more complex than that proposed and agreed for the DTI Category 1 information and, as such, the development effort, cost and timescales will be extended.

Duplicate Metering

Should there be a requirement for Transco to install duplicate metering at the UK sub-terminals and, where necessary, other NTS system entry points, it has been estimated that this would incur further one-off costs of approximately £20 million together with additional ongoing maintenance costs.

c) extent to which it is appropriate to recover the costs, and proposal for the most appropriate way to recover the costs:

In the event that this Modification Proposal is approved;

Transco would wish to undertake a full and detailed impact analysis in order to confirm the IS systems development effort, costs and timescales with a view, if appropriate, to either additional funding and/or recovery of costs.

Should there also be a requirement to install duplicate metering at the NTS System Entry points, Transco would wish to undertake a detailed assessment, for example, to confirm the costs and timescales associated to requirements for sites surveys, planning applications, purchasing of additional land (where necessary), obtaining and installing the equipment. In this scenario, Transco would seek the ability to recover an appropriate level of funding for the implementation of this Proposal. This funding could be achieved either through an Income Adjusting Event plus additional OPEX funding to operate and maintain these additional facilities, or, as part of a relevant Price Control settlement.

d) analysis of the consequences (if any) this proposal would have on price regulation:

Transco is not aware of any consequences that this Modification Proposal would have on price regulation.

5. The consequence of implementing the Modification Proposal on the level of contractual risk of each Transporter under the Code as modified by the Modification Proposal

Transco is not aware of any contractual risk in this respect.

6. The high level indication of the areas of the UK Link System likely to be affected, together with the development implications and other implications for the UK Link Systems and related computer systems of each Transporter and Users

Transco does not anticipate that there would be any implications for Users' computer systems.

It is envisaged that Transco would have to undertake:

- a. Redevelopment of **Information Exchange**:- website, datawarehouse, supporting system applications, purchase of additional hardware e.g. new web-servers and, upgrading current support and maintenance contracts;
- b. Modifications to **iGMS** (Integrated Gas Management System);
- c. Modifications to existing, and requirement for new, system interfaces.

7. The implications of implementing the Modification Proposal for Users, including administrative and operational costs and level of contractual risk

Transco has included these within the Summary of Representations (Section 11) of this Final Modification Report (FMR).

8. The implications of implementing the Modification Proposal for Terminal Operators, Consumers, Connected System Operators, Suppliers, producers and, any Non Code Party

Transco has included these within the Summary of Representations (Section 11) of this FMR.

9. Consequences on the legislative and regulatory obligations and contractual relationships of each Transporter and each User and Non Code Party of implementing the Modification Proposal

The disclosure of this category of information in itself would not leave Transco exposed to any liabilities either under Section 105 Utilities Act 2000, however, it would leave Transco exposed to breaches of various bilateral confidentiality agreements, typically contained within Network Entry Agreements and Storage Connection Agreements.

However, should Ofgem direct Transco to implement this Proposal, this would invariably have an adverse impact on the relationships (contractual) between Transco and the upstream parties. The consequences of this would be the likely withdrawal of these upstream parties from the voluntary agreements for the provision of information, including those reached during the DTI Information Initiative(Phase 2) and the various bilateral Network Entry Agreements.

10. Analysis of any advantages or disadvantages of implementation of the Modification Proposal

Advantages:

As stated by the Proposer, it will:-

- harmonise information provision across gas and electricity markets;
- empower gas consumers to make rational purchasing decisions;
- level the competitive playing field between producer affiliates and non-integrated market participants;
- increase the shippers' ability to balance and therefore reduce their costs.

Disadvantages:

As set out by Transco:

- without the consent of the DFOs, the publication of this data by Transco would place it in breach of confidentiality agreements, typically contained within Network Entry Agreements and Storage Connection Agreements;
- might adversely impact any current or future voluntary information provision agreements between Transco, the DFOs and other upstream parties;
- should the upstream parties decide to withhold information, it could have a detrimental impact on Transco's ability to balance the gas network in an economic and efficient manner and;
- the cost-benefits are not clearly defined i.e. above and beyond those that will be achieved by the publication of the DTI Category 1 (and 2) data.

11. Summary of representations received (to the extent that the import of those representations are not reflected elsewhere in the Modification Report)

Transco has received representations from thirty one parties: 12 provided full support, 3 provided qualified support, 14 were opposed and 2 parties provided comments.

One party (ExxonMobil International Ltd) has requested that for the purposes of this Final Modification Report, Transco should treat its representation as an individual response for each of the 4 companies for, on whose behalf, it has provided a response.

Full Support

Barclays Capital (BCAP)
BOC Process Gas Solutions (BOC)
Chemical Industries Association (CIA)
Ciba
Corus
EDF Energy (EDF)
energywatch (energywatch)
eon.UK (EON)
Ineos Chlor Ltd (ICL)
John Hall Associates (JHA)
Major End Users Council (MEUC)
Terra Nitrogen UK (TNUK)

Qualified Support

Association of Electricity Producers (AEP)
Gaz De France (GDF)
RWE Npower Plc (RWE)

Against:

BG Gas Services Ltd (BGS)
BP Gas (BP)
British Gas Trading Ltd (BGT)
ChevronTexaco (CTX)
ConocoPhillips UK Ltd (COP)
Eni UK Ltd (ENI)
ExxonMobil International Ltd (EMIL)* *on behalf of:* ExxonMobil Gas Marketing Europe Ltd; Esso Exploration Production UK Ltd; Mobil North Sea Ltd and; Superior Oil UK Ltd.
Marathon Oil Ltd (MOL)
Shell Gas Direct Ltd (SGD)
Statoil UK (STUK)
Total E&P UK Ltd (TEP)
TotalFinaElf Gas and Power Ltd (TGP)
Transco LNG Storage (TLNG)
United Kingdom Offshore Operators Association (UKOOA)

Comments:

Scottish and Southern Energy plc (SSE)
Shell UK Ltd (SHUK)

Transparency of Information and Market Efficiency

Transparency

A majority of the representations to this Proposal have broadly supported the principle of increased information provision to the UK gas market.

SSE commented *“Generally we are supportive of the wider provision of information to the market and welcome the work of both the DTI Information Initiative and the recent Ofgem Offshore Gas Production Information Disclosure Consultation”*.

Several respondents (AEP, CIA, TNUK) believed that this Proposal would aid transparency in a market that has an asymmetrical access to information. CIA stated *“it is positive that the resulting increased transparency will benefit both customers and market participants, as it will increase competition, efficiency, price signals and the more economic and efficient use of the NTS”*. AEP suggested that *“markets are more likely to operate efficiently when there is greater transparency of information with respect to flows at the main entry points, such that all players have access to the same information at the same time”* ;.

BCAP commented *“the availability of transparent, reliable information on the fundamentals of supply and demand is a key requirement for the development of an efficient, competitive and liquid market”*.

CIA noted *“...limited access to market information could act as a barrier to entry and by lowering this barrier it is likely that more competition would occur increasing efficiency”*. CIBA commented *“...greater transparency within the market would be obtained by the Proposal, and this would result in reduced barriers to entry for all participants; producers, suppliers and end-users, again this should result in a market which operates more effectively than at present”*.

TNUK commented that the recent turbulence in the gas market had *“illustrated the need for more transparency, which is lacking in the current regime and that improved information will lead to a level playing field, which currently disadvantages large gas consumers such as Terra Nitrogen UK”*.

However, whilst respondents generally supported greater information release and transparency, a number of respondents had reservations in relation to the publication of the sub-terminal flow data as outlined in this Proposal. BGS, BP, COP, CTX, RWE, STUK and TGP believed that the information might be misleading and misinterpreted by the market, as a consequence of, for example, lack of reference points by which to assess the data or inconsistent data quality. Most of these respondents also suggested that consequently, the publication of the data on this basis might lead to increased volatility in gas prices and introduce inefficiencies into the market.

TEP and TLNG believed that with the implementation of the DTI Information Initiative Phase 3, the extent of the new information released would be sufficient for the markets' needs.

Transco response:

Transco notes the comments that have been put forward by respondents. Transco supports the increased provision of information to the market where clear benefits, including improved transparency, can be quantified.

In the context of this Proposal, Transco believes that it is essential all market participants fully understand that whilst the publication of this data could be considered to improve transparency, as a consequence of the commercial and technical issues (detailed within this Final Modification Report), the release of this information might lead to inefficiencies within the market. For example, the timescales envisaged by the Proposal, for the publication of the data, is well within the normal measurement timeframe of the metering equipment installed on the gas network and as such, the data published as a result of this Proposal may, at times, be subject to a larger than normal error factor.

Efficiency

A number of respondents (BGT, Corus, EDF, ICL, RWE, TGP) held the view that markets operate more efficiently where there is optimal release of information. CIA commented that *“basic economic theory states that a perfect market requires timely, unilateral access to relevant information in order to set prices based on market fundamentals and While it may not be possible to achieve a perfect market, any changes, which move closer to this position, should be encouraged”*. AEP suggested *“...as efficient markets support competition this should bring competitive benefits to customers”*.

energywatch made suggestions in relation to the efficiency of Transco;

- Efficient operation of the pipeline system: *“Transco’s network relies on the incentives on shippers to self-balance. Where shippers are trading on the basis of limited information as well as information asymmetry they will be making sub-optimal decisions. They will therefore not be carrying out their own balancing in the most efficient way, leaving Transco a larger role as residual balancer”*;
- Efficient discharge of Transco’s Licence obligations: *“...Transco’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”*.

BOC commented, *“... the forward market in wholesale gas may not be operating as efficiently as possible”* and believed that *“... a more transparent market is likely to be a more efficient market”*. BOC further commented *“... the publishing of the information, as set out in the modification, under the network code would allow Transco to better discharge its relevant licence objectives”*.

AEP stated *“... there is some concern over how the information may be interpreted and this could result on the market being overly sensitive to supply reductions. However it is our view that over time the parties involved 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”*.

STUK suggested *“... as the UK became more dependent on imported gas, the publication of information in one market [UK] could have implications in others. This could lead to*

inefficiency that could undermine the development of competition in other European markets and increase costs to those markets significantly”.

