



*taking care of the essentials*

**John Perkins,  
National Grid plc  
National Grid House  
Gallows Hill  
WARWICK  
CV34 6DA**

**Centrica Energy  
Millstream East,  
Maidenhead Road,  
Windsor,  
Berkshire SL4 5GD**

Tel. (01753) 431000  
Fax (01753) 431150  
[www.centrica.com](http://www.centrica.com)  
Our Ref.  
Your Ref.  
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Dear John,

**RE: Gas System Operator Incentives for April 2009 Consultation**

Centrica welcomes the opportunity to comment on the issues raised in the consultation on the Gas System Operator Incentives for April 2009. This response is on behalf of the Centrica Group excluding Centrica Storage Ltd. There is no confidential information contained within this response. We also attempt to answer the questions posed in the consultation document.

**Introduction and General Comments**

Centrica welcomes the current extended consultation process for reviewing and discussing SO incentives on National Grid. However, we believe that the industry and the regulator need to re-consider the purpose behind the incentives and whether they are, in their current form, appropriately targeted on improving system operational efficiency and in minimising operating costs. An additional principle should be that actions by National Grid should not adversely affect or influence daily balancing or trading markets. The current consultation process should define such principles and refer to them when structuring the SO incentives and when setting parameters within these structures. Unfortunately, this has not been attempted and we would offer the following (by no means exhaustive) set of principles that the SO incentives should be judged on:

- Improve Operational Efficiency (establish criteria for measurement)
- Minimise Operational Costs (subject to meeting shippers reasonable requirements for entry capacity and flexibility)
- Minimise National Grid's influence on gas markets
- Consider unintended consequences arising from the incentives
- Promote continual year on year improvement in system operation

- Ensure an appropriate balance between SO incentives and User incentives

In essence, the above could be thought of in the same light as the “relevant objectives” of the Gas Transporters Licence against which UNC modification proposals are judged.

We believe that without this kind of rigour there will be a temptation to simply roll forward the current incentives from year to year without paying sufficient attention to what they are trying to achieve. We would welcome National Grid’s views on how they intend to build such a framework.

**Residual Balancing**

Centrica continues to believe that the linepack incentive in its present form should be removed pending the outcome of a more fundamental review of the residual balancing activity.

The linepack incentive is very restrictive and difficult to achieve at the present time. Either the tolerance band needs to be widened, with adjustment to the reward, or else this part of the incentive should be removed. It was introduced at a time when most variations in linepack resulted from upstream failure and was an attempt to stop such failures from impacting marginal prices on more than one gas day. Variations in linepack now result not only from upstream failure but also from a number of other causes, including variation in both demand forecasts and shipper nominations, which produce a need for action by NG within a gas day. We believe that the simple payment for the day for keeping linepack change within limits is crude and has little impact on NG’s behaviour although sometimes NG could incur costs to preserve the incentive which it then passes on to Users/Consumers by setting prices. Operationally NG has minimum and maximum linepack values which it must work within and a single end-of-day figure is inappropriate for a complex system. Greater visibility of NG actions in this area could be more valuable than paying them the incentive to act appropriately. The money spent on the Linepack Incentive would be better spent on the price incentive, thus better targeting NG’s efforts for a similar cost to Customers.

Question 1	Do you believe an objective of the Residual Balancing Incentive should be to try and provoke National Grid to act to avoid Shippers transferring imbalances between gas days (thereby upholding the polluter pays principle) or to trade against the physical requirements of the system thereby potentially resolving imbalances on different gas days?
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We agree that the Price Performance Measure acts to incentivise National Grid to avoid taking balancing actions, or where such actions are unavoidable, to take them as close as possible to the System Average Price. In para 25 National Grid states that the incentive would encourage them to seek

opportunities to resolve imbalances at the cheapest prices, we suggest that this is true for system buy actions but when systems sell actions are required these should be at the highest price.

The argument that the Linepack Measure (LM) is designed to ensure correct targeting in the sense of attempting to restrict the cost of the balancing action to the day on which the imbalance occurred, in order to ensure that the impact falls on the shipper who caused the imbalance seems spurious. Firstly the shipper who ‘caused’ the system imbalance may not be out of balance and secondly if it would be cheaper and more efficient for consumers to correct the imbalance on a subsequent day then National Grid ought to be free to do so without incurring a penalty for doing so.

