

To: ALL SHIPPERS & ENERGY/CAPACITY WORKSTREAM ATTENDEES

Transco and Ofgas would welcome your prompt responses to the attached note which considers some possible short term measures to address constraint issues.

Responses by 16:00 Wednesday 16th September should be sent to Ofgas and Transco.

A meeting will be held at Transco's Tottenham Court Road offices to discuss this issue at 9:00 Thursday 17th September.

14/09 '98 MON 12:59 FAX 01719321675

NETWORK OPPS

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14 September 1998

Direct Dial: 0171-932-1645

Our Ref : stf\_1309

Your Ref :

To all Shippers,

Dear Colleague,

**Constraints Costs at St. Fergus,**

The costs of constraints at St. Fergus are still unacceptably high and Ofgas is considering a number of options which might reduce them. Eastern Power & Energy Trading has put forward an urgent modification proposal which would allow System Average Price (SAP) to be calculated according to a different formula. Eastern Power & Energy Trading is proposing that system entry buys are excluded from the calculation of SAP, which would reduce the impact of these costs on the prompt gas price with corresponding effects on the forward curve.

I have asked Transco to attach this letter to its short paper which sets out a number of possible options. Given that Eastern's modification proposal is but one part of the range of options it would be of benefit to discuss all these options at a meeting before the modification panel on Thursday. Transco will be organising this.

Yours faithfully

A handwritten signature in black ink that reads "Rebecca Purves". The signature is written in a cursive style and is positioned above a horizontal line.

Rebecca Purves  
Economic Adviser, Head of Gas Balancing



**Commercial Operations**

Brick Kiln Street  
Hinckley  
Leicestershire LE10 0NA  
Telephone 01455 251111

14th September 1998

Dear Colleague

Possible Short Term Measures to Address Constraint Issues

Please find a short note that outlines a series of possible options that might be considered to address the issues associated with the use of the flexibility mechanism to resolve system constraints.

This document includes a fax proforma so that respondents can indicate whether, and if so which, proposals should be considered for rapid implementation.

Responses should be returned to both Ofgas and Transco by 16:00 Wednesday 16th September so that an analysis of responses can be produced prior to an industry meeting at 9:00 Thursday 17th September to be held at Transco's Tottenham Court Road offices.

I apologise for the short notice and compressed timescales for the return of views.

Ofgas have received a Network Code modification proposal from Eastern that is effectively very similar to one of the options included in this note. Ofgas have this afternoon declared this modification proposal as urgent.

It may be appropriate that Transco proposes an alternate. Transco would appreciate industry views before deciding whether, and if so what, alternate might be appropriate.

Please do not hesitate to contact any of the following:

Nigel Sisman	01455 - 236760
John Wilson	01455 - 236825
Frank Gracias	01455 - 232707
Alan Jinks	01455 - 232915

if further clarification of the Transco note is required.

The 9:00 Thursday 17th September meeting will inform the decision as to whether to proceed with very rapid Network Code and Operational Guideline urgent modifications.

Yours sincerely

Nigel Sisman

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# POSSIBLE SHORT TERM MEASURES TO ADDRESS CONSTRAINT ISSUES

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## Summary

The costs associated with resolving constraints which impact St Fergus are currently running at around £3-500,000 per day.

The industry considered a range of options to endeavour to reduce these Network Code costs at the 10th September Energy Balancing workstream.

These options are described in this note.

Ofgas have indicated that they would be prepared to make rapid changes to either, or both of, the Operational Guidelines or Network Code if such options were considered likely to reduce these costs.

This document includes a fax proforma so that respondents can indicate whether, and if so which, proposals should be considered for rapid implementation.

Responses should be returned to both Ofgas **and** Transco by 16:00 Wednesday 16th September so that an analysis of responses can be produced prior to an industry meeting at 09:00 Thursday 17th September to be held at Transco's Tottenham Court Road offices.