RWE believed “... whilst customers are keen to see improved market efficiency, they must recognise that the price of this may be an increase in market volatility, particularly in the prompt market”.

UKOOA stated “It is extremely unlikely that this modification will have any effect at all on competition and efficiency of production”, as asserted under the heading ‘Impact of Information’ on page 3 of the additional paper”. [Appendix A].

Transco response:

In principle, Transco agrees with the views of those respondents that have suggested that markets operate efficiently where an optimal release of information can be achieved. Transco however also believes that the value of this information to the market is directly proportionate to the availability, timing and most importantly, the accuracy and credibility of the underlying data. This is discussed later in Section 11 (Data Accuracy).

Transco understands the basis for the views expressed by energywatch that this Proposal would assist Users to self- balance and facilitate Transco in the efficient operation of the pipeline system and the efficient discharge of its Licence obligations. To the extent that the Proposal might assist Users in their balancing role this Proposal would meet the relevant objective set out in Transco's Licence Condition 9.1 b. When considering the technical issues associated to this data, Transco is not convinced that this Proposal would provide any additional benefit above that which will be provided by the current DTI Information Initiative (Category 1). Transco agrees that it has Licence obligations and is incentivised to undertake its system operation role as “*residual balancer*”. Transco believes that given the complexity and quality (accuracy/timing) issues associated to the publication of the sub-terminal flow data, it is not clear that this Proposal would reduce balancing costs.

Transco does agree with AEP and RWE that participants must recognise and fully understand the implications of this Proposal and the effects (beneficial or otherwise) that the publication of this information might have on the operation and efficiency of the gas market.

Information Access/Asymmetry

BOC believed that the provision of such information could strengthen the demand side response reducing Transco’s balancing costs and improving the competitiveness of the market and increasing the security of supply.

CIA commented “...the lack of transparency and an asymmetric access to information distorts this market and that this modification will help to overcome this distortion and should allow the market to set prices based on fundamentals” ;.

RWE suggested that “ *Shippers with upstream assets have greater access to terminal gas flow information as a consequence of their offshore field operations and beach delivery arrangements... which if removed should better enable market participants to compete on equal terms*”.

EDF noted “... *it can be argued that producer affiliated shippers, through their contractual association with offshore infrastructure have an advantage compared to downstream shippers by being able to respond quicker to movements in the market*”.

Two respondents (BGS, STUK,) believed the Proposal does not address the asymmetry of system information present in the market suggesting to varying degrees that a failure to provide both supply and demand side information will lead to inefficiencies and greater volatility as shippers respond to changes in the supply side without accounting for the net affect on the system.

BGS stated “... *a competitive market does not require participants to have identical information, as it is through the operation of the market and interaction of supply and demand that information is aggregated and released into the market through the operation of the price mechanism*”. BGS then questioned whether this Proposal removes information asymmetries, “... *as the wider market currently does not have access to any disaggregated supply information below the NTS and LDZ level*”.

BGS also commented “*It seems more plausible to BGS that changes in the fundamentals of supply and demand have resulted in higher gas prices rather than information asymmetries*”.

BGT commented that “*information release initiatives that are likely to meet the relevant objectives would need to consider the inclusion of both supply side and demand side information to maintain a balance in the market and to recognise the role that the demand side has in the future*”.

Transco response:

Transco agrees that asymmetric access to information might provide a commercial advantage to some market participants. Transco does however also understand those respondents that have suggested this Proposal does not fully address information asymmetries within the gas market, for example, in relation to demand-side flow information and therefore it is possible that the implementation of this Proposal might in itself result in an information asymmetry in favour of demand-side information.

Whilst the absence of real-time sub-terminal flow data and an apparent lack of transparency might be considered by some participants as a contributory factor to recent high prices in the GB gas market, Transco agrees with BGS that this is more likely to have been caused by a change in supply-demand fundamentals; for example, a tightening of the supply/demand ratio with the decline of the UKCS and the UK’s increased dependence on storage and gas imports from Europe.

Data Ownership, Confidentiality and Liabilities

Data Ownership/Commercial Confidentiality

BCAP stated “*The disapplication of [Utilities Act 2000] section 105 with respect to an obligation to publish the information renders much of the discussion in the DMR about the precise ownership of the original metered data redundant*” .

BCAP and energywatch believed that this Proposal would only reveal actual gas flows and not directly reveal the commercial relationships or arrangements of individual producers. energywatch further suggested that “*If a party feels ... ‘risk’ from flow data they can hedge*”.

the risk by altering contracts, for example moving the point of sale to the NBP rather than at the beach”.

energywatch commented “While Ofgem may have acknowledged the legal issues arising under the DTI initiative energywatch suspects this is because the data requirement was not in the network code and not data owned by Transco...” .

EON stated that “...at this stage unrestricted disclosure of a ‘real-time’ flow data at smaller single user entry points would inadvertently favour sellers under certain circumstances. The current typical level of liquidity in the gas wholesale market is such that it would prove difficult for shippers and ‘end-user’ shippers to purchase larger volumes of gas within-day without moving the gas price significantly”.

EON believed that “Overall the right balance between the commercial interests of buyers and sellers (producers) seems to have been achieved by this proposal”.

UKOOA stated that throughout the DTI Information Initiative discussions “...there was recognition by and agreement among all parties (DTI, Ofgem, Transco and UKOOA) 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”.

TEP highlighted an Ofgem letter to the industry dated 23rd October 2003 which indicated that a Proposal “which required Transco to disclose information which was provided to it on a confidential basis was unlikely to better facilitate the achievement of the relevant objectives if it could be demonstrated that acceptance of such a proposal threatened the continued provision of such information to Transco or if it placed Transco in breach of pre-existing confidentiality obligations” ;.

TEP believed that if this Proposal was approved, “Ofgem would not be fulfilling their duty of carrying out their function in a manner which is best calculated to secure a diverse and viable long term energy supply. Forcing Transco to disclose confidential data belonging to another party does not create a favourable regulatory environment”.

TLNG raised a concern that the publication of real-time flow data would potentially place those storage operators that operate an ‘allocation whole’ service in a commercially disadvantaged position. TLNG stated “If the physical flow data is published “in real time”, then the market participants will be able to see where the flows differ from that nominated. This would leave the storage operator exposed to selling or buying gas dependant upon if we were ahead or behind in injection / withdrawal. The storage operator would then be a “distressed” seller or buyer, and the market would be aware of his position and exposure” . TLNG further asserted “The principle of holding storage nominations whole is therefore incompatible with the publication of real-time gas flows and most storage operators and storage users would argue that having an allocation whole service is more important and valuable to customers than any form of real-time information on gas flows”.

BCAP questioned that “... Transco-owned data would still be covered by section 105...” and further commented “To what extent would Transco have obtained information under or by virtue of the provisions of the relevant acts in the case of its own data?”.

energywatch noted that “... with meters owned by Transco the data will relate to flows through Transco’s pipes, coming from Transco’s meters and as such relates to their business and is not information being received from third parties... ”.

EDF commented “*Transco has a significant amount of its own metering equipment at Terminal level which, installed at the sub-terminals, aid Transco in balancing the system on a real-time basis*”.

Transco response:

Transco agrees with BCAP that Standard Licence Condition 4E (SLC4E) effectively removes the liability that it would face under Section 105 of the Utilities Act 2000 in respect to confidentiality and information disclosure as a result of any Network Code obligation to publish information. However, SLC4E does not extend to those various bilateral contractual agreements (or confidentiality clauses typically contained within) that are in place between Transco and upstream parties. 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 under the terms of these agreements remains confidential unless that party provides its prior consent for Transco to publish.

Transco does not agree with BCAP and energywatch that this Proposal would only reveal actual gas flows as there is a possibility the publication of this data could place both the upstream producer and its associated Users that transport gas through that sub-terminal (storage facility) into a commercially distressed position; to which the gas market would then become aware.

Transco notes the energywatch comment “*While Ofgem may have acknowledged the legal issues arising under the DTI initiative energywatch suspects this is because the data requirement was not in the network code and not data owned by Transco...*” . The legal issues surrounding the contractual arrangements, commercial confidentiality, liability and ownership of upstream data have been debated at length within the gas industry; during the DTI Information Initiative and in various industry consultations that have considered the provision of offshore information. Transco believes that the Authority and the industry understand the wider, adverse implications that the publication of this particular dataset would have on other upstream information that is provided to Transco to enable the efficient operation and planning of the pipeline system.

Transco believes that publication of the sub-terminal flow data is not the main issue, but rather, that at the heart of the matter is, the question as to whether Transco should have Network Code obligations placed on it to publish disaggregated upstream information, including that required by this Proposal. On this point Transco considers that there is a real and genuine risk that this would lead the upstream parties' withdrawal from the bilateral/voluntary agreements, including those achieved through Phases 1 and 2 of the DTI Information Initiative. The issue of withdrawal from the voluntary agreements is discussed in further detail later in this report.

Transco agrees with those respondents that have stated there are contractual and legal issues associated to this Proposal that would require lengthy and complex negotiations

prior to the publication of sub-terminal flow data to the wider market. Transco also believes that consideration should be given to the costs of these contractual renegotiations.

Transco notes the comments from BCAP, EDF and energywatch in relation to metering arrangements and data ownership and Transco confirms that the majority of the sub-terminal metering is owned and operated by 3rd parties. Transco agrees with BCAP and energywatch that if it owned (or installed duplicate metering) on the NTS side of the sub-terminal flange, then it would legally own the flow data. However, Transco 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. Notwithstanding this, if Transco did install duplicate metering on the NTS side of a sub-terminal (or storage facility) flange and, was then obliged through the Network Code to publish this information, it would not face liability under Section 105 of the Utilities Act.

Contractual Agreements and Liability

BCAP believed *“there is therefore little reason to suppose that Transco would actually be in breach of [Utilities Act 2000] section 105 if it released the sub-terminal information nor that such an obligation would create insoluble difficulties for other related contracts”* ;

BCAP also suggested *“Although we have no information on the precise terms of the NEAs and confidentiality agreements, it seems reasonable to suppose that”*:

- *Transco’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.*
- *Even if the contracts did not already provide for this contingency, an obligation under the Network Code would override any bilateral contractual obligations that in turn should precipitate the renegotiation of these agreements.*

energywatch accepted that the *“commercial arrangements behind each terminal are private agreements between the parties concerned. NEA liabilities – As NEAs are confidential it is difficult to comment on the substance of Transco’s concerns”*. energywatch also commented that it *“would also expect there to be a clause in the NEA giving the network code supremacy over the NEA in the same manner as in storage connection agreements”*.

