

National Grid Industry Consultation Shallow Incentive Review

Published June 2017

Executive Summary

National Grid Gas Plc (National Grid) undertakes the role of System Operator (SO) for the high pressure gas National Transmission System (NTS) in Great Britain. National Grid is currently operating within the first price control under the RIIO regulatory framework model (Revenue = Incentives + Innovation + Outputs). This first RIIO price control period (known as RIIO T1) runs from 1 April 2013 to 31 March 2021.

As part of the RIIO T1 framework, incentive schemes were introduced focusing on delivering the outputs that customers and stakeholders highlighted were of value to them - this paper is concerned with the Gas SO shallow incentives. Some of these incentives apply throughout the duration of RIIO T1 however some incentives are designed to be reviewed periodically throughout the price control period for continual assessment of effectiveness and iterative modifications.

The three shallow incentives to be reviewed are maintenance, demand forecasting for two-to-five days ahead and greenhouse gas emissions. At the last interim review, concluded in March 2015, Ofgem updated the shallow incentive schemes to apply until 31 March 2018.

As such the shallow incentives are due to be reviewed and the outputs from the review are set to be implemented from 1 April 2018. National Grid held initial discussions with Ofgem as to the scope of the review in April 2017. The purpose of this document is to enable customers and stakeholders to provide feedback to National Grid on the initial proposals and to enable National Grid to build upon stakeholder and customer comments received. The papers ets out incentive frameworks that are designed to encourage us to innovate in the delivery of key outputs valued by stakeholders and customers.

All our proposals are for three years until the end of RIIOT1. For the second price control (RIIOT2), Ofgem and National Grid will use the data from RIIOT1 to assess the incentive portfolio as part of the RIIOT2 process.

For more detailed information on how the current incentive schemes operate, please visit; http://www2.nationalgrid.com/uk/industry-information/gas-system-operator-incentives/incentives/

Please send any comments on these proposals by 7 July 2017 to matthew.kleanthous@nationalgrid.com or joshua.bates@nationalgrid.com

Overview of the Proposed Changes

Greenhouse Gas Emissions Incentive

We are proposing to make some changes to this scheme to ensure increased effectiveness in driving the right behaviours. To ensure the incentive mechanism is fit for purpose, the proposed mechanism will only include performance measures that are under National Grid's direct control. We are also proposing a change from the downside only incentive to a symmetrical incentive with an upside.

D-2 to D-5 Demand Forecasting Incentive

National Grid are not proposing any changes to this incentive scheme – we intend to continue to forecast D-2 to D-5 as is, using the current mechanism. We believe that the target remains challenging due to increased supply and demand volatility.

Maintenance Incentive

National Grid is proposing to change this incentive scheme in order to deliver further savings to our customers, following feedback that this has driven additional value for our customers. National Grid is proposing to extend the scope of maintenance activities included within the incentive, which will encourage better alignment of maintenance with customers, resulting in fewer disruptions to the customer and increased network availability.

Potential New Incentives

Although separate from the shallow incentive review, we are consulting on two new incentive areas within this document. The details are below.

Operating Margins Incentive

Separately from the shallow incentive review, we are also consulting on whether Operating Margins should remain as a reputational incentive or return to a risk sharing financial incentive.

Additional Demand Forecasting

We are also interested in whether customer would value demand forecasts further ahead (e.g. D-10) or additional publication times.

If customers indicate an interest in operating margins and additional forecasts we will consult separately on this in more detail.

Greenhouse Gas Emissions (GHG)

Current Position

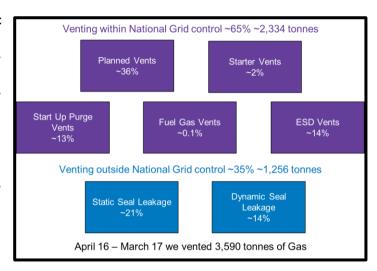
The GHG incentive is a mechanism where National Grid is given a target for emissions from compressors and a financial penalty if emissions exceed the target.

Compressors are necessary for the safety of the network and to keep the network available for our customers. Currently the GHG incentive mechanism includes performance measures that are outside the control of National Grid and its processes. As the incentive schemes are designed to drive the right behaviours and provide an incentive to optimise processes, we firmly believe that the GHG incentive performance related metrics should be modified as part of this review.

Further Information: Why compressors vent

Compressors vent for seven operational reasons; planned vents, starter vents, start-up purge vents, fuel gas vents, Emergency Shutdown (ESD) vents, static seal leakage and dynamic seal leakage.

Seal leakage venting is unavoidable as technologically, seals have to leak in order to perform their function. The leakage increases during periods of high operation (high flows).



Proposed amendments to the incentive scheme

We are seeking to revise the incentive to only include the following five mechanisms of venting which are in our control;

- Planned Vents
- ESD Vents
- Fuel Gas Vents
- Starter Vents
- Start up Purge Vents

We propose to remove the following sources of venting which are out of our control;

- Dynamic seal leakage
- Static seal leakage

If the above change is implemented then we propose a reduction to our targets in line with a baseline set by Ofgem.

