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Gas System Operator incentives review: Initial consultation

Consultation

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Overview:

System Operator (SO) incentive schemes are designed to encourage National Grid Gas (NGG) to operate the gas transmission systems in an efficient and economic manner, and to effectively manage the associated costs. We develop incentives through extensive consultation with the SO and other stakeholders, in order to develop a fair and efficient set of incentives.

In this consultation we are seeking views on the future of three gas SO incentives which are due to expire. These are:

- the day-minus-two (D-2) to day-minus-five (D-5) demand forecasting incentive;
- the maintenance incentive; and
- the greenhouse gas (GHG) emissions incentive.

The demand forecasting and maintenance incentives expire on 31 March 2015 whilst the GHG emissions incentive expires on 31 March 2016. We are consulting on all three incentives at the same time to minimise the burden on industry.

Context

National Grid Gas (NGG) is the gas transmission System Operator (SO) responsible for balancing the system on a continuous basis across Great Britain (GB). To do this, the SO buys and sells gas and procures associated services. It also provides other services to market participants, such as demand forecasts. The SO is obliged to perform its role in an economic and efficient manner.

Ofgem sets incentives for the gas SO to promote behaviours that improve the efficient operation of the system. There are currently ten incentives in place on NGG covering areas such as residual balancing, demand forecasting, shrinkage and maintenance. These incentives were last set on 1 April 2013 and most were set for an eight year period to align with the RIIO-T1[1] price control. Where we were introducing new incentives or substantially changing the form of incentives we set these for a shorter period to enable their effectiveness to be assessed before committing to longer timescales.

Associated documents

- **Gas System Operator (SO) incentive schemes from 2013 final proposals consultation** - https://www.ofgem.gov.uk/publications-and-updates/gas-system-operator-so-incentive-schemes-2013-final-proposals-consultation

- **National Grid Gas System Operator Incentives from 1 April 2013 -** https://www.ofgem.gov.uk/publications-and-updates/national-grid-gas-system-operator-incentives-1-april-2013

[1] RIIO-T1 is the first transmission price control review to reflect the RIIO regulatory framework. RIIO-T1 sets out what the transmission network companies are expected to deliver and provides a regulatory framework that supports both effective and efficient delivery for energy consumers over the eight years from 2013 – 2021

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Executive Summary

As system operator, National Grid Gas is responsible for balancing the gas system. We develop and apply incentive schemes for National Grid Gas to carry out this function economically and efficiently.

We developed a new incentive scheme for National Grid Gas which commenced on 1 April 2013. As part of this scheme we introduced two completely new gas system operator incentives into National Grid's gas transmission licence. These incentivised NGG to improve the accuracy of its day-minus-two to day-minus-five (D-2 to D-5) demand forecasting and to plan and minimise the length of, and changes to, its gas transmission maintenance plans. We also made substantial structural changes to the incentive on the system operator to minimise greenhouse gas (GHG) emissions. We therefore decided to set the D-2 to D-5 and maintenance incentives for a two year period and the GHG emissions incentive for a three year period. This would allow us to gather data and consider whether the design of the incentive could be improved to provide further value to consumers.

This document is our initial consultation on whether to keep, adjust or remove these incentives. Our objectives are to:

- understand if the three incentives are successfully promoting the intended behaviours;
- determine if we have the appropriate balance between setting challenging targets and allowing the SO to be rewarded for any incremental benefits that it delivers for consumers; and
- incorporate the views of stakeholders in our decision making process.

At this stage we are open to considering five different high level policy options for each of the three incentives. We expand on each of these theoretical options later on in the document. In brief, the options are:

- Renew the incentives as they are currently designed;
- Continue with the same design, but change parameters;
- Change the design of the incentives;
- Introduce new licence obligations on NGG in respect of the activity concerned; or
- Let the incentive expire.

Following this consultation, we intend to develop our Initial Proposals and publish them for consultation in summer 2014. We are expecting to publish our Final Proposals for the D-2 to D-5 demand forecasting and maintenance incentives and if appropriate, the GHG emissions incentive in winter 2014-2015.

1. Introduction and objectives of the review

Question 1: Do you agree with the proposed assessment criteria for this review?

Question 2: Are there any other specific incentives-related policy issues you think we should consider as part of this review? What are they and what benefits could they bring for consumers?

Background

1.1. As part of the incentive scheme that we introduced for NGG which commenced on 1 April 2013 we developed incentives on NGG to improve the accuracy of its advance demand forecasts (the day-minus-2 to day-minus-5 (D-2 to D-5) demand forecasting incentive) and to plan and minimise the length of, and changes to, its gas transmission infrastructure maintenance plans (the maintenance incentive). These are two year sincentives which will expire on 31 March 2015.

1.2. We also set an incentive on NGG to minimise green house gas (GHG) emissions resulting from its operation of the network. Because of substantial changes to the structure of the GHG emissions incentive, we set it for three years with expiry due on 31 March 2016.

1.3. In our Final Proposals document published in December 2012, we committed to review these three incentives in sufficient timescales to enable new schemes to be put in place when they expire, if appropriate.