EDF recognised that information relating to offshore flows that Transco currently receives from producers and terminal operators *“... is commercially sensitive data and therefore confidential under the Utilities Act 2000 and individual Network Entry Agreements (NEAs)”*.

BP believed that the proposed information disclosure would potentially *“... expose Transco and others to claims for breaches of confidentiality and liability risks relating to accuracy and use of such information”* and; *“The need to avoid these consequences, which would undermine the existing agreement, was clearly recognised by the parties participating in the [DTI] ‘phase 3’ information disclosure debate”*.

COP believed the energywatch suggestion that *“... these contracts can be renegotiated...”* might not be a practical solution as it assumes that both parties to a contract are willing to participate in the process of renegotiation and this might not be the case. COP further

commented, *“The suggestion also does not take into account the time and cost involved with numerous contracts”*. Two respondents (MOL, SHUK) supported the view of COP and SHUK further suggested that *“...there would need to be clear additional benefits from the Proposal, above those generated by the [DTI Information Initiative] “phase 3” agreement, to justify the substantial effort to re-address issues such as confidential, liability and data ownership”*.

EMIL noted that the provision of market sensitive information raised complex questions as to potential liability, which can lead to additional cost in providing such information. EMIL suggested *“... that the potential for such liability is likely to see information providers seeking indemnities against potential losses, disclaimers as to the accuracy or reliability of information provided or arrangements that might otherwise add costs into the system”*. This view was also supported by UKOOA *“... liability for the accuracy and use of the data. Without proper safeguards, these are profoundly concerning issues for which there are no simple answers. But energywatch does not mention them or the implications”*.

Eni stated that the implementation of the Proposal would require the resolution of substantial contractual, legal and technical issues. *“ ... the disclosure of this category of information by Transco, without consent of the third party would ... leave Transco exposed to liabilities from breaches of various bilateral confidentiality agreements, typically contained within Network Entry Agreements... ”*.

RWE believe that the Proposal may result in trading parties front running those asset / contract owners that have had a curtailment event, and not giving those parties time to cover lost volumes in the market first, which could be perceived as a penalty on asset owners and is hardly likely to incentivise the building of new infrastructure.

UKOOA was surprised that energywatch considered the resolution of the issues associated to this Proposal *“... with such ease...”* and; *“That is not how UKOOA or its members view them and they would go to the heart of a complex array of contractual and commercial arrangements between a large numbers of parties, every one of whom would have to be willing to take part in an extensive exercise of renegotiations...”*.

TLNG noted *“... this specific issue (publication of real-time flow info) was debated through the GGSSO (Guidelines for Good tpa Practice for Storage System Operators”) process in Europe, in conjunction with GTE & ERGEG. It has now been agreed to remove the requirement for storage operators to publish real-time information, within the voluntary guidelines, as the allocation whole service was seen to be more valuable”*.

Transco response:

Transco agrees with BCAP that, should Ofgem direct the implementation of this Proposal, given its Licence obligation contained within SLC4E, it would not face liabilities under Section 105 of the Utilities Act 2000. The temporary derogation that Ofgem has applied to SLC4E relates primarily to that upstream information that is now provided to Transco under the agreement reached for Phase 2 of the DTI Information Initiative.

In relation to the terms of the Network Entry Agreements (NEAs) and the confidentiality clauses, these fall outside the vires of Network Code (NwC) as, unlike the Storage Connection Agreements (SCAs), these are not referenced nor defined within the NwC and are therefore outside of this governance process. Additionally, Transco has a number of

'legacy' NEAs that were signed prior to the introduction of Network Code (1996) and therefore, do not include any provisions in respect of NwC obligations. An obligation under Network Code therefore does not override the bilateral obligations that are contained in NEAs.

Transco agrees with BCAP and energywatch that it might be possible to renegotiate these agreements and, with the other respondents that support the view expressed by ENI that "*... the implementation of the Proposal would require the resolution of substantial contractual, legal and technical issues...*". Whilst the renegotiation of the NEAs is possible, it is likely to be on protracted timescales due to the number of agreements, complexity and legal issues involved. Additionally, any renegotiation of the NEAs between Transco and the upstream parties would potentially lead to a requirement for the producers and the Delivery Facility Operators to renegotiate any associated 'back-to-back' contractual arrangements between themselves and their own customers.

Transco agrees with those respondents including BP, COP, EMIL, ENI, MOL, SHUK and UKOOA, that believed the proposed information disclosure would potentially expose Transco and others to claims for breaches of confidentiality and liability risks relating to accuracy and use of such information. Transco also supports the view expressed by BP "*The need to avoid these consequences, which would undermine the existing agreement, was clearly recognised by the parties participating in the [DTI] 'phase 3' information disclosure debate*".

Withdrawal of voluntary information/agreements

AEP noted that approval of this Proposal would "*... formalise the release of information such that it would not be at risk of withdrawal from any kind of voluntary agreement in the future*" and; "*...find it remarkable that Transco continues to be reliant on non-contractual information flows to balance the system since this is such a central part of it's compliance with it's licence to operate the system in an efficient manner*".

AEP had reservations in respect of its support, if the approval of this Proposal was to jeopardise either the release of the agreed DTI Information Initiative (Category 1 and 2 information) or the non-contractual information flows to Transco that related to system operation.

BCAP was concerned of "*the threat that the upstream parties may no longer provide this information if it were required to be released*". BCAP also commented "*...the mere possibility that upstream parties could hold Transco to ransom in this fashion provides a prima facie case for introducing statutory and licence provisions to ensure the continued availability of this information to Transco*".

BOC believed "*...that a more straightforward set of obligations under the network code should allow data quality and legal ownership difficulties to be overcome provided that all the 'powers that be' gave any necessary support*". BOC also stated "*...Transco's suggestion that upstream parties might decide to withhold information is sinister and surely not consistent with an efficient and competitive market*".

CIA commented "*... it was aware that there has been talk of producers withdrawing from the voluntary agreement if this proposal was to go ahead. The CIA believe that information*

required by Transco 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”.

energywatch commented on the concerns raised by Transco in the Draft Modification Report (DMR) relating to the withholding of information “energywatch would be extremely surprised if producers were to act in such a manner and would raise with DTI and Ofgem the potential competition issues associated with such action. As an associated policy development, energywatch would urge the DTI to put an information provision licence obligation onto producers to ensure that Transco is always given access to the information it needs to safely manage the UK’s gas network” .

ENI considered that “... the proposed Modification would cut across the agreements reached in the four-party [DTI Information Initiative] discussions referred to. If the Modification were accepted, ENI UK would necessarily have to consider its position within the terms of the undertakings given by the company at the conclusion of those discussions in March 2004” . ENI also considered “... that in permitting the Modification to proceed, Ofgem would be acting contrary to its letter of 23 October 2003 to all interested parties in the industry, and to statements made during the course of the four-party discussions concerning the appropriate protection of commercially confidential information provided to Transco”.

MOL asserted “Publishing data at sub terminal level in real time resurrects MOL’s concerns, previously allayed by the DTI initiative, over the questions of liability and the honouring of agreements already entered into relating to data publication. It would seriously influence MOL’s decision whether or not to disclose information to Transco in future if it had reason to doubt that data previously agreed confidential was being respected”.

TGP noted “... the provision of such information could jeopardise the investment, to date, in securing the current and future voluntary agreed information release. TGP therefore struggled to understand how the proposers assertion, that it would effectively lead to more efficient market operation, will be realised... ”.

UKOOA noted “If such confidentiality were breached, it is possible that operators would seek redress and re-consider whether to continue to provide the data. This would not be in the interests of improving the operation of the market”.

Transco response:

The Gas Act, associated Licences and the terms of the Network Code charge Users with the role of providing gas flow information to Transco through the provision of Gas Flow Nominations and the associated accuracy incentives. Transco uses the information provided under these arrangements to inform its system operation functions and as such it is not solely reliant on the information provided by upstream parties to operate the system in an efficient manner. Transco however, recognises that information provided by upstream parties, including sub-terminal forecast flows into the NTS and information received by Transco as part of the “Transporting Britain’s Energy” (TBE) process, serves to inform the timely development of onshore infrastructure and as such facilitates the efficient and economic development and operation of the pipeline system.

Neither Transco nor the Authority has the ability to compel upstream parties to enter into any agreement regardless of the importance of such an agreement. As a result Transco remains reliant on the goodwill of these parties to provide it with operational information. Transco disagrees with the comment from AEP that this Proposal would formalise the release of information such that it could not be withdrawn; the approval of this Proposal would only place a NwC obligation on Transco to publish sub-terminal (and storage facility) flow data. Therefore, the approval of this Proposal would not prevent any upstream data owners in withdrawing from the voluntary information arrangements or, refraining from the provision of upstream information that Transco currently receives through these arrangements, for example, data that it now receives under Phase 2 of the DTI Information Initiative.

Transco notes the concern of AEP that the approval of this Proposal could “... *jeopardise either the release of the agreed DTI Information Initiative (Category 1 and 2 information) or the non-contractual information flows to Transco that related to system operation...*”. During the DTI Information Initiative, Transco clarified and gained agreement from the participants that it could publish aggregated information i.e. Category 1 and 2. NGT legal opinion has clarified that whilst Transco might not ‘own’ the flow data that relates specifically to the sub-terminals, any data that is aggregated to a sufficiently high level and protects commercial confidentiality and the data owners from any liabilities then becomes owned, and can be published, by Transco. Therefore, notwithstanding the decision of Ofgem on this Proposal, Transco believes that it will be able to continue with the publication of Category 1 and Category 2 information in their agreed, aggregated form.

Four respondents (AEP, BCAP, CIA energywatch,) have questioned the concern raised by Transco that upstream parties might withdraw from the voluntary arrangements and withhold operational information that is essential to Transco in its role as the system operator and residual system balancer. These respondents have further suggested that it might be appropriate for the voluntary arrangements to be embodied into legislation, for example, incorporated into the Gas Transporters’ Licence.

