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10 November 2005

## UNC Modification 006: Publication of Near Real Time Data at UK Sub-terminals

Dear Sonia

energywatch is writing in response to your letter of 24 October 2005, concerning energywatch's modification 006. energywatch remains of the view that the modification would better fulfil the relevant objectives and should, therefore, be implemented.

We appreciate and share the concerns that have been expressed about the withdrawal of data from National Grid (NG) and the potential impact such action may have upon the efficient and economic operation of the transmission network. However, when one participant in the market can determine the effective flows of information to such an extent, we feel it confirms our view that the modification proposed would be more effective in increasing transparency in the market than the current voluntary arrangements.

#### The New Baseline

energywatch appreciates that Ofgem wishes to assess the benefits of the DTI scheme in considering this modification. energywatch welcomes the DTI scheme as we believe that any improvements in information flows will be of some benefit to the market. However, we continue to believe that the scheme does not go far enough and the anecdotal evidence provided to energywatch suggests that it has not provided benefits of the scale that may have been predicted.

The DTI scheme has two main flaws; first, it is voluntary therefore data can be withdrawn and second, the granularity of the data is not sufficient to usefully inform market participants. With respect to the first issue, modification 006 would become binding on the Transporter under the UNC giving the market not only better information, but a commitment to its long term provision. While concerns about information withdrawal remain, at the very least, a legal obligation to provide the existing data should be considered as a matter of urgency.

In terms of the relevance of the data provided under the DTI scheme, recent discussions between energywatch and a number of market participants have lead us to conclude that the data is of limited use to market players. The participants conceded that they do review the aggregated flow data at times when there are unexpected movements in other monitored variables, in particular published linepack. They claim, however, that the DTI scheme data rarely, if ever provides any further clues as to the reasons for the apparent changes within the system. As a result, it has been suggested that the market continues to be inclined to react inappropriately to flow changes as within day trading is impacted by sentiment and rumour.

Perhaps the most revealing of all the feedback received by energywatch is that participants have elected not to invest in new systems to make use of the data as a trading tool suggesting it is of low, or no value. In contrast, we are aware that most do have systems that help monitor other market data such as demand forecasts, linepack, etc.

### Application of data

Were 006 to be approved, a number of participants have reported that they would invest in IT systems to receive and analyse the data. The types of system developments suggested include, and as quoted from a trading party; "scraping the data to feed into near real time flow graphics, probably tracking flow data against forecasts (of demand, closing linepack, etc)." In the event that the key physical characteristics of the market diverge it was reported that "they would drill down into the data to locate the flow changes." Such systems are likely to incorporate processes for data validation and the provision of automated alerts indicating where movements of a certain size arise. The participants report that they would be looking to establish their own understanding of how flows move in relation to demand led nominations, problems at production fields, the use of LNG, etc. The combined effect of the above would allow participants to better judge when a supply issue is arising or likely to arise and what steps the market may take to alleviate it.

The reported investment in IT to receive, access and analyse the data gives a very clear indication of its value to market participants.

### Why the modification better fulfils the relevant objectives (see also annex 1)1

<sup>&</sup>lt;sup>1</sup> Annex 1 – energywatch's view of the relevant objectives as outlined in previous responses, which remain relevant

energywatch has sought views from the market on both the long and short term value of the data provided in modification 006. In the points listed below, we have attempted to interpret the feedback we have received from various market participants and translate how, in practical terms; the modification performs against the relevant objectives:

- 1. The market would better understand the operation of the system e.g. learn about; reliability; when flow changes result in interruption; and which changes in flow trigger system balancing. Greater understanding not only leads to increased competition between the current information "haves and have nots", but also enhances efficiencies in system operation and investment decisions. energywatch shares the views of market participants that their ability to respond to the physical needs of the market will be substantially improved with better data.
- 2. *The market would be able to respond to actual supply deficits*, but would not inappropriately respond to other flow changes e.g. flows that are expected to alter at certain demand levels, prices or maintenance work. Again this will enhance the efficiency of the system and in general, reduce the buy-sell spread.
- 3. Consumers would be able to better assess the value of demand side management – the market will be better placed to predict the supply and demand relationship and become more proactive in offering closer to real time, flexible interruptible contracts. This increases competition for consumers and also allows parties to offer any surplus gas to the System Operator or trading counterparties. Overall this should lower prices to all consumers and improve the efficiency of the system.
- 4. *The market would get a clear view on security of supply* and gain confidence. Parties would better understand the relationship between demand and marginal sources of supply. Participants would build up a more accurate picture of how supplies are likely to react to increasing demands which, in turn would dampen tendencies to "panic trade". In addition, the reliability of offshore flows would become more transparent. energywatch believes that by providing the downstream market with a clearer understanding of the supply curves, consumers are more likely to offer timely and effective demand side response.

