Gas Network Innovation Competition
Screening Submission Pro-forma

Notes on completion
Before completing this form, please refer to the Gas Network Innovation Competition (NIC) Governance Document, which details all of the information that you are required to provide. Please use Verdana size 10 font in your submission. The text entry areas are suggestions and the size of each text area can be altered if you need to provide more information in one section and less in another. In all cases the full-completed submission should not exceed **11 pages** in total. **Ofgem will publish all the information contained within the Screening submission**.
Funding Licensee
Scotland Gas Networks and Southern Gas Networks
Network Licence Project Partners
None
Funding Licensee area *(or where the licensee does not operate in a specific area the geographic location(s) of the Project)*
Scotland Gas Networks and Southern Gas Networks
Project title
Real-Time Networks
Project Summary
The Licensee must provide an approximate Project start and end date.
The energy industry is changing. The transition to a lower carbon economy, at reduced cost, while maintaining security of supply is a key challenge for GB. The gas network has a major role to play in the future energy mix however, in order to do so it needs to be flexible. The objective of this project is to develop a 'Real-Time Network' to support the reduction of cost throughout the gas supply chain and facilitate the integration of renewables. This will be achieved through the installation of selected sensing technologies, associated hardware, software and infrastructure in a representative section of the gas network. The data captured from this project will seek to re-write outdated industry assumptions and provide a new scalable means of network management through the refinement of network modelling and methods that underpin all network investment. Furthermore, it will demonstrate the flexibility and understanding that is required to enable the integration of renewables and evolving network demands. The project will be a world first, and will build on a number of previous studies and projects under the NIA/NIC. It is proposed that the project duration will be three years, with a start date of 1 April 2016.
Estimated Project funding
The Licensee must provide an approximate figure of the total cost of the project and the NIC funding it is applying for.

Total cost of Project	£7.389m	**NIC funding requested**	£6.65m
Cross Sector Projects only: Requested funding from Electricity NIC or NIA?	*If yes, please specify* None		

Problem(s)

The Licensee must provide a narrative which explains the Problem(s) which the Project is seeking to address.

GB gas industry network analysis models underpin the design of all capital and replacement projects and are a significant driver of industry and network operating costs. All network simulation models rely on a complex set of mathematics that by nature are recursive and iterative. The base assumptions for these models were taken from studies in the 1980s, and applied to the network as a whole. Whilst this method has served the industry well, it is outdated and previous restrictions on 'real' data management have now potentially been lifted, with the advent of 'big data' and cloud storage. Developments in sensing technologies have also progressed and harvesting of data is becoming more accurate and cost effective.

As a distribution network we have a duty to maintain security of supply in a 1:20 condition, which is defined as 'the load that will be exceeded only once in 20 years (of 152-day load research winters), i.e. once in 3040 days. Therefore, the mean and standard deviation are used along with standard statistical theory to calculate the point on the normal distribution that there is a 1 in 3040 probability of exceeding', whilst maintaining gas quality. In order to plan for this, we need to translate this duty into a simulation model, with forecasting capability for both current and future requirements.

Gas demand, flow, quality, pressure and temperature are all required for accurate modelling. One of the fundaments of the current modelling process is the calculation for diversity. Diversity of demand, in short, is the calculation applied to quantify the probability of more than one customer utilising their gas supply at any particular time. The historic calculations that drive diversity assumptions are based on central heating and hot water systems which would operate at consistent timings to heat water tanks and homes. The move to more efficient hot water and heating systems has resulted in shorter bursts of higher demand requirements meaning the likelihood of simultaneous demand usage is reduced the greater the number of customers. Conversely, the likelihood and impact on demand where there are a relatively small number of users, for example a single cul de sac increases. We are therefore understating diversity and overstating demand in large integrated networks, particularly larger diameter trunk mains and between pressure tiers, and duty on governors. We are also therefore overstating diversity at a local level, understating likely local demand.

Gas demand has changed radically due to improvements in the efficiency and responsiveness of heating technologies at both the domestic and the industrial level. Developments too in integrated renewables at the domestic and commercial level require evaluation. Gas powered fuel cells, micro CHP and gas hybrids and the installation of smart meters could revolutionise energy usage at the domestic level. The outdated or unproven assumptions for these variables have most significant influence on the operating pressure and the design parameters of network projects and investment.

Measurement of actual gas flow is now necessary not only at the macro level, but also at the micro level due to the increase in the network constraints from biomethane and other embedded entries.

Gas quality is a hot topic and there is a clear need for flexibility to manage different compositions of gas to minimise processing costs which is estimated to currently cost the GB gas consumer more than £300m per annum. The 'Opening up the Gas Market' project seeks to widen the Wobbe index to support a wider range of sources, including LNG, biomethane, CBM and Shale. In order to do this, it will be necessary to have appropriate sensing technology at a local level to ensure customers can be accurately billed for energy used.

