



System Operator Incentives Review

Response to National Grid's Initial Proposals

Prepared by TPA Solutions on behalf of

Gas Forum

Introduction

The Gas Forum welcomes the opportunity to respond to the SO Incentive Regime Consultation Initial Proposals provided by National Grid.

Ofgem's experiment with the process is worthwhile, but unfortunately has probably contributed to compressing the timescales available. As a result the fundamental review anticipated by Ofgem when it set the SO Incentives for 2007/2008 has not been able to take place. Instead the proposals are very much focused on the incentives for 2008/09 and it has not been possible to go into the depth which would have been appropriate and preferable. We appreciate the now pressing need to agree arrangements to take effect from April 2008. Once this process is completed, we would urge Ofgem to ensure that a full and fundamental review is commenced as early as possible.

In general, we believe that National Grid have in most areas succeeded in offering options and alternatives in relation to the incentives. There are a number of areas where we believe more information is required, and where we think there are other options which could also be considered. We have asked a number of questions and held discussions with National Grid. Our questions are included as Appendix 2 and we are awaiting written answers which National Grid have undertaken to give us w/c 21st Jan

In summary, we would like to make the following points.

- We propose introducing a proportion of prompt prices (25%) into the reference price methodology for the Shrinkage Incentive, to more closely align the methodology with National Grid's purchasing pattern. We believe the Shrinkage volume forecasts should be refined.
- We estimate that the impact of the interim methodology for GCRP will be to increase National Grid's cost target by some £12 -£15m. This could also be seen as a cost to Shippers as a result of the delay in agreeing incentives. Ensuring there is longer term certainty over the price methodologies to enable gas to be purchased forwards is therefore very important
- We agree that National Grid has a potential exposure to uncontrollable CV shrinkage and support a review of the CV capping rules in the Gas (Calculation of Thermal Energy) Regulations.
- We believe the Operating Margins volume forecast is overstated and National Grid should consider certain areas for reductions for 2008/9.
- We think there are other options on residual balancing which should be considered
- We think the demand forecasting incentive should be tightened and rolled forward subject to a further fundamental review.
- We do not think the information publication incentive should be rolled forward without including a downside, and that it is likely that standards of service in this area would be appropriate.

The following sections give an overview of our key points followed by an expanded discussion on each incentive area. We conclude with short answers to the specific questions in National Grid's consultation.

1. Shrinkage

- The shrinkage incentive should be retained because it is the biggest cost component of the SO Commodity charge and it is important that National Grid have an effective incentive to manage this cost.
- National Grid have outperformed on cost and volume consistently so both elements of the incentive need tightening.
- The volume forecast should be refined, and to do this, more information is required from National Grid. Specifically, compressor fuel consumption figures by compressor station should be published.
- We believe that volumes associated with St Fergus TOM sub-terminal compression should be excluded from the incentive because National Grid has no latitude over the use of these compressors. However, it is important that National Grid should still have an incentive on the procurement of these volumes.
- National Grid needs to re-assess its correlation between St Fergus flows and national compressor usage without the TOM volumes, to demonstrate that it is still an appropriate basis for the forecast bands.
- National Grid should then publish an updated banded volume forecast showing TOM fuel use separately. At the same time, an up to date forecast of compressor fuel to the end of 2007/2008 (based on 80% of the year completed) would provide the latest information with which to assess the accuracy of the compressor fuel forecast figures.
- The price methodology should be refined and should be more closely aligned to their actual purchasing strategy, which we understand is to buy a mix of prompt and forwards gas. We think setting the reference price based say, 75% on forwards prices and 25% on (say, monthly average day ahead) prompt prices would make the incentive more appropriate.
- It is reasonable for National Grid to use an Electricity Cost Reference Price Methodology, but it may also be appropriate for it to be split between forwards and prompt prices as proposed for Gas. The 3:1 energy conversion should be explained on the basis of relative machine efficiencies
- The proposed Interim Methodologies for GCRP and ECRP look broadly appropriate, although the impact of including a prompt price element, as we suggest above for the enduring methodologies, could also be considered.
- National Grid need to explain the impact on compressor operations of their new Joint Venture programme to generate electricity from Grid pressure. It would not be appropriate for Shippers to fund any additional compression costs (through the Shrinkage costs component of the SO Commodity Charge), particularly if they receive none of the benefits from the electricity generation income.
- National Grid also need to explain their operating philosophy for the new electrically driven compressors. If they are able to use gas compression rather than electric in order to avoid electricity triad charges, then the price uplift should be adjusted to share the benefit.

- National Grid has presented extreme scenarios for CV Shrinkage at some specific points, which they agree have low probability of occurring. National Grid also presented information showing that there was no problem should CV at those points outturn in the mid-range. A central case target for those points could still be included in the incentive, with a provision to allow adjustment should either extreme occur. If however, the central case is very low (effectively zero), then excluding the volumes seems reasonable, providing an incentive can be maintained on the procurement.
- We also accept the concerns in relation to low CV direct entries to the DNs and would support a review of the CV capping rules. The issues and benefits associated with moving to a longer period over which to apply the capping could be usefully considered, as it may help mitigate the costs arising from the sort of events highlighted by National Grid.
- We are not clear how National Grid have accounted for the possibility that UAG can outturn negative in their forecast. We believe National Grid should, as a matter of routine, be pro-active in this area, and tightening the overall incentive should help to maintain the incentive on National Grid to do so.
- We estimate that the impact of the interim methodology is to increase National Grid's target cost level by some £12m - £15m, as a result of delaying setting the reference price and the rise in forwards prices since last year. This could also be seen as a cost to Shippers.
- We think it would be appropriate to separate the price and volume components of the incentive, such that the price methodologies could be agreed for longer durations, (and we think this is the effect National Grid intended in their proposal to incorporate the price methodologies into the license). Given the current level of uncertainty over future supply patterns and the consequences for compressor utilisation, it would be important to reset the volume targets annually.
- Overall for this year we believe the level of risk/reward set by the caps/collars and duration of the incentive performance scheme should remain at a broadly similar level to the current scheme.

