

National Grid Gas System Operator Incentives from 1 April 2010

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Overview:

National Grid Gas (NGG) is the System Operator (SO) for the gas transportation system in Great Britain. This document sets out our final proposals for SO incentive schemes for NGG to apply from April 2010, including statutory licence modification consultations.

If NGG consents to our final proposals, and subject to responses to this consultation, the incentive schemes would be effective from 1 April 2010. If NGG does not consent to the licence modifications, thereby not accepting our final proposals, we would have to decide whether to consult again on revised proposals, to refer the matter to the Competition Commission, or to rely on our existing powers for the purposes of regulating NGG.

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Context

These proposals form part of our work to regulate monopolies effectively. We consider that it is important for the gas markets that the role of the System Operator (SO) is correctly identified and that the SO has the appropriate tools available to it to undertake this role. Any interventions in the market by the SO can lead to costs being incurred, both directly by the SO and more widely by the market as a whole. Since customers ultimately bear these costs, it is important to keep them as low as possible. Based on our experience over the past years, we remain of the view that the best way to achieve the lowest costs to customers is to provide the SO with commercial incentives whereby it shares some of the gains (or losses) from cost reductions (or increases).

Associated Documents

- "National Grid Gas (NTS) System Operator Incentives for 1 April 2010: Initial Proposals Consultation Report", National Grid, December 2009.
- "National Grid Gas (NTS) System Operator Incentives for 1 April 2010: Initial Proposals Consultation Document", National Grid, October 2009.

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Summary

In this document we set out our final proposals for the gas transmission System Operator (SO) incentive schemes for National Grid Gas (NGG) to apply from 1 April 2010. We consider that our final proposals represent a fair balance of risk and reward between NGG and its customers.

Ofgem's Final Gas System Operator Incentive Scheme Proposals

Following consideration of the responses to NGG's consultation documents on its proposals for its gas SO incentive schemes and further discussions with NGG, we have developed a set of proposals which we believe offer a number of improvements over previous years' schemes.

Most notably, for three of the SO incentive schemes, we propose to set the schemes for a two year period. We consider that a return to longer term incentives would be advantageous in terms of encouraging longer term actions, increasing information transparency and reducing administrative burden. These proposals include a number of additional key changes which will enhance the incentives on NGG regarding its behaviour.

We believe these proposals, which are the result of significant work throughout the year by NGG, industry and Ofgem, represent a fair balance of risk and reward to NGG and customers.

Our main proposals can be summarised as follows.

Residual Balancing: the setting of the scheme for two years, with a tightening of the Price Performance Measure, such that NGG will need to continually improve its performance in order to continue to earn the same revenues as in the current year.

Demand Forecasting: the setting of the scheme for two years, with a tightening of the Demand Forecasting Measure in each year to provide for continuous improvement from NGG.

Environmental: a resetting of the volume target and the reference price to take account of updated information. We are proposing that this incentive is set for one year.

Data Publication: the rollover of the current scheme for a two year period.

Operating Margins: given the ongoing introduction of Operating Margins (OM) contestability, we are proposing that NGG currently passes through all of its costs for one year. We will be considering how NGG should be incentivised in the future in respect of OM costs.

We are also proposing to implement a new licence condition requiring NGG to use reasonable endeavours to develop (and implement if appropriate) a gas linepack product. The proposed licence condition we will also require NGG to review (and update if appropriate) the current "default" gas cash-out prices¹.

Next steps

Subject to responses to this consultation, if NGG consents to these final proposals then the licence modifications will be effective from 1 April 2010. If NGG does not consent, we will have to consider whether to consult again on revised proposals, to refer the matter to the Competition Commission, or rely on direct regulation of NGG's SO costs based on our existing powers.

Although we consider that these final proposals represent a further significant development in some areas of gas SO incentives, we consider that further work should be undertaken to establish a solid basis in order for longer term incentives to be developed, potentially aligned with the Transmission Owner (TO) price control. We will therefore actively engage with NGG and market participants in this process from 1 April 2010.

We will shortly be publishing a separate document in respect of the electricity SO incentive scheme.

¹ Those set out in Section F 1.2.1 (a)(i) and Section F 1.2.1 (b)(i) of the licensee's network code.

1. Introduction

Chapter Summary

This chapter provides a short background on the process so far. It also discusses the way forward.

Question box

There are no specific questions in this chapter.

Background

1.1. National Grid Gas (NGG), a subsidiary of National Grid plc (NG), is the System Operator (SO) for the gas National Transmission System (NTS) in Great Britain (GB) and has responsibility for the residual balancing activities on the NTS. NGG's transportation licence requires it to act in an efficient, economic and co-ordinated manner in performing its role.

1.2. In addition to its licence requirement, we also look to incentivise NGG financially to operate the gas system in the most economic and efficient manner.

Process

1.3. In May 2009, we published an Open Letter² providing information on the objectives, process and timetable for the development of NG's SO incentive schemes to be in place from April 2010. In that letter, we set out our view that continuing to develop what are predominantly annual incentive schemes is sub-optimal as such arrangements do not incentivise NG to take a longer term view of SO costs. We considered that a return to longer term incentives would be advantageous in terms of encouraging longer term actions, increasing information transparency and reducing administrative burden. In addition, a longer term scheme would be moving towards alignment with the transmission price controls. It was noted that there are potential benefits to be gained in respect of NG being able to make SO decisions based on compatible incentives provided by the TO price controls.

² National Grid System Operator Incentives from April 2010, Ofgem Open Letter, 28 May 2009: www.ofgem.gov.uk.

1.4. On 20 July 2009, NG published a response in which it noted its support for the further development of the incentive schemes in line with the objectives set out in our Open Letter.

1.5. Again this year, NGG has engaged in the process and consulted stakeholders early in the year. During the summer, NGG published a series of mini consultations in respect of Residual Balancing, Demand Forecasting, Maintenance, Data Publication, System Flexibility, CV Shrinkage, Information on Incentives, and Bundled vs. Unbundled schemes; Environmental Incentives; and Operating Margins³.

1.6. On 30 October 2009, NGG published its Initial Proposals Consultation Document⁴, to which it received seven responses. NGG also held a series of one-to-one meetings with interested parties and held a workshop on 18 November 2009. NGG published its Initial Proposals Consultation Report⁵ on 23 December 2009, which provided its revised initial proposals following consideration of respondents' views.

1.7. On 30 November 2009, Ofgem published its initial views on NGG's Initial Proposals⁶. In that letter, in terms of NGG's gas SO proposals:

- we welcomed NGG's proposed approach of a two year scheme (except in the area of OM) in gas from April 2010;
- we welcomed NGG's proposed approach to retaining an unbundled scheme from 2010 (although we noted that we would consider further whether there were elements of the current scheme that could and should be bundled); and
- provided initial comments on the proposed schemes from April 2010.

1.8. We have scrutinised NGG's forecasts relative to its incentivised SO performance measures;⁷ considered the responses to the mini consultations, the Initial Proposals consultation⁸ and the views expressed at the Workshop along with NGG's consultation report. All of this information has helped us to develop our final

³ For NGG's mini consultations, see: www.nationalgrid.com/uk/gas/.

⁴ National Grid Gas (NTS) System Operator Incentives for 1 April 2010: Initial Proposals Consultation Document, National Grid, October 2009: www.nationalgrid.com/uk/gas/.

⁵ National Grid Gas (NTS) System Operator Incentives for 1 April 2010: Initial Proposals Consultation Report, National Grid, December 2009: www.nationalgrid.com/uk/gas/.

⁶ Ofgem's initial comments on National Grid's System Operator Incentives from April 2010, Open Letter, 30 November 2009: www.ofgem.gov.uk.

⁷ NGG has also provided Ofgem with additional and updated information regarding its forecasts of costs.

⁸ In this document, when we refer to consultation responses these could be in respect of the mini consultation and/or the Initial Proposals Consultation.

proposals for the SO incentive schemes to apply to NGG's performance measures from 1 April 2010, which are discussed in this document.⁹

1.9. We welcome the work undertaken by NGG in the development of SO Incentive schemes to be implemented from 1 April 2010. We also recognise the valuable contribution made by interested parties in assisting the development of such schemes.

Way forward

1.10. Appendix two of this document contains a statutory notice of our proposal to modify, by agreement, NGG's gas transporter licence under section 23 of the Gas Act 1986. This statutory modification notice proposes to implement the proposals set out in this document (subject to responses to this consultation).

1.11. We would welcome the views of interested parties on all aspects of our proposed modifications. Responses should be sent to gb.markets@ofgem.gov.uk, to be received no later than 26 March 2010. However, we would welcome responses earlier where this is possible. Further details of how to respond can be found in Appendix one.