Existing incentives

1.4. In April 2013 we set ten gas SO incentives on NGG in total. A summary of the existing incentives is provided in the table below. For a more detailed description, please refer to our Final Proposals document. This consultation focuses on the first three incentives.

Incentive	Duration	Expiry date	Purpose
Maintenance	**2 years**	**2015**	**Incentivises NGG to accurately plan and effectively carry it out its maintenance activities.**
D-2 to D-5 demand forecasting	**2 years**	**2015**	**Incentivises NGG to produce accurate advance demand forecasts.**
GHG emissions	**3 years**	**2016**	**Incentivises NGG to reduce gas venting from compressors.**
D-1 demand forecasting	8 years	2021	Incentivises NGG to produce an accurate short term demand forecast.
Residual balancing	8 years	2021	Incentivises NGG to minimise impact of balancing actions on the market.

Constraint Management	8 years	2021	Incentivises NGG to manage constraints effectively.
Shrinkage[2]	8 years	2021	Incentivises NGG to procure an efficient level of shrinkage at the lowest possible price.
Unaccounted for Gas (UAG)[3]	8 years	2021	Reputational incentive requiring NGG to investigate the causes of UAG.
Operating Margins gas (OM)[4]	8 years	2021	Reputational incentive to promote competition in the procurement of OM gas services.
Information provision	8 years	2021	Requires NGG to provide certain information relating to system operation (such as a Winter Outlook) on its website in a timely manner.

Table 1: Gas system operator incentives

Considerations for the review

1.5. Although the GHG emissions incentive expires one year after the D-2 to D-5 demand forecasting and maintenance incentives, we intend to review them at the same time in the first instance in order to use our and industry's resources effectively and efficiently. However, we will consider extending the review period of the GHG emissions incentive if we find that we do not yet have sufficient data and information to understand the key drivers of NGG's performance and determine robust parameters for a five year incentive extension, should this be appropriate.

Assessment criteria

1.6. In order to meet the proposed objectives of the review we have identified some high level assessment criteria which we will use for considering the appropriate way forward for each of the three incentives. In developing our policy we will assess to what extent each incentive:

- **promotes behaviour that is in the interest of existing and future gas consumers**: Stakeholder input will be important for us to understand whether the incentives are accurately targeting the desired behaviours;

[2] Shrinkage refers to gas and electricity that is used to operate NTS compressors for system operation purposes (Compressor Fuel Usage - CFU) and energy that is delivered but cannot be billed due to local differences in the calorific value of gas (CV shrinkage). Shrinkage gas and electricity needs to be bought by the SO in its capacity as Shrinkage Provider.

[3] Unaccounted for gas is gas that cannot be accounted for as part of any of the other measurements of shrinkage on the system by the entry and exit measurement and allocation processes.

[4] Operating margins gas used to maintain system pressures under specific 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.

- **promotes efficient operation of the system**: ie incentivises the SO to operate in a way that maximises efficiency and minimises costs without compromising system safety. Success here might be seeing positive change in NGG's performance against the incentive compared to previous levels;

- **strikes the right balance between challenging and achievable targets**; ie the incentive parameters should set an ambitious but realistic target for the SO. It should incentivise outputs that are within the SO's control;

- **has a value proportionate to potential benefits**: ie each incentive has a maximum reward and penalty which is proportionate to the benefits it can deliver for system users and consumers. In assessing this, stakeholder input will be essential to understand the value which consumers can derive from performance improvement in relation to each of the incentives.

Policy options going forward

1.7. At this stage we are open to considering five different high level policy options for each of the three incentives. Each of these theoretical options is briefly explained below:

- **Renew the schemes as they are today**: If we consider the incentive(s) to be appropriate and consider the parameters of the incentive(s) to be sufficiently challenging but realistically attainable then we may decide to extend the incentive without making significant changes to it.

- **Continue with the same incentive scheme design, but change parameters**: If we deem the design of the scheme to be appropriate and driving improved performance we may maintain the existing design of the incentive. However, we may see benefit in revising the parameters of the incentive. For example, we may identify areas where NGG has already introduced arrangements that will result in better performance going forward and been rewarded for these changes within the current scheme framework. In this situation, there may be an expectation of consistent outperformance against the current target without any further NGG efficiency gains. In this case we may consider tightening of the target to ensure NGG is rewarded only for further efficiency gains.

- **Change incentive scheme design**:Through consultation, we may identify that the incentive is targeting the correct behaviours which stakeholders value and which will ultimately benefit consumers. However, we may consider that a change to the design of the incentive could focus these behaviours more effectively. For example, we may identify that use of a different metric to measure NGG's performance could improve the incentive. In this case we may continue with the

intention of the incentive but consider the introduction of new elements and/or different performance metrics.

- **Introduce new licence obligation on NGG**: As well as financial incentives, reputational incentives or licence obligations can be used to drive desired behaviours. For example, one option might be to introduce a licence obligation on NGG to publish information relating to its performance in a particular area hence creating a reputational incentive on NGG. Through licence conditions we could also require NGG to carry out certain functions or publish certain information to the market. We may want to change the mix of approaches if we consider that it is difficult to set reliable financial targets which carry the risk of windfall profits or losses to NGG and consumers. Alternatively we may consider that the nature of the desired behaviour makes financial incentives less effective at driving performance when compared to explicit licence requirements.