Transco believes that the concerns that upstream parties are likely to withhold information that is used for planning purposes, potentially withholding daily operational information from Transco, e.g. Delivery Flow Notifications (DFNs), unplanned outages and, the provision of access to sub-terminal metering equipment are genuine. The effect of this would undoubtedly have a detrimental impact on Transco’s ability to manage its pipeline system in an efficient and economic manner and, the economic development and competitiveness of the GB gas market.

Transco has previously raised concerns that upstream parties may withdraw from the voluntary information provision arrangements and withhold operational information. Transco in its two Modification Reports relating to Proposal 0593 ‘Obligation on Transco to publish TFA data’ raised such concerns in its opposition to the Proposal. The basis for this opposition was primarily related to Transco’s position that it considered the withdrawal of the upstream parties from the voluntary arrangements, and the withholding of important operational information would not further the relevant objectives as defined in Standard Condition 9.1 of its Licence in relation to the economic and efficient operation of its pipeline system and, securing competition between relevant shippers and between

suppliers. In its decision letter to 0593 (July 2004), Ofgem acknowledged the concerns and issues raised by Transco and directed it not to implement the Proposal.

Three respondents (ENI, MOL, UKOOA) indicated in their responses that should this Proposal be implemented, they would need to re-assess their decisions as to whether or not they would continue to provide Transco with upstream information.

Should Ofgem direct Transco to implement this Proposal, Transco believes that it might become necessary to put the provision of the information it receives through the bilateral, voluntary arrangements on a legally binding basis in order to secure its future delivery, given the potential detrimental impact that might occur with the loss of this information.

However, in the current regulatory regime, the offshore/upstream parties are governed by the DTI, largely under the auspices of the Petroleum Act 1998 and the Pipelines Act 1962 and, the DFO's are exempt from a requirement to hold a Gas Transporter Licence. During the DTI Information Initiative discussions, the DTI has indicated that if a legislative route is to be considered, this would require a change to statutory legislation and it expected that this might take several years to conclude. Therefore, although the Authority could amend Transco's Licence (and by inference, the Network Code), it would also need to seek the assistance of the DTI to ensure the requirement for the provision and release of offshore information was reflected in the Petroleum Act 1998 and the Pipelines Act 1962 and the associated Licence(s).

Cost Benefit Analysis

BCAP asserted *"As we outlined in our December 2003 paper on greater transparency in the UK gas market, this lack of transparency costs UK gas consumers upwards of £265 million per year. This represents a highly-conservative estimate of the likely true cost to consumers given that many highly significant benefits were not quantified. Moreover, the analysis focuses solely on the gas market and takes no account of the associated negative impact on liquidity in the electricity and emissions markets, for which the price of gas remains a key driver. While these estimates related to the provision of information generally, they are directly relevant to the consideration of Modification 727"*.

energywatch noted *"The benefits arising from the modification are derived from the impact that the data will have on the level of competition within the gas market"*. energywatch added that it had *"... undertaken some analysis of the benefits (annexed to the DMR) which we believe give a robust basis on which Ofgem can assess the modification. While the analysis is not extensive, the size of the benefits relative to the costs (by a significant factor) means that the case for change is clear. Even if Ofgem alters some of the data driving the calculations or assumes some double counting the case still remains extremely strong"*.

ICL noted the efforts of energywatch to demonstrate the Cost/Benefit analysis for the Proposal and find that the *"...case made is a strong one"*.

Three respondents (EDF, Ciba, Corus) agreed with the Proposer's benefit calculation methodology, which estimated costs for this Proposal at £20 Million, compared with annual benefits of £265 Million, and that benefits of the Proposal outweighed the costs. EDF expressed the view that *"... the benefits will largely outweigh any costs due to the increase in competition demand and supply to resolve system imbalances for many years to*

come". Corus suggested "...the costs have been inflated by £ 20 million to enable Transco to obtain information which is probably already available".

TEP supported the provision of relevant gas information to the market; "*We have actively supported UKOOA in the discussion process that led to the Information Exchange agreement [DTI Information Initiative]. However, we consider that the case in favour of the proposed modification, from a cost benefit and a market improvement perspective, has not been demonstrated*".

TEP stated the energywatch Proposal "... fails to explain adequately the incremental benefits of receiving data flows from each sub-terminal rather than in the aggregated North / South format agreed ... in March 2004" and; "*By having access to near real-time flows in the North/South format, the market will be able to assess the level of supply into the NTS, with little being gained from having access to specific sub-terminal flows*".

BGS noted "...Proposal did not explain how the publication of near real time data at sub-terminals would result in an increase in competition in production and supply and in turn result in a price reduction of 0.5% when the consequence of the Proposal was to increase the risks of parties exposed to the performance of physical assets".

GDF believed "... there is further clarification needed to assess the relative benefits of information provision at sub-terminal level as opposed to aggregated, given the high costs assigned here".

Two respondents (CTX, RWE) considered that the cost-benefit analysis provided is flawed as it is based on the premise that benefits "can" arise while no evidence is offered of the likelihood of such benefits being delivered. RWE did not agree with energywatch's assumption that traded volume, on which benefits were calculated, equates to 40 billion therms per annum "... as the current traded volume for the year just ended is running at around 7 billion therms per annum (source ESGM 23/2/05)".

COP stated "... the calculation of the additional value gained by the incremental change proposed by modification proposal 0727 has not been provided through the cost-benefit analysis".

TGP noted "... the proposer has attempted to formulate a cost-benefit analysis to justify implementation. The assumptions used within their analysis appears to be extremely broad, in certain instances highly speculative and does not account for concerns associated with the provision of inaccurate or reduced data to the market".

Transco response:

Given the timing of the Cost Benefit Analysis (December 2003), the progress of the DTI Information Initiative to-date, and with the publication of all four categories of information that were agreed (July 2004) as part of Phase 3, Transco does not believe that those cost benefit savings identified and used to support this Proposal are as significant as those suggested by BCAP and energywatch. Indeed, Transco considers that the majority of the benefits put forward within the cost benefit analysis supporting this Proposal will be forthcoming as a result of the DTI Information Initiative leaving little, if any, additional benefit in disaggregation to the sub terminal level. In this respect Transco is, therefore, aligned with the comments put forward by TEP.

Cost Benefit Analysis Paper - Comparison with BETTA

Four respondents (ENI, RWE, SGD, STUK) did not believe that it was appropriate to apply BETTA benefit analysis when gauging the impact of this Proposal. Respondents expressed concerns in the following areas:-

- Questioned whether it was appropriate to use an estimate of the impact BETTA might have in reducing end user electricity prices as a proxy for gauging the impact this Proposal may have on reducing end user gas prices.
- Applying benefit analysis of BETTA, which extends the electricity trading arrangements in England and Wales to Scotland, to this Proposal appears tenuous.
- Fundamental difference in the nature of what this Proposal and BETTA are intended to deliver.
- Increasing the level of information on the supply side in the gas industry is not an appropriate comparison to BETTA as it was not on the same scale as BETTA.
- The monetary benefit proposed by energywatch of a 0.5% decrease in end user prices is based upon Ofgem and DTI estimates that relate to the electricity rather than the gas market and are inappropriate for the comparison purposes.

Transco response:

Transco agrees that it is inappropriate and might be misleading to compare and assess the relative benefits of this Proposal (publication of sub-terminal flow data) against the benefits of the introduction of BETTA. Transco does not believe that the potential benefits of BETTA which is effectively the consolidation of two electricity markets, can be used as a proxy for this Proposal which is seeking to publish sub-terminal flow data.

DTI Information Initiative

energywatch asserted “... *Transco, and Ofgem should only consider this modification against the baseline of the current network code. The agreement between producers and the DTI to deliver additional data at a point in the future is not relevant*”.

BOC commented that “... *progress [in relation to the provision of data under the DTI Information Initiative] had been rather slow and it appears there may be difficulties with data quality and legal ownership of information*”.

EMIL believed “*The benefits assumed are not repeatable or allocable to a specific piece of new information and therefore ... they are unreliable in their determination. All the benefits put forward for this further modification can be claimed to have been already achieved as part of “Phase 3”*”.

COP stated that energywatch’s Proposal was an incremental change to information release; “... *the greatest contribution had already been achieved through the initiative agreed by the offshore community with the DTI, Ofgem and Transco and to be implemented fully by Q3 2005*”.

SSE believed “... *pending the outcome of the DTI and Ofgem initiatives in this area, that it would be prudent not to proceed with the changes associated with Modification Proposal 0727 at this time*”.

GDF noted that *significant progress had been made in the recent DTI Information initiative and this should go some way towards bringing about many of the benefits outlined with this Modification Proposal.*

TGP noted “... *that significant effort has already been expended by Ofgem, DTI and UKOOA members as part of the DTI Information Initiative to analyse and ultimately strike, in our view, a pragmatic balance between these objectives and concerns*”. This view of TGP “... *did not extend to Modification Proposal 0727 since it is clear that significant technical and legal difficulties exist with respect to the real-time publication of information by sub-terminal*”.

Four respondents (ENI, GDF, TEP, UKOOA) believed that the market should take the opportunity to assess the effectiveness of the existing agreement and data provided through the DTI Information Initiative prior to the progression of any further requirement to publish it at a disaggregated, lower level of granularity.

Twelve respondents (AEP, BP, COP, EMIL, ENI, MOL, SHUK, SSE, TEP, TGP, RWE, UKOOA) believed that this Proposal has not fully considered the benefits to be achieved through the implementation of Phase 3 category 1 release of the DTI Information Initiative. Respondents considered that the cost/benefit analysis is misleading and highlighted the following concerns:-

- Cost/benefit analysis did not include the merits achieved through the full implementation of the Phase 3 Category 1.
- The majority of expected benefits associated with enhanced information release should be delivered via the Phase 3 Category 1 data release.
- Benefits from the Phase 3 data release have not yet been fully identified and understood.
- Benefits identified by energywatch are compared against a base case that assumes no further information is made available when this might not be the case post July 2005 (Category 1 release date).
- The quantified benefit of 0.5%, if realistic, involves a double counting of the existing programme for the release of Phase 3 Category 1.
- It is essential that the benefits attributable to this Modification Proposal and those attributable to Phase 3 information disclosure debate are clearly separated.
- Only by separating out the Phase 3 provisions can the merits of this Proposal be accurately determined.
- There was a requirement to establish whether the existing Phase 3 agreement would deliver the bulk of the benefits claimed for this Proposal, at a lower cost and without exposing any parties to the risks relating to confidentiality and liability.
- Important to ensure that the incremental benefits outweigh the additional costs over and above those that relate to the release of category 1 and 2 information. It is not clear how such benefits will be established prior to the release of category 1 and 2 information and experience of market operation with this information available to it.

