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By email: soincentive@ofgem.gov.uk

David Wildash
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24th November 2014

Dear Leonardo,

RE: Ofgem Consultation on Gas System Operator Incentives Review – Initial Proposals

Thank you for the opportunity to respond to the above consultation. This response is made on a non-confidential basis on behalf of National Grid Gas Transmission (NGGT) who own and operate the National Gas Transmission System (NTS) of Great Britain.

Our response below is constructed in line with the associated sections of the consultation, recognising that a number of the questions request our customers' views rather than our own. We therefore feel it is appropriate for us to respond in general to each section of the consultation rather than against specific questions.

We have reviewed the Initial Proposals against our Incentives Business Plan issued in July 2014 and have undertaken further analysis against the proposals to support this response. The conclusion from this exercise has led us to reassess our business plan proposals to look to address some of the concerns that Ofgem have presented.

In summary:

- We support the evidence based approach Ofgem have used to propose a future Demand forecasting target error of 13.7mcm. This strikes the right balance of recognising current performance improvements whilst continuing to place an ambitious target on our future forecasting performance.

- We believe that the overall level of tightening within the Maintenance Incentive proposals does not recognise the additional risk profile that such an incentive places on our business. The targets need to be reassessed to create a more balanced risk / reward profile. To recognise the desire for continuous improvement against recent performance, whilst balancing against the corresponding risk profile, we set out that the minimum target for the Maintenance Days scheme needs to be set at 17 days and for the Maintenance Change scheme target to be revised to 10%.

- We are concerned with the continued proposal for a downside only Greenhouse Gas (GHG) Emissions incentive and the proposed target level. We believe that the current scheme design breaks the key principles for setting System Operator (SO) incentives. Based on historical evidence we believe that the lowest a baseline could be set at is 2897 tonnes.

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- We welcome the potential introduction of a Discretionary Research incentive for GHG and look forward to working with Ofgem to define the structure of this.

We look forward to continue working with our customers, stakeholders and Ofgem in agreeing appropriate incentive structures that help focus us to deliver outputs that are most valued by the industry and consumers alike.

Yours sincerely,

[by email]

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Gas Incentives Development Manager

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Section 1 – Introduction and Objectives

As System Operator (SO) we are accountable for delivering the key outputs valued by our customers and stakeholders, whilst ensuring we remain focused on the efficient operation of a safe and reliable gas transmission network, offering value for money for end consumers.

We recognise the challenge of setting incentives that align to the objectives of the review, which minimise future windfall gains and losses that may arise from the changing dynamics of operating and maintaining the system of the future. We therefore agree with the insertion of a further review point for the three incentives in three years' time so as to reassess the value of the schemes.

In formulating the Business Plan we published in July we considered the key incentive criteria as set out in Ofgem's initial consultation. In responding to Ofgem's Initial Proposals we continue to be mindful of the requirement for the suite of future incentives to:

- Promote behaviour that is in the interest of existing and future gas consumers;
- Promote efficient operation of the system;
- Strike the right balance between challenging and achievable targets;
- Have a value proportionate to potential benefits.

Whilst on the whole we believe that Ofgem's Initial Proposals are commensurate with the review criteria we continue to have particular concerns over how the GHG and Maintenance incentive targets have been derived. We consider that the target efficiencies have been set at values that do not consider the associated new risk envelopes and the achievability of the targets, therefore creating a skewed risk / reward profile.

We have further reviewed the published draft Licence conditions and agree that these are consistent with the emerging policy set within the Initial Proposals. We do nevertheless have a number of modifications to the suggested legal text, which we consider to be important to fully reflect the intricacies of the new scheme design. We will work with Ofgem to agree these changes as part of the associated Licence change process.

Section 2 – Demand Forecasting

Overview

We publish Demand Forecasts to assist the industry in making efficient decisions to balance supply and demand positions. During the RIIO-T1 consultation period and in our engagement with customers as part of our Business Plan development we were informed that customers continue to value increased accuracy of forecasts provided prior to the day ahead, particularly under more challenging operational conditions, where risks of prohibitive imbalance costs are higher. As this was a newly introduced incentive we support the requirement to further review the incentive framework prior to the end of the RIIO-T1 period. The continuation of the current scheme design (save for a tightening of the target) will allow a consistent review of the incentive at a future review date.