Shrinkage Incentive – Discussion

1.1 Compression OUG Volume Forecast

We believe the fuel volume forecast should be refined and re-assessed. There is confusion over the inclusion of St Fergus TOM compression fuel figures, and this is an area where we have asked National Grid for more information, clarification, and some further analysis, as it has several significant impacts.

National Grid have confirmed that their original analysis showing a correlation between compressor fuel usage with St Fergus flows included the compression associated with the TOM sub-terminal.

National Grid has no latitude over the use of compression associated with the TOM sub-terminal (which represents 20 - 25% of the total volume of fuel gas), as it is required to compress the incoming gas from 40 to 85 bar before it continues to flow through the NTS. Clearly compression associated with this sub-terminal will be highly correlated with St Fergus flows and including it in the data could potentially skew the correlation analysis for the national compressor fuel usage.

National Grid have undertaken to re-do their correlation analysis, and have indicated that they believe the correlation still holds sufficiently to justify relating the compressor fuel target in the incentive to the flows at St Fergus. National Grid should also compare their

latest analysis with correlations to flows at alternative entry points and total system inputs to confirm that St Fergus is still the strongest and that it is therefore still appropriate to use a banding approach. Ahead of this analysis we believe it is still likely to be a sensible approach for the remaining national compressor fuel volume.

National Grid should then publish an updated, banded volume forecast, with TOM figures shown separately. At the same time, an up to date forecast should be provided for fuel usage for the current incentive year, comprising actuals and a forecast for the remaining two months, shown against the average St Fergus flow rate. This would provide the most up to date position against which to assess the forecast for 2008/2009.

National Grid include the St Fergus TOM compression volumes because they are procured with all the other Shrinkage gas, and because (we understand) they have previously been included in assessment of the incentive against the performance target.

We think that the TOM volumes should be a pass-through, although National Grid should still be incentivised on efficient procurement of the gas.

1.2 Compressor Operating Philosophy

We have asked National Grid to demonstrate that their new joint venture to generate electricity from grid pressure will have no impact on compression fuel volumes under the incentive. National Grid have assured us that they have license obligations which will ensure that it does not act inappropriately, however we think in the interests of transparency it would be appropriate for National Grid to make a written statement about the impact of the venture and the procedures they will use to demonstrate that Shippers are not inappropriately funding additional grid pressure.

We have also asked National Grid to provide more information about the scope for switching between gas and electric compressors. National Grid will be retaining the gas compressors as standby in case of electricity grid failure, and in order that they can be an effective standby we would expect National Grid to need run the gas compressors regularly, e.g. weekly. Given that it may be possible to co-ordinate running the gas compressors for this purpose with avoiding peak electricity charges, there may be some scope for this to be reflected in a lower uplift on the ECRP.

There would be associated costs incurred in using gas compression, but we would expect National Grid to forecast and procure the volumes required for maintaining the gas compressors on standby through the GCRP part of the incentive. The extent to which this benefit is available will be determined in part by progress with the electrical compressor installation programme.

1.3 CV Shrinkage Volumes

National Grid has proposed excluding volumes associated with certain points on the system where it has no opportunity to manage the CV Shrinkage, and we understand the logic in this argument. However, National Grid has given extreme scenarios which have a low probability of occurring. There could be a case for including a central case target within the incentive, and making provision for adjustment in extreme circumstances. National Grid has not provided a central case target for those points, but in its presentation indicated that it would be extremely low. If this is the case, exclusion of volumes incurred in extreme circumstances would seem reasonable, subject to ensuring that a price incentive could be maintained on those volumes (see below).

We think it would be highly appropriate for the capping rules to be revisited. The issues and benefits associated with moving to a longer period over which to apply the capping could be usefully considered, as it may help mitigate the costs arising from an extreme event.

1.4 Unaccounted for Gas (UAG)

National Grid have provided a forecast for UAG based on an average of annual outturn normalised UAG volumes. We appreciate the difficulty in forecasting UAG and accept that it is likely that there is no statistically robust driver with which to inform the forecasting process. However, UAG is also capable of outturning negative, and we are not clear how National Grid have included this possibility in its forecast.

We understand that National Grid monitor UAG fairly closely on a routine basis and have on occasion undertaken programmes of investigation into meter error where there appears to be a persistent trend in outturn UAG.

Although the volumes of UAG are less material than the overall compression fuel usage, they are still a significant proportion of the overall incentivised volume, and we believe that National Grid should be proactive in this area at all times as a matter of course, because it is so difficult to forecast and because it is vulnerable to such large variations year on year, and indeed day on day.

We think it is possible that including a prompt element in the reference price might improve the resolution of the incentive on day to day forecasting of UAG, depending on National Grids procurement strategies. This is an area we would like National Grid to explore and explain how they believe it would impact their behaviour on UAG.

It is possible that a more refined or specific incentive, or a more aggressive incentive as suggested by National Grid, might provide National Grid with the necessary motivation to focus on deeper analysis and investigation in this area. Given the nature of UAG, it is not necessarily the case that this would lead to a material performance improvement, hence National Grid's view that a more aggressive risk-reward profile would be appropriate in this instance.

Tightening the overall Shrinkage incentive should also in itself maintain the requirement on National Grid to be proactive in this area, particularly if the volumes associated with TOM are removed from the volume part of the incentive.