### Valuing the Data

Ofgem has asked for additional information on the value of the data and more specifically the value of the sampled data provided in the Annex to the Ofgem letter. energywatch has reviewed the data independently and jointly with a number of participants. It was not possible in all circumstances to "relive "the day but there was a real consensus that where terminals flows had been erratic they may have made different trading decisions had the data been provided at the time. They all agreed, however, that at the very least, the data would assist them in building up market intelligence and would be more likely to affect their trading strategies over time.

Given the market's inability to define precisely the value of the data on the sampled days, energywatch asked participants to estimate the value of the data provided under the modification in more general terms. It was suggested that every time the price moved on "rumour" it was probably adding a premium (of around 5-10%) onto the prices the market would expect if there was greater transparency and, therefore, competition. On days of system stress an estimated premium of 15-20% was suggested, supported by the example of last March when cold weather, depleting storage and no flow data lead to prices of around £1.70-£2.00/therm. It was also noted that these premiums are most likely being passed from those with off-shore information to those without, ultimately consumers.

Those participants questioned also pointed out that uncertainty risk is feeding into the forward market. This was explained by a particular participant as follows " *if the market knew how the flows reacted to cold weather it would gain confidence that the UK can cope in cold weather and "winter" prices would ease.* " Again figures quoted have been around 5 -10% mark-up in the run up to winter.

Another point made by participants is that there is a growing need to attract LNG to the UK, particularly as the market is global and relatively price responsive. They feel the data flows would allow LNG sellers to monitor market developments and, in light of the relationship between demand and indigenous supply availability, predict when LNG is likely to be needed.

It was also mooted that where a field is believed to have an operational problem, producers will be more inclined to manage expectations and respond with improved data provision e.g. provide more timely data on the field's operation including the provision of updates on maintenance, field downtimes, etc. The view is this will calm the market and allow for a more rational appreciation of the actual problem. One participant suggested that this will reduce the buy-sell spread and also prices to final consumers (a similar 5-10% premium being possible).

The final point raised by participants related to events up to and during an actual emergency; for example if the data shows flows from Norway have dramatically declined. Without near real time data information will leak into the market. The information is likely to be inaccurate, or sketchy and in any case received some time after the event. Any delay in response could push the UK into a gas deficit emergency faster than if the market is made aware of problems as they arise. This is particularly significant for consumers who forego the opportunity to self interrupt with the associated financial compensation and instead face mandatory load shedding/isolation. With

more immediate assistance from the market, NG may get more support in the run up to a gas deficit providing protection to both the network and consumers and ultimately a faster restoration of supplies.

Attached in Annex 2 are some random examples of traders' comments to price reporters Heren about rumours moving the market every month. This highlights the fact that the market is currently moving on the basis of a lot of speculation. It is notable that prices in electricity are often following gas, so that the end user prices in both markets are being impacted by the lack of data on the network. We would suggest that Ofgem talks to the traders and the reporters about how the rumours impact the market prices and the sort of premium that is associated with different types of rumours.

# Other benefits

energywatch's paper to the NTT workstream made assertions about data provision which, while not quantifiable in this instance, are based on economic theories that are well developed and widely accepted. There has been no argument from any side that market economics does not apply to the gas market. The principles indicate that by providing data on physical flows there will be several positive impacts on the operation of the UK gas market:

- 1. Prices should better reflect the true physical position of the market;
- 2. Barriers to entry created by information shortcomings would be reduced and liquidity improved;
- 3. Competition and efficiency of production, storage and consumption will increase with clearer market signals;
- 4. Reduced balancing costs for NG (and ultimately customers) from more efficient responses to market fundamentals by players;
- 5. Maintenance schedules both on and off-shore should become better coordinated as outages are better understood;
- 6. Security will be increased as players can respond to true shortages (increasing flows off-shore, buying on the continent, interrupting customers, booking storage etc);
- 7. Future investments will be more efficient as their true values can be better assessed; and
- 8. Consumers will be able to better plan their gas use (and the delivery of back up fuels).