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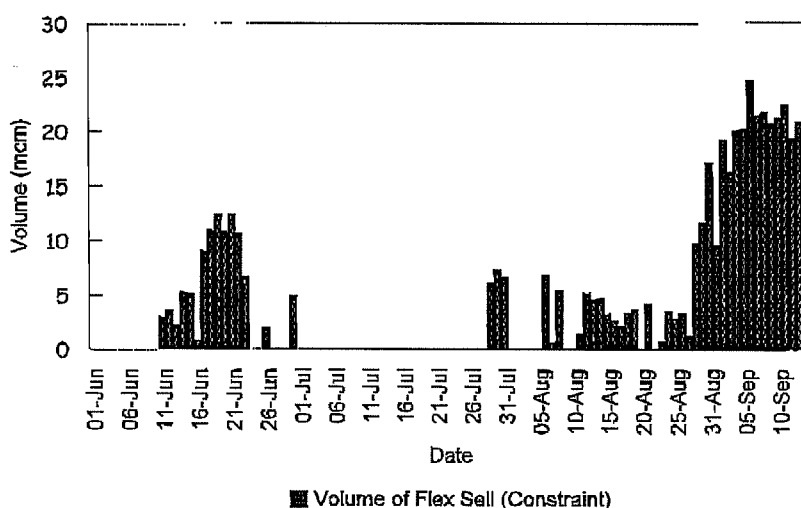
## Background

Transco commenced work on the largest and Capacity Expansion and Maintenance project ever undertaken in the National Transmission System (NTS) during April. This programme will enable the NTS to transport much higher levels of gas throughput to satisfy both growing United Kingdom and European demands. In particular the work will provide an approximate 20% increase in capability to accept gas at St Fergus in response to offshore developments in the northern areas of the North Sea. Overall this investment represents a capital investment programme of around £350m.

Transco have advised the industry of the detail and timing of the investment programme. The community have also been regularly updated on the extent and assessed costs of resolving system constraints since the first requirement to use the flexibility mechanism occurred during June.

### Volume of Flex Sell (Constraint) at St Fergus

1/6/98 to 14/9/98



At a meeting with several shippers and Ofgas on the 27th August the growing costs of resolving constraints became more apparent. At that time costs had just passed £1m, and St Fergus aggregate gas flow nominations could be seen to be much higher on days when flexibility system sells were taken to resolve system constraints.

The combined effects of the Transco and Capacity Expansion and Maintenance programme and much higher than expected shipper gas flow nominations at St Fergus have given rise to a requirement to take flexibility actions at St Fergus to resolve the situation.

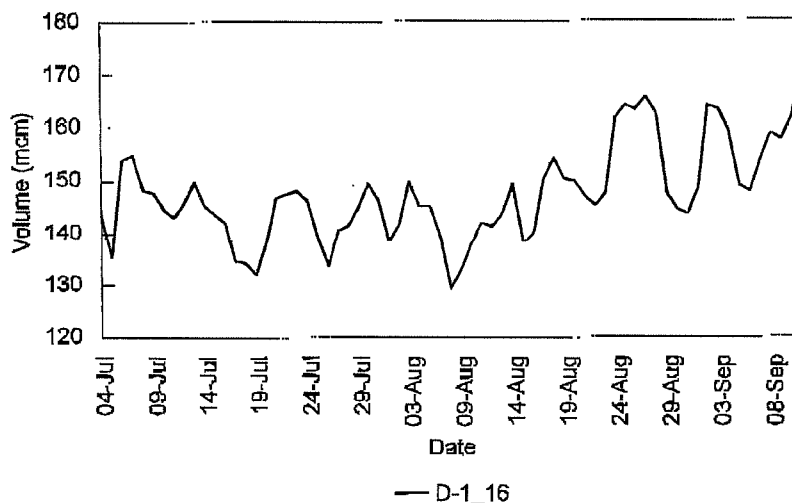
Since the end of August the requirement to take flexibility actions has increased significantly. During recent days it has been necessary to sell around 20mcm of gas at St Fergus often necessitating the requirement to buy back very significant quantities of gas. The net cost of this has been up to approximately £600,000 per day over the last few days.

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During the period since late August system demand has varied between approximately 145 and 170mcm, a variation of less than 20%, although with no consistent trend.