- **Let it expire**: Our evaluation of the data may demonstrate that the incentive has done little to drive a change in performance, or we may consider that the downsides of the incentive (such as unintended consequences) outweigh the benefits derived. In this case, we may determine that the incentive scheme should not be continued. In order to determine which policy option to take for each of the three incentives, we will consider the data and information available to us. This will include NGG's performance against the incentives to date and reasons behind this performance. The value that stakeholders place on the incentives and how this ultimately delivers for consumers will also be a fundamental aspect of our consideration.

Next steps

1.8. We will consider responses to this consultation as part of our review of the gas SO incentives. We will then develop our Initial Proposals which we intend to publish for consultation this summer. To help inform our Initial Proposals we anticipate NGG submitting and publishing its business plan which will set out its views on the development of these incentives in early summer. Following our Initial Proposals, we will consider stakeholder views and intend to develop our Final Proposals around early winter 2014. We will consider throughout this process the benefits of extending the review period for the GHG emissions incentive which is due to expire a year later than the other two incentives.

1.9. We present a high level timeline of the review in the figure below:

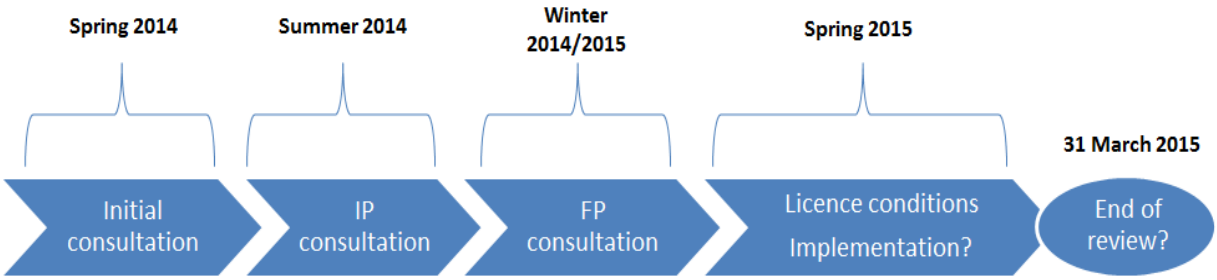

Figure 1: Timeline for our review of incentives

2. Day-minus-2 to Day-minus-5 demand forecasting incentive

Question 3: How useful have you found the D-2 to D-5 demand forecasts so far? To what extent do you use or rely on them?

Question 4: What value would (further) improvements in the accuracy of D-2 to D-5 demand forecasts bring to you?

Question 5: How do you think the D-2 to D-5 demand forecasting incentive could be improved? How would any proposed changes to the incentive feed through to benefits for consumers?

Question 6: Does the current target strike the right balance between a challenge and opportunity for reward for the gas SO?

Design of the incentive

2.1. NGG publishes national gas demand forecasts over a range of timescales. This information helps market participants to make efficient decisions in balancing their own supply and demand positions thus reducing the residual balancing requirements of NGG and increasing market efficiency.

2.2. We introduced the D-2 to D-5 demand forecasting incentive following stakeholder input from National Transmission System (NTS) users which set out the benefits to supply and demand balancing that this could bring. Previously, system users highlighted to us that there was a significant difference between the accuracy of NGG's D-1 demand forecast and its D-2 to D-5 forecasts. Taking this into account, we introduced this scheme to incentivise NGG to increase the accuracy of its advance demand forecasts and consequently help shippers balance their portfolios more effectively. We identified that this would benefit consumers by reducing the number and associated costs of energy balancing actions taken by the SO.

2.3. We set a target for the average monthly D-2 to D-5 demand forecast error at 16 million cubic metres (mcm), which we calculated using the average forecast error in the three years prior to the introduction of this incentive. Similar to our D-1 demand forecasting incentive, we weighted the incentive towards days of high demand when the accuracy of a demand forecast becomes more valuable. Finally, we placed the incentive revenue cap at £10m and the penalty floor at -£1m, both broadly in line with the D-1 demand forecasting incentive. The incentive is due to expire on 31 March 2015.

Performance against the incentive

2.4. So far, NGG has outperformed the incentive target in every month of the scheme, except in December 2013 when the average demand forecast error increased to 20 mcm (shown in figure 2 below). The average forecast error for the period from April 2013 to January 2014 was 12.5 mcm which is around 22 per cent below the target. This indicates a significantly greater level of accuracy for these forecasts than has been achieved in the three years prior to introducing this scheme. Given the benefits of more accurate forecasting previously highlighted by stakeholders we consider that this greater level of demand forecasting accuracy has allowed shippers to more accurately balance their own portfolios. This more accurate balancing should ultimately feed through to cost savings for consumers.

2.5. NGG has highlighted a number of drivers behind its outperformance of the target. These include more predictable storage behaviour during the summer period to restore stock levels, milder weather patterns, investment in enhanced forecast modelling and a better understanding of offshore maintenance with their associated implications on supply and demand patterns.