1.12. The statutory notice under section 23 of the Gas Act 1986 specifies a period of not less than 28 days during which interested parties can make representations or objections to the proposed licence modifications, and during which the Secretary of State may direct the Gas and Electricity Markets Authority (the Authority) not to make the proposed modifications. Following any such representations, objections or direction, the Authority may make such revisions to the proposed licence modifications as it considers appropriate and carry out a further statutory consultation on the new proposed licence modifications.

1.13. NGG must consent to the proposed licence modifications to its licence before they can be implemented. If NGG does not consent to the proposed licence modifications, Ofgem can refer the proposed SO incentive scheme modifications to the Competition Commission for final adjudication. Alternatively, we could allow the incentive schemes to fall away. If this occurs, NGG will simply pass through the actual costs of operating the system to parties using the respective system. Ofgem would continue to monitor the performance of NGG as SO under the relevant licence conditions and could take enforcement action and impose financial penalties if NGG was not operating its system in an efficient, economic or co-ordinated manner, or were found to be in breach of other relevant licence conditions or other relevant statutory requirements.

⁹ NGG currently has incentive schemes in place which relate to its internal SO costs, these schemes currently run until March 2012.

1.14. If NGG consents to the proposed licence modifications, Ofgem intends, subject to any representations made during the consultation and any direction received from the Secretary of State, to direct the relevant modifications to NGG's transportation licence in line with the proposed licence modifications shortly after 26 March 2010, so that the new licence conditions would apply on and from 1 April 2010.

Way forward longer term

1.15. We consider that these final proposals represent a further significant development in some areas of gas SO incentives. However, we also consider that further work should be undertaken to establish a solid basis in order for longer term incentives to be developed. We have suggested that it may be appropriate for the SO incentive schemes to be aligned with the price controls. Given the recent announcement of the rollover of TPCR¹⁰, we will be considering what this means for the timing of the SO incentive schemes that are in place, or are proposed to be in place, to March 2012. We will therefore actively engage with NGG and market participants in this process from 1 April 2010.

1.16. In addition, we note that in respect of the Environmental and Operating Margins (OM) schemes, further work is required. We are therefore proposing to set the Environmental Incentive for one year rather than two years and to remove the OM scheme entirely for the next incentive year. We will be requesting NGG to consider how incentive schemes in these two areas can be further developed.

1.17. Further, whilst we are proposing to introduce a revised Residual Balancing Scheme from 1 April 2010, we have concerns regarding two elements of residual balancing. We therefore propose to introduce a licence condition requiring NGG to consider both the introduction of a gas linepack trading product and the resetting of the "default" gas cash-out price values.¹¹ NGG will be required to undertake this work over the next year in consultation with the industry.

¹⁰ Transmission Price Control Review.

¹¹ Those set out in Section F 1.2.1 (a)(i) and Section F 1.2.1 (b)(i) of the licensee's network code.

2. Gas external costs incentive schemes from April 2010

Chapter Summary

This chapter outlines the forecasts provided to us by NGG on gas external SO costs and performance measures for 2010/11 and 2011/12 and NGG's initial proposals based on those forecasts. It then outlines our views on NGG's forecasts and initial proposals following consideration of the views of respondents to NGG's consultation, and sets out our final proposals for gas external SO incentive schemes to apply from 1 April 2010.

Question box

Question 1: Do you consider that the final proposals for the SO incentive schemes to apply to NGG's external SO costs represent a fair balance of risk and reward?

Question 2: Do you consider that the proposed licence modifications appropriately reflect the final proposals as described in this chapter?

Introduction

2.1. As outlined earlier in this document, NGG has consulted on proposals for the gas SO incentive schemes to apply from April 2010. These proposals included consideration of the potential for scheme bundling/unbundling, scheme durations, the potential for new incentives and various options for possible incentive schemes to be in place from April 2010. NGG also published its Initial Proposals Consultation Report in which it summarised the responses to its initial proposals,¹² and set out its views for the incentive schemes. In this chapter we discuss each of the gas incentive schemes in turn, NGG's initial proposals, respondents' views and our final proposals.

Background

2.2. Unlike electricity, the gas SO incentive scheme is unbundled.¹³ NGG therefore optimises its performance over each individual component. Unlike with electricity costs, gas SO costs have been relatively stable over recent years and therefore are in general causing less concern, both within industry and within Ofgem.

¹² Responses to NGG Initial Proposals Consultation Document were received from E.ON, SSE, RWE, EDF, Consumer Focus, Centrica and AEP.

¹³ Under the gas SO incentive scheme, NGG is incentivised on a number of cost areas independently of each other (each cost area has its own cap/collar and sharing factor). This is different from the arrangements for electricity where there is a single cost target around which NGET is incentivised.

2.3. However, there are some aspects of the current incentive schemes that NGG, industry participants and Ofgem consider have not been working as well as they might. Therefore, all parties have worked together in recent months to develop improvements to these areas of the schemes.

2.4. NGG proposed that some of the individual incentives could be set for a period of two years. Ofgem supports multi year incentives in principle, as they can further incentivise innovation or allow for cost minimisation achieved via a longer sighted procurement strategy. However, the extent to which the relationship between the cost drivers and NGG's costs themselves are stable needs to be taken into account when considering the possibility of setting schemes on a two year basis. In the discussion of our final proposals below, we detail those incentives which we consider it would be appropriate to set over a two year period.

2.5. In addition, Ofgem continues to believe that NGG should be incentivised to continually improve its performance under each of the schemes, where appropriate. Therefore, in our final proposals we have also considered where scheme targets could be set such that NGG is incentivised to improve its performance year on year.

2.6. Currently there are seven unbundled gas schemes, each relating to a distinct SO activity as shown in table 2.1.

Table 2.1: SO gas incentive schemes

Incentive	Performance Measure
Residual Balancing	Linepack and Price Measures
Demand Forecasting	Forecast error
Environmental	Volume of vented natural gas
Data Publication	Timeliness and Availability
Operating Margins	Cost
NTS Shrinkage	Cost
Unaccounted for Gas (UAG)	Absolute level of UAG

2.7. In respect of the NTS Shrinkage and UAG incentive schemes, last year Ofgem set both of these schemes for a period of three years from April 2009. These are therefore not subject to this consultation.

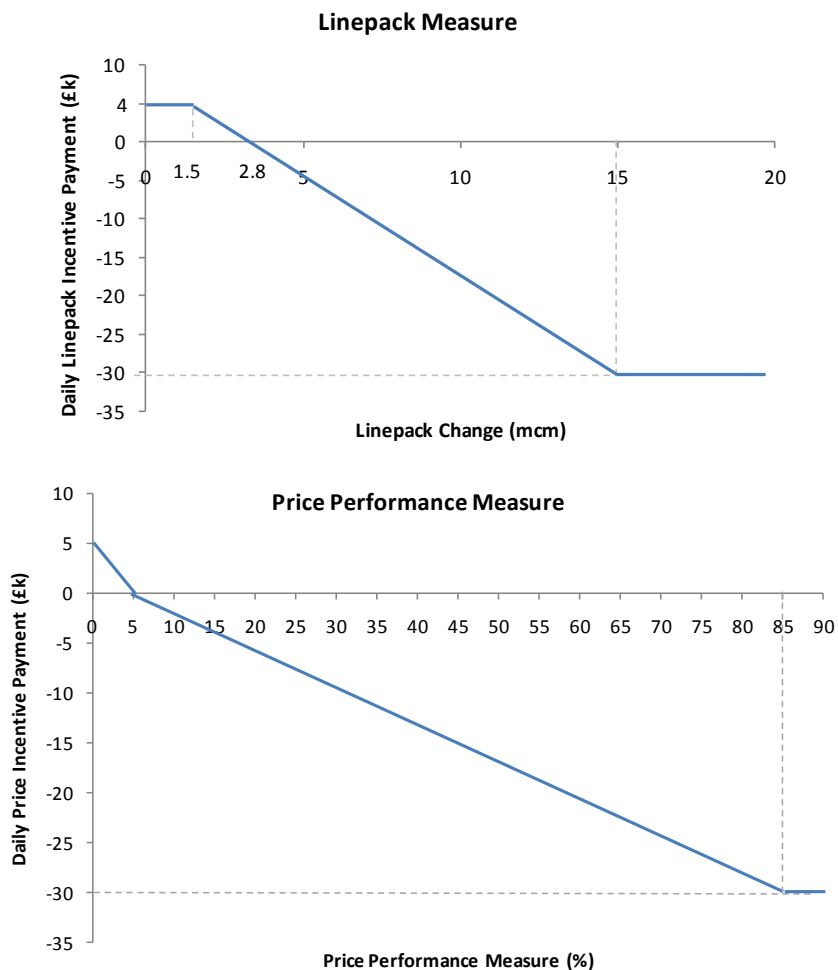
Residual Balancing

2.8. The Residual Balancing Incentive scheme is formed of two interacting measures:

- The Price Performance Measure (PPM): incentivises NGG to minimise the impact of trades that it takes to balance supply and demand, on the market.
- The Linepack Measure (LM): incentivises NGG to ensure that the gas in the system (the linepack) at the end of each trading day is similar to that at the start of the gas day. This helps to ensure that the costs of resolving imbalances are accurately targeted on those shippers who caused them by encouraging NGG to resolve any imbalances on the same day.