We believe that an objective of the Residual Balancing Incentive should be to trade against the physical requirements of the system thereby potentially resolving imbalances on different days if this is the most efficient option.

Question 2	Should the objective of the Residual Balancing Incentive take account of accuracy of information from both National Grid and Shippers, particularly in relation to a daily demand forecasting element to the incentive and a mechanism by which accurate Shipper nominations could be incentivised? Do you have any views on how this could be achieved?
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Residual Balancing takes place against a background of uncertainty, particularly with regard to weather conditions and the volume of gas which is delivered against nominations. Shippers are also legitimately entitled to change nominations, and indeed are encouraged to do so in response to price signals set by National Grid as part of the Residual Balancing activity.

We believe that the Residual Balancing Incentive should take account of the accuracy of information from both National Grid and Shippers. In our view this could be achieved by having an element of the incentive dependent on the aggregate NDM demand nominations, where variation causes National Grid to lose value, and a further element dependent on Shipper nominations, where variation causes National Grid to gain value.

Example – system starts day ‘balanced’, a shipper who was long loses some supply and is now balanced and at the same time NG increases the demand forecast, as a result shippers who were balanced now find that they are short but are unable to buy from either the system or long shippers. The shippers who are now short find that they are unable to rebalance and are exposed to the price which NG sets as the system marginal price. The polluter, whether the shipper who was originally long or NG, has not paid through the balancing activity, only suffering the loss of expected revenue or incentive.

Question 3	What are the effects or impacts that Shippers experience resulting from National Grid’s residual trading behaviours?
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We observe that movements in the forward curve are sometimes associated with days on which National Grid sets an 'extreme' price.

Question 4	Have the Residual Balancing Incentives delivered against their original objectives?
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We believe that to a large extent the PPM, which relates to how National Grid performs its operation of the balancing activity has delivered against its original objective. However the market has moved such that the LM, which is prescriptive in terms of what National Grid should aim to achieve as an end of day linepack, has only delivered to a lesser extent against its original objective. This is partly because the structure of the balancing mechanism is for a price signal to be given by a light touch in terms of volume. The effect of any price signal cannot be known precisely in advance, therefore when National Grid takes action it cannot be sure that it will produce the desired movement in linepack. Also the target to return linepack to its starting value each day is unrealistic and operational objectives over-ride this.

Question 5	Having weighed up the implications, do you believe the two elements of the Residual Balancing incentive should be retained and should their relative incentive properties be changed to promote either more or less residual balancing activity?
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For the reasons given above we believe that the LM part of the incentive is in need of review. Either the bandwidth of +/- 2.4 mcm needs to be re-assessed or the LM part of the incentive should be removed. We are unsure what is meant by 'more or less residual balancing activity'. Timing of residual balancing activity is more important than number of such actions and we note with interest that Fig. 4 of the consultation shows that the highest frequencies of balancing actions occur in hours 22, 23 and 24. The issue is rate required in order to produce the desired end-of-day volume. We believe that if those actions could take place even a couple of hours earlier this would be beneficial both in terms of number of actions required and the level of price which needs to be set in order to produce the required volume of response. We further believe that the LM part of the incentive is encouraging the delay in taking action.

Question 6	Given the operational requirement to increase linepack levels in periods of higher demands, what are your views in relation to setting an absolute linepack target level at the start of the day (rather than driving a return to opening linepack?)
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We believe that National Grid should be free to move linepack to whatever level it deems is appropriate for safe and efficient operation of the system, subject to the constraints already placed by other incentives. The effect of giving National Grid total discretion with regard to linepack could be to add

uncertainty and instability to the market. It is being suggested elsewhere (TPA/Gas Forum) that a demand related linepack target might be appropriate, possibly subject to a daily adjustment by National Grid, the reasons for the adjustment would need to be clearly stated. While this would provide shippers with much needed transparency it is difficult to see how National Grid could be appropriately incentivised for meeting its own targets.

Question 7	What are your views on adjusting financial risks/rewards based on the quality of information provided by market participants ?
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See the answer to question 2 above.

Question 8	Do the incentive risk/reward parameters need reviewing on either PPM or Linepack in light of market changes since they were originally set?
Question 9	Do you have any views in relation to re-establishing this incentive for multiple years e.g. 3?