2.6. After conducting our own initial analysis, we agree with NGG in its consideration that factors such as favourable weather patterns this year could have been an important driver behind outperformance. Historically we have seen a strong correlation between the weather (and consequently demand levels) and forecast error. The extent to which NGG's performance against the incentive resulted from factors within and outside of its control will be an important consideration for determining our policy going forward. This is the case both for the parameters of any incentive and on aspects of the design such as the extent to which the incentive can target factors within NGG's control and reduce the impact of external factors. We will work with NGG and stakeholders to develop a greater understanding of this balance and what it means for the design of the incentive going forwards.

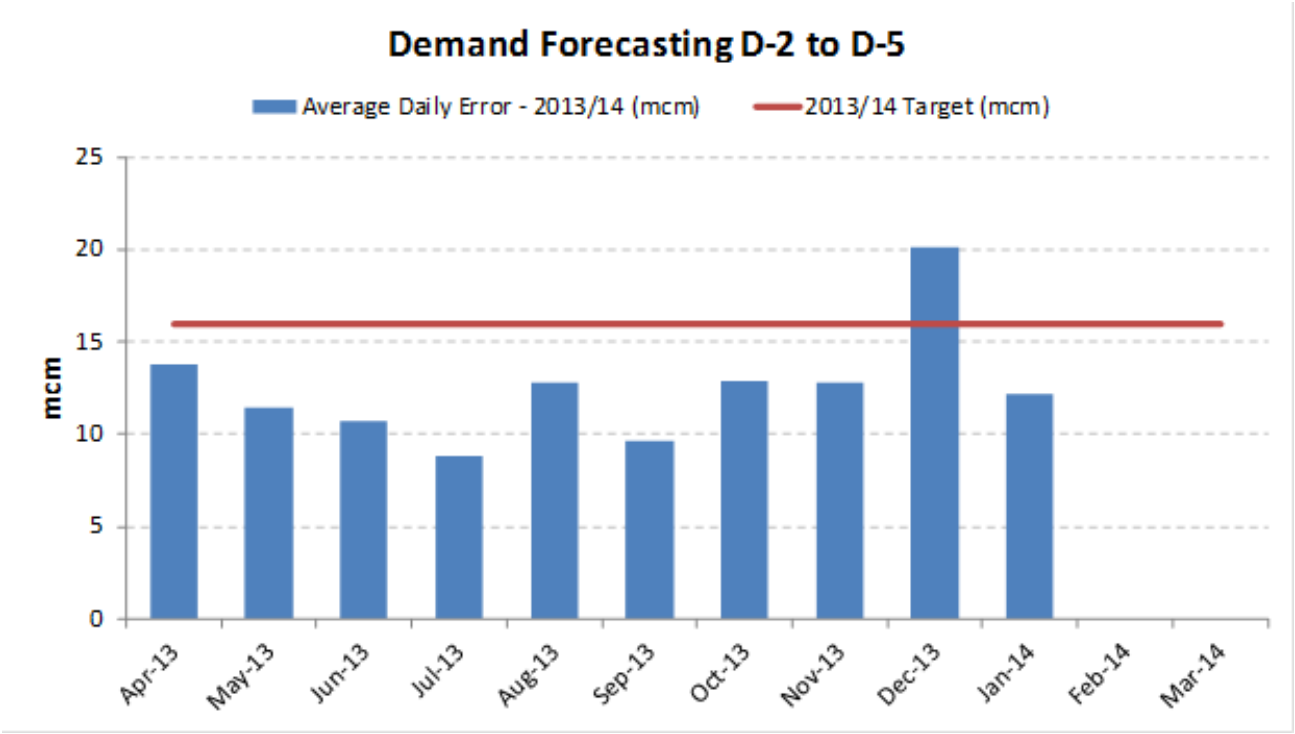

Figure 2: D-2 to D-5 forecasting incentive performance

Options going forward for the D-2 to D-5 demand forecasting incentive.

2.7. As part of this review we want to understand whether the incentives promote the behaviours that are beneficial to industry and ultimately consumers. In this consultation we seek stakeholders' views and comments on the usefulness of NGG's D-2 to D-5 demand forecasts, how the incentives could be improved going forwards and the value that further improvements would bring.

2.8. Following further analysis of NGG's performance and consideration of stakeholder views, we will assess whether any changes are needed to the current incentive. For example, if we find that the incentive has had a positive impact on NGG's advance forecasts but could be better targeted towards benefits for the industry and ultimately consumers, we may retain the high level principles of the incentive but make some tweaks to the design. For instance, we may consider the benefits of changing the target to a percentage rather than absolute target weighted towards days of high demand. Alternatively we may maintain the same parameters but tighten the incentive target thus presenting a more challenging level of forecasting for NGG to achieve.

2.9. We welcome stakeholders' views on the best actions in relation to the D-2 to D-5 demand forecasting incentive going forwards.

3. Maintenance incentive

Question 7: Have you experienced improvements in NGG's maintenance planning and re-scheduling processes after the introduction of the incentive? Where possible, please provide specific examples/evidence to support your answer. How have you benefitted from these changes and how do these benefits from improvements feed through to consumers?

