

The Greenhouse Gas Investigation Mechanism: Guidance on Submissions

Guidance

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Overview:

This document provides guidance to National Grid Gas Plc (NGG). It explains the application process, requirements and evaluation criteria of the Greenhouse Gas Investigation Mechanism (GHGIM_t).

Context

The Greenhouse Gas Investigation Mechanism (GHGIM_t) was introduced in the Gas System Operator Incentive Review 2015-18. It is designed to incentivise the system operator (SO) to research new techniques that enable National Grid Gas Plc (NGG) to both improve understanding and allow for cost-effective mitigation of greenhouse gas (GHG) venting¹ on the National Transmission System (NTS). Under this incentive scheme, the Authority² will determine the value of GHGIM_t by assessing the extent to which greenhouse gas investigation activities will ensure long-term value for money for consumers. NGG can be awarded up to £500,000 for undertaking value adding greenhouse gas investigation activities during the 2015-18 incentive period.

Associated documents

National Grid Gas Plc (NTS) Gas Transporter Licence Special Conditions (14 Aug 2015)

<https://epr.ofgem.gov.uk/Content/Documents/National%20Grid%20Gas%20Plc%20-%20Special%20Conditions%20Consolidated%20-%20Current%20Version.pdf>

Gas System Operator incentives review 2015-18: Final proposals (19 March 2015)

<https://www.ofgem.gov.uk/publications-and-updates/gas-system-operator-incentives-review-2015-18-final-proposals>

¹ 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.

² References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work.

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Document Summary

Application Process Overview – explaining the timings we will use to evaluate NGG’s proposed Business Plan and Research Statement.

Business Plan Guidance – describing the content that needs to be provided in NGG’s initial application.

Statement Guidance – describes what should be included in NGG’s summary of research activities following approval of the business plan.

Award Notification – explaining how Ofgem will make decisions regarding awarding incentive payment.

1. Application Process Overview

1.1. Special Condition 8J of NGG'S transporter licence details what information should be contained in the application submitted to the Authority for approval.

1.2. The application process will take place in two parts, first a business plan outlining intended research activities should be submitted for approval. This should be submitted to the Authority by 31 January 2016. NGG may amend the approved business plan from time to time subject to the approval of the Authority.

1.3. Secondly, if NGG's business plan is approved it shall submit a statement to us by 31 December 2017 outlining how it has:

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

1.4. 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 issue a direction specifying our assessment of the value of GHGIM_t, up to the value of £500,000 and what incentivisation funds should be awarded. This direction will be issued by 31 March 2018.

2. Business Plan Guidance

Chapter summary

This section is aimed at providing an outline of what we expect to see in a completed business plan, the initial component of the application process. However, an application should not be limited to the criteria below if additional information is deemed relevant to the application process.

2.1. Special Condition 8J of NGG'S transporter licence details what information should be contained in the business plan submitted to the Authority for approval. All applications must be made by completing a business plan.

2.2. We would not expect the business plan (with appendices) to exceed 30 pages in total. It should contain, within the five following sections, the information specified within Special Condition 8J(2) of NGG's transporter licence:

- Application Summary
- Application Description
- Application Business Case
- Regulatory Issues
- Appendices.

Section A: Application Summary

2.3. This section should contain the following:

- Application title.
- Estimated total cost - the amount that NGG expects to spend on investigation activities.
- Application outline - summarises the issue or the area of improvement that the investigation activities are designed to target. It should identify steps taken, the desired impact and timeline associated with the activities.

Section B: Application Description

2.4. This section should contain the following:

- A high-level description of proposed investigation activities explaining:
 - The issue or area of improvement that the investigation activities seek to address.
 - An indication of if the proposed scheme of works will be integrated into normal business functions. This would include an assessment of these criteria that gives an understanding of the viability of the proposals beyond 2017.
 - The projected impact of investigation activities to deliver long-term benefit and value to consumers.
- A technical description of investigations or proposed future scheme of works which complements the high level description and provides greater depth at a more expert level.