Problem(s) - continued

The Licensee must provide a narrative which explains the Problem(s) which the Project is seeking to address.

Gas pressure and temperature (both of the gas and ambient) are key variables that are inexorably linked to demand and performance of the network. Pressure control systems and methodologies could be significantly enhanced to minimise network pressures, and therefore leakage, while maintaining security of supply.

Through the development of a Real-Time Network and the enhanced network performance data that this would afford, we believe that it could be demonstrated that the modelled demand could be reduced both locally and nationally. This would potentially have a very significant impact on the network analysis models and would influence every day network activities, including; design of increased insertion levels for replacement; reduced general reinforcement requirements; and reduced network operating pressures resulting in reduced carbon emissions from leakage.

At present network models are a snapshot in time, the development of a flexible and dynamic energy network is on the critical path to addressing the energy trilemma within which we truly understand consumer usage behaviour and optimise network management for both current and future uses.

Method(s)

The Licensee should describe the Method(s) which are being demonstrated or developed. The Licensee must outline how the Method(s) could solve the Problem. The type of Method should be identified where possible eg technical, commercial etc.

The Real-Time Networks project will be broken down into a series of delivery milestones with associated payment triggers and go/no-go project stage gates. Each element will focus on specific milestones with the opportunity to review and reassess before proceeding to the next. The elements are broadly as follows:

Element 01 - Selection, development, procurement and off-site validation of sensoring technologies & IT/Communications infrastructure.

Element 02 - IP/MP/LTS - Installation of sensoring technologies on area of Medway IP/MP (including Isle of Grain boil off gas MP feed). Evaluation and validation of sensor technology outputs in relation to sensor data quality, calibration and analysis against known network characteristics.

Element 03 - LP Installation of sensoring technologies on LP networks fed from Medway IP/MP (ie. Strood LP, Cliffe Woods LP etc.). Data capture and analysis against current industry modelling assumptions. Evaluate real-time operation scenarios.

Element 04 - Trial to include integrated renewable technologies and simulated non-conventional distributed sources. There may be an opportunity to utilise Smart Metering data, if available at this stage of the project.

Element 05 - Conceptual design of systems and software.

Element 06 - NTS/LTS/IP/MP/LP cross tier assessment of real-time system. Review of data collection and processing to determine suitability of forecasting and real-time assessments.

At the end of each element the project will seek to deliver an output and/or learning and value prior to progressing.

Funding commentary

The Licensee must provide a commentary on the accuracy of its funding estimate. If the Project has phases, the Licensee should identify the approximate cost of each phase. IGTs should indicate potential bid costs expenses.

The total project costs are estimated to be £7.389m based on experience and NIA funded feasibility study. As the details of the technology have not yet been confirmed, this costing is an approximation to with +/- 20%.

For each element (project gate), the estimated funding required will be as follows:

Element 01 – Approx. 15% of total project costs (15 months)
Element 02 – Approx. 30% of total project costs (18 months)
Element 03 – Approx. 30% of total project costs (19 months)
Element 04 – Approx. 15% of total project costs (24 months)
Element 05 – Approx. 5% of total project costs (6 months)
Element 06 – Approx. 5% of total project costs (6 months)

Total = £7.389m

Funding requested = £6.65m

The above figures are preliminary cost estimates and will be revisited and refined prior to the full submission. This is primarily due to the power, communications and sensing technology costs that will be subject to a competitive process during the bidding process. Prices from project participants will be fixed under contractual arrangements in the final submission.

The NIC bid preparation cost is estimated to be in the region of £170,000 which will be recovered under the NIA and will include legal costs, bid preparation, procurement events and travel.

Specific Requirements (please tick which of the specific requirements this project fulfils)

A specific piece of new (ie unproven in GB) equipment (including control and/or communications systems and/or software)	✓
A specific novel arrangement or application of existing gas transmission or/and distribution equipment (including control and communications systems software)	✓
A specific novel operational practice directly related to the operation of the gas transportation system	✓
A specific novel commercial arrangement	✓

Accelerates the development of a low carbon energy sector & has the potential to deliver net financial benefits to existing and/or future Customers

The Licensee must demonstrate that the Solution has the potential to accelerate the development of the low carbon energy sector in GB and/or deliver wider environmental benefits to GB Customers. The Licensee must demonstrate the potential to deliver net financial benefits to existing and/or future Customers.