### System Forecast Demand 16:00 D-1

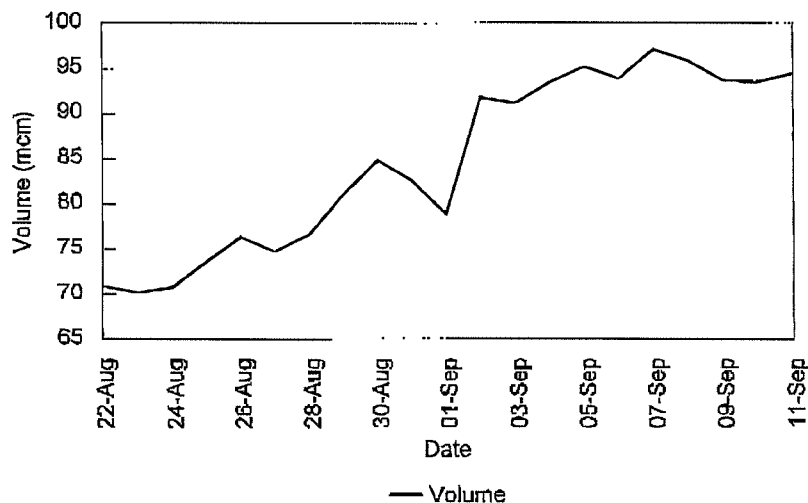
4/7/98 to 11/9/98



However during this period the aggregate nominations at St Fergus at the day ahead stage have seen a very significant change. Indeed the gas nominated at St Fergus expressed as a proportion of total system inputs has risen very dramatically from 45% to approaching 70%.

### Aggregate Nominations at St Fergus 18:00 D-1

22/8/98 to 11/9/98

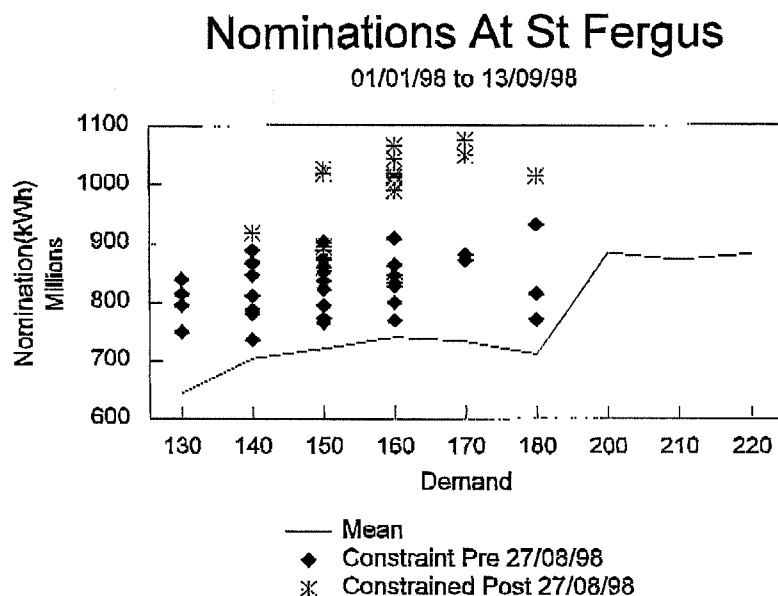


Recent nominations have been very much higher than those which might have been expected based upon recent experience.

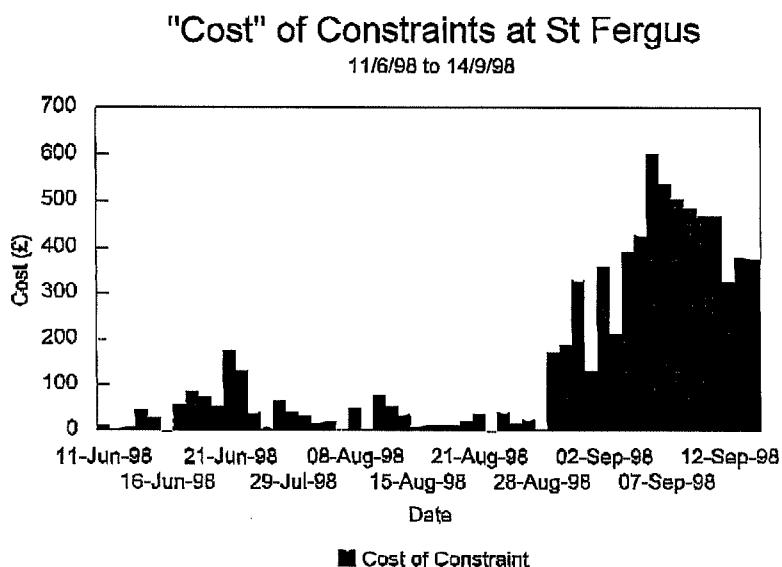


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The following graphic indicates the mean level of St Fergus gas nomination on days when no flex action has been used to resolve the constraint. The diamonds represent days up to and including the 27th August; the asterisks more recent days.