1.4 GCRP/ECRP Methodology

National Grid has consistently outperformed the price component of this incentive, indicating that it should be made more challenging. The current methodology sets a reference price based entirely on the average forwards price, although National Grid in practice also buy a proportion of prompt gas. Setting the reference price to include a proportion of the prompt price would limit the scope for National Grid to benefit purely from the forwards/prompt spread, and would more closely relate the reference price to their actual procurement patterns. Including a prompt element should make the incentive more challenging for National Grid to some extent, but the suggestion is not intended to encourage significantly more risky procurement strategies, simply to align the reference price more closely to the purchasing strategy and encourage prompt purchasing to be as competitive as possible. We suggest that a mixture of 75% forwards prices and 25% prompt prices would probably be appropriate.

The ECRP methodology could also be adjusted in a similar way to include a proportion of prompt pricing. In addition, National Grid has indicated a level of £8.50 uplift associated with its retail contract. If there is scope for triad charges to be avoided as discussed under Compressor Operating Philosophy above, then it may be appropriate to reduce this level of uplift.

1.5 Interim GCRP/ECRP Methodology

In relation to the interim methodology, we have looked at the rise in forward prices since last year, and estimate that as a result of the delaying the purchase of Shrinkage until January 2008, National Grid's target cost level will be some £12m - £15m higher than it would have been, had the reference price been set last year (if the GCRP methodology were applied in full)

Assuming this price rise correspondingly materialises in the outturn cost of the Shrinkage for 2008/09, this could be seen as a cost to Shippers as a result of the delay in agreeing the incentives.

Assuming National Grid are only now starting to buy Shrinkage gas for 2008/09, then they will have avoided a more challenging incentive target, and hence potentially an incentive penalty, as a result of the rise in 2008 prices since last year. However, we believe that since the methodology is intended to encourage National Grid to buy as close to the market price as possible, and since the delay was not of National Grids making, it is not unreasonable to use the interim methodology.

We think it is possible that the proposed inclusion of a proportion of prompt pricing could be included in the interim methodology, given that National Grid are still likely to be buying a mix of forwards and prompt gas.

1.6 Separation of Volume from Price Incentive components, and Incentive Duration

National Grid have proposed incorporating the GCRP/ECRP into their GT license in order to make the methodology enduring beyond the introduction of the next price control (till 2012/13).

Given the costs we estimate are potentially associated with the Interim Methodology, we agree that it is appropriate that the price methodologies should be agreed separately from setting the volume forecast, to provide certainty for National Grid over a longer timeframe and to allow for the need to buy forwards gas a year ahead. An update mechanism to enable the price methodologies to be updated annually is also appropriate.

We also think it is important that the volume forecasts should be re-assessed annually, given the potential for significant changes in supply patterns and the uncertainty over the impact it may have on compressor fuel. This would also provide the opportunity to keep pace with the electric compressor installation and use experience gained in the running of the electric compressors to refine the volume incentive.

If Ofgem adopt the proposal to incorporate a proportion of prompt prices into the reference prices, it is possible National Grid may have a different view on the optimal duration of the pricing methodologies. However we would still expect it to be possible to agree an appropriate duration for the methodologies which was consistent with the need to buy forwards a year in advance, to avoid another interim methodology being required.

1.7 Maintaining a Price Incentive on Excluded Volumes

National Grid has suggested that some CV Shrinkage volumes be excluded from the incentive, and we have suggested this may also be appropriate for volumes related to St Fergus TOM sub-terminal compression. However, it is important that an incentive is maintained on the procurement of those volumes.

Therefore it would still be necessary to evaluate and incentivise price performance in relation to the excluded volumes. We understand that National Grid propose that the incentive mechanism would use an outturn volume for the excluded components multiplied by the reference price to set the performance target, in order to maintain a price incentive but pass through the volume.

One consequence of excluding some volumes from the incentive means that there are some scenarios in which it is possible that there is no effective procurement incentive on the excluded volumes.

Taking the central case volume forecasts (6278GWh) for which National Grid states an overall target cost of £116m, a saving of 0.1p/kWh (3p/th) on the target cost relates to a £6m saving on the cost, and vice versa. It would take an equivalent volume reduction of around 325Gwh (5%) to achieve the same £6m saving.

If National Grid misses the price target by 0.1p/kWh, but achieves a volume reduction of 324GWh, it will be performance neutral, but we estimate the additional costs associated with failing to meet the price incentive on the pass through of a worst case scenario CV Shrinkage would be £1.57m. If TOM compression volume is also passed through, the additional costs associated with it would be £1.25m. There is a need to address how to maintain National Grids incentive to procure these volumes efficiently.

It may be appropriate to designate sharing factors for the price incentive component for pass through volumes, and this should be set out in conjunction with a statement of the charging methodology which would be used to apportion costs and performance incentive payments/costs between the TOM compression charge and the SO Commodity charge.

1.8 Caps and Collars – The Risk/Reward Profile

Compression usage dominates the overall volume of Shrinkage, and much of the CV Shrinkage risk is likely to be excluded, so any consideration of the appropriate risk/reward for National Grid would tend to focus on strategies which Grid could use to reduce actual volume/quantity used or its cost.

We believe that there is currently only a limited scope for National Grid to make significant reductions in compressor fuel usage and therefore procurement strategy is the main tool available to National Grid to outperform the incentive. National Grid has stated that a more aggressive risk profile would encourage them to take more risks on procurement. We do not believe this is appropriate at this stage.

We are proposing to tighten the price incentive, but we do not believe that there is a requirement at present for a significant shift from the current overall balance of risk/reward within the incentive scheme.