We propose a symmetrical incentive capped and collared at £1m. Emissions would continue to be costed at the government published non-traded carbon price. Having an upside to the incentive will ensure that greenhouse gas targets become a stronger element of the network operational strategy and will encourage further performance improvements even when emissions are close to or below the target.

Q. Do you support our proposed amendments to the scheme?

Demand Forecasting D-2 to D-5

Current Position

We would welcome feedback on our demand forecasting services to help us provide the most useful information to our customers. We are proposing to continue to forecast D-2 to D-5 as is, using the current mechanism and cap and collar targets. The targets remain challenging due to increased supply and demand volatility.

Proposed amendments to the incentive scheme

No proposed changes to this incentive.

However we welcome your feedback on how you are using the forecast so we can continue to improve our service to you.

- Q. What do you use the forecast for and how often do you use the forecast?
- Q. Does the forecast provide a benefit to your organisation?
- Q. How would you feel if this incentive was to end, meaning we would no longer forecast D-2 to D-5?

Maintenance

Current Position

National Grid is only being incentivised to align Remote Valve Operations (RVOs) within the current incentive scheme. The incentive scheme exists to minimise disruption to customers, hence reducing revenue lost, by incentivising National Grid to align maintenance with other parties. By aligning the maintenance days with external parties' works, National Grid takes on risk as it has no control over cancellations, re-work and site unavailability.

National Grid estimated RVO alignment to be in the region of £1.5m worth of revenue to the customer last financial year, 2016/17. RVOs make up approximately 14% (38 maintenance days) of the total maintenance activities that will be undertaken on the NTS in 2017/18. The other 86% (243 maintenance days) of the total number of maintenance days are made up of other types of maintenance and estimated to be worth £24m to the customer. Incorporating an increased percentage of maintenance activities under the incentive mechanism would deliver significant returns to customers.

Further Information: Value Delivered to Date

In the financial year 2016/17, National Grid estimate that having set up a new team to work on optimisation and stakeholder engagement, £3.6m worth of saving was delivered to the customer through both incentivised activities and non-incentivised maintenance activities. We believe that the proposed changes to the incentive scheme would provide customers with reassurance that this value would be maintained and even increased over the last three years of RIIO T1.

Proposed amendments to the incentive scheme

Change of days scheme is to be continued in the current format.

Use of days scheme;

- Alignment of (RVO) to be continued in current format.
- Additional maintenance activities to be included to incentivise customer aligned maintenance.

Q. Would the proposed changes to the scheme maintain and/or enhance value for your company?

Q. Do you support our proposed changes?

^{*}At a high level, we have estimated these values based on electricity and gas prices combined with power station running costs.

Operating Margins

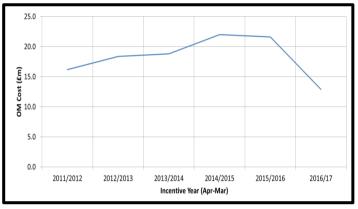
Current Position

In order to maintain system pressures in the gas network, National Grid may need to utilise Operating Margins gas. This is gas procured for use under specific circumstances that can include:

- periods immediately after a major supply loss (before other measures become effective);
- plant failure, such as pipe breaks and compressor trips; or
- run-down of the system during an emergency.

The cost of procuring Operating Margins is passed on to customers. Therefore, Ofgemincentivise National Grid to minimise the costs incurred by customers. Over the past 15 years the incentive has either been financial or reputational.

Currently the incentive is reputational because, when it was reviewed in 2012, both National Grid and Ofgem felt that there was too much uncertainty over costs to develop a fair incentive. National Grid and Ofgem intended to later review whether it should return to a financial incentive. There is now more clarity with the market and therefore how an incentive could operate.



From the graph it can be seen that operating margin costs increased from 2012/13, but since 2015/16, they have been reduced by around 40%.

Proposed amendments to the incentive scheme

We are reviewing whether reintroducing a financial incentive would help deliver further customer value.

The cost savings since 2015/16 have been achieved as a result of a number of factors, most importantly stimulating a more competitive market through industry engagement to attract new service providers.

We believe that returning to a financial incentive, whereby National Grid has a stake in both the risks and the rewards of any cost changes will help ensure that Operating Margins continue to deliver value to customers and further incentivise National Grid's performance in this area.

Q. Do you agree with the principle that National Grid should share in both the financial risk and reward in order to further facilitate efficient procurement of operating margins?

Additional Demand Forecasts

Separately, we are also keen to hear whether customers would also value demand forecasts for a longer time frame and additional publication times.

If there is sufficient customer demand, we could explore providing forecasts for timeframes such as:

- 8 weeks ahead
- 13 days ahead
- 10 days ahead

If there are any other specific forecasts or frequencies of publication that would be of value to you please contact us with the details on the final page.

Q. Would you value an additional forecast? If so, what timeframe(s)?

If customers would value additional forecasts we propose that National Grid be remunerated through an incentive similar to the existing demand forecasting incentives. This would ensure that National Grid would be rewarded on the quality of the output.

Q. Do you agree with the principle that National Grid should be remunerated for any additional forecasts through an incentive mechanism?

Who to contact

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