2.9. The parameters of the current Residual Balancing scheme are illustrated in figure 2.1.

Figure 2.1: Current Residual Balancing scheme



2.10. Historically, NGG has gained under this scheme and our current forecast is a payment to NGG of £1.65m at the end of this incentive year. From April to December 2009, NGG’s average payment under the PPM was £2.5k/day and under the LM was £1.7k/day.

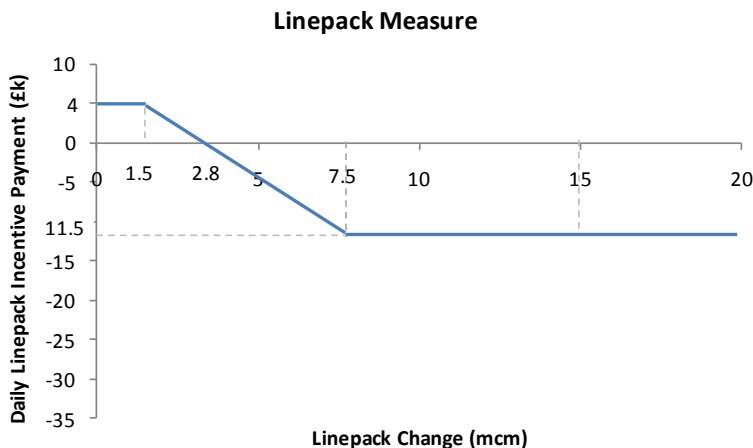
NGG’s proposals

2.11. In the industry consultation carried out in 2009/10,¹⁴ a number of respondents commented that the LM created too strong an incentive for NGG to enter into residual balancing trades for “polluter pays” reasons. The views of parties that made these comments included a suggestion that the LM measure should be removed altogether rather than change it to another arbitrary value.

2.12. In its Initial Proposals Consultation Document, NGG set out its preference for retaining the current scheme. However, in response to industry views, it also put forward two distinct options for weakening the LM to apply from April 2010:

- Option one: retain the existing incentive strength but reduce the point at which the incentive collar is reached (for example to 7.5mcm) as illustrated in figure 2.2. The PPM measure would remain unchanged.

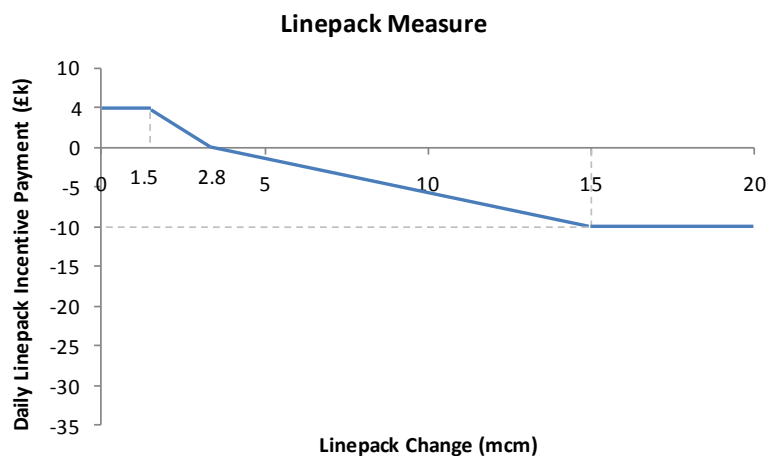
Figure 2.2: Option one



- Option two: reduce the strength of the incentive so that a 15mcm change between opening and closing linepack over a day causes an incentive to NGG which is lower than the current -£30k/day collar (for example to -£10k/day) as illustrated in figure 2.3. As with option one, the PPM target would remain unchanged.

¹⁴ National Grid Gas (NTS) System Operator Incentives for 1 April 2010, Consultation Document 1, 31 July 2009: www.nationalgrid.com/uk/Gas/soincentives/docs/.

Figure 2.3: Option two



Respondents’ views

2.13. In respect of NGG’s initial proposals, two respondents supported the retention of the current scheme, three respondents supported a softening of the LM and one respondent considered it appropriate to remove the LM altogether.

2.14. Of the respondents that supported changes to the LM, views were mixed on how this could be achieved. Two supported option two (reduction in scheme collar to £10k/day), one supported extending the LM target from 2.8mcm to 3.5mcm and one supported either removing the LM entirely, or reducing the collar to £10k but with an adjustment to the daily profit. No changes to the PPM measure were suggested.

2.15. There were mixed views from respondents in respect of setting the scheme for a two year period. Several respondents supported a two year scheme, two respondents supported a single year scheme, and a further two noted that they could support a multi year incentive only if the “correct” incentive was in place.

Ofgem’s final proposals

2.16. In our Final Proposals Consultation Document published in February 2009,¹⁵ we asked NGG to undertake further work regarding the development of a gas linepack

¹⁵ National Grid Electricity Transmission and National Grid Gas System Operator incentives from April 2009, Final Proposals Consultation, 27 February 2009: www.ofgem.gov.uk.

trading scheme as we consider that valuing linepack would allow it to be utilised without distortion of cash-out prices.¹⁶ In our Open Letter to the industry published

2.17. However, at this time, NGG has not developed a gas linepack trading scheme. We therefore do not consider that it is appropriate to focus on additional refinements to the LM over and above the changes that were made to the scheme last year.¹⁷

2.18. We recognise that industry representatives want to retain (or strengthen) the incentive on NGG not to enter the market and to minimise its impact on the market when it does enter. We also consider that NGG's incentive performance should require continuous improvement.

2.19. We are therefore proposing an adjustment to the PPM target. Tightening the target from 5% to 2.5% for the 2010/11 incentive year would ensure that NGG would have to improve its performance under this measure to receive the same payments it received this year. To be clear, as we do not propose to change the slope (incentive strength) of the PPM, our proposals should not alter NGG's incentive in terms of whether or not to enter the market to undertake residual balancing trades compared to 2009/10.

2.20. In response to consultees who would have liked further changes to the LM and in light of the fact that NGG has made little progress in developing a linepack trading scheme to date, as part of Ofgem's SO incentives final proposals we are proposing to implement a new licence condition requiring NGG to use reasonable endeavours to develop (and implement if appropriate) a gas linepack product. We recognise that Ofgem will need to monitor NGG's progress in this area and will need to consider whether the existing incentive arrangements are compatible with any new arrangements. For example, we would consider the extent to which the existing LM arrangements can fall away after a linepack product is introduced.

2.21. Further, in the proposed licence condition we will also require NGG to review the current "default" gas cash-out prices. The "default" cash-out price¹⁸ is derived by

¹⁶ The actions of the SO have the potential to distort the market. For example, prior to 2001, the SO could avoid taking balancing actions by using linepack (natural storage available in the pipeline system) which had the effect of misallocating balancing costs between days. In 2001, in order to address this problem, financial incentives were placed on NGG to minimise day-on-day linepack variations and also to trade close to the market price to avoid taking sudden balancing actions. Over the years this has helped to address the cost misallocation problem. However, it has also meant that a valuable balancing resource, linepack, may be being underutilised.

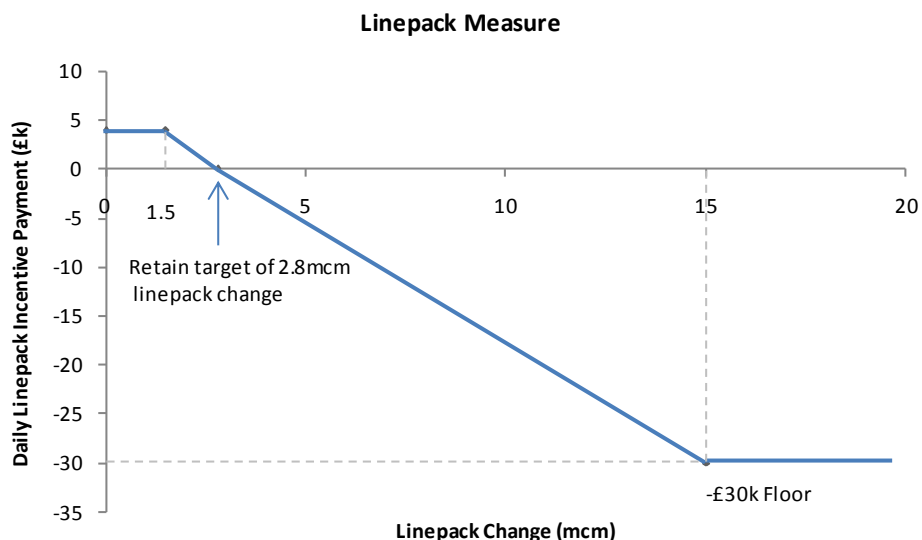
¹⁷ The changes made to the Residual Balancing Scheme last year were intended to sharpen the incentive on NGG not to enter the market, to remove the incentive on NGG to resolve small variances in linepack and, by lowering the maximum payment for the LM relative to the PPM, to place greater emphasis on the PPM.

taking the System Average Price (SAP) and adding/subtracting a fixed differential based on Hornsea storage site injection/withdrawal costs in 2000. While the default cash-out mechanism was considered appropriate when it was introduced, in that the differential was related to prevailing storage costs, the continued use of the same differentials even though storage costs have changed may no longer be appropriate.