# Withdrawal of Producer Information

As mentioned above, energywatch, like NG, has been concerned that the producers may look to withdraw the information that they are currently providing if modification 006, or any similar modification, is approved. energywatch believes that for this market to function in an open and transparent way it requires the active participation of producers in the provision of information – particularly near real time data. Withdrawal of any information brings into question the producers' willingness to create the openness and transparency so urgently needed by the rest of the market.

## Costs

energywatch is surprised that NG has not, so far, provided any further break down of the costs of implementation of the modification. Given the magnitude of the costs set out by NG we question whether the scope of the system development plan is "fit for purpose." It is our understanding that with data aggregation supporting the DTI scheme, it should be relatively simple to publish the data prior to aggregation. We assume that the Gemini system was designed with spare capacity so to design a process which in basic terms "scrapes and posts" data should, therefore, be relatively low cost. Were NG to provide further details we would be happy to comment on its proposals.

### Conclusions

energywatch believes that markets can deliver secure supplies at economic prices and to this end supports regulatory and rule changes that facilitate improvements in the operation of the relevant markets. energywatch believes that modification 006 would better facilitate the relevant objectives and the anecdotal evidence we have gathered suggests that the benefits are substantial.

energywatch is aware that the Authority, in reviewing the Impact Assessment, will have to consider if there is any case for protecting the interest of the offshore producers. We consider that the current disparity in information provision affords the offshore community an unfair advantage which potentially may provide for excessive economic rents. Competition in the downstream market will continue to be skewed and liquidity repressed with the effects ultimately borne by UK gas consumers. The benefits from more competitive and transparent markets complement the Authority's primary duty to protect the interests of consumers. There can be little doubt that the key to greater competition is information.

If you wish to discuss any of the points raised in this letter please do not hesitate to contact me on 0191 2212072

Yours sincerely

Carole Pitkeathley Head of Regulatory Affairs

# ANNEX 1

### energywatch's analysis of modification 006 (then 727) against the Applicable Objectives, given in response the DMR consultation in February 2005

### **Relevant Objectives**

Ofgem will have to asses the proposal against Transco's relevant objectives, as defined in their licence (GT Licence ASC 9.1). Summarised below are energywatch's views on the better fulfilment of the relevant objectives:

#### (a) efficient operation of the pipe-line system

Transco's network relies on the incentivisation of 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.

The information provision will also improve the liquidity in the gas market over the longer term. It should make it easier for new entrants to join the market and give non-producers access to better data on which to carry out their business activities.

Finally 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. Where Transco is forced to take balancing actions it should see greater liquidity in the with-in-day market as players will be more aware that balancing could be required.

### (b) efficient discharge of Transco's licence obligations

Transco's licence obligations can only be fulfilled efficiently if it receives good information and limits its own actions to the minimum required to maintain system safety. energywatch believes that this modification will hep Transco in particular with conditions:

ASC 4D – Shippers would benefit from a change to the code so as to receive the same information that Transco and some shipper affiliated companies already receive.

SC16 – Transco should get a better response from shippers in times of supply shortfalls allowing them to meet their security standards.

ASC 24 – energywatch notes that Ofgem has been awaiting flow information from the producers to allow it to conclude its price inquiry, Transco could, in future, provide the raw data to Ofgem. This would mean Transco could help Ofgem be an effective regulator.

ASC4 & SC41 – If flow information shows that the operation of certain terminals are causing balancing actions then Transco would be able to alter the code to allow some specific terminal charges, via a new methodology, reducing cross subsidies.

SC17 – Players would gain understanding about the way Transco balances, limiting their requirement to provide updates and reports.

SC27 – As well as improving the efficiency of market operation, the modification should also increase the offers of balancing services as more players would be aware of Transco's needs.

# (c) securing effective competition between shippers and suppliers

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. energywatch believes that 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 the sort of data that 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.

#### (d) incentivise suppliers to secure supplies for domestic customers.

At the current time energywatch has concerns about the tools available for suppliers to secure supplies for their customers. With this modification shippers will able to see any supply deficits arising and take appropriate action to meet and shortfall impacting their portfolios. This may mean taking gas out of store or increasing purchases at a specific terminal.

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.

### **Increasing Competition**

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 has undertaken some analysis of the benefits (annexed to the DMR) which we believe give a robust basis on which Ofgem can asses 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. If Ofgem alters some of the data driving the calculations or assumes some double counting the case still remains extremely strong. energywatch would note that the benefits we have identified do overlap with economic rent increasing from improved efficiency and also shifting from those who have information to those who do not.