As stated in the Gas NIC Governance Document, the Network Licensee must provide the following to demonstrate compliance with this criterion:

i. How the proposed Project will make a contribution to the Carbon Plan. In particular the Network Licensee should outline:
- *What aspects of the carbon plan the Solution facilitates;*
- *The contribution the roll-out of the Method across GB can have in facilitating these aspects of the Carbon Plan;*
- *How the roll-out of the proposed Method across GB will deliver the Solution more quickly than the current most efficient Method in use in GB; and/or*

ii. How the proposed Project could deliver environmental benefits to Customers; and

iii. The expected financial benefits the Project could deliver to Customers.

The gas network has a major role to play in decarbonisation. The project is targeting three areas; the first a direct reduction in leakage, the development of network management systems to facilitate the integration of renewable sources of gas and third to understand the impact of downstream renewables in demand and network management. Currently, the total leakage across all GB gas distribution networks is approximately 4.56Mtonnes of CO2e per annum. If a Real-Time Network can refine demand management through enhanced understanding of diversity then reduced operating pressures may be achievable. As an example 5% reduction in average system operating pressures results in a saving of 228,000 tonnes of CO2e per annum. Strood LP network has been identified as a trial site for the Real-Time Networks demonstration and, as an example, a 5% reduction in average system operating pressures would result in a saving of 10.15 tonnes of natural gas or 213.06 tonnes of CO2e per annum.

The Government's Carbon plan sets the UK's progress towards, and framework for meeting carbon targets. Currently, greenhouse gas (GHG) emissions caused by leakage from the UK's gas network are the most significant source of GHG emission from the UK network.

According to recent studies by Imperial College, London there is an enduring role for the gas network and this project may form a bridge to transporting sources of new, unconventional gases whilst supporting innovative heating solutions and transport. This project has been designed to deliver environmental benefits to GB gas customers through:

- A reduced requirement for network investments such as mains reinforcement and open cut replacements resulting in fewer excavations, reducing environmental impact through reductions in landfill as well as customer disruption
- The reduction of leakage and gas emissions through optimised operating pressures as a result of a greater understanding of changing customer demand and diversity across the pressure tiers
- Facilitation of the integration of renewable energy sources through an increased understanding of capacity requirements and demand characteristics
- Development a method to manage different compositions of gas within an integrated network

Accelerates the development of a low carbon energy sector & has the potential to deliver net financial benefits to existing and/or future Customers - continued

The expected financial benefits to customers can largely be divided into tangible benefits likely to be realised if the project is successful and the wider industry intangible benefits. We anticipate that if successful, the project could refine 1:20 demand forecasts reducing requirements for open cut mains replacement and releasing capacity to accept new connections without reinforcement requirements. All GDNs combined have been allowed £5,195.2m for mains replacement (Tier 1-3), £281.6m for mains reinforcement and £135.2m for regulator replacements under RIIO GD1. Strood LP, for example, has >100km of metal mains 14km of which are due to be replaced in the next 4 years. Approximately 20% of these replacement have been designed as open cut equating to approximately £135,000.

Further wider industry (intangible) benefits have been identified but at this stage not quantified, these include:

- Modelled embedded entry facilitating more unconventional gas sources
- Integration of renewable source of gas
- Enhanced forecasting for shippers and suppliers
- Advanced storage management

Delivers value for money for gas Customers

The Licensee must demonstrate that the Method(s) being trialled can derive benefits and resulting learning that can be attributed to or are applicable to the gas transportation system.

As stated in the Gas NIC Governance Document, the Network Licensee must provide the following to demonstrate compliance with this criterion:

i. What is the potential Direct Impact of the Project on a Network Licensee's gas network or on the operations of the GB System Operator;
ii. Justification that the scale/ cost of the Project is appropriate in relation to the learning that is expected to be captured;
iii. The processes that will be employed to ensure that the Project is delivered at a competitive cost;
iv. The expected proportion of the benefits which will accrue to the gas transportation system as opposed to other parts of the energy supply chain.

Sub-criterion v (the internal systems, procedures and processes used by the Network Licensee to identify Project Participants and Project ideas) should be covered in the 'Project Partners and external resourcing/funding' section, below.

The project is designed to provide greater visibility and understanding of network performance based on real-time data rather than outdated modelling techniques. If successful, benefits will be realised through reduced network investments from real-time data evidencing a refined demand data model particularly in areas impacted by diversification.

Currently demand models and forecasts are based on 'steady state' analysis and are essentially a snapshot in time. Diversity of demand is critical to network management and impacts particularly in large integrated networks and between pressure tiers. A Real-Time Network would allow us the re-write these assumptions, which could be theoretically applied to the whole network.