2.22. Our final proposal is to implement a two year Residual Balancing Incentive scheme. In line with our views above, for the second year we also propose no change to the LM. In respect of the PPM, we propose a further tightening of the target from 2.5% in 2010/11 to 1.5% in 2011/12. We consider that this would provide a further incentive for NGG to improve its performance and to progress work on the development of a gas linepack product.

2.23. The parameters of our final proposals, which we consider should be implemented for two years, are shown in figure 2.4.

Figure 2.4: Residual Balancing: Final Proposals



¹⁸ "Default" cash-out price refers to the "System Marginal Buy Price" as such term is defined in Section F 1.2.1(a)(i) of the licensee's network code as at 1 April 2010 and to the "System Marginal Sell Price" as such term is defined in Section F 1.2.1(b)(i) of the licensee's network code as at 1 April 2010.



Demand Forecasting

2.24. The Demand Forecasting Incentive is one of two components of NGG’s Information Provision Incentives which are based on a daily measure of NGG’s performance against a benchmark. For demand forecasting, this benchmark is based on the deviation of the Day-Ahead (D-1) 13:00 demand forecast from the outturn figure for that day.

2.25. The current scheme parameters derive a target of an absolute demand forecast error of 3%, with upside and downside gradients that give a profit or loss of £1.6m for a $\pm 0.15\%$ increase or decrease (respectively) in performance around this target. There is a shallower upside gradient for performance increases above this (that is not illustrated in table 2.2) up to a maximum payment of £9.2m. The current scheme and parameters are illustrated in table 2.2 and figure 2.5.

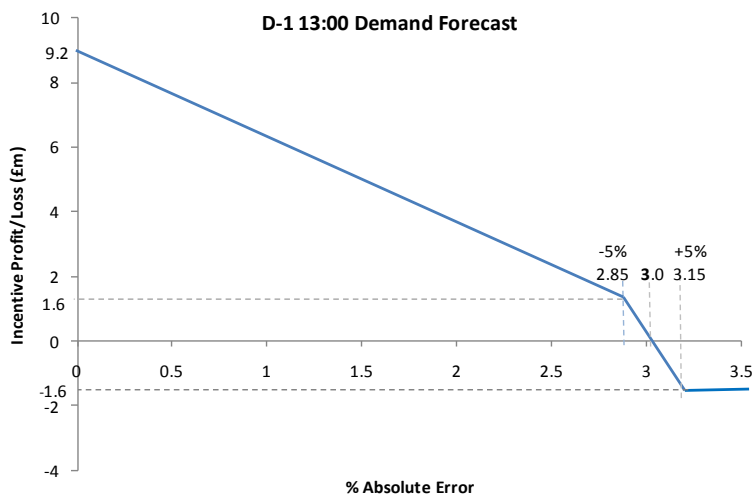
Table 2.2: Current demand forecasting scheme

Incentive Year	Target	Upside/Downside Sharing Factor ¹⁹	Cap ²⁰	Floor
2009/10	Absolute demand error 3.0%	± 0.15 percentage points	£1.6m	-£1.6m

¹⁹ Note that a ± 0.15 percentage point increase or decrease in performance around the 3% target is equivalent to a 5% increase or decrease in performance around the 3% target.

²⁰ The sharing factors of the scheme are designed to give a profit or loss to NGG of £1.6m for a ± 0.15 percentage point increase or decrease in performance around the target, i.e. between 2.85% and 3.15%. As noted above, there is a shallower upside gradient for performance increases above this up to a maximum payment of £9.2m.

Figure 2.5 Current demand forecasting scheme



2.26. As a result of the combination of a lower performance relative to the benchmark over summer (average forecast error of 3.1%) and the expectation of a higher performance relative to the benchmark over winter (projected average forecast error of 2.7%), the annual average forecast error was projected to be just under the 3.0% target (based on data from April to December 2009). Therefore, under the Demand Forecast Incentive, NGG is expected to earn approximately £0.6m this incentive year.

NGG’s proposals

2.27. In its Initial Proposals Consultation Document, NGG put forward proposals for incentivising the D-1 13:00 demand forecast and also the D-5 to D-2 demand forecasts based on the responses it received to the industry consultation carried out in July 2009.

D-1 13:00 demand forecast

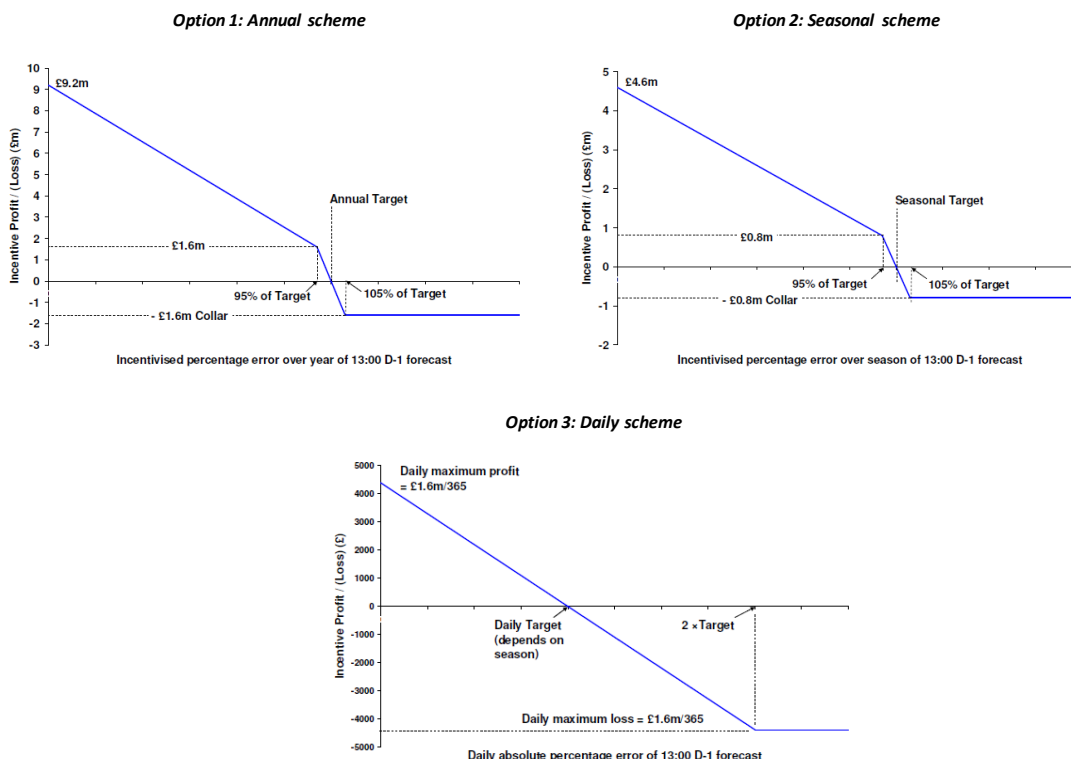
2.28. In respect of the D-1 forecast, NGG proposed that the incentive scheme could be applied on an annual, seasonal or daily basis. It considered that the introduction of a seasonal or daily scheme would enable the scheme to reflect the fact that demand forecasting errors in the summer are on average higher than in the winter.

2.29. Under the current incentive scheme, the daily forecast error (in mcm) is weighted by actual demand for the same day. This means that each day’s forecasting error does not have an equal impact on the measure of incentive performance. In proposing the incentive value for the seasonal and daily schemes, NGG has maintained this concept.

2.30. However, NGG also asked for industry views on whether more value should be attached to forecasts at particular times of the year, e.g. during the winter. NGG proposed that for any of the scheme proposals, the current outturn levels could be used as a basis for considering a target. NGG also proposed that such a scheme could be set for two years with individual targets being set for each year.

2.31. The three options put forward by NGG in its Initial Proposals Consultation Document are set out in figure 2.6.

Figure 2.6 NGG’s options for a demand forecasting scheme



2.32. With regard to the daily target, NGG provided the information in table 2.3 on estimated forecast error²¹. We note that these figures were provided to Ofgem only and industry has not had an opportunity to comment.

²¹ NGG notes that the estimates for the demand forecast error in summer and winter over the next two incentive years (as set out in table 2.3 and table 2.4) are based on the forecasting performance achieved during 2009.