Performance Improvements

Since the introduction of the new incentive we have invested in a number of enhancements to our forecast modelling and operational processes. In our Business Plan we recognised that the introduction of these changes, coupled with favourable background external conditions, have resulted in improved accuracy of our forecasting against historical levels. We therefore attributed, within our plans, an equal weighting between these two elements to explain our performance in the first year of the new incentive.

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Following on from our submission, we have assisted the work undertaken by Ofgem to ascertain a more quantified assessment of the impact these process enhancements have had on our forecasting accuracy.

Scheme Target Setting

We have reviewed the output from the modelling and support the evidence based approach being adopted by Ofgem in setting a new target. We believe that this modelling approach is sufficiently robust enough to currently set a valid target. On a more enduring basis, there are still some challenges that need to be overcome if future targets are to be set using the same methodology. A few of these challenges are set out in Appendix 1.

We published in our Business Plan a number of graphs illustrating the increasing Supply/Demand volatility we have witnessed over the last five years, especially around CCGT and Storage sites. Accounting for this increased volatility in our forecasts remains a key challenge through the remainder of the RIIO-T1 period. Setting a target of 13.7mcm against this increasingly volatile operational background continues to place significant challenge and will necessitate us to create further process and modelling improvement to maintain our existing levels of accuracy.

The target level proposed amounts to a significant 14% reduction against the current target. We have considered this efficiency level against our historical performance and the future challenges we expect and have determined that this level, whilst creating a challenge on our operations aligns with the principles of the review and is therefore set at an appropriate level.

Section 3 – Maintenance

Overview

We are required to carry out maintenance on the National Transmission System (NTS) in order to ensure safety and security of the network. During the RIIO-T1 incentive engagement period our stakeholders asked us to improve flexibility to respond to customer requests, improve communications on planned maintenance and minimise disruption by aligning outages with customer requirements. The resultant incentive was subsequently split, with two discrete elements to the scheme, one being the reduction in the number of changes made to the Maintenance plan (Maintenance Change scheme) and one targeting a reduction in the number of days taken on specific maintenance activities (Maintenance Days scheme).

Performance Improvements

To deliver the outputs required under the scheme we have undertaken a number of process and organisational changes. An enhanced engagement process was implemented with our customers allowing us to better assess maintenance activities against customer outage plans. As a direct result we have been able to bundle together a number of maintenance activities within customer outage periods to support minimising impact of our work on our customer's processes.

Maintenance Change Scheme

Through our process improvements we have reduced the number of Maintenance Days we have called in comparison to historical levels, therefore reducing the impact on our customers. Where we have successfully aligned work within customer outages, we have introduced a new "Advice Notice" process to provide clear communications on the agreed maintenance work and time lines, helping support enhanced customer contact and scheduling.

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Throughout the engagement with our customers as part of the incentive renegotiation process, there has been clear ongoing support for the improved service we have delivered and the certainty provided for customers operations. Our performance has been strong at both reducing the number of Maintenance Days called and in ensuring that we have not instigated any changes to agreed Maintenance Days within the scope of the incentive.

In creating the concept of the Advice Notice we have driven improvements for the customer but have simultaneously reduced the value under the current design of the scheme. Furthermore, through this innovation we have increased our risk profile. This is because we are liable for any costs associated with moving our maintenance activities to align with customer led changes to their outages[1]. We therefore considered in our Business Plan that it was appropriate for the target level for changes to remain at the current level of 14.5%.

Whilst we welcome the inclusion of Advice Notices into the scheme, the proposed reduction in the change target down to 7.25% introduces an asymmetric Risk / Reward framework. This does not reflect the value that customers see in this part of the scheme and does not proportionally reflect the benefits that customers accrue from having maintenance certainty.