Section C: Application Business Case

2.5. NGG must present a clear business case justifying the merits of undertaking the investigation activities. Broadly the business plan should set out:

- Details of the activities to be undertaken or have been undertaken for the purposes of Special Condition 8J.2 and any additional benefit to consumers.
- Why whether the proposed activities are innovative and not viable under business as usual operations.
- A high level Cost Benefit Analysis of undertaking the proposed activities.
- A project plan.
- Risks associated with implementing the proposed activities.
- Identify any potential conflicts of interest with NG's other business interests.

N.B. We will consider any innovation which reduces GHG emission to eligible for consideration.

2.6. NGG must **demonstrate how the proposed activities achieve the purposes of Special Condition 8J** to receive any incentive revenue. Hence, NGG must demonstrate that the proposed activities:

- Increase understanding of venting¹ (including the causes and driving factors of venting) which are within and outside the control of NGG.

- Identify ways to increase transparency through accurate measurement of venting.
- Identify ways to deliver long-term carbon benefits through cost effective mitigation of venting within the control of NGG.

2.7. Explain if the proposed activities **deliver additional environmental or wider benefits for consumers**

2.8. **Why the proposed activities are innovative and not viable under business as usual operations.** Including but not limited to:

- A qualitative description of the potential benefits that is expected from the innovation.
- How the proposed activities will have a direct impact on gas system operations. Which can include:
 - Confirmation of counterfactual costs.
 - The potential scale of the innovation that could be provided to establish total benefits.
 - Timescales assumed.
- Evidence and references for the calculation of the environmental benefits of the proposed activities. Providing an estimated quantification (including a simple methodology) of potential carbon benefits arising from the schemes.
- Evidence that the proposed activities are not viable under business as usual operations or have been funded by other funding sources such as the Network Innovation Allowance (NIA).
- For example, an investigation into replacing infrastructure which will result in the reduction of emissions using known solutions, such as replacing cast iron gas mains, will not be considered an improvement beyond BaU activities. Any activities which will receive reward payment will need to go beyond what is already known to industry.

2.9. A high level **Cost Benefit Analysis** of undertaking the proposed activities. This analysis should show:

- How the proposed activities will provide cost effective benefits for consumers over both the near and long-term.
- The potential return that the consumer can expect from the investment.
- How the total costs are estimated, the potential inaccuracies of the figures and any assumptions made.
- A justification that the scale/cost of the proposed activities is appropriate in relation to the benefits that are expected to be captured.
- The process that will be employed to ensure that the proposed activities are delivered at a competitive cost.

2.10. A high level project plan including timeframes and evidence that these can be achieved.

- The timeline expected for these benefits to materialise.
- An estimate of the project's costs over the period.

2.11. **Risks associated with implementing the proposed activities.**

- Include any benchmark information and explain how these affect the parties involved.
- Identifying all appropriate risk mitigation processes, including risk management, mitigation and contingency plans.

2.12. Indicate whether NGG considers there to be any conflicts of interest, leading to other commercial benefits.

NGG must explain:

- The measures NGG will employ to minimise the possibility of cost overruns or shortfalls resulting in indirect benefits.
- How the cost incurred implementing the proposed activities can be managed and reported to Ofgem.
- The relationship between the total amount requested for reward and the total cost of the proposed activities, referencing the above criteria.

Section D: Regulatory Issues

2.13. NGG must explain whether it believes the proposed activities will require:

- A derogation or any other decision from the Authority under any relevant licence provision; or
- Changes to the regulatory arrangements.

2.14. NGG should also raise any potential negative impact of the proposed activities on customers, and any financial or logistical implications on shippers or other industry participants. NGG should also set out any consultations or discussions it has had with customers regarding the proposed activities.

2.15. Any expected requirement for a derogation or change to regulatory arrangements will be taken into account by the Authority when deciding on whether to approve funding for any applications.

Section E: Appendices

3. Statement Guidance

Chapter Summary

This section is aimed at providing an outline of what we expect to see in a completed Statement summarising research findings. However, an application should not be limited to the criteria below if additional information is deemed relevant to the application process.