2. Operating Margins

- The Operating Margins (OM) incentive should be retained as it is appropriate that there should be an incentive for National Grid to minimise the cost of procurement of OM.
- Despite the year on year reduction in the volume requirement forecast, we believe it is still overstated because National Grid assume co-incident events, for example, 1 in 50 demand and offshore failures which have an extremely low probability of occurring individually, and an even lower probability of occurring simultaneously. Similarly we believe there may be double counting of the requirement between orderly run down and offshore failure scenarios. There is a case for considering the removal of 384 GWh of OM for Major Events at a saving of approximately £7.1m.
- As contestability increases, it would be appropriate for the sharing factors to be amended. For the next year, it might be appropriate to split the overall target, such that sharing factors are applied for the component of the target which is sourced competitively, but 100% sharing factors are maintained for that proportion which is supplied directly by NG LNG from their sites
- It is appropriate that National Grid should share in utilisation costs, should they occur since this potential risk arises from efficiencies gained in the procurement process (by buying space only rather than a bundled service.)
- Our understanding is that National Grid is currently fully exposed to utilisation costs. It is not clear why the inclusion of utilisation costs should be reflected in an increase in the overall cost target, as suggested in option C relative to option A. We think therefore that option C simply represents an increase in the target costs.
- Since we think National Grid should share the utilisation costs, we think a combination of A and B should be implemented, such that target cost is retained at the predicted level (£23.3m – after any adjustment for volume requirement/tender results) and that National Grid have a utilisation cost collar of £0.5m such that they are exposed to the background level of utilisation costs, but are protected from full exposure in extreme circumstances.

Operating Margins – Discussion

2.1 Level of OM Provision

There is a fundamental issue with regard to the overall requirement for OM. Although we support the concepts surrounding the use of OM by National Grid and acknowledge that they are a contributory factor to the safe operation of the NTS, we believe there is insufficient justification for the level of OM provided. Although there is no absolute obligation on National Grid to maintain the system in operation at any cost, there must be an economic point beyond which there is nothing more they can do to cover for a major supply failure or catastrophic system failure.

Ofgem have maintained that they have concerns with regard to double-counting of OM requirements and we support that concern. We also maintain that there is provision for co-incident events that have a very low probability of occurring and this raises the question as to how much the OM requirements could be reduced without increasing the risk of a failure to supply.

As a fundamental point of principle, we believe that there is inappropriate disparity between the level of risk National Grid covers within the safety monitor (namely to supply a proportion of the market at substantially below the 1 in 50 firm demand level) and the provision of OM to deal with a situation that covers all gas demand under 1 in 50 severe load duration conditions. Has the risk profile of providing sufficient OM to cover the co-

incident events of 1 in 50 demand and a system or supply failure been compared to the risk profile of the Safety Reserve for consistency?

We accept that it is difficult to change the Safety Case to remove elements of the OM provision but we believe that the two approaches are inconsistent.

Returning to double counting we would like to pursue a very specific point.

If we take the provision of OM for a Major Event resulting in a major supply loss and Orderly Shutdown the assumption used for calculating the Major Event requirement is that it will be required in the winter period only. In this case we believe that any major supply failure in the winter period has a high probability of triggering a Gas Supply Emergency immediately which could in a short period of time lead to a call on the OM for Orderly Shutdown, bypassing the need for the OM provision for Major Events. In their consultation document National Grid indicated that 384 GWh of LNG is required to cover Major Events. Therefore it should be possible to eliminate all the provision of OM for Major Events at an approximate cost saving of £7.1m assuming that the National Grid estimate of total OM costs can be pro-rated to reflect the average cost of OM for Major Events.

As a minimum we request that National Grid reconsider the removal of the OM provision for Major Events on the grounds that the risk profile being covered by this provision is far higher than that that has been accepted with respect to the Safety Monitor and that they seek to change their Safety Case with the aim of eliminating this requirement by 2009/10.

2.2 Other Possible Savings

We acknowledge that National Grid has made savings against their previous OM requirements, although it is not absolutely clear where the savings have been made. We would like to understand in more detail the benefit (in terms of lower OM) from higher linepack levels, lower compressor utilisation and additional electrically drive compression. All these should be reducing the risk associated with compressor station failures. We appreciate the level of detail provided in the consultation on the proposed bookings, however it would be useful for National Grid to publish the tables reproduced in their consultation for the 2007/8 bookings so a direct comparison can be made.

In addition we believe there are other areas where the level of provision could potentially be reduced, for example:-

- There is a non-locational notional provision of 98 GWh for category 2, but the events that the consultation describes as being covered (pipebreaks and compressor trips) are by definition essentially locational.
- The locational provision in Dynevor Arms may be capable of being met from linepack in the new pipeline from Milford Haven
- There is a high amount of OM in Glenmavis even though flows through St. Fergus and Barrow are declining.

Given the limited nature of the incentive at present in the absence of any competitive sources of OM, it is very important that the volume requirement is fully justified by National Grid.

2.3 Introducing Contestability

National Grid is taking steps to procure a proportion of OM gas from the market, and has indicated that for 2008/2009 up to around 50% of the proportion of its requirement could be met from the contestable market rather than its LNG sites (subject to evaluation of potential service providers bids). This process is ongoing but we believe that if it is the case that a significant proportion of the requirement is met by a number of other providers then there may be a case for adjusting the sharing factors. We think it would be possible to split the sharing factors to be applied on the performance, such that National Grid retain 100% exposure to the costs of procurement from the National Grid LNG sites, and other sharing factors could be applied for the proportion which is supplied by the contestable market.

2.4 Utilisation costs

We appreciate that National Grid has used utilisation costs as a means of describing alternative options for the incentive regime, particularly given the currently limited scope of the incentive. It is our understanding that National Grid are currently fully exposed to these costs.