Question 8: Are there any ways in which you think the maintenance incentive could be improved? Do you think the targets set the appropriate weighting between changes in maintenance days and minimising the length of maintenance works?

Question 9: What value would (further) improvements in NGG's maintenance planning and re-scheduling bring to you, and ultimately consumers?

Design of the incentive

3.1. NGG is required to carry out maintenance of network assets on the national transmission system (NTS) in order to ensure safety and security of the network and to ensure that the network can be operated economically and efficiently. In order to carry out maintenance, it is sometimes necessary for NGG to restrict access to part of the network or reduce the flexibility available. This can affect a number of industry participants who depend on access to the NTS (eg gas fired power stations and gas storage facilities). NGG publishes maintenance plans to provide notice to NTS customers of maintenance periods with the intention of minimising industry disruption.

3.2. As with the D-2 to D-5 forecasting incentive, we introduced the maintenance incentive following stakeholder input. This suggested that changes to NGG's behaviour in this area could result in benefits for consumers by providing more accurate information to stakeholders regarding maintenance periods, and by minimising the time taken for maintenance works.

3.3. We set the maintenance incentive to encourage NGG to plan and carry out system maintenance works effectively and efficiently. We incentivised NGG to plan its maintenance works as accurately as possible so that NTS users would have more clarity on maintenance periods allowing them to more effectively plan their own activities. We also incentivised NGG to optimise the time it spends carrying out maintenance works so that access to the NTS would be restricted for as short a period as possible.

3.4. Under this incentive we set targets on the number of times NGG changes its maintenance plans (the maintenance change target). We also set an incentive on the length of the actual maintenance works (maintenance days target) undertaken

for valve operations[5] and in-line inspections[6] (ILI). The incentive is due to expire on 31 March 2015.

3.5. In introducing the incentive we noted that NGG driven changes to timings could result in financial loss to NTS users, ultimately introducing additional costs for consumers. However, as part of this target, we allowed flexibility for NGG to accommodate changes to its maintenance plan when requested by NTS users. We designed the target for changes against the maintenance plan based on NGG's historical performance. As a result, we set the incentive at 14.5 per cent of overall planned maintenance days in a particular maintenance year. This resulted in a target of 6.24 days for 2013-14. For any maintenance day change above or below the target, NGG is rewarded or penalised £50k subject to an overall cap and floor of ±£0.5 million (i.e. a total of ten changes in either direction from the target).

3.6. We set the maintenance days target to encourage NGG to reduce the length of its short and long ILI runs and valve operations. We established benchmarks for each type of maintenance works covered by the incentive (see table below) against which the actual target is set each year. For each day by which NGG exceeds the target it is subject to a penalty of £20k. It achieves a reward of £20k for each day by which it beats the target. NGG is subject to an overall cap and floor of ±£1 million against the incentive (ie a total of 50 days difference in either direction from the target).

Incentive year	Target for each ILI Short run	Target for each ILI Long run	Target for Valve Operations
2013-14	4.23	5.53	44.65
2014-15	4.23	5.53	44.65

Table 2: Maintenance days incentive target

Performance against the incentive

3.7. So far NGG has made no changes to its maintenance plan since we implemented the scheme, and has therefore outperformed against the maintenance change target. NGG highlighted that it has introduced new processes and sign off procedures for its maintenance planning in response to this incentive, thus making its planning more accurate. This suggests that the incentive has led to a change in NGG's behaviour as the number of changes compared to previous years when the SO was not incentivised has declined substantially (from 22 notices of maintenance changes in 2012-13 to zero in 2013-14). Previous engagement with stakeholders suggests that this should have benefitted NTS users by allowing them to better plan their own maintenance works and outage periods against NGG's system maintenance plan.

[5] Valve operations are the works necessary to undertake an inspection of valves on the pipeline system.
[6] In-line inspections are the works necessary to examine a section of the pipeline system. Short ILI runs refer to the inspection of a section of pipeline system which is shorter than 10 km, whereas long-ILI runs refer to an inspection of a section which is longer than 10 km.