- 3.1. Special Condition 8J of NGG'S transporter licence details what information should be contained in the statement submitted to the Authority for approval.
- 3.2. All requests for reward payment must be made by completing a Statement.
- 3.3. We do not expect that the Statement with (appendices) will exceed 30 pages in total. It should include:
 - A summary of the activities carried out.
 - Details of how NGG has fulfilled the obligations under Special Condition 8J.
 - How the greenhouse gas investigation activities will ensure long-term value for money for consumers.
 - An update of the project plan and cost benefit analysis provided in the approved business plan.

Section A: Summary of activities undertaken

- 3.4. This section should contain the following:
 - Application title.
 - Total cost - the amount that NGG has spent on investigation activities and how much it expects to spend implementing its findings.
 - Application outline – summarises the investigation activities which were undertaken. It should outline what was found and how the findings from the activities have been implemented and their impact.

Section B: Statement Description

3.5 Being mindful of brevity, this section should contain a description of investigation activities explaining:

- The issue or area of improvement that the investigation activities address.
- The outcomes or findings from the investigation activities which have been undertaken. This should include proposals for future projects schemes of works that have been encouraged by investigation activities.
- The criteria that would need to be met to implement proposed scheme of works into normal business functions. This would include an assessment of these criteria which gives an understanding of the viability of the proposals beyond 2017.
- The impact of investigation activities at the time of completion and the expected impact of proposed future scheme of works on consumers after implementation. It should be noted that all research must be completed before 1 December 2017; however, the results of the research need not be implemented in this timeframe.

3.5. A technical description of investigations or proposed future scheme of works which complements the high level description and provides greater depth at a more expert level.

Section C: Updated Business Case

3.6. This section should update what was provided to us in Section C of the business plan. The cost benefit analysis as well as project plan should be updated to reflect actuals. As well, any new risks or changes should be captured.

Section D: Appendices

4. Award notification

Chapter Summary

This section is aimed at providing an indication of what we will consider in the evaluation process. However, NGG should not limit itself based on the outline below.

4.1. In order to receive the incentive reward payment, NGG must submit a business plan to the Authority no later than 31 January 2016 and complete the research activities outlined in this plan no later than 1 December 2017. After receiving a business plan, the authority will determine within two months to approve or reject the proposal. And after receiving the Statement summarising research activities carried out, (based on an approved business plan) we will determine what amount of reward payment should be allocated up to £500,000 by 31 March 2018.

For both the evaluation of the Business Plan as well as rewarding incentive payment, we will look at closely:

4.2. How Special Condition 8J has been satisfied:

- We will evaluate how the activities undertaken increase knowledge and lead to a deliverable and positive change.
- We will look at the credibility of both the plan and mechanism in place to determine the reliability of results and reproducibility of the work undertaken.
- The extent to which NGET's understanding of venting has been increases as a result of investigation activities.
- How the proposed activities differ from current practices, evaluating the extent of the innovation compared to business as usual practices. We are interested in how the proposed activities will deliver benefits in greater volume and/or faster than the most efficient alternative currently in use in GB.
- We will evaluate what are the potential additional benefits and results, what the next steps are and how will this changes business as usual going forward.

4.3. How consumers will benefit from the investment:

- We will look at the cost of planned activities and will evaluate if these activities will be done in an economic and efficient way providing value to consumers, evaluating the resultant change with respect to resources put in to implementing the activities.
- Significant importance will be placed on the cost benefit analysis and NGG's ability to demonstrate that the activities undertaken will provide

value to consumers. It is important to clearly define the elements involved, as laid out in point 4 of Section 2.6, and provide a strong quantitative case for the potential benefits.

- We will question if:
 - This adds value.
 - The cost is proportionate to its usefulness.
 - Is there a substitute for the innovation, can the work be carried out a lower cost to consumers under business as usual operations.

4.4. The timescales associated with the planned project:

- All relevant research must be completed by 1 December 2017 in order to be eligible to claim under this mechanism. However, the implementation of the activities based on the research does not need to be completed by this date. We are interested in both the short-term and also long-term benefit of innovation to consumers. This can be linked to the cost benefit analysis showing how the proposed activities will impact consumers over the length of its lifecycle.