Overall it has been necessary to use flexibility sells at St Fergus to resolve system constraints on 53 days. The sells have represented a volume of approximately 500mcm and have been assessed as generating costs of approximately £7.5m within the energy balancing regime.



Daily costs are now averaging around £400,000. The Capacity Expansion Programme will not be completed until several weeks into the gas year commencing 1st October 1998 and it is

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known that there is gas available at present under contract which is not being nominated into the system.

These costs can hence be expected to continue and perhaps increase.

These costs effectively give rise to a redistribution of monies between shippers via the combined effects of the application of flexibility payments/credits and neutrality payments/credits. Whilst some shippers will be advantaged; others will be adversely affected. Effects on individual shippers over the period may well represent significantly higher profits for some and losses for others arising from the onshore regime than those which might normally be associated with typical shipping/trading and supply activities.

The implications also extend into the future since the upward trend of System Average Prices (SAP) may be a significant contributory factor to recent increases in both day ahead spot market prices and the forward curve.

### Process to Consider Change

Whilst the industry has significant concerns about the constraint issue, particularly in respect of rising costs, it is not clear, in the short term what should, if anything, be done.

This note has been circulated to seek views so that an informed decision as to whether very rapid changes in either or both of the Operational Guidelines and Network Code are appropriate.

Potential Changes to the Operational Guidelines and Network Code could be made which might seek to reduce the current level of Network Code costs. Ofgas indicated at the 10th September Energy Balancing Workstream that it might be prepared to sanction very prompt changes if considered appropriate.

It is imperative that views are expressed promptly so that informed decisions can be made. Please could respondents complete the attached proforma and include any additional views that might assist determine whether, and if so what, changes to the regime might be appropriate.

Please could responses be faxed to both:

Nigel Sisman  
Transco  
Fax No. 01455 236779

Rebecca Purves  
Ofgas  
Fax No. 0171 932 1600

as soon as possible and certainly no later than **16:00 Wednesday 16th September 1998**

It is intended that an analysis of responses will be presented to those attending a meeting at Transco's Tottenham Court Road offices at 09:00 Thursday 17th September which will precede any decision to make changes (if any are considered necessary) .

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### **Current Process to Address System Constraints Generating Input Capacity Restrictions**

The current process used by Transco to deal with input capacity constraints is outlined below in Steps 1 to 7.

#### **Before the Day.**

1. By 16:00 D-1 Transco will forecast capacity at the affected terminal.
2. At 16:00 D-1 shippers provide Transco with input nominations for day D. Transco will then compare these aggregate nominations against the forecast capacity at the affected terminal.
3. If the aggregate nominations at the affected terminal are between 100 and 105 % of the forecast capacity at the affected terminal then shippers are notified of the constraint and that no upward nominations will be accepted. No further action is taken at this time.
4. If the aggregate input nominations are greater than 105% of the forecast capacity then the Shrinkage nomination (if any) is removed. Shippers are advised of the percentage reduction required from them to bring aggregate nominations to the level of the forecast capacity at the affected terminal. This reduction is optional. A RAP is opened for shippers at 18:00 D-1 to facilitate this reduction.
5. At 02:00 D-1 the Delivery Flow Notifications (DFNs) at the affected terminal are compared to the forecast capacity. If the DFNs are greater than the forecast capacity then the difference is sold via the flexibility mechanism, location specific to the affected terminal. In the hour of 02:00 D-1 before the sell shippers are advised of the volume and location of the impending flexibility action on AT-LINK screen NB92. The prices of the bids taken for the flexibility sell action to resolve the constraint are excluded from the derivation of system cashout prices for the day.
6. Following the flexibility action shippers with selected bids are advised by Transco. Transco issues a Terminal Flow Advice (TFA) to the affected sub terminals which set their DFNs, adjusted for the flexibility action taken, down to the level of the forecast capacity at the affected terminal.