Transco response:

Transco disagrees with the energywatch assertion that the Authority should only consider this Proposal “...against the baseline of the current network code ... ” and Transco also disagrees with the suggestion that “*The agreement between producers and the DTI to deliver additional data at a point in the future is not relevant*” . The Authority assesses each Proposal against the relevant objectives and in doing so must make an assessment of the benefits of the Proposal when compared to the current operation of the regime. To this extent Transco considers that it would be appropriate for the Authority to take into account current and imminent initiatives that might affect the Proposal. Transco considers that the DTI Information Initiative should be taken into consideration when assessing the costs and benefits of this Proposal.

Transco will publish, within the agreed timeframe, all four categories of information that were agreed as deliverables in Phase 3 of the DTI Information Initiative. The DTI Information Initiative had primary participation from the DTI, Ofgem, UKOOA and Transco and the deliverables for all three phases (and categories of Phase 3 information) were agreed by all these parties. Transco has already commenced the publication of Categories 2, 3 and 4 and Transco anticipates that the publication of Category 1 (of which this Proposal is an extension) will commence from 1st July 2005.

Transco has been a significant participant in the DTI Information Initiative over the past three years and is of the view that, whilst there remain outstanding commercial and technical issues associated to the provision of detailed upstream information, progress has nevertheless been achieved.

Given the significant time and effort that has been expended by the DTI Information Initiative over the last three years, Transco agrees with those respondents that have suggested:

- The majority of benefits associated with this type of information provision will be delivered with the implementation of Phase 3, and specifically, Category 1, from July 2005.
- The market should take the opportunity to assess the effectiveness of the existing agreement(s) and the data provided through the DTI Information Initiative prior to any further progression to publish Category 1 at a lower level of granularity.
- It might be appropriate to monitor the effectiveness and market awareness of the Phase 3 information deliverables over a specified timescale before any final decision on this Proposal is reached.
- Any future cost benefit analysis for this Proposal should be measured against that to be achieved by the implementation of the Phase 3 deliverables (all four categories).

Market benefits

Ciba stated “... with more real-time information available to all market participants, the price set by the market would more accurately reflect the current market conditions. If prices were reflecting true market fundamentals, this would provide clearer signals to the producers...”.

energywatch suggested the Proposal would afford certain market benefits:

- shippers will be able to see any supply deficits arising and take appropriate action to meet a shortfall impacting their portfolios.
- Information on gas flows will enable players to better judge the actual demand and supply balance within the day. If supplies are falling from a large gas field, the sooner the market can make informed responses, the more secure the supply of gas will be.
- informed decisions about the physical position of the market will result in prices that better represent the true price of gas, such that at times of supply deficit prices should rise and at surplus, fall.
- Customers will therefore get “market priced” gas, and market players and new entrants will be able to better assess development options and respond to shortages in a timely manner, building storage, investing in new fields, etc.
- In the longer term a better understating of the operation of the physical system will encourage the efficient development of new gas supplies and balancing tools.

RWE noted “... *the Proposal should improve market signals and supply competition in the prompt and front part of the curve, but the same cannot be said for the rest of the curve as this was influenced far more by macro market signals and by information that was already largely available to all*”.

BGT believed “... *the Proposer had not explained what use they expect the market to make of the data that they wish to see released, however, on an initial assessment, BGT did not believe that the information proposed to be released had any value to the market as it neither explains why a flow may have varied nor does it compare it with expected flows*”.

BGT also stated that it “... *did not support any proposal that imposes additional costs on Users without much greater clarity on the benefits that would be delivered*” ;.

CTX is concerned that “... *the provision of additional raw information, possibly out of context, may lead to more volatile spot gas prices, and noted that no assessment was made of the impact of such volatility, either on day-to-day trading or the longer-term relationships between gas suppliers and their customers*”.

CTX also noted “...*high prices can cause concern, but the Proposal does not take into account the effects that price signals have on a wide range of market activity, including the encouragement of energy conservation increases in longer-term Security of Supply for the United Kingdom*”.

STUK observed “*flows through sub terminals can change for many reasons (buyer renomination, production problems etc) failure to correctly interpret changes in beach supplies could create increased volatility and widen the spread*”.

Three respondents (EMIL, MOL and TEP) questioned the market benefits to be gained from providing sub terminal specific data when the vast majority of gas trades in the United Kingdom take place at the NBP (National Balancing Point).

TEP stated the energywatch Proposal “... *fails to explain adequately the incremental benefits of receiving data flows from each sub-terminal rather than in the aggregated North / South format agreed ... in March 2004*” and; “*By having access to near real-time flows in the North/South format, the market will be able to assess the level of supply into the NTS, with little being gained from having access to specific sub-terminal flows*”.

Transco response:

Transco broadly agrees with the comment provided by Ciba in relation to market fundamentals and price signals however, Transco believes that the market would tend to utilise the longer term signals that are provided by the auctioning of NTS entry capacity rather than the ‘within day’ price signals that are set on the OCM.

Transco agrees with energywatch that Users might be better able to assess supply deficits. However, Transco is mindful that this information would effectively be published ex-post and might be subject to misinterpretation by market participants. Transco believes that of more benefit and relevance to market participants might be the publication of the Delivery Flow Notifications (DFNs) and Storage facility Flow Notifications (SFNs) as these are essentially the operator’s own hourly forecasts of their intended flows. These forecasts are provided to Transco both before and within day and are used to manage the operation of the pipeline. Transco has commenced (18th March 2005) the publication of this information, albeit on an aggregated basis, as Category 2 of the DTI Information Initiative.

Transco agrees with energywatch that over the long term, this Proposal might assist market participants with a better understanding of the ‘within day’ physical management and operation the pipeline, however, Transco does not believe that this Proposal would necessarily encourage the development of new gas supplies that is likely to be driven by wider market fundamentals.

Transco agrees with BGT and CTX that it is possible that the publication of the raw data, as put forward by this Proposal, might be misleading as it would not explain why a flow had changed, does not compare it to the forecast flows, and thus, could be subject to misinterpretation. Should this occur, it might lead to market inefficiencies for example, increased price volatility.

Transco agrees with CTX that high prices in the gas market might cause concern. However, such price signals are utilised by various participants in the gas market for longer term commercial activities, for example, the development and investment in new sources of gas supply and GB gas infrastructure. Transco believes it is important to recognise those effects on gas prices in the context of the physical and economic linkage between the UK and European gas markets.

Transco notes the comments (EMIL, MOL and TEP) and agrees that whilst the majority of gas trades take place at the NBP, notwithstanding the effects of gas being traded many times, there are inter-dependencies between gas traded at the NBP and the physical deliveries at the NTS system entry points.

Effect on balancing costs and price spread

SGD believed “*as no additional information will be provided to Transco, the Proposal would have no effect on Transco's ability to balance the system or on neutrality costs and hence would not lower balancing costs*”.

SGD also noted “*Transco takes no actions or very few actions on each day (often one only). In all cases, the difference between SMP-buy and SMP-sell had to be at least at the level of the fixed differential, which was introduced to incentivise shippers to balance*”. SGD “*... did not advocate that this fixed differential is changed but unless it was removed, the scope to reduce the spread within day was significantly restricted making the benefits claimed [by the Proposal] impossible to achieve*”.

STUK believed that “*... it was not clear how the release of sub-terminal specific data would create a narrowed buy/sell spread as claimed in the energywatch paper*”.

Transco response:

Transco agrees with SGD that this Proposal does not provide Transco with any additional information. Transco is mindful that the publication of the raw flow data could have a detrimental effect on the efficiency of Transco’s balancing actions. Transco also considers that there are risks that the information provided through this Proposal could be misinterpreted by the market and subsequently have an adverse impact on the market and the prices available within the market.

Transco agrees with SGD that Transco now takes very few system balancing actions on the OCM. Indeed, Transco now accounts for less than 2% of the all trades that occur on the OCM. Transco also agrees with SGD and STUK that it is difficult to understand the rationale for the cost benefit analysis that has been used to support this Proposal when the Cashout price differentials default to one or both of the set differentials on most days.

Technical Considerations

Estimate of costs of providing real time data

TNUK believed that some opposition to the Proposal “*...had been based on claims of high costs of IT systems necessary to provide the information*” and stated in their opinion, “*... these costs were being exaggerated*”.

BGS and ENI recognised and shared the concerns about the costs and potentially complex technical issues surrounding the release of real time disaggregated information and the liability issues that may result from implementation of this Proposal. ENI was concerned “*... technically, the provision of real time data presented additional costs to the industry...*” and was further concerned about the quality that would be provided.

Transco response:

Transco does not agree with TNUK and believes that the high level cost assessment of the IS development and implementation of this requirement is realistic and is based on previous experience of the IS development of the Information Exchange Programme (info.transco.uk.com). Transco has previously indicated that should Ofgem direct the implementation of this Proposal, it would wish to undertake a full and detailed impact assessment and confirm these development costs with the community.

Transco notes the comments from BGS and ENI and agrees that there are potentially complex technical issues that need to be understood and addressed by the industry prior to any publication of this information. These issues are detailed below under “Data Accuracy”

Information usage

BGT noted “... when considering information release the industry needed to consider very carefully not only the practical details of what information can be released, but try and understand how it can be disseminated...”. BGT also believed that “...it was not clear from the Proposal what the exact expectation is regarding the data that Transco should publish”.

BGT further commented “... the method of release has not been discussed. One of the current issues regarding data release by Transco to the market was the poor quality of the method of release, on different platforms, with differing standards of quality and resilience etc. BGT believe that there were 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”.

Transco response:

Transco notes the comments from BGT and would assure it that any mechanism to disseminate this information would be developed in a robust and flexible manner, potentially utilising the existing Information Exchange website.