Table 2.3: Information on estimated forecast error

Incentive Year	Summer	Winter	Annual
2010/11	3.2%	2.8%	3.0%
2011/12	3.2%	3.0%	3.1%

2.33. We note that these forecasts are above the average daily errors seen (and expected) this year. NGG has indicated that this is appropriate due to an expected increase in the proportion of price responsive demand (namely interconnector demand driven by new LNG supplies and the effect of new storage, i.e. the expansion of Aldbrough, Holford and Caythorpe) on the system over the next few years. We note that these two market developments were identified last year as posing a significant new risk to the accuracy of NGG’s demand forecasting. NGG continues to believe that they remain a significant risk in both 2010/11 and 2011/12.

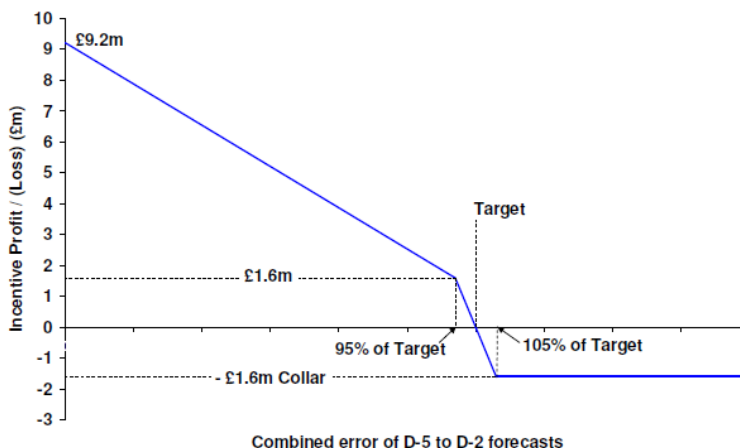
D-5 to D-2 proposals

2.34. NGG considers that an incentive on the D-5 to D-2 demand forecasts would increase focus on these forecasts and on the models and processes used to generate them. It considers that this increased focus should result in reduced forecast errors which, in turn, should help support efficient decision making by the users of the forecasts.

2.35. NGG proposes that the D-5 to D-2 Demand Forecasting Incentive could be structured in the same way as the D-1 13:00 incentive and that, to avoid proliferation of the number of incentive schemes and complexity of the arrangements, the incentive should use the average error of the D-5 to D-2 forecasts as the performance measure. Alternatively, NGG proposes that the errors of each of the forecasts should be weighted based on their relative value to the community.

2.36. In its Initial Proposals Consultation Document, NGG provided an example of what a D-5 to D-2 scheme could look like as shown in figure 2.7.

Figure 2.7: Illustration of D-5 to D-2 scheme



2.37. With regard to a D-5 to D-2 daily target, NGG provided the information in table 2.4 on the D-5 to D-2 average estimated forecast error. As above, industry has not been provided with an opportunity to comment on these figures.

Table 2.4: Information on D-5 to D-2 estimated forecast error

Incentive Year	Summer	Winter
2010/11	5.7%	5.5%
2011/12	5.8%	5.7%

Respondents' views

2.38. The majority of responses to NGG's Initial Proposals Consultation Document supported either an annual or seasonal D-1 13:00 demand forecasting incentive. Supporters of the seasonal scheme generally suggested that the summer target should be higher than the winter target. There were mixed views on whether the value should be equal throughout the year or focused towards the winter season.

2.39. The majority of respondents also supported the concept of setting the target to reflect the desire for continuous improvement whilst recognising the external factors that affect the accuracy of the forecasts.

2.40. Most respondents did not identify any specific barriers to implementing a multi-year scheme although most preferred a single year scheme or stated that they believed it would be prudent to review any new scheme after one year.

2.41. The majority of respondents broadly supported the introduction of an incentive around NGG's D-5 to D-2 demand forecasts. One respondent offered its support provided there was sufficient evidence that users would find it of benefit. Another respondent considered that if NGG's longer term demand forecasts could be improved, this could potentially reduce industry trading costs. However, this respondent also stated that any improvements in the D-5 to D-2 forecasts would have a smaller financial benefit to the industry than any improvements in the D-1 13:00 demand forecast. Another respondent offered its support on the basis that any value given to a new D-5 to D-2 demand forecasting incentive was deducted from the current value of the 13:00 D-1 demand forecasting incentive.

2.42. Were a scheme to be introduced, respondents were broadly supportive of the incentive structure contained in NGG's Initial Proposals Consultation Document although there were mixed views in respect of the appropriate scheme basis, i.e. whether there were particular periods of the year where accurate longer term forecasts increased in value. One respondent considered that having separate targets across the four seasons (spring, summer, autumn, winter) would be appropriate. Another considered it best to have equal value for each season or day to begin with while another respondent considered that a winter summer split would be appropriate. There was no clear view on whether such a scheme should use a simple weighted average basis to set any incentive target. No barriers to a multi-year scheme were identified.

Ofgem's final proposals*D-1 13:00 demand forecast*

2.43. We recognise that some respondents noted that they valued accuracy of the D-1 13:00 demand forecast more in the winter months than in the summer months. We therefore propose to retain an annual incentive scheme with the current performance measure which weights demand forecasting error by demand, i.e. the percentage errors on higher demand days will count more toward the aggregate error which NGG is incentivised on.

2.44. We continue to recognise that there is the possibility of some additional risk to NGG's forecasting accuracy resulting from the commissioning of new storage facilities and LNG import terminals going forward. However, we note that the impact of these developments was taken into account in setting the target last year and that NGG has now had, at a minimum, one year's experience forecasting in a more challenging environment. We are therefore not convinced that the impact of these external factors cannot be managed and NGG's forecasts further improved as NGG has suggested.

2.45. In addition, we continue to believe that it is appropriate, particularly in this area where the benefits of accurate forecasting are significant to the market as a whole, that NGG should be incentivised to continually improve its forecasting methodology. Further, while we recognise that there may be an "efficient level" of demand forecasting error, we do not consider that this has yet been reached. In light of this, we remain committed to tightening the incentivised error target year on year.

2.46. Our proposal is to implement the Demand Forecasting Incentive scheme for a period of two years. We consider that a multi-year scheme will provide NGG with the opportunity to consider ways to further improve its demand forecasting accuracy over a longer period, which should result in greater improvement. This is particularly important given the external challenges NGG has stated are affecting its demand forecasting accuracy.

2.47. In addition, we have proposed a change to the gradient in year two, widening the cap/floor band with the effect of reducing the reward/penalty to NGG for a marginal increase/reduction in demand forecasting performance around the target. We are proposing this change in recognition of the potential increase in risk facing NGG's forecasting accuracy going forward.

2.48. Our final proposal is therefore that NGG's demand forecasting target is set at:

- 2.85% in 2010/11 with upside and downside gradients that give a profit or loss of £1.6m for a ± 0.15 percentage point increase or decrease (respectively) in performance around this target; and

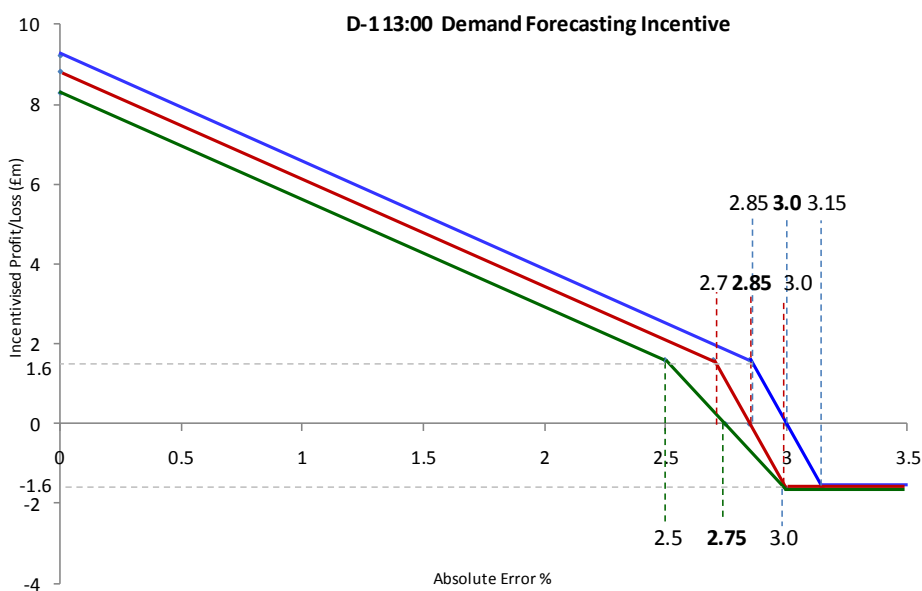
- 2.75% in 2011/12 with upside and downside gradients that give a profit or loss of £1.6m for a ± 0.25 percentage point increase or decrease (respectively) in performance around this target.