#### **Within Day**

7. Constraint within day is managed on pressure. If the pressure on the outlet of Terminal exceeds the first trigger level then a TFA is sent to the affected sub terminals advising that the level of their DFN is held at the prevailing level and shippers are advised of the constraint and that no upward nominations are allowed. When the pressure increases beyond the second trigger level then the affected sub terminals are advised of the immediate reduction in DFNs required to bring the pressure back below that trigger level a revised TFA is issued. A P11 is then raised to sell the percentage reduction. The TFAs are then reissued to take account of the volume of sells at each relevant sub terminal. A DFN is then received that then reflects the TFA. Again bids taken for the constraint are excluded from the determination of system prices for the day.

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8. The pressure on the outlet of the terminal is continually monitored and when it has fallen below a specified trigger level then the constraint is lifted. Shippers are advised, the TFA revoked and upward nominations are allowed at the affected terminal.

#### **Possible Remedies to Assist Addressing Constraint Issues**

The Energy Balancing Workstream on the 10th September discussed a number of options that might be considered in the light of the current constraint issue.

Transco agreed that it would produce a note to illustrate these options and seek views from the community as to whether, and if so which, options might be considered appropriate.

This section defines, at a principle level, the various options and indicates whether Operational Guidelines (OGs) or Network Code changes would be needed.

**Recipients are requested to review this section and return the check list at the end of the section to express their preferences, if any.**

The proposed short term options would require some changes to Operational Guidelines (OGs) and/or the Network Code. The following section outlines each proposed option and highlights where there is a departure from the current process and indicates whether OG or Network Code changes would be necessary. The relevant section of the OGs under consideration is Part E (Daily Balancing Considerations). Where applicable the section of Network Code that would need to be changed is highlighted.

#### **Option A - "Resolve constraints without recourse to flexibility mechanism"**

- Before 16:00 D-1 forecast capacity at affected terminal as at present.
- Mandatory reduction pro-rating of nominations based on booked capacity.

Currently the reduction in nominations is optional ( see Step 4 Before the Day Process). The change proposed would make the reduction of nominations mandatory and requires both OG and Network Code amendment in Section 4.1 Operational Scheduling.

- Terminal Flow Advice (TFA) with breakdown of nominations.

Breakdown of nominations by shippers could be supplied to Delivery Flow Operators (DFO's or Terminal Operators). Between 20:00 D-1 and 03:00 D-1 Transco would issue a TFA to the DFO's at the affected point reflecting the mandatory changes in nominations made by shippers on AT-LINK to Transco. This TFA would also include the actual shipper nominations made on the Transco AT-LINK system. The passing of this information to a non-Network Code party would require a change to Network Code V.5 Information and Confidentiality.

This would therefore require both OG and Network Code changes, together with the support and commitment of Terminal Operators.

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- Manage constraints on pressure within day.

There are no changes to the current process or OGs or Network Code.

- Back out excess gas.

This would be a departure from the current process (Step 6 onwards) and OGs. This could be allowed under Network Code Section I 3.9.1 provided the approach elsewhere in the Code D1.5. to use flexibility System Sells was dropped

It is envisaged that this would require both Network Code and OG changes.

- No constraint sells within day.

This would be a change to the current process (Step 6) and OGs and would also require a Network Code change in Section D1.5.

**Option B - "Delay flexibility actions until physical flows indicate they are necessary"**

- No constraint sells at D-1.

This would require a change to the current process (Step 5) and to both OGs. and Network Code Section D1.5.

- Manage on pressure within day.

There are no changes to the current process or OGs or Network Code.

- Constraint sells as required within day.

There are no changes to the current process or OGs or Network Code.

**Option C - "Limit the price of bids that will be accepted to resolve constraints"**

- Collar the price of constraint sells.

This would require the setting of either an arbitrary absolute floor or one based on an agreed differential to some other indexed price (eg: DA spot price -.1p/kwh).

This would require a change to the Network Code Section F1.2 + D2.6

**Option D - "Amend cashout price determination to remove asymmetry"**

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The significant quantities being taken as System Sells to resolve system constraints do not currently feed into the derivation of cashout prices for the day. Current cashout prices are hence heavily "biased" because of the preponderance of System Buys of high volumes at high prices. It may be appropriate to generate greater "symmetry" in cashout prices when actions to resolve constraints are being taken.

This could be achieved by:

- Including the Flexibility bids taken to resolve system constraints in cashout price determination

or

- Excluding the flexibility bids taken to buy back the gas following the action to resolve the constraint.

