



Making a positive difference
for energy consumers

Company Secretary
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Dear Company Secretary

Decision to approve National Grid Gas plc's Greenhouse Gas Emissions Investigation Mechanism Business Plan, pursuant to Special Condition 8J.3 of the Gas Transporter Licence

Under Special Condition 8J (SpC 8J) of the Gas Transporter Licence, National Grid Gas plc (NGG) is required to submit a business plan on greenhouse gas (GHG) investigation activities ('the business plan') for our¹ approval. The submission of the business plan is part of the Greenhouse Gas Emissions Investigation Mechanism (GHGIM_t).

In January 2016, we issued a decision² to extend the deadline for NGG to submit the business plan from 31 January 2016 to 31 July 2016 to allow more time for a suitable project to be identified. Following this extension, NGG submitted the business plan to us on 28 July 2016.

In this letter, we set out our decision to approve the business plan.

The Greenhouse Gas Investigation Mechanism

The GHGIM was introduced in the Gas System Operator Incentive Review 2015-18. It is designed to incentivise NGG as the system operator (SO) to undertake investigation activities relating to venting³ on the National Transmission System (NTS). Under this incentive scheme, NGG can be awarded up to £500,000 for undertaking GHG investigation activities that ensure long term value for consumers.

SpC 8J sets out the obligations of NGG in respect of GHG investigation activities under the GHGIM_t. NGG is required to submit a business plan to us for approval setting out details of activities to be undertaken (or where the NGG has already undertaken such activities) in relation to the understanding, measurement and mitigation of venting.

¹ References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document to refer to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work. This decision is made by or on behalf of GEMA.

² <https://www.ofgem.gov.uk/publications-and-updates/direction-extend-deadline-national-grid-gas-plc-submit-business-plan-greenhouse-gas-emissions-investigation-mechanism>

³ Where venting is the release of natural gas from a Relevant Compressor (as defined in Section F, paragraph 3D.39 of National Grid Gas Plc (NTS) Gas Transporter Licence Special Conditions) as a result of starting a compressor, purging a compressor, depressurising a compressor, or the leakage of gas through a seal around the shaft of a compressor.

We published Guidance on Submissions⁴ for the GHGIM in September 2015. This includes guidance on what we expect to see in a completed business plan.

The business plan

NGG has put forward an innovative project which will seek to trial a cost effective methodology which could enable NGG to monitor and control fugitive emissions from above ground installations on the NTS. The project also aims to improve the understanding of both planned and unplanned venting events as it improves the monitoring of known and unknown emissions on the NTS.

This emission monitoring system will gather and process continuous distributed methane sampling and weather data to produce daily emission maps. If successful, the project will be able to produce a near real-time methane monitoring system for vent and leak detection. This would be an improvement to the current monitoring system which uses a rolling 4 yearly program of emission surveys which only provide a 'snap-shot' of emissions and are limited to ground level accessible parts of the network.

The trialled system will be used on previously inaccessible, above ground level fugitive emission points on the NTS and the portability of the equipment will be validated. There is therefore a potential to monitor a wider area of potential emission hotspots in a more cost effective way. This will also be the first use of a distributed emission sampling method which aims to quantify venting in a more accurate way.

The expected benefits relate to the accurate identification of methane fugitive emissions from compressor stations and the resulting targeting of 'controllable' emissions to be reduced. The proposed investigation will allow the robustness of these estimates and targets to be considered for the first time. Current methodologies estimate that each compressor station on the NTS currently emits 8 tonnes of methane per year and on average there are 3 compressor units per site. NGG's estimate of 1 tonne of methane per compressor unit per year therefore means there is 5 tonnes of fugitive emission per site to be targeted as a benefit of installing a continuous fugitive emission monitoring system.

Our decision

We have reviewed the business plan and are satisfied that it meets the requirements as described in SpC 8J of the Gas Transporter Licence as well as the Guidance document.

The submitted business plan sets out the project's potential to increase NGG's understanding of the sources of venting by measuring fugitive emissions in a much more accurate way and across more areas on the NTS than is currently achievable. The improved accuracy of the identified sources of venting should therefore ensure that the remediation actions will be more targeted and prioritised according to their cost and benefit. This would deliver long-term carbon benefits in the form of reduced methane emissions. The potential portability of the monitoring system would further improve cost efficiency.

Next steps

In completing the submitted project, NGG is required to submit a statement to the Authority by 31 December 2017, outlining:

- a. How it has fulfilled its obligations under Special Condition 8J, and
- b. How the greenhouse gas investigation activities will ensure long-term value for money for consumers.

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https://www.ofgem.gov.uk/sites/default/files/docs/2015/09/the_greenhouse_gas_investigation_mechanism_guidance_document_2015_0.pdf

Upon receipt of NGG's statement, we will assess the extent to which the greenhouse gas investigation activities will ensure long-term value for consumers. If appropriate, we will then issue a direction by 31 March 2018 specifying our assessment of the value of GHGIM_t.

This letter constitutes notice for the reasons for our decision pursuant to section 38A of the Gas Act 1986.

Yours sincerely,

Mark Copley – Associate Partner

For and on behalf of the Gas and Electricity Markets Authority