Since utilisation costs derive from efficiency in the procurement process, it is appropriate that National Grid should have some incentive in relation to them. If there were none, and the costs were to be borne entirely by Shippers, National Grid would in theory have less incentive to negotiate efficient procurement contracts.

Given the information presented we can see why National Grid might wish to be protected from extreme scenarios. However we do not see justification for the suggested increase in the target costs in return for taking the all or some of the risk associated with utilisation costs.

This being the case we believe that it would be appropriate to implement a combination of options A and B, such that the target cost remains at the minimum level (£23.3m as adjusted by the tender outcome) but that National Grid have a cost collar of £0.5m, which would leave them exposed to the 'background' level of cost, but protect them against full exposure in extreme circumstances.

3. Residual Balancing Incentive – Price and Linepack

- The Price incentive should be retained as it is important that National Grid has incentives to buy and sell as close to market prices as possible.
- The current structure incentivises National Grid not to take any action, since it pays out a daily maximum of £5,000 when no balancing action is taken. Whilst this remains an appropriate objective for the incentive, the level of daily caps should be tightened to reduce National Grids scope for profit from this scheme for not taking action. We think the daily maximum should probably be of the order of £3000 and we have asked National Grid to provide information which would enable the proposed schemes and variations on it to be compared to current performance.
- Although the linepack incentive could be viewed to have had very little impact on National Grid's behaviour, we believe there is not enough information to evaluate this. We remain concerned that balancing costs should be targeted accurately to particular days, and that removal of the linepack incentive could adversely affect this.
- A more fundamental review is certainly appropriate, as it is likely that, over the next two years, with changing supply patterns and increased variability in the day to day location of inputs to the NTS, it would be appropriate for there to be greater transparency and focus on the interaction between linepack and compressor utilisation, as well as with the capacity buyback regime and the Electricity SO incentive regime.
- In the meantime, we think there are other options which could be considered, e.g. retain the form of the linepack incentive, perhaps with slightly wider bands (e.g. 4 or 5 mcm) and a lower payment for staying within them, and a steepening incentive at the extreme, to discourage large imbalances being transferred between days by the System Operator.
- There is a case for more within day linepack information to be published, and this could be considered as an alternative to keeping the linepack incentive.
- It is not clear why option B, without the linepack incentive, would permit greater caps and collars on the price incentive, even if the target PIR is reduced. Without the linepack incentive, National Grid should have more scope to manage costs under the price incentive, so should option B be selected, the caps and collars should be tighter.

Residual Balancing Discussion

3.1 Price Incentive

National Grid have proposed what is essentially a rollover of the current price incentive and have offered a choice of whether or not to keep the linepack incentive. We think there is insufficient information available about the impact of the linepack incentive on National Grid's behaviour, or its interaction with the Price Incentive, to enable an informed decision about whether or not to retain it.

We have asked National Grid to provide up to date performance information for both elements of the incentive.

On the price incentive we observe that National Grid are regularly beating this incentive, and that the incentive is structured such that they receive the maximum daily incentive payment of £5000 for taking no action. Whilst it is appropriate for National Grid to be incentivised against taking action, we think the daily cap should be tightened to around

£3000, to reduce the scope for National Grid's profit from not taking action. It is also possible that it would be appropriate for the PIR to be tightened from 10% as well.

We have asked National Grid to provide information which would allow the effect of the proposed scheme (and variations on it) to be compared to performance under the current scheme.

3.2 Linepack Incentive

On the linepack incentive, an important original concern behind the introduction of an incentive in this area was that there should be accurate targeting of imbalance costs between days and hence between Shippers. We believe this is still an appropriate objective for the regime.

However, it is possible that the current arrangements are causing some inappropriate outcomes in terms of costs (for example actions being taken late in the day/at night, which might otherwise not be needed, and which may incur inefficient costs due to the timing of the action). This may be a result of either the linepack incentive, the price incentive (which gives maximum payout for no action and hence would encourage National Grid to delay taking action), or most likely as a result of the interaction between the incentives. Further detailed information and analysis is required to evaluate the materiality of these issues. This would need to look, in the context of the available information at the time, at the relevant decisions and actions as well as the resulting outcomes.

Our understanding is that the linepack target is taken into consideration by National Grid, but it is often the hardest objective to meet because the target bands are set tightly, so it is often the first objective to be given up. However, we understand that they would still face costs up to £30k on a day for changes up to 20mcm, so even if the 2.4mcm band is exceeded, there is still an incentive to minimise any further change, up to 20mcm.

National Grid say they have increased the linepack bands in the proposed incentive option A to 3.1mcm (from 2.4mcm) to reflect a 30% increase in overall system linepack, but indicated in discussion that they felt this would still be a similarly challenging target to the present one.

We have asked NG to quantify the increase in the linepack in the system, to verify that the increase in the target bands corresponds to the overall linepack increase, and does not imply any additional widening of the bands.

We think it is very important that there should be a fundamental review of this area, and observe that it will need to start soon if it is to be of value for the year 2009/10.

In the meantime we would highlight that there is potentially a range of middle ground between National Grid's options. One approach might be to allow a slightly wider band on the daily change in linepack, and softer penalties for small excursions away from this, but with steepening incentives for larger changes, to incentivise against allowing large imbalances to be carried forward between days. This would maintain the incentive properties originally intended, in terms of preventing large imbalances being incurred by one Shipper and paid for by others, but we think that it might reduce the scope for inappropriate outcomes. Further analysis is required but for example there could be a fixed (lower than current) incentive payment for anything better than target (say 4 or 5mcm), and a steepening profile of costs for larger change in linepack volumes.