In relation to this there would also need to be clear guidelines as to what volume the buy back would relate to and also timing issues:-

- (i) The volume bought back (if any but only up to the quantity of that taken as System Sell to resolve the constraint) within the two hours following the flexibility action for constraint sell.

or

- (ii) The volume bought back (if any but only up to the quantity of that taken as System Sell to resolve the constraint) on the gas day equal to the amount sold for constraint on that day.

It might be considered appropriate that such exclusion should assume the average price associated with the "buy back" action.

Any of the alternatives under this option would require a change to Section F1.2 of the Network Code.

#### **Option E - "Introduce greater cost targeting in the vicinity of the constraint"**

- Target cost of constraint.

The cost of constraints ("Constraint Cost") could be assessed as the quantity sold to resolve the constraint multiplied by the difference between the System Average Price for the day and the average price of the System Sells taken to resolve the constraint. This cost would be removed from the normal daily neutrality calculation and targeted using one of the alternative options:-

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1. Apportion "Constraint Cost" over all shippers aggregate allocated input quantities.

This effectively removes the cost from those moving gas out of the system, apportioning costs in proportion to quantities of gas shippers are introducing into the system.

2. Apportion the "Constraint Cost" over shippers allocated quantities at the affected point only.

This would be applied at the terminal level whereby shippers at that location would effectively bear the full cost associated with the resolution of the constraint holding shippers gas flows at all other points unaffected from a financial perspective.

3. Apportion some of the "Constraint Cost" directly to shippers at affected terminal.

Such an approach might reduce the "smear" that could result if all costs were targeted at the affected terminal. For example 50% of the costs could be directly attributed to physical flows at that terminal. This would leave the residual 50% to be apportioned via the normal neutrality mechanism.

Any of these alternatives would require a change to the Network Code Section F.4.

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### **Responding to the Possibilities**

This document effectively proposes five alternative options which might provide some scope for addressing, in the short term, the issues surrounding current processes and procedures to address system constraints.

These five options can be summarised as:

**Option A** - Resolve constraints without recourse to flexibility mechanism

**Option B** - Delay flexibility actions until physical flows indicate they are necessary

**Option C** - Limit the price of bids that will be accepted to resolve constraints

**Option D** - Amend cashout price determination to remove asymmetry

**Option E** - Introduce greater cost targeting in the vicinity of the constraint

Whereas Option A is effectively stand-alone any sub-set of Options B,C,D,E could be implemented.

The following proforma has been developed to facilitate easy response on this issue.

Should you require further clarification please do not hesitate to contact:

Nigel Sisman	Transco	01455 236760
John Wilson	Transco	01455 236825
Frank Gracias	Transco	01455 232707
Alan Jinks	Transco	01455 232915
Rebecca Purves	Ofgas	0171 932 1645



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**POSSIBLE SHORT TERM MEASURES TO ADDRESS CONSTRAINT ISSUES**

From: Name \_\_\_\_\_

To Rebecca Purves  
Fax: 0171 932 1675

Organisation: \_\_\_\_\_

Nigel Sisman  
Fax: 01455 236779

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Tel: \_\_\_\_\_

(Please delete/insert as appropriate)

It **IS / IS NOT** appropriate to make immediate changes to the regime to seek to address the constraint issue.

The proposals in the "Possible short term measures to address constraint issues" document **ARE / ARE NOT** worthy of consideration.

The following options are worthy of consideration:

<input type="checkbox"/> A	Resolve constraints without recourse to flexibility	YES / NO
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OR

<input type="checkbox"/> B	Delay flexibility actions until physical flows indicate they are necessary	YES / NO
<input type="checkbox"/> C	Limit the price of bids that will be accepted to resolve constraints	YES / NO
<input type="checkbox"/> D	Amend cashout price determination to remove asymmetry - Include System Sells used to resolve constraints - Exclude System Buy "Buy Backs" within two hours/any time	YES / NO YES / NO
<input type="checkbox"/> E	Introduce greater cost targeting in the vicinity of the constraint - Target costs against system input quantities - Target all costs against flows at the terminal affected - Target some costs against flows at the terminal affected	YES / NO YES / NO YES / NO

Do you have any other ideas as to how this issue should be tackled in the short term?