We have assessed the Initial Proposals and have challenged ourselves with regards to how we can further improve. Commensurately we are now proposing that the target should be reduced to 10% which will help deliver a framework which:

- Provides a challenging target which simultaneously encourages continuous improvement but also recognises the untested inclusion of Advice Notices into the scheme.
- Creates a framework which more readily reflects and balances the risk profile that we have to manage
- Creates a framework which under a heavy maintenance plan (100 days +) gives a symmetrical scheme with a potential £0.5m Cap and Floor.

Maintenance Days Scheme

In our Business Plan we proposed to remove In-line-inspections from the coverage of the scheme due to the physical limitations on reducing the time period taken to complete this work whilst retaining safe levels of operation. We were pleased to see that Ofgem agreed with our assessment that this element of the scheme should be removed. We proposed to retain the incentive on our Remote Valve Operations (RVO) but reduce the target number of days[2] to 33.25.

Ofgem's Initial Proposals recommend a weighted value to be set on performance in the number of Maintenance Days required for RVO's. This gave a target of 11 days. We note the aim of the new proposed target, to encourage continuous improvement in performance against the initial period of operation, but believe that such a target does not appropriately recognise the year on year variability of customer outages that directly influences our ability to minimise days taken.

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1 For example in the 2013/14 maintenance period, we facilitated requests from our customers for an amendment to 12 days of our planned maintenance programme. The majority of these related to the Advice Notice Mechanism. Whilst it is in the spirit of the incentive for us to respond flexibly to requests, there is nevertheless an operational implication and cost on us to re-plan the associated work and resources to a more convenient time period.

2 The reduced target reflects a change in policy on maximum flow rates permitted through valve bypasses. This has reduced the number of RVOs that have to be maintained.

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The proposed 11 day target is overly reliant on the output from the first two years of performance in setting an enduring efficient volume of days. This aligns with concerns raised by stakeholders responding to the initial consultation who question whether an initial two year period is sufficient to determine efficient baselines.

In meeting our maintenance requirements there are a number of actions we can take to avoid causing an outage to be required on a customer's contractual service. This includes:

- Alignment of our maintenance with a customer outage
- Bundling the RVO with other planned work on the NTS
- Agree to undertake a partial valve movement where circumstances permit

The degree that we can undertake these actions, not only depends on our internal planning processes but the opportunities that arise due to the varying maintenance plans of our customers, and indeed the volume of our other maintenance activities.

In our Business Plan we reasoned that the target should be reduced to 33.25 days. This represented a revised RVO maintenance base of 35 days, with a 5% efficiency reduction. We continue to challenge ourselves with regards to how we can continue to reduce the number of Maintenance Days we call for undertaking RVO maintenance, reflecting what is within our control to influence.

On further assessment of the actions that we can undertake, we believe that the maximum this target should be reduced to is 17 days. This target reflects the historical opportunity that we have had to align with customer outages and to bundle work. This represents a challenging target which continues to encourage further innovation and process excellence around how we enhance our visibility and awareness of customer outages and the interactions with our plan.

We continue to think it is appropriate that performance against the target days should be maintained at a flat rate of £20k a day, allowing consistency in how we evaluate the impact on our customer base of any actions that we undertake.

Section 4 – Greenhouse Gas Emissions

Overview

The current System Operator incentive seeks to minimise the release of gas from compressors and their associated pipe work wherever safety, reliability and operational decisions permit. The incentive is structured as a downside only incentive with a 3% year on year efficiency challenge applied. As such the target for the last year of the current incentive period in 2015/16 will be 2744 tonnes.

This target has been established through taking a compounding efficiency factor from an outturn target set at least 5 years ago. This was prior to the scheme of works and against an operational background that differs significantly from the one we see today. We believe it is appropriate to reassess a new baseline that is commensurate with the outturn historical levels but considers additional evidence and the applicability of the original efficiency level posed.

Alongside the Incentive a scheme of works was introduced in 2011 as a special licence condition (C28, which became 8D) to undertake a detailed review of specific asset venting characteristics. The intention was that the output from this work would support assessment of the scale, scope and potential for future investment decisions to minimise emissions and be used to drive future SO incentive structures with upside potential. Evidence of the outcome of the scheme of works was included within our Business Plan.