We have asked National Grid to consider what they think might be appropriate alternatives between the options they have proposed.

We also think that there is a case that greater transparency over within-day national linepack (and possibly regional) would give Shippers a better understanding of the system situation which could lead to more efficient market outcomes. It would certainly assist, over time, in evaluating how best to incentivise National Grid's actions in relation to managing linepack. It is possible that asking National Grid to publish more information on within day linepack could be considered as an alternative to keeping the linepack incentive, either this year or in future.

However, publishing more information is also worthy of some further consideration, in relation to the potential impact it could have on the market, and the extent to which it could lead to National Grid being a 'distressed buyer', compared to the current situation. On the other hand greater transparency could help protect National Grid from any potential gaming. We believe these issues are also being considered in relation to exit reform.

Should Ofgem decide to remove the linepack incentive altogether for the year 2008/09, we would like to stress that its role and the properties and impact of the incentive to date should still be fully evaluated as part of a fundamental review, which could also bring into consideration the relationship between linepack, compression and capacity buybacks. Interaction with the Electricity SO regime should also be part of this review.

Given the potential for new supply and demand patterns, and increased variability from day to day between alternate supply and demand patterns, a focus on the actual and potential interactions between these areas will become increasingly important.

4. Quality of Information – Demand Forecasting and Data Publication

- National Grid have largely accomplished the performance improvement in both data publication and demand forecasting which were intended to be encouraged by the introduction of these incentives.
- Accuracy of demand forecasting still has important commercial consequences for Shippers. More sophisticated measures might now be appropriate to focus on particular components of the forecast, for example targeting bias or daily extremes of error, and this would require much more information and analysis than is presently available. A fundamental review is therefore appropriate, and in the mean time the target performance level should be made more challenging.
- The revised scope of the data publication incentive is appropriate, and National Grid's process for selection of the data to be included is sensible, as is including legitimate downtime within the proposals.
- However, we think the objective of performance focus has now changed, and there should now be an emphasis on maintaining performance levels. There should now either be some downside to the data publication incentive, or they should be developed into Standards of Service Obligations carrying penalties for non-performance, so that there is a deterrent against allowing performance to slip. It is not appropriate for the incentive to be rolled-over as a pure upside structure for National Grid, and if any upside is available, it should be much lower.
- National Grid's investment projects would normally be subject to scrutiny for efficiency at the Price Control Review, and an allowed rate of return set accordingly. Investments made as a result of these incentives should be subject to the same degree of scrutiny. This is particularly important as it is not otherwise possible for Shippers to be certain whether performance improvements proposed are a result of any particular investment or are available intrinsically from earlier investments, and particularly since the incentive payments proposed are linked to the level of investment.
- Standards of Service obligations would still permit National Grid to achieve the appropriate return for its IT investments through the Price Control mechanism, and so would not deny National Grid any potential upside from its investments for performance improvement.

Quality of Information Incentives - Discussion

4.1 Demand Forecasting Incentive

Ofgem reported in its Initial Thoughts document that National Grid has made a 30% improvement in relation to this incentive, significantly higher than the target level of 5%, and yielding a £3m incentive payment.

We believe this is likely to be the result of a National Grid having made a step change in the process, and so could be very hard to replicate year on year. Nonetheless, we think the target performance level should be tightened for the forthcoming year.

Given the commercial importance of the demand forecast for Shippers, we think it probably appropriate for National Grid to retain a focus on improving its performance in this area in the long term. It would be possible to refine the measures of performance perhaps, for example to focus on bias or avoiding extremes of error, and we think a fundamental review is therefore highly appropriate.

4.2 Data Publication Incentive

Similarly, we believe National Grid's improved performance on timeliness of publication was accomplished, as intended, by a step change investment which delivered successfully. Experience with the scheme has shown that it is appropriate that National Grid should be permitted some legitimate downtime within any performance scheme. Similarly monthly performance measurement intervals are also generally appropriate.

National Grid's manner of selection of the scope of information for the incentive is sensible, and we believe the scope would be appropriate under any incentive or performance obligation.

4.3 The Risk Reward Profile for Data Publication

The objective of the original incentives was to encourage National Grid to go ahead with investment programmes or other changes designed to deliver a step change in performance, and this objective was reflected in the upside only structure of the incentive mechanism. The original objective has essentially been accomplished and it is therefore necessary to consider the objectives of the scheme going forwards.

On data publication, we believe there is comparatively less performance improvement headroom available, and that the objective of any performance focus in this area should now emphasise maintaining performance levels, rather than necessarily targeting improvements.

However, that is not to say that performance improvement is not important. We believe that, as in any other area of the business, National Grid should as a matter of routine be continually concerned with whether significant performance improvements are available, and we would expect National Grid to propose and make investments accordingly, as it would in relation to any of its IT infrastructure, and it would be allowed an appropriate rate of return under the Price Control mechanism. National Grid may also wish to propose further specific short term incentive schemes targeting step changes in performance in the future.

However, maintaining current performance levels also remains an important and appropriate objective going forwards in this area and this could be accomplished through a 'standards of service' obligation, as it should not be necessary to reward National Grid for maintaining current performance.

We see no particular reason why National Grid's performance should fall significantly, and hence we would not expect a standards of service obligation would represent a significant risk to National Grid. However, since performance failure does have an impact on Shippers, it is important that there is a deterrent against allowing performance to slip.

If Ofgem were to choose to retain an incentive structure in order to allow National Grid to continue to be incentivised for performance improvement as well as introducing a downside, we would question whether it is necessary for any performance upside to be related to the level of investment, as it seems to yield disproportionately high payments for National Grid, and since they should still obtain a return through the PCR. If the scheme were retained, a lower, albeit perhaps arbitrary, upside would still provide an incentive for improving performance. Downsides for the scheme could be set based on Ofgem's approach to evaluating costs for shippers, or could be set arbitrarily.