2.49. The parameters of our final proposals are shown in table 2.5 and figure 2.8.

Table 2.5: Demand forecasting: Final Proposals

Incentive Year	Target	Upside/Downside Sharing Factor	Cap ²²	Floor
2010/11	2.85%	± 0.15 percentage points	£1.6m	-£1.6m
2011/12	2.75%	± 0.25 percentage points	£1.6m	-£1.6m

Figure 2.8: Demand forecasting: Final Proposals²³



²² For 2010/11, the sharing factors of the scheme are designed to give a profit or loss to NGG of £1.6m for a ±0.15 percentage point increase or decrease in performance around the target (between 2.7% and 3.0%). For 2011/12, the sharing factors are designed to give a profit or loss to NGG of £1.6m for a ±0.25 percentage point increase or decrease in performance around the target (between 2.5% and 3.0%).

²³ The blue line represents the current scheme; the red line represents the proposed scheme for 2010/11; and the green line represents the proposed scheme for 2011/12.

D-5 to D-2 demand forecast

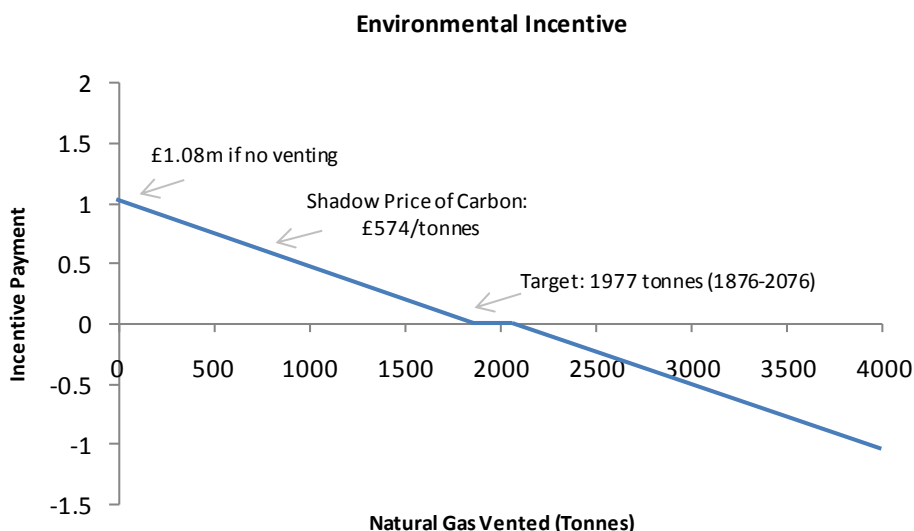
2.50. Having regard to the mixed views received from the industry in this area, at this stage we do not believe that it is appropriate to introduce a new Demand Forecasting Incentive around NGG’s D-5 to D-2 demand forecasts. In designing the D-1 13:00 Demand Forecasting Incentive in 2006, we stated that there were two key benefits to customers from improvements in NGG’s demand forecasts, these being potential reductions in gas price distortions and potential improvements in the efficiency of the SO balancing actions. While we acknowledge that respondents were generally supportive of the introduction of an incentive in this area, at this point it is not clear to us the extent to which the D-5 to D-2 forecasts are of commercial importance to customers, nor that improvements in NGG’s longer term forecasts would deliver significant benefits in terms of reductions in gas price distortions and improvements in the efficiency of the SO balancing actions.

2.51. Further, where NGG believes that it can make improvements to its D-5 to D-2 demand forecasts, we would expect NGG to do so in line with its obligations as an economic and efficient system operator.

Environmental

2.52. The Environmental Incentive was introduced from April 2008, to ensure that the environmental (equivalent carbon) cost of venting from compressors was factored into NGG’s operational decisions on whether to vent gas from its compressors or to incur the costs of keeping a unit pressurised. The current scheme, which is set for one year and covers venting from both gas and electric compressors, is illustrated in figure 2.9.

Figure 2.9: current environmental scheme



2.53. Based on the current methodology for calculating vented volumes, NGG vented 1106 tonnes of natural gas from its compressors during the period April to December 2009. Therefore, under the Environmental Incentive NGG is expected to earn approximately £0.2m at the end of the incentive year.

Changes for the 2009/10 incentive year

2.54. A recent review by NGG of vented volumes for 2008/09 identified an error in the calculation of 2008 vented volumes, i.e. not all the gas vented was recorded. The corrected volume of vented gas was taken into account in the Final Reporting Pack sent to Ofgem for the 2008/09 incentive year. However, because the error was identified after the 2009/10 incentive scheme was set, the correction was not reflected in the 2009/10 incentive target. In its summer consultation on the Environmental Incentive,²⁴ NGG proposed that the 2009/10 incentive target should be amended to reflect the correct amount of vented gas from 2008. It also consulted on this approach in its Initial Proposal's Consultation Document.

2.55. We have considered the views of NGG and the industry. We consider that amending NGG's licence to reset the 2009/10 incentive target based on correct data will ensure consistency between incentive performance and the incentive target ensuring that incentive payments reflect genuine changes in performance. On 22 January 2010, we issued a licence modification notice setting out our intention to modify the 2009/10 Environmental Incentive target. Having considered the views of respondents, we subsequently amended NGG's licence on 22 February 2010 such that the corrected volume target now applies retrospectively from 1 April 2009.

Changes for the 2010/11 incentive year

2.56. NGG recently concluded its "Methane Initiative" project which reviewed all aspects of the methodology, measurements and constants used for calculating vented volumes of natural gas. As a result of the review, NGG has identified a number of areas where further improvements can be made to its calculation methodology. NGG has recently applied its improved methodology to historical data (2007, 2008 and 2009) which has consequently resulted in increases in the calculated volumes for the same level of performance. The target to be set from April 2010 will be set on the basis of the recalculated volumes to ensure consistency with the methodology that will be in place to measure and report on performance from April 2010.

²⁴ National Grid Gas (NTS) System Operator Incentives for 1 April 2010, Consultation Document 2, Environmental Incentives, 26 August 2009:
www.nationalgrid.com/uk/Gas/soincentives/docs/

NGG's proposal

2.57. With regard to the scheme from April 2010, NGG proposes that, as for the current year, the volume target should be based on weighting factors (3:2:1) applied to the last three years of calendar year data. NGG also proposes retaining the existing $\pm 5\%$ deadband around the volume target as it considers that this helps protect against any windfall profits or losses from the small amount of year-on-year volatility in the outturn performance.

2.58. Under the current scheme, the environmental impact of releasing natural gas into the atmosphere is currently valued based on the environmental CO₂ equivalence of the components of natural gas and DEFRA'S Shadow Price of Carbon. Since the setting of the current scheme, the government has undertaken a review of its approach to carbon valuation. The new approach bases the valuation on the marginal cost of mitigating emissions if emissions targets are to be met. NGG considers that, for the incentive from April 2010, it is appropriate to use the latest government advice and update the incentive to use the Non-Traded Carbon Price calculated by DECC. The effect of this is to approximately double the value of the incentive as illustrated in table 2.6.

Table 2.6: Effect of using non-traded carbon price

Scheme	Non-Traded Carbon Price Basis (£/tonne)	Shadow Price of Carbon Basis (£/tonne)
2010/11	1100	586
2011/12	1156	619

2.59. Despite this increase in the value of the incentive, NGG does not consider that caps and floors around the scheme are required. NGG considers that any caps or floors would imply that there was a point beyond which NGG should not attempt to further reduce (or avoid further increase to) the amount of natural gas vented.

2.60. NGG considers that this scheme could be implemented for two years with the volume target in the second year again being set based on the same weighting factors for the past three calendar years.

2.61. In its summer consultation, NGG considered whether the Environmental Incentive should be extended to other assets and processes associated with the operation of the NTS. The responses to the consultation were not supportive of such an extension, with concerns over possible double counting and that the activities suggested were more asset based and hence more suited to the TO activities under the price control being the main reasons. NGG has therefore not proposed the introduction of any new Environmental Incentives from April 2010.

Respondents' views

2.62. Respondents generally supported the proposed approach to setting the incentive from April 2010 including setting the target based on a weighted average of

the last three years of calendar data and the move to DECC's Non-Traded Carbon Price. However, some respondents expressed concern that the 3:2:1 target methodology could result in a target which was higher than performance in previous years. To address this, a number of respondents suggested that a cap could be included on the target or the deadband around the target could be widened.

2.63. The majority of respondents were in favour of implementing the scheme for a two year period. Further, none of the respondents suggested extending the Environmental Incentive to other NTS activities.

Ofgem's final proposal

2.64. The intent of this incentive is to ensure that the environmental cost of venting is factored into operational decisions on whether to vent or whether to incur the costs of keeping a unit pressurised. Information presented to us by NGG suggests that the incentive is achieving this objective.