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One of the outcomes from the scheme of works was to provide the ability to further deconstruct the different drivers of compressor emissions. The enhanced data has shown the contributing factors to the overall level of emissions including actions to maintain safety, meet environmental legislation and to support asset reliability.

Ofgem have indicated in their Initial Proposals that they are not sufficiently persuaded that it would be appropriate to move to a symmetrical incentive due to continued perceived weakness in the underlying processes and associated data. Following a scheme of works designed to address these uncertainties in the original scheme, we now have significant concerns that the lack of detail around this further threshold could lead to an inefficient balance of effort to support further operational improvements to the underlying performance of the scheme. We would therefore welcome a clear directional understanding on the future intentions of Ofgem with regards to the policy behind the delivery of Environmental outputs.

Compressor Emissions Target Level

Over the last six years we have been financially incentivised to reduce the volume of our compressor emissions. Outturn performance has ranged between 3000 and 3443 tonnes per annum over the last four years[3], giving an average figure of 3280 tonnes. The proposal for continuing with a target of 2744 tonnes fails to create a baseline that is achievable and one which has been constructed using historical evidence.

Similarly to the Demand Forecasting analysis we have taken an evidence based approach to try and derive what an efficient target could be. We assessed the monthly emission levels for April 2010 through to August 2014 and found that on a twelve months rolling basis that the minimum level of emissions has amounted to an equivalent annual position of 2897 tonnes. Based on this historic evidence we have concluded that there would have been less than a 2.5% probability of us being able to have driven emissions below 2846 tonnes. An extract of this analysis is provided in Appendix 2.

Whilst we continue to support the principles set in our Business Plan recommendation we also recognise the drive to set a scheme target that creates an enhanced level of challenge on us. The quantified "best case" 12 month rolling performance equates to 2897 tonnes. We are therefore proposing that this should be used as the baseline which represents the minimum realistically achievable target. This would provide an extremely challenging baseline especially when considering upward pressures on emissions from changes to our compressor fleet and meeting the increased within day flexibility requirements that our customers are placing on the NTS.

If it is not possible to agree on a revised Ex Ante target then it may be necessary to consider a reputational scheme which relies on a post event efficiency review. This could take the form of an independent assurance audit on the efficiency of our emissions. This would continue to protect the interests of the end consumer and customers alike.

Discretionary Research Incentive

We welcome the introduction of a discretionary research incentive and are keen to work with Ofgem to create an appropriate framework that is sufficiently understood and of a value that is commensurate with the resources required to pursue. We further believe that the merits of this scheme should be considered independently from the main Greenhouse Gas incentive. This will provide transparency to our stakeholders allowing us to be judged on our performance in delivering the key RIIO environmental output.

[3] An updated calculation mechanism was introduced in 2010/11. Data from this period onwards has been used in calculations

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To this end, we propose that the following should be considered in the design so that a clear framework is produced that supports our active participation in this incentive:

- Create assurance on access to funding mechanisms (which may include NIA) to recover costs incurred in pursuing the research agenda, irrespective of the outcome.
- Creation of a governance structure that is proportionate to the size of the scheme so as to minimise administrative costs.
- Increase the size of the potential discretionary reward to £700k[4], commensurate with the benefit that can be accrued by consumers.
- Expanding the scope of the incentive so that any projects that have been undertaken since the closure of the scheme of works (8D) can be considered in Ofgem's, success criteria.
- Set out defined simple and transparent success criteria which recognise the difficulty in isolating the specific value of discrete projects in driving down emissions.
- Allow not only System Operator actions to be included within the scope but also any asset solutions that further the aim of the research.

[4] Average annual emissions have historically been 3280 tonnes. To drive this down to 2744 gives a reduction of 522 tonnes. Valuing each tonne at £1364 gives an annual value of £731,000.