We believe that the incentive risk/reward parameters do need reviewing on both PPM and LM in the light of market changes since they were originally set. For the PPM incentive Centrica favours a scheme similar to the current one but with different caps, collars and sharing factors although we would like to see more visibility on the management of daily linepack, in terms of both the profile of total system linepack within day and details of zonal linepack. However both the caps and collars in the PPM scheme should be tightened to reflect the greater scope which NG would have to manage costs without a linepack incentive. This is an instance where asymmetric caps and collars are required. An example of an alternative price incentive scheme is:

Daily Cap £8.5k  
 PIR 7%  
 Daily Collar £40k

There should also be a move away from symmetric annual caps and collars, with a reduction in the annual cap to reflect the reduction in daily total cap from £10k to £8.5k but an increase in annual collar to reflect the greater daily collar than cap. The suggested annual cap is £2.9m and annual collar is £4m.

This form of incentive could be established for multiple years.

Question 10	If a linepack incentive is established, should a stepped payment structure be developed rather than the current linear structure which suggests an infinite balancing resolution?
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We have concerns that a stepped payment structure might introduce more uncertainty and volatility. We would prefer to retain the existing payment structure.

Question 11	Do you believe that such a service concept would be an enhancement to the efficiency of the wholesale gas market?
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This refers to an inter-day energy transfer service. This seems to be useful in outline concept and we would like to see it developed to the point where it could be offered as a service to shippers. We do have some doubts, however, as to whether this could meet the full requirements of shippers for flexibility services.

Question 12	Do you have any views on what the most appropriate mechanism/platform is for procuring this service?
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Third party provision, alongside the current OCM, is the most appropriate mechanism and platform.

Question 13	Please provide feedback on how the timing of the release of This service, and also on the product length, would affect its potential value to shippers.
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We believe that there are important issues which need to be resolved here. The product is most likely to be of value if it is offered within-day

Question 14	How would volumes available and frequency of availability affect your perception of the value of this service? Is there a deminimis level below which it is not worth pursuing?
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It is not really possible to give a definite answer to this at the present time as it will depend on the structure of the product and its relationship, if any, to the current balancing, cashout and neutrality arrangements.

Question 15	What market information would you want to see accompanying such a service?
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It is not really possible to give a definite answer to this at the present time as it will depend on the structure of the product and its relationship, if any, to the current balancing, cashout and neutrality arrangements.

Question 16	Do you have any views on how to deal with the impact of transfer on PCLP?
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The transfer should in reality have no effect on PCLP, there would need to be an adjustment published which would amend the target linepack or bandwidth, if either were still applicable.

Question 17	Would your organisation be interested in making use of such
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	a service, and are there any other issues you wish to raise at This time?
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Without prejudice we would be interested in making use of such a service. However we would need to evaluate that actual terms of the service before agreeing to do so and deciding the level of use which we likely to make. As it is not yet clear whether it is a tool for a 'day ahead' type of service or an on the day operations service it is not possible to give a definite answer at the present time. We would also have to make a cost-benefit assessment of the product and would be interested in National Grid's estimate of the capital and operational costs it would incur for provision of the service.

**Shrinkage**

Question 18	Fundamentally, should minimising compressor fuel use and therefore compressor operation remain an objective of the shrinkage incentive?
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Centrica strongly believes that minimising compressor fuel use and therefore compressor operation should remain an objective, but not the sole objective, of the shrinkage incentive. We would like to have sight of the actual compressor usage over the past 5 years for each individual compressor to provide transparency of likely volume requirements and it would be helpful if National Grid would identify any new compressors being brought on stream and any that are due to be retired. We would be concerned if a reduction in compressor usage would or could result in avoidable system capacity constraints and it would be instructive to have more insight into how sensitive the system operation is to the functioning of each compressor.

Question 19	Do you believe the 2008 TBE Base case at seasonal normal demand levels forms an appropriate set of supply and demand assumptions to input into a CFU forecasting model?
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We agree that the 2008 TBE Base case at seasonal normal demand level does form an appropriate set of supply and demand assumptions.

Question 20	Do you support the development of target drivers to move incentive target in line with key CFU drivers as an appropriate way of insulating against the most significant external factors? Would an effective target driver provide sufficient confidence to set an incentive for multiple years (e.g. 3 years)?
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In principle we support the development of target drivers to move the incentive target in line with key CFU drivers. However firstly we are not convinced that the most appropriate drivers have yet been identified. Secondly uncertainty surrounding the level of imported supplies and the effect

of variation in these means that we would not have sufficient confidence to support an incentive being set for multiple years.