Data accuracy

energywatch made several references as to the use and accuracy of the sub-terminal flow data:

- *“Producers have suggested that the data provided under the modification would be of limited value due to the reliability of meters, flow variations from normal operations and the reducing field reliability”.*
- *“...if these arguments are true the producers should have no concerns about sharing the information. However, energywatch believes that this information is of value and it will therefore improve competition in the market if all players have access to this sort of data which shows the actual supply position in real time. Economic theory shows that information is a key driver in achieving efficient markets with high levels of competition”.*
- *“... meters are relatively reliable and accurate (normally within +/- 1.5%), and as Transco uses the data for managing its own network this is evidence of the value of the data...”.*
- *“Transco’s arguments ... take a rather paternalistic approach to market participants, who we believe should be offered the opportunity to judge the usefulness of the data for themselves”.*
- *“During summer 2004 there were interruptions to customers in the south due to flows reducing through one terminal. This has illustrated that the market is*

impacted by terminal level flows, illustrating that zonal data does not provide the degree of transparency needed to understand within-day issues” .

BCAP stated *“While we take some comfort from the DTI and Transco maternalistic view that immediate but inaccurate information is less useful to the market than less rapid but accurate information, we would rather have potentially inaccurate, but prompt and disaggregated, sub-terminal information than rely on delayed and aggregated information alone”*. BCAP also stated that *“while data accuracy is clearly a concern, we would note that the data is sufficiently useful to allow Transco to manage its system and it seems reasonable to assume that market participants would prove equally capable of interpreting the data in making their own decisions”*.

CIA noted *“Transco had expressed concerns over the accuracy of meters that may be used in that they may present misleading information, however, with the current situation the market relies on rumour and out of date data to form decisions. CIA believed that this was clearly an undesirable situation and so any data release system that combats this should be actively pursued and any concerns over accuracy should represent a technical issue that needs to be overcome not a reason to not implement this Proposal”*.

EDF did not believe *“... the publication of offshore data on a north/south basis would suffice as it would not provide the locational information that was so critical for both Transco and shippers to react to”*.

EMIL commented *“mandating the provision of certain information to parties who cannot always understand the basis or relevance of the information that they are receiving is likely to increase the incidences of inappropriate actions in the market. EMIL give the example that a simple example being a short duration instrument failure resulting in reporting of low flows, but where no actual change in the physical flow occurred”*.

ENI supported the view expressed by the DTI *“...immediate but inaccurate information is less useful to the market than less rapid but accurate information.’ A Consultation on concerns about Gas Prices and Possible Improvements to Market Efficiency (Nov 2001)”*.

TEP believed that the *“publication of real-time data as proposed by Energywatch carries the risk of inaccurate and possibly misleading information reaching the wider market, with significant associated confidentiality and liability concerns... ”*.

TGP shared the view of BP and did not support the forced publication of information that might *“...prove to be inaccurate or misleading to the market”* . BP considered that this *“... would only serve to put pressure on prices and increase market volatility and thereby be detrimental to efficient functioning of the gas market”*.

Transco response:

Transco notes those respondents’ views on the issue of data accuracy and the arguments put forward that have suggested the data should be published and; the market left to decide on its usefulness and value.

Transco however, would like to offer an alternative view that the value of this information to the operation and efficiency of the gas market is directly proportionate to the availability, timing and most importantly, the accuracy of the underlying data sources. Transco broadly supports the economic theory that information is a key driver to efficient

and competitive markets but it firmly believes that any information that is published to the market must be 'fit for purpose'; Transco would be failing in its Licence obligations if it did not highlight the existing technical issues associated to the processing and publication of the data as outlined in this Proposal.

Transco agrees with ENI and continues to support the opinion expressed by the DTI "*...immediate but inaccurate information is less useful to the market than less rapid but accurate information.*" *A Consultation on concerns about Gas Prices and Possible Improvements to Market Efficiency (Nov 2001)*".

Transco agrees with energywatch that meters are relatively reliable and accurate however, as stated in this Final Modification Report, the differing meter types and arrangements between sub-terminals (even those that are located within the same terminal) and storage facilities are such that publication of this data, as outlined in this Proposal might be subject to misinterpretation by the market.

Transco notes those comments made by BCAP and energywatch that Transco utilises the sub-terminal flow data to operate and balance its pipeline system. Transco does utilise certain flow data to operate and balance its pipeline but this is in conjunction with a whole array of other information that it has access to, for example, DFNs, SFNs, monitoring of system pressures and demand management tools. When required, Transco's use of such sub-terminal flow data is generally only used in the context of other operational data and complex internal system (pipeline) management tools. Balancing of the gas pipeline system is, by its very nature, a predictive exercise and as such, under normal operation, the immediate flows are of less importance to Transco than the predictions of future flows i.e. the DFNs, SFNs and Offtake Profile Notifications (OPNs).

In relation to the interruptions during Summer 2004, Transco notes the view of energywatch that this "*... illustrated that the market is impacted by terminal level flows, illustrating that zonal data does not provide the degree of transparency needed to understand within-day issues*". Transco does not agree with this suggestion as the agreement reached in the DTI Information discussions was that the publication of the Category 1 and Category 2 (zonal) reports would commence from 2005 and therefore, these were not available during the period of interruption. In future, such events could be identified from the Category 1 and Category 2 reports and in this scenario, would provide a signal to the market that additional flows were required in the southern zone.

Transco notes the view of EDF but any implementation of this Proposal would not provide any additional information that Transco does not already have access to.

Transco agrees with the views forward by several respondents (BP, EMIL, TEP, TGP) that the publication of the information, as outlined in this Proposal, could potentially lead to misinterpretation and inefficiencies within the gas market.

Harmonisation of information between gas and electricity markets

Comparison with the electricity market

BCAP stated "*The analogy with the power sector is directly relevant here, where the real-time information provided on physical notifications and maximum export limits provides the market with real-time information not just about the aggregate unexpected supply loss, but the power station affected. The identity of the power station, its geographic location*

and position in the supply stack is crucial information in working out the likely impact on prices following the loss. An aggregate figure without this level of detail, would only allow traders to draw broad, and potentially inaccurate, conclusions on the likely impact on electricity prices”.

BCAP also asserted “There is an even more direct parallel in the electricity market, where flow information obtained via third-party remote monitoring of flows at key points on the electricity network is available to market participants as a commercial information service (and independently of system operators and meter owners)”.

Five respondents (MOL, BGT, BP, SGD, TGP) considered that there were significant differences between gas and electricity when comparing types of information release; therefore they did not accept that such comparisons were relevant. BP concurred with BGT’s view 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 totally different.

MOL believed “... it was unreasonable for Energywatch to assert that similar information as proposed under Modification Proposal 0727 was currently available to the electricity industry as there is no equivalent electricity market exposure to risk compared with the gas industry, given the remote and dangerous offshore locations of the supply source”.

TEP disagreed that this Proposal would align the provision of information across the electricity and gas markets and further stated *“Not only are the commercial arrangements in the two markets significantly different, but also the parallels drawn by Energywatch are incorrect, no real-time flow information is published in the electricity market”.*

TGP believed *“harmonisation across the two markets was not an appropriate measure with which to judge efficiency improvements within the gas market”.* TGP stated that it *“... did not believe that it would be appropriate to include this as a measure within Ofgem’s regulatory impact assessment”.*

UKOOA commented *“Apart from the various physical differences between electricity and gas which make comparisons difficult, UKOOA wishes to point out that in the electricity market there is no equivalent of risk in the performance of a gas or oil reservoir which offshore producers face at all times”.*

EMIL noted *“...in the electricity market the balancing period is 30 minutes whereas the gas equivalent period is within 24 hours and therefore the requirement for information is fundamentally different”.*

SGD asserted *“... relevant to this Proposal, a significant difference between gas and electricity is the absence of gate closure in gas. This meant that there was trading between industry participants as well as with the system operator during the balancing period in gas while there was only trading with the system operator during the equivalent balancing period in electricity. Energywatch implicitly acknowledged these differences during discussions in January [2005] on its paper by noting that traders knew that generators were going to deliver to their FPN, but [shippers] did not know this in gas. This is due to the ability of shippers to re-nominate throughout the day unlike in electricity where the submissions before gate closure are intended to remain fixed”.*

SGD also commented “...it had previously suggested that the re-introduction of gate closure would address some of the issues and misunderstandings that have developed in the gas industry as the result of the removal of gate closure”.

Transco response:

Transco considers that there is a general misunderstanding in relation to the release of information within the gas and electricity markets. Transco believes there are significant differences between the GB gas and UK [BETTA] electricity markets in relation to the respective commercial and operational regimes. For example, within the electricity market, there are forty-eight ‘gate closures’ over a twenty-four hour period whereas in the gas market, ‘gate closure’ occurs at the end of the twenty-four hour balancing period (Gas Day); and, as such, within the gas market Users and other parties face financial exposure to a fully open market throughout the balancing period. Whilst a generator may have been identified as not ‘flowing’ (in a distressed commercial position) for a specific period, any commercial exposure that it might face is only disclosed after gate closure. This is significantly different to the gas market. For example, should this Proposal be implemented, the publication of real-time sub-terminal flow data could potentially place a DFO and its associated customers in a commercially distressed position; and then leave them fully exposed to an operational and dynamic market.

Transco disagrees with BCAP that real-time information is provided to the electricity market. National Grid Company (NGC) has confirmed that whilst flow information is published to the market, this is based on the users’ *intended* i.e. forecast physical flows at a specific Balancing Mechanism Unit (BMU). Additionally, whilst the intended flows are reported on a minute-by-minute basis, the publication frequency of the information coincides with gate closure and balancing periods and is thus limited to a maximum of forty-eight reports over a twenty-four hour period.