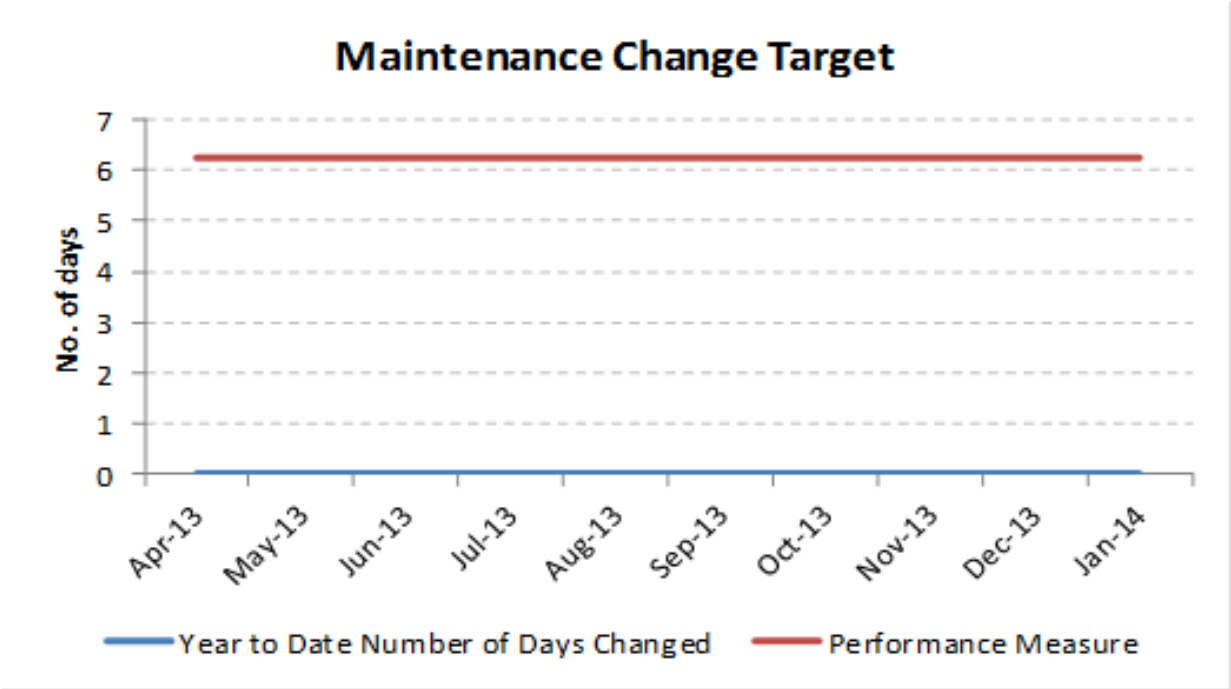

Figure 3: Maintenance change incentive performance

3.8. NGG is also expected to outperform its maintenance days target. It expects to complete all of the maintenance works in 31 days which is 41.3 days shorter than the target of 72.3 days for 2013-14. The reduced number of maintenance days should benefit NTS users by minimising the number of days in which their own operations are affected by NGG's maintenance processes.

3.9. The main area of improvement has been NGG's performance against the valve operations benchmark. NGG reported that it expected to complete this work in six days compared to the benchmark of 44.65 days. However, it noted that outperformance was due to a number of factors, including characteristics of planned maintenance policy and the efficient alignment of its planned works to customer led requirements (ie planned outages). NGG suggested that this allowed it to carry out a number of valve operations without needing to call a maintenance day.

3.10. We will be continuing to review the key internal and external drivers behind NGG's performance against the maintenance change and maintenance days target to draw conclusions on the impact on the design of the incentive going forward.

Options going forward for the Maintenance Incentive

3.11. In this consultation we seek stakeholders' views on the value they place on this incentive. In particular, we are interested in understanding stakeholders' experiences regarding NGG's maintenance planning and efficiency of carrying out maintenance works following the introduction of the maintenance incentive. We

would like to know if system users have experienced improvements and if so, how these improvements feed through to benefits for consumers.

3.12. We note that the inclusion of a separate maintenance days and maintenance change target introduces a natural driver for NGG to balance the benefit it could derive from reducing the number of maintenance days against the penalty it would have to incur for making a change to its maintenance plan. We consider that including incentives for both maintenance changes and number of maintenance days benefits system users who value both a reduction of the number of maintenance days taken but also accuracy of the maintenance plans ahead of time. The improved efficiency of system users should ultimately lead to consumer benefits through reductions on bills. We are interested in the views of stakeholders in relation to the balance that they place on these sometimes conflicting activities and the extent to which the current balance between these incentives is effective. These views will feed into our design of the incentives going forwards.

3.13. Following further analysis of NGG's performance and our consideration of stakeholder views, we will develop our policy regarding the design of the maintenance incentive. For instance, if we find that the improvements in NGG's performance are a result of enduring process improvements, we may consider tightening the incentive target in order to drive further efficiency improvements. We may also consider the balance between the potential for rewards and penalties to NGG in relation to the maintenance change and maintenance days target.

4. Greenhouse gas (GHG) emissions incentive

Question 10: Do you believe having a financial incentive continues to be appropriate? What other form of incentive might ensure that NGG remains incentivised to minimise GHG emissions where possible?

Question 11: Do you believe that the current, downside only, structure of the incentive is appropriate if we continue with a financial incentive? If not, what do you think would be the most appropriate structure for this incentive from April 2016?

Question 12: Are there any ways in which the GHG emissions incentive could be improved?

Design of the incentive

4.1. As SO, NGGT vents gas as part of its operation of the system. This results in leakage of methane (a potent greenhouse gas (GHG)). As part of our 2013 incentives, we continued to place an incentive on the volume of NGG's GHG emissions in order to ensure that it is incentivised to reduce harmful gas emissions. The GHG emissions incentive encourages NGG to minimise the amount of natural gas it vents from its compressors whilst operating the system. Under this incentive, we set a target for the quantity of natural gas that NGG emits. NGG pays a penalty if it emits more than the target. NGG has to pay a penalty for any tonne of natural gas emitted above the target. This penalty is set at the Department for Energy and Climate Change (DECC)'s non-traded carbon reference price and takes account of the global warming potential of methane (21 times the global warming potential of CO2 over a 100 years time horizon). NGG does not receive an incentive payment if it emits less than the target.