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Appendix 1

We consider that the conclusions drawn by Ofgem in setting a new scheme target are consistent with the model results, although there are a number of specific considerations which have not been possible to model which have an influence on performance. Examples of this include:

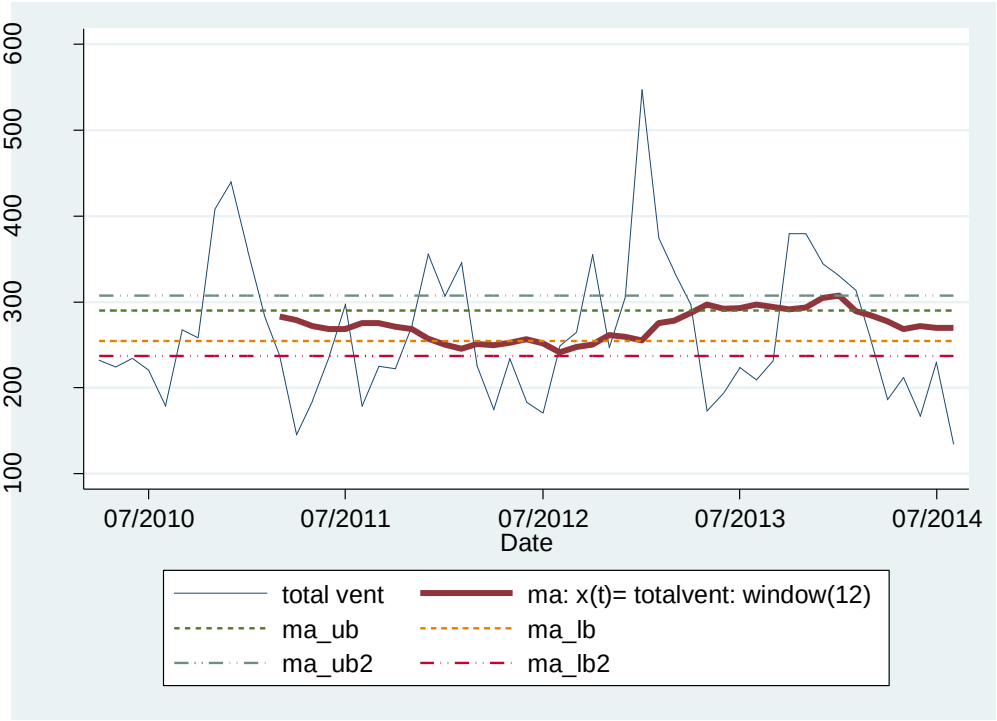
- There were some limitations on the data available, for example actual rather than forecast CWV's were used. Whilst we agree that this can be used as a proxy for assessing performance on a "like for like" basis our forecasting process is undertaken against forecasted CWV's, which are by nature different to the actual.

- Forecasting performance is impacted by external events which drive specific commercial responses from customers which are both difficult to forecast and cannot be easily modelled. Whilst the extent of the data set available should ensure that such factors do not invalidate any assessment, they do influence the forecasting processes and can have significant impacts on day to day accuracy.

- The models used have been sensitive to inclusion/exclusion of individual factors.

Appendix 2

Using a four year historical data set we took the month to month total vent levels to create min/max and average levels of venting over a 12 month rolling period. We then applied standard deviation rules to determine an associated vent band at 1 and 2 standard deviations. The results of this analysis are depicted in the graph below.



- The total vent line shows the actual level of emissions plotted against the full data set covering each month of the period from April 2010 through to July 2014.

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- The lower and upper bands for the standard deviation results are displayed as “ma_lb” and “ma_ub”.

- The 12 month average vent level line is plotted to show how this range deviates across the full review period.

In undertaking this piece of analysis we can conclude the following.

- The average vent level per month between April 2010 and August 2014 was 272 tonnes, which equates to an annual equivalent level of 3266 tonnes.

- The minimum 12 month rolling vent level over the entire period has been 2897 tonnes.

- The maximum 12 month rolling vent level over the entire period has been 3690 tonnes.

- 1 and 2 standard deviations have been applied to the data set. From this two sets of bands can be created:
    - SD1 band – Lower 3056, Upper 3476 (68% confidence)
    - SD2 band – Lower 2846, Upper 3687 (95% confidence)

Appendix 3

Our associated Business Plan submission can be accessed at the following link under the Incentive Development section.

National Grid Incentive Renegotiation - Business Plan submission