Transco agrees with BCAP that the identity of the power station, its geographic location and position in the supply stack might be essential to assess the potential impact on prices within the electricity market; the Balancing Mechanism is essentially a physical system balancing tool in which only NGC can accept trades. However, the same analogy cannot be drawn in the gas market where Transco undertakes its primary system balancing activity on the OCM. The OCM has both physical and NBP trading products whereby Users are able to trade at specific locations and/or trade (swap entitlement to) gas at the NBP. Transco invariably undertakes its OCM system balancing actions at the NBP rather than as a physical trade (e.g. sub-terminal, power station) as this in general provides a more efficient outcome whilst still encouraging participants to adjust their gas flows according to the prevailing operational conditions. Where Transco is required to resolve an issue at a specific location, dependent on the cause of the problem and the type of location then this will be resolved by the use of commercial tools such as entry capacity buy-backs or taking locational energy actions (trades) on the OCM

Transco has received confirmation from NGC that neither it, nor Elexon, publishes any metered physical flows to the electricity market. NGC has indicated that Elexon provides a commercial ‘high grade’ (fee based) service as part of the Balancing Mechanism Reporting System (BMRS). However, NGC has confirmed that this commercial service relates to the

provision of a high-speed data download link for information that is widely (and freely) available on the BMRS but this does not include any real-time metered flow data.

Transco continues to believe that there is no significant nor detrimental difference between the information provided to the gas market in comparison to the electricity market.

Others

Co-ordination of Maintenance/Outages

BGS and RWE believed that the provision of real time flow data at sub terminal level has no bearing on the co-ordination of planned outages and should therefore be ignored. BGT commented “...*forecast flows would be required not information on real time flows*”.

STUK suggested “... *benefits are claimed through the improvement in coordination of maintenance between Transco and Producers, however, Transco and producers already coordinate maintenance periods and Transco are incentivised through capacity buybacks to efficiently manage their maintenance periods*”.

EMIL believed “*The suggestion that there should be greater coordination of maintenance activities concerns EMIL as it runs counter to guidance that EMIL has seen from UK and EU Competition authorities and, in EMIL’s view, may potentially infringe UK and European competition laws. OFT’s Guidance Note 401 of March 1999 suggests to EMIL that it is the view of the OFT that sharing information which is not historic and could therefore influence competitive market behaviour is something that may infringe the provisions of Chapter 1 of the Competition Act 1998*”.

UKOOA stated “... *the effects on gas deliverability of planned maintenance are now published (ref. category 3 of Phase III). However, the sharing of maintenance plans, never mind its co-ordination as energywatch is suggesting, is a competitive matter and is only undertaken where offshore facilities share infrastructure, e.g. a major pipeline, and the shared infrastructure is itself undergoing maintenance, therefore affecting all parties*”.

Transco response:

Transco notes the comments of BGS, BGT and RWE and concurs that the publication of sub-terminal real-time flow data is not relevant to the co-ordination of planned outages.

In relation to the co-ordination of planned outages/maintenance between Transco and the DFOs, Transco agrees with STUK that to a large extent, this already occurs where this would facilitate the efficient and safe completion of these works and Transco is incentivised through the capacity buy-back scheme to manage outages on the NTS side of the sub-terminal entry points. These planned maintenance outages are usually scheduled to take place during the summer months when gas demand is lower and market prices (historically) are relatively low when compared to the winter months.

Transco agrees with EMIL that co-ordination of maintenance activities might infringe upon UK and European competition legislature and Transco is mindful of such legislation when considering such activities.

Transco notes the comment from UKOOA and understands that it might not always be practical, from a commercial perspective to co-ordinate outages and maintenance.

12. The extent to which implementation is required to enable each Transporter to facilitate compliance with safety or other legislation

No such requirement exists in respect of this Modification Proposal.

13. The extent to which implementation is required having regard to any proposed change in the methodology established under paragraph 5 of Condition A4 or the statement furnished by each Transporter under paragraph 1 of Condition 4 of the Transporter's Licence

Implementation of this Modification Proposal is not required to satisfy these requirements.

14. Programme for works required as a consequence of implementing the Modification Proposal

IT Systems Development

Transco has completed an initial IT assessment of the programme of works that would be required to develop and implement this Modification Proposal. The assessment has been based on previous development effort, costs and implementation timescales associated with the Transco Information Exchange Project.

It will be necessary for Transco to undertake system development activities and enhancements to several internal IT systems, a potentially large scale upgrade to the Information Exchange hardware and software, and, modifications to the IT systems interfaces. It is important to note that the Information Exchange website and the interfaces between it and the source data systems have not been designed to either process or publish data on a near "real-time" basis.

Installation of Duplicate Metering

Transco would wish, if there was a requirement to install duplicate metering at all the relevant NTS system entry points, to undertake a full assessment of the programme of works for this. However, it is likely that such works would require a lead time of approximately three years prior to full implementation.

15. Proposed implementation timetable (including timetable for any necessary information systems changes)

- Draft Modification Report issued - 9th February 2005
- Consultation period ends - 2nd March 2005
- Final Modification Report issued - ~~23rd March 2005~~ **31st March 2005*** Due to the unprecedented number (31) and the complexity of responses to this Proposal, Transco formally requested, and gained approval from the Modification Panel for an extension to the issue date for this Final Modification Proposal. The revised FMR issue date is therefore reflected in this report.

With respect to the timescales for the implementation of the changes to the information systems, the initial IS impact assessment has indicated that Transco could commence the publication of the sub-terminal flow data from Q2/Q3 2006. However, this does not take into consideration the resolution of the commercial and technical issues, nor delays as a consequence of any requirement for the installation of duplicate metering equipment.

16. **Implications of implementing this Modification Proposal upon existing Code Standards of Service**
17. **Recommendation regarding implementation of this Modification Proposal and the number of votes of the Modification Panel** Transco does not recommend the implementation of this Modification Proposal.

This Modification Report contains the Transporter's proposal not to modify the Code and the Transporter now seeks agreement from the Gas & Electricity Markets Authority in accordance with this report.

19. Text

**UNIFORM NETWORK CODE – TRANSPORTATION PRINCIPAL DOCUMENT
SECTION V - GENERAL**

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 Code, National Grid NTS 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 ~~Where market data is sent to National Grid NTS on a day that is not a Business Day National Grid NTS shall publish such data on the next following Business Day.~~ National Grid NTS shall not be obliged to publish or make available operational and market data pursuant to paragraph 5.9.1 where that data is not available to National Grid NTS.

Amend Annex V-1 to read as follows:-

**Annex V-1
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
	<u>None specified-The rate of flow of gas (in MSCM per Day) over a 2 minute period into the NTS from each National Grid LNG Storage Facility</u>	<u>Every 12 minutes, in respect of the six 2 minute periods commencing 24 minutes before the time of publication and ending 12 minutes before the time of publication</u>	<u>Tabular</u>	<u>Viewable</u>	<u>Public</u>
	<u>The rate of flow of gas (in MSCM per Day) over a 2 minute period into the NTS at each Individual System Entry Point capable of flowing (in aggregate) more than 10 MSCM per Day of gas into the System .</u>	<u>Every 12 minutes, in respect of the six 2 minute periods commencing 24 minutes before the time of publication and ending 12 minutes before the time of publication.</u>	<u>Tabular</u>	<u>Viewable</u>	<u>Public</u>
	<u>The rate of flow of gas (in MSCM per Day) over a 2 minute period into the NTS at each Aggregate System Entry Point capable of flowing (in aggregate) more than 10 MSCM per Day of gas into the System .</u>	<u>Every 12 minutes, in respect of the six 2 minute periods commencing 24 minutes before the time of publication and ending 12 minutes before the time of publication.</u>	<u>Tabular</u>	<u>Viewable</u>	<u>Public</u>

Subject Matter Expert sign off:

I confirm that I have prepared this modification report in accordance with the Modification Rules.

Signature:

Date:

Signed for and on behalf of Transporters.

Richard Court
Commercial Frameworks Manager

Signature:

Date:

Appendix 1 - energywatch paper presented at the NT&T Workstream on 6th January 2005

Modification 727: Publication of near real time data at UK sub-terminals

Additional information paper

Purpose

The NT&T workstream, on 2 December 2004, requested that energywatch, as the proposer of modification 727, provide additional information on the benefits of the data flows requested in the modification. It was suggested that a cost benefit analysis be provided. energywatch has engaged in some high level analysis of the costs and benefits generated by the proposal. The significant net gains produced, are in our estimation conservative and as a result energywatch believes that the high level cost-benefit analysis is sufficient to produce compelling justification for pursuing the implementation of the modification proposal.

Transco's licence (GT Licence ASC 9.1) establishes the "relevant objectives" it is required to achieve in operating the Network Code. These can be summarised as:

- a. the efficient operation of the pipe-line system;
- b. efficient discharge of Transco's licence obligations;
- c. securing effective competition between shippers and suppliers; and
- d. incentivise suppliers to secure supplies for domestic customers.

It is against these objectives that this modification must be assessed and energywatch believes that all of the objectives would be better met with increase information flows on the physical flow of gas within the pipe-line system.

Theory

"Competition must be seen as a process in which people acquire and communicate knowledge" - (F. A. Hayek - Meaning of Competition 1948 p106; Nobel laureate 1974)

Economic theory shows that information is an important factor in determining the level of competition, and thus efficiency, within any market. If some players have information and others do not, they are unable to compete on equal terms¹. In the energy industries the use of common networks by all players to deliver their commodity means that competition can only be effective if all network users have the information available to the network operator as well as other parties.

energywatch believes that without better information flows the asymmetry that currently exists between gas producers and on-shore gas market players (including traders and customers) will result in further concentration of market power and less effective competition. Ideally further information from Transco as the system operator should also be provided, however this modification focuses on the information available to market players.

Asymmetry of market data

Information onshore has improved in recent years. For example, Transco provides regular demand forecasts and probabilities of interruption by region. Many shippers also have demand information from large customers at key sites, in some cases this data is received in real time. Without question it is clear to energywatch that data on the demand side of the market is significantly better than that provided on the supply side.

The UK is reliant on a variety of supplies through 6 key terminals supported by gas storage sites, including LNG sites. Given the locality of gas demand relative to supplies, it is widely understood that the ability to meet all reasonable demands for gas (as required under the Gas Act 1986 as amended) can be impacted by the within day flows by terminal, irrespective of the season, or the relative price of gas in the UK or Zeebrugge (see recent Ofgem reports on gas prices).