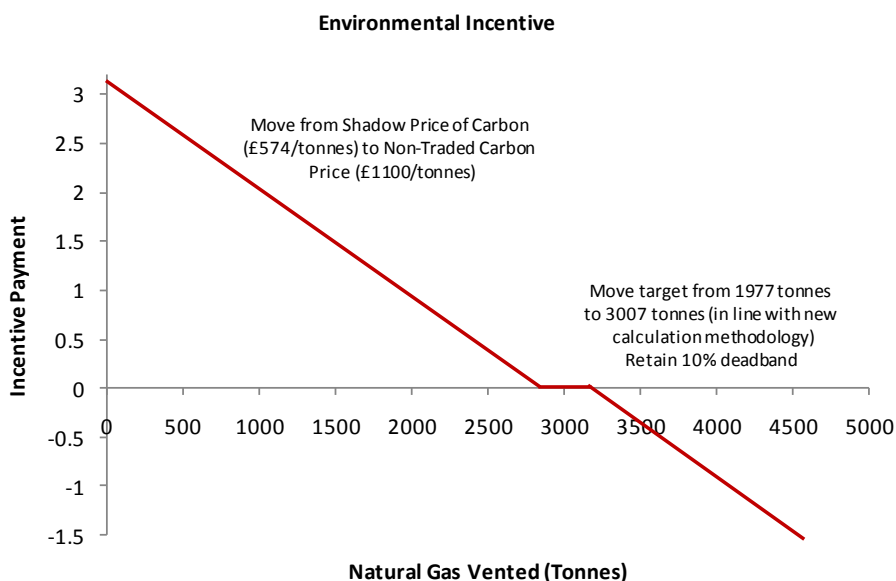
2.65. In this context, we propose to retain the current structure of the incentive scheme for a period of one year and will consider whether an improved scheme could be put in place longer term, from April 2011.

2.66. The rationale for setting the target based on a 3:2:1 weighted average of the last three calendar years was primarily driven by the significant reduction in volumes seen during 2008. At the time, we considered that it was appropriate to put greater weighting on 2008 as we believed the decrease in vented volumes was the result, at least in part, to efficiency savings driven by the incentive. However, as noted above, since setting the scheme for 2009/10, an error in the calculation of the amounts vented in 2008 has been identified. Ofgem recently amended NGG's licence to correct 2009/10 target. However, the identification of the error means it may no longer be appropriate to retain the 3:2:1 weighting going forward.

2.67. For the incentive to be in place from April 2010, we propose to set the target based on the 2009 outturn volume. Based on the current methodology, this volume was 1508 tonnes of natural gas. However, as noted above, following the conclusion of NGG's Methane Initiative project, a new calculation methodology will be in place to measure and report vented volumes from April 2010. Under the new methodology, the 2009 outturn volume is equivalent to 3007 tonnes of natural gas. We therefore propose to set the 2010/11 incentive target at 3007 tonnes.

2.68. Our final proposal is therefore for a one year scheme with a volume target set at 3007 tonnes with a $\pm 5\%$ deadband range (2857 tonnes to 3157 tonnes). We also consider that it is appropriate to use DECC's Non-Traded Carbon Price as the reference price. Our proposed Environmental Incentive which we consider should be implemented for one year is shown in figure 2.10.

Figure 2.10: Final Proposal Environmental incentive



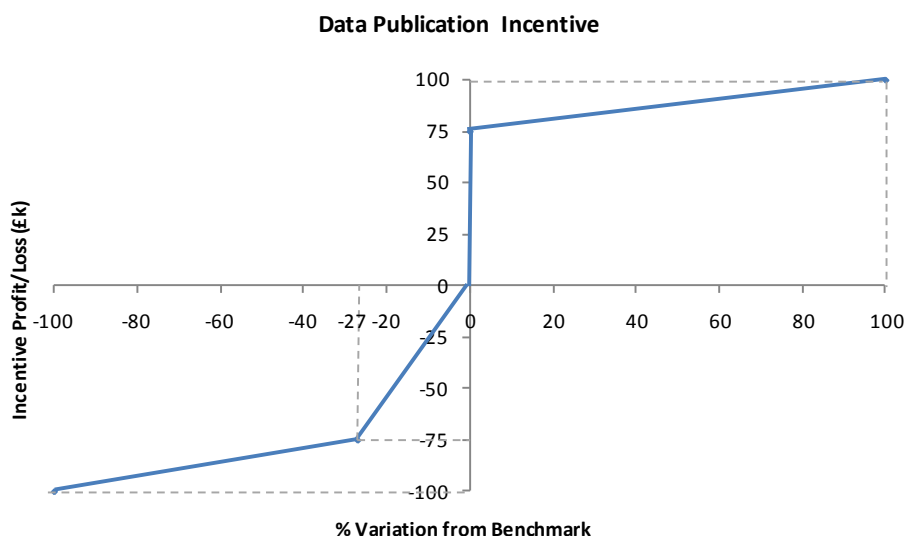
2.69. We consider that this is an area where there is the potential to undertake further work over the next year to ensure that an appropriate incentive scheme is in place from April 2011.

Data Publication

2.70. The Data Publication Incentive is also based on a daily measure of NGG’s performance against a benchmark. The Data Publication benchmark is based upon the availability and timeliness of the publication of certain data such as demand and flows onto the network.

2.71. The current scheme has the objective of maintaining the prevailing level of improved performance. Under the scheme, NGG earns £75k if it meets the performance benchmarks for timeliness and availability, with a possibility to earn a further £25k for additional over-performance up to a 100% improvement. The scheme has a £100k penalty should performance fall below the benchmark. The scheme is summarised in figure 2.11.

Figure 2.11: Current Data Publication Incentive



2.72. Based on data from April to December 2009, NGG is expected to earn approximately £65k at the end of the current incentive year under this scheme.

NGG’s proposal

2.73. NGG proposed to roll the incentive over unchanged for two years.

Respondents’ views

2.74. Respondents to NGG’s Initial Proposals Consultation had mixed views on this incentive. Two respondents proposed removing the incentive completely, one respondent supported retention of the scheme and two parties suggested that the incentive should be set as a downside only scheme.

Ofgem’s final proposal

2.75. We note that two respondents to NGG’s consultation considered that the Data Publication Incentive should be removed. However, in the absence of responses from small suppliers and large customers who we believe place particular value on this information, we are hesitant to propose removing the scheme altogether.

2.76. In addition, we understand that in order to support its incentive performance, NGG externally monitors and alarms its website, has in place enhanced 24/7 service level agreements with suppliers and support staff and ensures management focus remains on this area through internal reporting and performance indicators.

2.77. Recognising the additional costs to NGG of this scheme, we propose to retain the current Data Publication incentive for a further two years. Going forward, we consider that it may be appropriate for this area of NGG’s SO activities to be considered as part of the next Price Control.

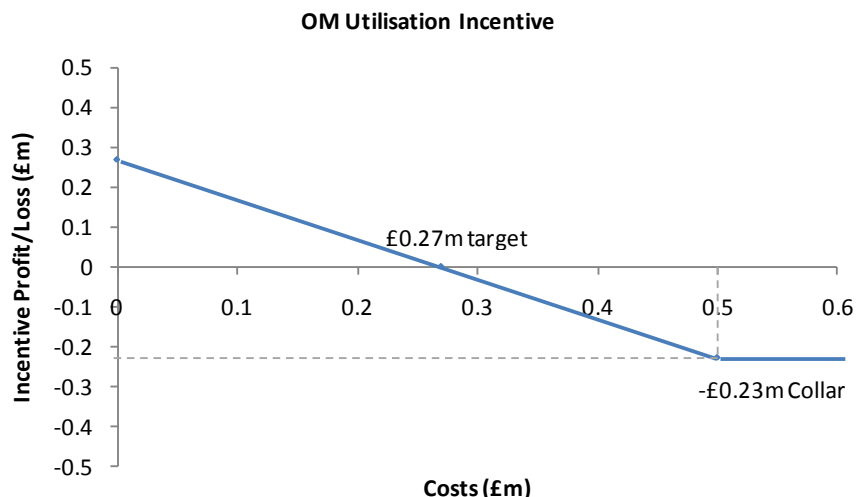
Operating Margins

2.78. Operating Margins (OM) gas is gas that is available to NGG as SO to use in the case of system emergencies. OM services are purchased by NGG on an annual basis in line with both the requirements of the UNC and obligations placed on NGG through its Safety Case. Requirements for OM gas are determined through network simulation analysis. The requirement is for the physical delivery of additional gas to maintain safe pressures within the NTS during a System Event, until other measures take effect. Potential System Events are split into three categories:

- Group 1 (Major events) e.g. loss of supply infrastructure, loss of largest sub-terminal;
- Group 2 (Multiple events) e.g. compressor failures, pipe breaks; and
- Group 3 (Orderly rundown) e.g. to maintain pressures in the event of a National Gas Supply Emergency (NGSE).