Question 21	Do you have any comments on the potential alternative modelling / target setting approaches for CFU target setting purposes outlined above?
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We believe that the most appropriate form of model for CFU target setting would be one where a weighted average of flows from a number of terminals was used as the independent variable in a regression model similar to that currently used. It is possible that only a small number of terminals (e.g. St. Fergus, Easington and one other – Bacton/Milford Haven) may be required for this. Regression techniques are not ideally suited to forecasting and we would be interested in National Grid’s views on the possibility of stochastic modelling as a means of not only setting targets but also in assessing variability.

Question 22	Do you believe retaining a quarterly scheme enhances or reduces the effectiveness of the incentive compared with an annual scheme?
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We believe that a quarterly scheme should be retained as it enhances the effectiveness of the incentive.

Question 23	Given National Grid’s indirect influence over UAG volumes, should the current shrinkage incentive be changed to incentivise and measure National Grid directly on the activities it undertakes which influence UAG, rather than on UAG outturn? Do you have any views on which activities should be targeted?
Question 24	Given the timescales needed to influence some of the UAG drivers do you think an incentive for UAG should be provided over a longer period e.g. 3 years?
Question 25	We also invite views on whether Ofgem should additionally consider progressing financial incentives on meter owners directly to drive improvements in metering performance to potentially reduce UAG levels.

At one level the answer is simple – set targets to reduce UAG over a number of years, such targets should apply to both National Grid and meter owners. However, incentives should not be viewed as a replacement for any existing obligations or duties.

Question 26	We would welcome views in relation to National Grid Gas becoming an electricity supplier to supply its electric compressors and if supported whether this should be
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	encouraged by the incentive structure or funded at next TPCR
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We do not understand the value in National Grid Gas becoming an electricity supplier. The electricity would have to come from somewhere – either generating on site (would this be small enough that it could be exempt from the requirement for a generation licence?) or bought in as part of the regulated activities. In either case we are not sure of the advantage of NGG having its own supply licence. Further information is required here – i.e. why could a licence be needed and what advantages is there anticipated accruing or is it all expected to be de minimis?

Question 27	We would welcome views over whether a methodology based on a wholesale prices uplifted by a %age to represent retail costs is an appropriate form of benchmark going forward, and whether a methodology which tracks prices over a likely procurement period (as the GCRP does) is appropriate.
Question 28	We welcome views as to whether, due to their location specific nature, delivery charges should continue to be treated separately to the reference price methodology.
Question 29	We welcome suggestions by market participants (particularly those with electricity retail businesses) as to how an appropriate retail benchmark could be derived for a large industrial load of the order of 80MW and any relevant factors which should be considered.

We are broadly supportive of the current approach and wish to retain transparency.

Question 30	We welcome views on the appropriateness of deriving a different reference price to apply to outturn UAG volumes in the event National Grid is not directly incentivised on reducing UAG volumes.
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This may work as a form of indirect incentive on UAG volumes but it is not clear why or how this should be done.

Question 31	Are there any other points that you would like to raise in relation to the setting of the Gas SO Incentives from April 2009
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We are disappointed that the proposals represent small movements from the current arrangements rather than the fundamental review of the purpose and effectiveness of SO incentives.

With regard to shrinkage we offer the following additional comments:

Firstly on the compression, The Advantica test facility at Bishop Auckland relies on the west to east gas flow across the country to supply gas for the testing/calibration of meters there. This facility is in use every day but now with the introduction of the BBL and Ormen Lange pipelines there is more gas on the east coast and the cross country flows have been reduced. As a result the test site does not always have the gas flow to carry out the tests. It has been noted that NG are cycling gas around a approx 100 mile loop to provide the requisite gas movement for the test facility to run, However, this cycling uses fuel gas for the NG compressors located next to the test site. Who is paying for this fuel gas and at what price, we assume that the test facility are not, maybe shippers are subsidising this?