4.2. We set the target based on an initial baseline of 3007 tonnes of methane a year minus an efficiency factor of three per cent for each of the three years of the scheme, with the first year target being 2917 tonnes. Unlike for the D-2 to D-5 demand forecasting and maintenance incentives, we established the GHG emissions incentive to run for three years until 31 March 2016.

4.3. The incentive only includes gas vented from the compressors on the system and does not include other parts of the system where gas can be vented such as compressor block valves. However, we put in place a scheme of work for NGG to develop a better understanding of gas venting levels from sources other than the compressors with a view to expanding the GHG incentive to these other potential sources of emissions when considering the future of the incentive.

Performance against the incentive

4.4. The total amount vented so far this year by NGG's compressors has been 2755 tonnes of natural gas, 94 per cent of the annual target which we set at 2917

tonnes for 2013-14. NGG suggest that these venting levels were partly due to compressor unit testing in preparation for winter as well as increasing volatility of supply and demand sources.

4.5. We do not yet have the data for the final two months of the scheme year but have typically observed higher venting levels in the winter season. If this trend continues, NGG is likely to underperform against the target and face a penalty. NGG estimates suggest that the penalty is likely to be in the region of -£400,000 to -£1,000,000.

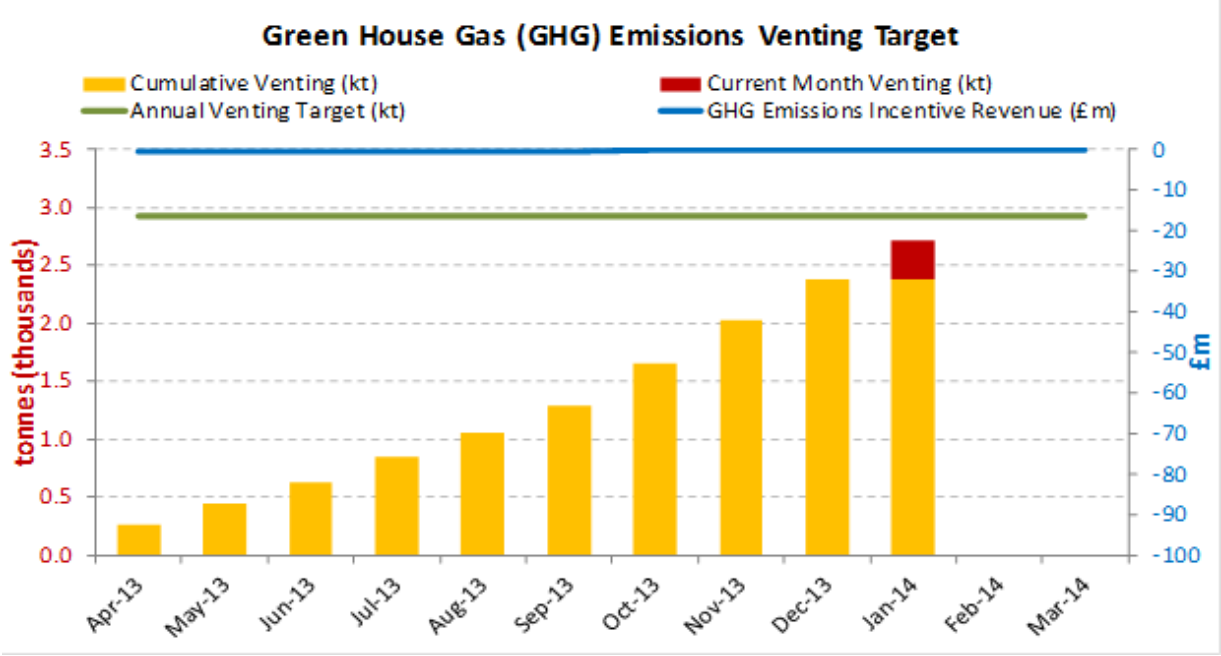

Figure 4: Greenhouse gas emissions incentive performance

Options going forward for the GHG emissions Incentive

4.6. Ofgem's principal duty is to protect the interests of present and future consumers. As a general principal, we deem that minimising GHG emissions in system operation enhances environmental sustainability and therefore is in the interests of current and future energy consumers.

4.7. As part of our Final Proposals document we expressed our minded to position to propose a five year scheme that restores an upside incentive for NGG. We made this conditional upon NGG:

- identifying the levels of GHG emissions for block valves, seals and compressors,
- providing a satisfactory methodology for calculating GHG emissions; and

- providing independently verified emissions data under the new incentive,

where the above conditions would need to meet generally accepted GHG accounting principles[7].

4.8. We also requested that NGG complete a scheme of work aimed at improving its understanding of gas venting. This scheme of work consisted of five objectives with the intention of developing sufficient information to enable us to expand the scope of the incentive to include other causes of gas venting beyond compressors.