2.79. Because of the nature of the service, i.e. the gas needs to be available, but is rarely used, the majority of NGG’s costs relate to the cost of holding the gas in store. Due to the process of OM Contestability being underway when the 2009/10 scheme was set, Ofgem decided that it was appropriate for the 2009/10 OM availability costs to operate on a cost pass-through basis. However, an OM utilisation cost incentive was implemented and is summarised in figure 2.12.

Figure 2.12: Current OM Utilisation Incentive



2.80. Based on data from April to December 2009, NGG is expected to earn £0.14m under this scheme for the incentive year 2009/10.

OM Contestability

2.81. Until recently, OM services have been provided by storage facilities. NGG has been working towards the provision of OM from non-storage providers. In order to allow for OM to be provided from sources other than gas held in store, both UNC and Safety Case amendments have been required. The necessary change to the UNC was approved and implemented on 16 February 2009; the necessary Safety Case change was approved and implemented on 17 February 2010.

2.82. In addition, until recently the NGG LNG Storage facilities have provided OM at regulated prices (the C3 prices) which are set by Ofgem. Following an assessment of NGG's 2010 OM tender, Ofgem concluded that competition in the provision of a number of specific OM requirements was effective. As a result, Ofgem considered it appropriate to remove the regulated prices for certain facilities for certain OM requirements, for the duration of the 2010/11 storage year.²⁵

2.83. We welcome these developments in the provision of OM services. However, we consider it prudent to keep the development of competition in the provision of OM under review. We will therefore reassess the situation during the next OM tender process. Our expectation is that, with the increased certainty of the Safety Case outcome, the next tender should see an increase in the number of new providers offering services including a number of those who participated in the previous tender but may not have participated in the 2010/11 tender.

NGG's proposal

2.84. Given the uncertainties around OM at the time of publishing its initial proposals, NGG considered that OM availability and utilisation costs should both operate on a cost pass through basis for one year from 2010/11.

Respondents' views

2.85. All of the responses to NGG's Initial Proposals Consultation Document supported the pass through of availability costs for a further year, although one respondent suggested that there should be a cap on these costs. Respondents were split on whether a small utilisation incentive should be retained or whether the utilisation costs should also operate on a cost pass through basis.

²⁵ "Operating Margins (OM) Contestability 2010: Decision Letter" and "Direction issued to National Grid Gas pursuant to paragraph 1(b) of Special Condition C3", 18 February 2010: www.ofgem.gov.uk

2.86. Of the respondents who provided a view on incentive design (should one be put in place), half supported a separate availability and utilisation incentive while the other half supported the design of a total OM costs incentive.

Ofgem's final proposal

2.87. Now that the outcome of OM contestability is known and NGG has received a decision from the HSE on potential changes to its Safety Case, we consider that it is appropriate that all OM costs are passed through for a period of one year.

2.88. During the next few months we will consider the basis for an appropriate OM incentive given the developments regarding the increase in the range of providers of the service.

Summary tables

2.89. Tables 2.7 and 2.8 present an overview of the proposed schemes for 2010/11 and 2011/12.

Table 2.7: 2010/11 Proposed Schemes

	Max Profit	Max Loss	Explicitly Defined Cap/Floor	Incentive Target
Residual Balancing	£2.4m	-£2.4m	Yes	Linepack (LM): 2.8mcm Price Performance (PPM): 2.5%
Demand Forecasting²⁶	£1.6m	-£1.6m	Yes (downside only)	2.85% absolute daily error
Environmental²⁷	£0.6m	-£0.6m	No	3007 tonnes
Data Publication	£0.1m	-£0.1m	Yes	Availability: 99.3% Timeliness: 90.5% within 10 mins
Operating Margins	No scheme proposed			

²⁶ Note that the sharing factors of this scheme are designed to give a profit or loss to NGG of £1.6m for a ± 0.15 percentage point increase or decrease in performance around the target.

²⁷ The maximum profit or loss to NGG under this scheme assumes an approximate 20% over or under performance around the deadband.

Table 2.8: 2011/12 Proposed Schemes

	Max Profit	Max Loss	Explicitly Defined Cap/Floor	Incentive Target
Residual Balancing	£2m	-£2m	Yes	Linepack (LM): 2.8mcm Price Performance (PPM): 1.5%
Demand Forecasting²⁸	£1.6m	-£1.6m	Yes (downside only)	2.75% absolute daily error
Environmental	No scheme proposed			
Data Publication	£0.1m	-£0.1m	Yes	Availability: 99.3% Timeliness: 90.5% within 10 mins
Operating Margins	No scheme proposed			

²⁸ Note that the sharing factors of this scheme are designed to give a profit or loss to NGG of £1.6m for a ± 0.15 percentage point increase or decrease in performance around the target.

Appendices

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Appendix 1 - Consultation Response and Questions

1.1. Ofgem would like to hear the views of interested parties in relation to any of the issues set out in this document. We would especially welcome responses to the specific questions which we have set out at the beginning of chapter two and which are replicated below.

1.2. Responses should be received by 26 March 2010 and should be sent to gb.markets@ofgem.gov.uk for the attention of:

Ian Marlee
Partner, Trading Arrangements
Ofgem
9 Millbank
London
SW1P 3GE

1.3. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. Ofgem shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

1.4. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.

1.5. Any questions on this document should, in the first instance, be directed to Giuseppina Squicciarini (020 7901 7366). Email giuseppina.squicciarini@ofgem.gov.uk.

CHAPTER: One

There are no specific questions in this chapter.

CHAPTER: Two

Question 1: Do you consider that the final proposals for the SO incentive schemes to apply to NGG's external SO costs represent a fair balance of risk and reward.

Question 2: Do you consider that the proposed licence modifications appropriately reflect the final proposals as described in this chapter?

Appendix 2 - Notice under Section 23 of the Gas act 1986

1.1. Please see separate document containing the notice.

Appendix 3 – The Authority’s Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority (“the Authority”), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.²⁹

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly³⁰.

1.4. The Authority’s principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them³¹;
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.³²

²⁹ entitled “Gas Supply” and “Electricity Supply” respectively.

³⁰ However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

³¹ under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

- promote efficiency and economy on the part of those licensed³³ under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- the effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation³⁴ and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

³² The Authority may have regard to other descriptions of consumers.

³³ or persons authorised by exemptions to carry on any activity.

³⁴ Council Regulation (EC) 1/2003

Appendix 4 - Glossary

C

Calorific Value (CV)

The ratio of energy to volume measured in Megajoules per cubic meter (MJ/m³) which for a gas is measured and expressed under standard conditions of temperature and pressure.

Compressor Station

An installation on the National Transmission System (NTS) that uses gas turbine or electricity driven compressors to boost pressures in the pipeline system; it is used to increase transmission capacity and move gas through the System.

D

Distribution Network Operator (DNO)

An administrative unit responsible for the operation and maintenance of the local pipeline network within a defined geographical boundary.

Distribution System

A network of mains operating at three pressure tiers: intermediate (2 to 7barg), medium (75mbarg to 2barg) and low (less than 75mbarg).

G

Gas Transporter (GT)

Formerly Public Gas Transporter (PGT). GT's, such as Northern Gas Networks, are licensed by the Gas and Electricity Markets Authority to transport gas to consumers.

I

Income Adjusting Event (IAE)

An event defined under the transporter or transmission licence that allows for an adjustment to be made to the relevant incentive scheme.

L

Linepack

The volume of gas within the National or Local Transmission System at any time.

N**National Transmission System (NTS)**

A high pressure system consisting of terminals, compressor stations, pipeline systems and offtakes. Designed to operate at pressures up to 85 bar. NTS pipelines transport gas from terminals to NTS offtakes.

O**On the day Commodity Market (OCM)**

Enables anonymous financially cleared on the day trading between market participants.

Operating Margin (OM)

Gas used to maintain system pressures under circumstances including periods immediately after a supply loss or demand forecast change before other measures become effective and in the event of plant failure, such as pipe breaks and compressor trips.

Own Use Gas

Gas used by system owners to operate the transportation system, this includes gas used for compressor fuel, heating and venting.

S**Sharing factors**

Describe the percentage of profit or loss which the System Operator will be subjected to if the relevant incentive performance measure falls below or exceeds the relevant incentive target.

Sliding Scale

Used to describe incentive schemes which involve profit (and loss) sharing around a fixed target cost.

System Operator (SO)

The entity charged with operating either the GB electricity or gas transmission system. NGET is the SO of the high voltage electricity transmission system for GB. NGG is the SO of the gas NTS for GB.

U**UK Continental Shelf (UKCS)**

Comprises those areas of the sea bed and subsoil beyond the territorial sea over which the UK exercises sovereign rights of exploration and exploitation of natural resources.

Appendix 5 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments?

1.2. Please send your comments to:

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