Clause 143

We do not know but assume that line pack is accounted for and does not contribute directly to shrinkage, although its estimation may be a factor. Answered in clause 159

Clause 145

This is one of our main concerns, any measurement errors are closed out at M+15 (is this different from D=15?). This means that measurement errors discovered after 15 days are locked out of any correction. The NTS input terminals, or parts of sub-terminals, which have ultrasonic meters (Britannia, BBL, Ormen Lange and South Morecambe) will have the meters calibrated annually or less frequently. With these metering systems the errors may not be detected until a year later. The question is how many corrections are not applied by the M+15 rule, if they were applied would shrinkage be less? Large adjustments sometimes go through RbD, which are mainly LDZ errors but there may be impacts into the NTS. There is an argument to favour a time limit over which debits can be applied to shippers in order to incentivise NGG to adhere to best practice.

Clause 147

How does the quoted error for 2007/8 of 1.2TWh compare to the (NTS) shrinkage? What is they typical shrinkage in terms of energy and percentage? What has is been over the last 5 years?

Clause 148

The metering uncertainty should not have any impact on the shrinkage as the uncertainty should be neutral. The impact comes from measurement error or biases, this skews the result in one direction and has a defined value. We are under the impression that offtakes should be operating to 1.1% uncertainty and yet in this clause it quotes 2 and for 30-100%. We recall that the offtakes were always traditionally to 1.1% over this range. Or are these 2% meters on the LDZs? (See above)

Clause 150

The input points are indeed heavily policed by ourselves and BERR and third parties, so we should have far more confidence in these than AGIs and other NG meters.

Clauses 151 + 152

Unlike audits conducted by ourselves we do not think that the NG audits target the meter based on risk (throughput), this is one of the issues on the Farningham mis-measurement. NG must have an obligation to monitor the performance of these meters more proactively. Whether by more frequent calibration or by more rigorous analysis of the recorded flows, the point made at the time was that the magnitude of the error (several TWh in total) should have been evident much earlier in the process. Had adequate controls been in place the error would have been discovered earlier and the correction required would have been far smaller. If the errors are locked out after 15 days it is unlikely that any audit findings can be applied. The lockout period for corrections should match the audits period otherwise there is no effective control.

Clause 154 and 155

Our experience shows that at some annual and 6 monthly verifications, the technicians carrying out the work do not have spares so faulty instruments can be left in service until spares are sourced. This is not acting as an RPO (reasonable and prudent operator). If spares are not easily available then sufficient stocks should be held, however the funding required for this should be transparent so that shippers can effectively decide between holding stocks and the risk of not being able to replace faulty instruments quickly. At present the equipment is often not replaced in line with good oilfield practice and left in service for longer than would be expected.

#### Clause 156

It is true that the range of the meters on exits can be compromised, this can be countered by having different sized orifice plate meters but if NG only change the plates annually this can not be done. Some operators at terminal have winter and summer plates.

#### Clause 158

The gas supply operators were forced to adopt the new ISO 5167:2003 by BERR. The adoption of the new ISO standard resulted in under reading of gas when compared to the older revision of this standard, hence the objection by the operators and the enforcement by BERR. There is a disconnect here as BERR enforced the adoption for NTS entry points yet Ofgem did not do anything about the exit points even though BERR had put pressure on Ofgem to act. The net effect is this due to impact the different standards in force at entry and exit points is that the same physical gas flows through the NTS. BUT the entry meters with the new ISO will indicate a lower flow rates than the exit meters with the old ISO. This will reduce the shrinkage in the grid. Each system with ISO 5167:2003 will "under-read" by 0.1% to 0.5% relative to ISO5167-1:1991.

Below is a summary of the current state of the NTS inputs, those marked with "new ISO" will under-reading to varying degrees. The entry points with ultrasonic meters (USM) are greyed out as they will be neutral in the under-reading but may be susceptible to step corrections following annual calibrations of these meters.

Shell St Fergus - New ISO  
Total St Fergus - New ISO  
ExxonMobil SAGE St Fergus - New ISO  
ExxonMobil Britannia St Fergus - USM

CATS - Not known

HRL North Morecambe - New ISO  
HRL South Morecambe - USM

BP Dimlington Easington - New ISO  
BP West Sole - New ISO  
CRL Amethyst - New ISO  
Ormen Lange - USM

ConocoPhillips Theddlethorpe - OLD ISO

Shell Bacton - New ISO  
Perenco Bacton - New ISO  
Tullow Bacton - Old ISO  
BBL Bacton - USM  
IUK Bacton - Not known

BP Wytch Farm - Not known