The impact of physical flows by region can further be affected by maintenance of the NTS of which Transco already provides detailed information on its maintenance programme to allow players to predict, understand and respond to the maintenance work.

energywatch's analysis of the Heren market reports shows how movements in wholesale prices were assessed after the event. The bar chart below classifies the reported headline factor for the previous days trading in the Heren's "snapshot" analysis. energywatch has concluded that the provision of information is crucial in understanding the offshore market as 34% of the reasons given for price movements concerned information on outages and maintenance, information which is the privilege of offshore producers. Over the seven month period analysed actual gas flows (outages, maintenance, interconnector flows and storage) accounted for 65% of price movements.

Source: energywatch analysis

Impact of Information

Information on gas flows will enable market participants to better judge the actual demand and supply balance within the day. Over time players will also gain a greater understanding of the operation of the market, for example the reducing reliability of some offshore fields, the swing in deliveries and the price triggers for increased flows from flexible supplies. Traders have described to energywatch the process by which they would create a more detailed "market map" which would permit the market to operate in a more effective manner, ensuring that prices and market actions better reflect market fundamentals.

1. Providing data on physical flows will have several impacts on the operation of the UK gas market.
2. Prices should better reflect the true physical position of the market as gas trades on the basis of better information.
3. Barriers to entry created by information shortcomings would be reduced and liquidity improved.
4. Competition and efficiency of production, storage and consumption will increase with clearer market signals.
5. Reduced balancing costs for Transco (and ultimately customers) from more efficient responses to market fundamentals by players.

6. Maintenance schedules both on and off-shore should become better coordinated as outages are better understood.
7. Security will be increased as players can respond to true shortages (increasing flows off-shore, buying on the continent, interrupting customers, booking storage etc).
8. Future investment will be more efficient as the true value can better be assessed by players.
9. Customers may be able to better plan their gas use (and the delivery of back up fuels).

Sub-terminal vs regional

It has been argued that the provision of flows by region is sufficient to produce the efficiency and competition gains outlined above. energywatch agree that regional data is better than no data, however the flows at one sub-terminal can cause interruption, trigger balancing actions and alter prices due to locational requirements. It is vital that the market understands the true volume of gas flows by sub-terminal not region. energywatch believes that this will become increasingly important as gas flows alter with new supplies (depleting supplies in different regions and new LNG supplies).

energywatch notes that the producers claim that their commercial confidentiality would be breached by the provision of this data. This modification does not, of itself, provide any insight into the commercial arrangements producers have for the sale of gas or the operation of their production facilities. What it does is provide information on the physical operation of the gas network. A network market participants all use and on which customers rely and which will operate more efficiently on the basis of increased information.

energywatch understands that the nature of some contracts, being field and beach specific, could result in buyers of contracts gaining some commercial advantage over some sellers. energywatch considers that, to the extent that such issues exist, these contracts can be renegotiated. The advent of the network code, or British Gas' renegotiation of its take or pay contracts shows that such contracts are not, by definition, inured to events.

In addition, the tripping of a production platform will not always immediately alter flows, operational arrangements mean that flows may vary at times with no actual supply problems and producers have a variety of tools to manage these risks (options with other fields/storage to meet shortfalls). Furthermore the producers, storage sites and LNG import terminals can contract to meet supplies at the NBP rather than any given sub-terminal so may hedge production risk extremely efficiently.

Currently, rumours about field outages often result in price spikes. In some cases these prices may underestimate the true supply deficit while rumour is confirmed as fact. At such times the market does not respond as quickly as it should, seeking out new supplies and calling on storage. The time taken to deliver gas from distant fields and via the interconnector means that the efficient response to a significant incident would be a rapid movement by players to cover their commitments. At other times the market may over react as a rumour of a supply disruption turns out to be unfounded. With the increasing unreliability of older fields the more the market understands the supply side fundamentals the more likely it is to respond in a timely and effective manner.

For players to understand the physical characteristics of the market they need the detail afforded by information at sub-terminals. energywatch feels that without the knowledge of producers' actual delivery contracts (which can be renegotiated) information on sub-terminal flows creates risks that they are not well placed to manage.

Finally, this modification is specifically designed to make sure all players have data at the same time (currently it cascades from producers to shippers and finally customers). This brings the additional benefit that customers can play an active role in the market. For example a supply issue that may lead to interruption can be managed (altering production, switching to back-up fuel, etc) and interruption may be offered to suppliers. Though active market participation is not viable nor desirable for most customers, where it is possible it should be encouraged to increase efficiency, competition and security.

Longer term Issues

As the market learns more there will be a greater understanding of which future investments and contracts offer the best value to the UK gas market. Investments will be such that they provide the best optionality against the market. Storage sites are already expected, but the development of marginal fields, new energy management and technological advances will focus on meeting the weakest areas of the supply chain.

Benefits vs costs

This paper has touched on the theoretical and practical benefits of increased information flows, however, they are less tangible than the benefits of some market changes and more difficult to value. energywatch maintains that this modification does offer significantly greater benefits than many modifications as it goes to the heart of market efficiency - information.

Ofgem and DTI estimated that BETTA will reduce end user prices by 0.5%. As the market in Scotland merges with that of England and Wales, this benefit arises from a marginal increase in competition. Greater information flows in the gas market would be expected to have a more profound affect as it creates better market signals, vital to market operation.

The greatest benefit should be from the increase competition in production and supply. Taking DTI and Ofgem's assertion that increased competition can reduce prices by 0.5%, an estimate of the benefits for gas customers can be derived. Based on the NTS throughput of 37 billion therms (Transco 10 Year Statement 2004) and assuming a price of 36p/therm (Heren gas year 05 price, Dec 04) the value of the throughput for the UK gas sector is in the order of £ ;13 billion. This gives a benefit from increased competition in the sector as a result of better information in the order of £65 million per year.

Benefits should also be delivered from increased market efficiency. The buy-sell spread is the premium players pay to hedge their risks and represents the efficiency of the market, with highly liquid markets having low spreads. The bid offer spread in the UK gas market is around 0.1-0.2 p/therm. Traders have estimated that better information provision would reduce the spread by around 0.05p/therm. On traded volumes of around 400 billion therms this would reduce the costs of risk management premiums by around £200 million per year.

Analysis of outages cost savings that have been shared with energywatch suggest that a further £20 million a year could be achieved from the better coordination of outages. With

greater understanding of gas flows on the market, producers and Transco should be encouraged to coordinate maintenance work, though this may take time to achieve. For example when supply is withdrawn from the system prices increase by around 0.3p/therm, based on the spread of weekend to weekday prices where the differential is around 1.9p/therm with a demand differential of 6.7 million therms. If it is assumed that the price differential is caused by any outage of 2 million therms or more there is a 0.6p/therm cost to a 21 day Transco outage for maintenance. If this work could be coordinated with a producer outage, based on a 80 million therm per day throughput the 21 day outage would cost customers £10 million less. If we further assume the advantages of coordination of maintenance occur twice a year there is a £20 million benefit for consumers annually.

Ofgem's analysis suggests that "price rises in the range of 0 to 3 p/therm have been observed for each 10 mcm/day reduction in supply" (Ofgem's probe into wholesale gas prices, Conclusions and next steps, October 2004). This indicates that Ofgem's analysis, while covering a wider range, gives a similar order of magnitude for the price impact of supply deficits.

These benefits feed into end user prices and should also reduce Transco's balancing costs.

The benefits of improving security of supply are harder to quantify. However, energywatch remain convinced that the provision of affordable warmth to all domestic customers would have to be valued in terms of tens of millions of pounds through lives saved in cold winters. There are also benefits to all customers in the knowledge that secure supplies are maintained and hence Transco's obligation to pay shippers for loss of supplies due to transportation incidents. Finally British business benefits from the competitiveness of secure and affordable energy supplies.

On the costs side Transco may have to buy and install appropriate meters on its pipes at all sub-terminals. These would be connected to Transco's data collection centre and then posted on the web. In the time available energywatch has only been able to get indicative numbers for Velocity Type meters, devices that operate linearly with respect to volume flow rate. With the installation of a meter, with back up, plus the installation of a high grade communications line the total cost is estimated to be £0.5m per sub-terminal. Assuming 20 sub-terminal (allowing for new build) this gives a total of around £20 million, which could be reduced where existing technology could be used.

The set-up of a web based reporting service, using Transco's existing infrastructure, is estimated at £5,000 start up and a minimal maintenance cost of around £2,000 per year (allowing for development of the service and presentation. Again energywatch believes this is a conservative figure. Were new servers required then a cost of £20,000 for hardware and another £15,000 for software is considered possible, though a £2,000 annual maintenance charge would still apply. This gives a maximum off start up cost of no more than £20.1 million at the very top end of the estimates.

Given the estimated benefits of around £265 million annually, excluding the benefit of better outage co-ordination which 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.

Electricity vs gas

It has been argued that the two energy markets should be compared in relation to this modification. energywatch acknowledges the two markets are similar, but with gate closure and incentives on players not to balance their position in the electricity market there is a fundamental difference that must not be over looked. In the gas market players are incentivised to respond during the balancing period, in electricity they are not.

The NETA reporting system does give the physical forecasts of each genset (turbine) for the forthcoming balancing period. The generator is incentivised to follow their FPN (unlike a producer). The Latest Physical Balancing Mechanism Data also gives the maximum import and export limits set by the generator showing the degree of flexibility they are offering to the system operator. The market therefore knows within a maximum of an hour any problems a station is having, but the generator is exposed to imbalance charges until he can adjust his notification. The electricity market is relatively illiquid in the short term compared to gas so it is more expensive, on top of imbalance charges, to cover generator failure. The provision of this level of information was a driving factor in the design of NETA due to its market efficiency benefits.

A gas producer has more time to respond than a generator and can self balance (using other field or balancing tools) within the balancing period. The provision of this information has not been opposed by the generators, even those with only one station recognise that the market is transparent and this works to the benefit of all players as whole.

energywatch further notes that NGC, the system operator, provides considerably more information than Transco on the state of the system it operates on the participants' behalf. Forecasts of market length, accepted bids and offers are all available for all players to view. Market participants may feel more comfortable with increased data provision if Transco was also to increase the transparency of the market, for example by providing Linepack data.

Conclusion

energywatch has 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.

Ofgem's principle duty "*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.*" energywatch therefore concludes that it is not in line with Ofgem's principal duty to reject this modification.

energywatch

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