*Theory* - Economic theory supports the proposition that information is a key driver in determining the level of competition within any market. The degree of competition has a direct impact on the level of efficiency in the market; more information equals more competition. Both increased competition and improved efficiency of the market is in the interest of consumers and all those players who are not currently party to the information held by the offshore producers.

*Informed trading* - The asymmetry of information concerning the physical operation of the gas network results in sub-optimal decision making. If this asymmetry is not addressed there is likely to be further concentration of market power and less effective competition. Gas producers and on-shore players (suppliers, traders and customers) with greater, common and robust information sources are likely to make more efficient decisions. These 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. Consumers will therefore get "correctly 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.

*Market entry* – The withdrawal of the US traders and rationalisation in the power market has reduced the levels of liquidity in the gas market, leading to concerns about market entry. New entrants are more likely if the market is perceived as having the right balance of risks and rewards underpinned by transparency.

*Sub-terminal verses regional* - The UK relies on a variety of supplies supported by gas storage. During summer 2004 there were interruptions to consumers 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 withinday issues.

*Maintenance data* - Physical flows within a region can be affected by maintenance of the NTS. Transco is already providing detailed information on its maintenance programme to allow players to predict, understand and respond to the maintenance work. The network code already recognises the need for data impacting on shore gas flows to be made available. This modification is adding to that efficiency.

*Maintenance co-ordination* – Once flow data becomes common knowledge the producers and Transco will be incentivised to plan their maintenance work around each other, limiting the physical disruption to one period when all work is undertaken. Coordination would reduce costs and improve efficiency, reducing times of supply deficit and lowering prices.

*Timely response* – To balance their positions and to meet consumer demands the market incentivises shippers to responding to the physical position of the system. 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. *Creating a level playing filed* - Over time players improve their understanding of the supply side, learning about the reliability of some gas fields, the daily swing in beach deliveries and price triggers for flows from flexible supplies. Traders have described to energywatch the process by which they would create a more detailed "market map" allowing them to trade in a more effective manner, ensuring that prices and market actions better reflect market fundamentals.

*Market efficiency* – This modification will increase the general level of efficiency in the supply chain as players with assets will operate them based on clear market signals. Likewise Transco would see players responding to the physical changes and should be able to rely more on a "market" response and where it does have to balance it should face lower gas costs.

# Annex 2

# Anecdotal evidence from European Spot Gas Markets (ESGM)

### 25/7/05

Talk of planned summer maintenance shutdowns drove the prompt market and nearby months higher. Traders said the Shell-operated Shearwater field was expected to go down for seasonal work on Wednesday, but this could not be confirmed. The Theddlethorpe terminal was slowly coming back from maintenance, with the restart going as planned according to operator ConocoPhillips. Statoil on Saturday shut down its Huldra gas field in the North Sea due to safety concerns, and the field could remain down for as long as a week. "There's some production facilities going down this week, but it's really in August where a lot of work will be done and you'll see people trying to position themselves for the change in supplies," a trader said.

#### 12/8/05

NBP prompt traders reported "anarchic" activity on Friday amid early rumours of yet another switch in the flow direction of the Interconnector. The Bacton/Zeebrugge link reverted to forward flow (UK exports) at 06:00 on Thursday (see ESGM 11.153), but players anticipated another flip of the pipe back into UK import mode from Saturday. Pipeline operator IUK Limited eventually confirmed on Friday afternoon that the link would switch back to imports as of 06:00 on Saturday, 13th August

#### 17/8/05

Within-day climbed to 33.50 p/th on Wednesday at the NBP, amid reports that the Total-operated Elgin-Franklin field had not yet resumed normal operations.

#### 27/9/05

Not all traders were convinced that Britannia was the sole supply problem on the day; one trader reported aggressive buying from a large player which led him to think that there may have been difficulties elsewhere.

#### 3/10/05

Within-day and Day-ahead were reported trading at a significant premium to the rest of the prompt for much of the session, leading some to speculate that if there were indeed a supply problem, it was likely to be resolved by the middle of the week.

#### 8/11/05

European Electricity Market Daily

Concerns over the supply of gas for the UK in the coming, colder weeks and months caused gas prices to vault in the day and inspired "panic" in the

power market particularly following reports of "rumours" and "confusion" over the gas Interconnector.

## Heren

The expanded Interconnector capacity proved no barrier to swift price gains on the prompt and front end of the curve. While traders said that the UK was beginning to reach the sort of temperatures where homes were switching on their central heating, few people were expecting the bullish run that materialised in a day of high drama and head scratching. One senior trader described the day's events as "the perfect storm".