Given that the level of performance upside proposed has been linked to the value of specific investment programmes, we think it is appropriate that National Grid should provide further information about their planned investments. In any event, it would obviously be important that performance should continue to be closely monitored and regularly reviewed.

Answers to Specific Consultation Questions (National Grids numbering):

- 13. Do you agree with the approaches used in forecasting the various elements that make up NTS Shrinkage?**

Please refer to our discussion on the shrinkage volumes above

- 14. Do you support the continued linking of shrinkage target volumes with flows at the St Fergus entry point and do you support the move to an increased number of bands?**

Yes, subject to further analysis confirming the exclusion of TOM volumes, the correlation with St Fergus flows, and comparison with up to date fuel gas data. We agree that increasing the number of bands should increase the resolution of the incentive.

- 15. Do you agree that the SO should not be incentivised on CV Shrinkage that is outside of its control? Please comment on whether you believe it is necessary for Ofgem and BERR to review the continuing appropriateness of the CV capping rules in the Gas (Calculation of Thermal Energy) Regulations.**

National Grid should confirm a central case forecast for the relevant volumes and if they are low, we would agree it is reasonable for the volumes to be excluded although a price incentive should be maintained on the procurement of any volumes required.

We fully support a review of the continuing appropriateness of the CV capping rules in the Gas (Calculation of Thermal Energy) Regulations.

- 16. Do you have an objection to the proposed interim GCRP and ECRP methodologies for 2008/09? If so please explain why and outline your suggested alternative.**

We propose that a proportion of prompt prices (25%) should be included in setting the reference price, as described above.

- 17. Do you support the proposal to establish the proposed enduring GCRP and ECRP methodology arrangements into National Grid's GT License for an extended period (to avoid the need for interim arrangements in the future) regardless of the duration of any incentive scheme?**

Yes, including an annual update mechanism.

- 18. Which scheme options do you believe provides the most appropriate incentive arrangements for the management of NTS Shrinkage.**

We believe that the risk reward profile should be maintained at a level similar to that currently, and we do not believe there is a requirement for a significantly more aggressive incentive at present.

- 19. Which of the scheme options do you believe is the most appropriate way to incentivise the costs of utilising OM?**

We believe that a combination of A and B would be appropriate, such that the target cost is set at the minimum level (subject to revision) and National Grid have a utilisation cost collar of £0.5m.

- 20. Do you agree that a one year scheme is appropriate pending a potentially more fundamental review of residual balancing incentive going forward?**

Yes, and we would urge Ofgem to ensure that the fundamental review is initiated as soon as possible.

- 21. Which of the scheme options do you believe provides the most appropriate incentive arrangements for the residual balancing activity for 2008/09, and what are your views on the potential removal of the linepack element of the incentive?**

We believe there are other options which should also be considered. Please see our discussion above.

- 22. Do you agree that the current Demand Forecasting Incentive should roll forward to 2008/09 pending a more fundamental review of the residual balancing activity and incentives?**

Yes, although the target should be made more challenging

- 23. Do you think it is appropriate to widen the data items that are subject to incentivisation to include the additional items outlined in the Proposal?**

We think the scope of data items proposed is likely to be appropriate under any continuing form of performance focus mechanism

- 24. Do you agree with the proposed scheme design in terms of timeliness and availability elements and the provisions for planned upgrades / monthly measurement intervals?**

We think the performance measures proposed are likely to be appropriate under any continuing form of performance focus mechanism

- 25. Which of the proposed performance improvements and associated incentive schemes do you believe is most appropriate?**

We are not aware of any strong desire for further improvements in this area, but maintaining current performance levels remains an important objective. We therefore believe that this is an area which would be suited to a standards of service obligation. If an incentive were retained it should have lower upside and include a downside, and in any event it is important that formal monitoring and review of performance continues.

- 26. Are there any other points that you would like to raise in relation to the setting of the Gas SO Incentives from April 2008?**

There has not been time for the fundamental review Ofgem anticipated, and we would urge Ofgem to ensure that it is initiated as soon as possible.

In some areas, particularly in relation to the linepack incentive, there has not been sufficient information available to enable an informed choice between the options.

Appendix 1 – List of Gas Forum Members

BP Gas Marketing Ltd
Centrica
Centrica Storage Limited
Corona Energy
E.ON UK
EDF Energy
ESB
Exxon Mobil Gas Marketing
Gaz De France
Npower Limited
RWE Npower Limited
Scottish & Southern Energy plc
Scottish Power Energy Management
Shell
Statoil UK Limited
Total Gas & Power Limited
BG Group