4.9. Through the scheme of work NGG has found that there might be gas leakage from the compressor block valves which is potentially of a larger magnitude than standard operational venting from compressors. NGG has proposed to undertake two research and development projects under the network innovation allowance (NIA) framework to effectively provide an accurate measurement methodology and to investigate opportunities to reduce the levels of leakage encountered. Considering the findings that are uncovered through work to assess the sources of gas leakage (whether under the proposed NIA projects or under the original scheme of work), we will assess whether it is appropriate to expand the incentive to cover other sources of venting as we were minded to do in our Final Proposals document.

4.10. If we find that uncertainty around the levels of methane vented by NGG is too high, we might want to explore alternative approaches towards incentivising a reduction of NGG's emissions. Alternatives include the introduction of a reputational incentive or putting in place licence conditions requiring NGG to take certain actions to mitigate the levels of GHG emissions, either alongside or instead of a financial incentive. However, we would need to be mindful of the strength of any alternative incentive for NGG to minimise gas leakage. Furthermore, this could reduce the incentive on NGG to develop the robust methodology for measuring GHG emissions and developing a fuller understanding of the sources of gas emissions as it was tasked with at the time of Final Proposals.

4.11. We would like to hear from stakeholders regarding their views on the GHG incentive. We are also interested in any other considerations that we may need to take into account when considering design of the incentive in the future.

[7] GHG accounting describes the way to inventory and audit greenhouse gas (GHG) emissions.

Appendices

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Appendix 1 - Consultation Response and Questions

1.1. We would like to hear the views of interested parties in relation to any of the issues set out in this document.

1.2. We would especially welcome responses to the specific questions which we have set out at the beginning of each chapter heading and which are replicated below.

1.3. Responses should be received by **15 May 2014** and should be sent to:

Leonardo Costa
Wholesale Markets Performance
9 Millbank, London, SWP1 3GE
0203 263 2764
soincentive@ofgem.gov.uk

1.4. Unless marked confidential, all responses will be published by placing them in our library and on our website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. We 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.

1.5. 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.

1.6. Next steps: Having considered the responses to this consultation, we intend to develop our Initial Proposals for publication in summer 2014.

CHAPTER: One

Question 1: Do you agree with the proposed assessment criteria for this review?

Question 2: Are there any other specific incentives-related policy issues you think we should consider as part of this review? What are they and what benefits could they bring for consumers?

CHAPTER: Two

Question 3: How useful have you found the D-2 to D-5 demand forecasts so far? To what extent do you use or rely on them?

Question 4: What value would (further) improvements in the accuracy of D-2 to D-5 demand forecast bring to you?

Question 5: How do you think the D-2 to D-5 demand forecasting incentive could be improved? How would any proposed changes to the incentive feed through to benefits for consumers?

Question 6: Does the current target strike the right balance between a challenge and opportunity for reward for the gas SO?

CHAPTER: Three

Question 7: Have you experienced improvements in NGG's maintenance planning and re-scheduling processes after the introduction of the incentive? Where possible, please provide specific examples/evidence to support your answer. How have you benefitted from these changes and how do these benefits from improvements feed through to consumers?

Question 8: Are there any ways in which you think the maintenance incentive could be improved? Do you think the targets set the appropriate weighting between changes in maintenance days and minimising the length of maintenance works?

Question 9: What value would (further) improvements in NGG's maintenance planning and re-scheduling bring to you, and ultimately consumers?

CHAPTER: Four

Question 10: Do you believe having a financial incentive continues to be appropriate? What other form of incentive might ensure that NGG remains incentivised to minimise GHG emissions where possible?

Question 11: Do you believe that the current, downside only, structure of the incentive is appropriate if we continue with financial incentives? If not, what do you think would be the most appropriate structure for this incentive from April 2016?

Question 12: Are there any ways in which the GHG emissions incentive could be improved?

Appendix 2 - Glossary

A

The Authority/Ofgem/GEMA

Ofgem is the Office of Gas and Electricity Markets, which supports the Gas and Electricity Markets Authority (The Authority or GEMA), the body established by Section 1 of the Utilities Act 2000 to regulate the gas and electricity markets in Great Britain.

C

Cap

The maximum incentive payment the SO is permitted to receive as part of an incentive scheme (this may also be subject to a 'sharing factor').

F

Floor

The maximum loss the SO can make as part of an incentive scheme (this may also be subject to a 'sharing factor').

L

Licence conditions (obligations)

Obligations placed on the network companies to meet certain standards of performance. The Authority (GEMA) has the power to take appropriate enforcement action in the case of a failure to meet these obligations.

N

National Grid Gas Plc (NGG)

The licensed gas transporter responsible for the gas transmission system, and four of the regional gas distribution companies.

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

Outputs

What the system operators are expected to deliver.

Storage (gas)

Installations owned by Gas Distribution Networks (GDNs) and storage capacity contracted from third parties e.g. salt cavities, liquefied natural gas (LNG), storage vessels and gas holders. Gas storage is required to balance diurnal and seasonal variations in supply and demand.

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. NGGT is the SO of the gas NTS for GB.

V

(Compressor) venting

Operational emissions from the gas compressors for the purposes of maintaining system pressure.

Appendix 3 - Feedback Questionnaire

1.1. We consider 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:

Andrew MacFaul
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Ofgem
9 Millbank
London
SW1P 3GE
andrew.macfaul@ofgem.gov.uk