Appendix 2 – List of Questions Submitted to National Grid – 14/1/2008

Questions to National Grid from TPA Solutions, on behalf of the Gas Forum

1. Please can NG publish up to date fuel consumption figures by compressor station as has been published every year in the 10 Year statement since 1997? These figures will allow shippers to correlate compressor fuel consumption with flows at St Fergus and elsewhere. The level of compressor utilisation may also influence OM bookings.
2. Are the St Fergus compressor fuel figures included in the compressor fuel totals used to set the forecast volume? If so, why are they? NG has no influence on the operation of these machines which take gas out of the TOM terminal at 40 bar and compress it to 75 bar.
3. Please can National Grid demonstrate that its analysis showing correlation between St Fergus flows and compressor usage excluded TOM-related compression volumes. If not, please can National Grid repeat the analysis, paying particular attention to the changes year on year in the relationship – to show whether the correlation with St Fergus flows remains valid (and the best correlation) in most recent months with TOM compression volumes excluded.
4. Please provide a technical note that explains the relative conversion efficiencies of gas versus electric drive to explain why there should be a 3:1 factor for electrical compression (as opposed to 2.5 to 1 or 3.5 to 1)?
5. In relation to the Ross offtake that supplies the West Midlands LDZ, are there times of the year when the LDZ can supply its customers from elsewhere or does Ross always have to be used?
6. NG has no control over CV at a DN entry point, but such an entry point could lower the CV by, say, 1 MJ/M3 for the entire LDZ (assume flow weighted average was 40, entry point comes in at 38, leads to 1 MJ/M3 below the cap, causing approx 2.5% shrinkage to shippers). Could NG not pay this entry point to enrich its gas, thus saving money for Shippers? This used to occur prior to the introduction of flow-weighted average CV. What, if any, other contractual approaches have been considered, at all the network points proposed to be excluded from the CV Shrinkage volumes?
7. What has changed at Teesside, for this terminal to now be a concern to NG in relation to CV Shrinkage?
8. Has NG considered approaching Ofgem/BERR to see if the measurement regulations could be amended to allow an average 1 MJ/M3 under the flow-weighted average to be taken, for example, over a year rather than for each day. This would provide flexibility for NG to direct richer gas at certain times of the year to overcome any leaner gas periods?

9. Please can National Grid explain how it could remove some CV Shrinkage volumes from the Shrinkage incentive and still be incentivised on the efficient procurement of those volumes, given that the incentive is an overall performance against a cost target?
10. Please can National Grid provide a note explaining its operational philosophy in relation to electric compression and particularly in relation to any switching between gas and electric compression. Will NG have to regularly run the gas compressors to ensure they are maintained /available in the event of loss of electricity grid? Are there NOX limits that allow some gas driven operation?
11. In which case, can National Grid choose to run the gas compressors on high electricity price and triad setting half hours, thus reducing NG's electricity charges? Can National Grid advise on the potential savings if triad periods are avoided?
12. Are there also significant CO2 savings as a result of running electrically driven compressors? If so, is the value of this shared with shippers?
13. NG are in a joint venture with 2OC to install plants that generate electricity from grid pressure. How can shippers be assured that additional compression is not taking place to give higher pressures that this JV can benefit from? (If National Grid continue to out-perform the Shrinkage incentive once the expanders are installed, there would effectively be no cost to NG of running machines to create higher pressures, but they would benefit from the electricity generation income. If National Grid incur cost under the Shrinkage incentive, Shippers could be paying for the compression costs but not sharing in the electricity income benefits)
14. Please could National Grid provide more information / worked examples on how the proposed enduring and interim methodology for the ECRP will interact with its existing retail contract, including how the uplift charges are incorporated within it.
15. What is the impact on OM bookings of
 - increased linepack due to completion of NTS capex projects
 - increased reliability of compression due to installation of electrically driven machines in addition to gas ones
 - reduced use of compressors (assuming there is, see Q1 above)
16. In relation to Operating Margins, there are also a number of significant supply side developments for October 2008, all of which should reduce OM requirement:
 - IOG phase 2
 - Milford Haven LNG
 - Aldbrough
 - Completion of Easington to Nether Kellett (we note that Easington shippers have bought an additional 30 MCMD from Oct 09, but the 2007 Ten Year statement shows that all Easington related reinforcement projects bar a modification at Hatton, will be completed by Oct 2008. This means that additional Easington capacity will exist) It would be helpful to understand how much of the 30 MCMD remains to be delivered by the Hatton Modification in 2009.

Can NG confirm that all the above factors have been modelled to give the reduction in OM requirements? Shippers could reasonably expect a larger reduction from 07/08 than has taken place?

17. Could NG please explain why it is still appropriate to calculate OM by assuming co-incident events, for example 1 in 50 demand and offshore failures, when they have an extremely low probability of occurring individually, and an even lower probability of occurring simultaneously?

18. We firmly believe that there is some overlap between the OM requirements for orderly run down and offshore failure scenarios. We believe that under circumstances of major supply failure this will either trigger an OM requirement (when demand is sustainable using OM) or when demand is high, trigger a NGSE immediately which may necessitate the use of orderly run-down at some point. Could NG please outline scenarios where both requirements would be needed simultaneously.
19. In relation to Linepack, could NG please publish the actual aggregate system linepack figures for Oct 2005, Oct 2006, Oct 2007 and forecast for Oct 2008, along with an indication of which system enhancements have provided the increases.
20. Please could National Grid provide data and analysis showing daily linepack movements over the last four years, alongside total daily balancing action (buy and sell) volumes. Please can National Grid also provide a commentary on the extent to which the linepack incentive currently influences their behaviour.
21. Please explain why the caps and collars under incentive option B are increased relative to option A. With no linepack incentive, National Grid has more scope to manage the costs under the price incentive, so shouldn't the caps and collars be tightened in this scenario.
22. If National Grid were to retain the form of the linepack incentive but with slightly wider bands (and possibly stronger incentives) what bands do they consider would be appropriate? Do National Grid have any alternative proposals in relation to the linepack incentive.
23. Please can National Grid provide up-to-date (ie to Jan 08) information on performance and payments/costs under both the linepack and price incentives, in a form that would allow shippers to assess what the performance and payments/costs under the proposed schemes would have been (had they been in operation over this period)
24. Please can National Grid provide up-to-date (ie to Jan 08) information on performance and payments/costs under both the data publication incentives.
25. Please can National Grid provide an explanation of how they achieved the performance improvements for demand forecasting to date, and what steps are planned to make any further improvements.
26. In relation to data publication timeliness and availability, please could National Grid set out the proposed systems investments, timetable, and their associated costs.