Increased competition within the GB gas market is key factor in reducing gas consumer's costs. Following the work carried out within the Opening the Gas Markets NIC project and the subsequent road map for GB roll out, the project will look to help effectively manage of a wider Wobbe range, of gases including LNG, biomethane, CBM and shale through an understanding of demand and capacity requirements. Wobbe is directly proportional to calorific value therefore the project will look to use sensoring to create accurate billing zones for differing gas compositions ensuring customers pay for the thermal energy they receive rather than quantity of gas.

Delivers value for money for gas Customers - continued

The location of the project has been designed to recognise the full value chain from LP distribution up to the boil off gas network entry point at Isle of Grain. This connection of tiers through real-time data facilitates a bottom up view of gas usage and capacity. To ensure the value achieved through our project partners, SGN ran a competitive process to seek the best solution both technically and economically. Following this, two companies were selected to run feasibility studies in parallel, discreetly of each other to further drive out competition and best value solution (NIA_SGN0067). These were then independently evaluated by IGEM.

Purchase of hardware or utilisation of resources for any of the works required will be completed through individual procurement processes. This process will allow for competitive pricing which will reflect value for the GB gas consumer.

Although the intention is that initial benefits achieved will equate directly to the gas transportation system, it is anticipated that the longer term advantages may, in the future become available to energy generators and distributors as well as customers who are driving towards demand response solutions.

A project management team will be in place to fully manage the works and costs incurred during the lifetime of the project.

Demonstrates the Project generates knowledge that can be shared amongst all Licensees

The Licensee must explain the learning which it expects the Method(s) it is trialling to deliver. The Licensee must demonstrate that it has a robust methodology in place to capture the learning from the Trial(s).

As stated in the Gas NIC Governance Document, the Network Licensee must provide the following to demonstrate compliance with this criterion:

i. What new knowledge is intended to be generated from completing the Project;
ii. What methodology will be used to capture results from the Project and how the Project's results will be disseminated to other Network Licensees; and
iii. Whether the Network Licensee wishes to conform to the default IPR arrangements as set out in Chapter 9. If the Network Licensee wishes to deviate from the default IPR arrangements it must outline the proposed arrangements, justify why the arrangements are more suitable than the default arrangements and justify how the new arrangements will deliver value for money for Customers.

The project will seek to prove that an existing LTS/IP/MP/LP system can be used to demonstrate real-time analysis identifying tangible benefits, such as a refined 1:20, reduced open cut mains replacements and other network strategic investments, rationalised network operating pressures and reduced leakage within the project lifetime. Longer term, it is hoped that the wider industry intangible benefits including a bottom up view on distribution capacity, advanced management of a wider range of new gas sources and the facilitation of integration of renewable energy sources may be realised.

The choice of demonstration trial locations have been selected as areas with specific characteristics suited to the project requirements including Isle of Grain boil off gas network entry point and holder stations allow demonstration and simulation of a distributed source. These locations areas are also believed to be statistically representative and scalable network examples ensuring that the method is replicable across GB.

All parties involved in the project will actively undertake seminars, presentations and publish results obtained during the course of the work. Learning dissemination activities are expected to align with the conclusion of each of the project work packages.

Demonstrates the Project generates knowledge that can be shared amongst all Licensees - continued

The key areas of learning the project intends to deliver include:

- Development and demonstration of sensor technologies including pressure, flow, temperature, calorific value and gas quality
- Development and demonstration of communications and cloud system satisfying the network's 'big data' requirements
- Conceptual design, development and demonstration of systems and software control package to integrate new sensor data and existing asset information
- A refined view of customer demand particularly relating to diversity
- Best practice for establishing a Real-Time Network from LP to LTS to allow a fully replicable model across GB

Various stakeholder engagement activities likely to include:

- A comprehensive report on the demonstration will be published in full and shared among all network licensees
- Production of a project film
- Presentation a key stakeholder events
- Formation of an external technical stakeholder group

The project will conform to default IPR arrangements.

Please tick if the project conforms to the default IPR arrangements set out in the NIC Governance Document?	✓

If the Licensee wishes to deviate from the default requirement for IPR then it must demonstrate how the learning will be disseminated to other Licensees and how value for money will be ensured. The Licensee must also outline the proposed alternative arrangements and justify why the arrangements are more suitable than the default arrangements.

How is the project innovative and with an unproven business case where the innovation risk warrants a limited Development or Demonstration Project to demonstrate its effectiveness.

Demonstrate why the Licensee has not previously used this Solution (including where the Solution involves commercial arrangements) and why NIC funding is required to undertake it. This must include why the Licensee would not run the trial as part of its normal course of business and why the Solution is not Research.

As stated in the Gas NIC Governance Document, the Network Licensee must provide the following to demonstrate compliance with this criterion:

i. Why the Project is innovative and has not been tried before;
ii. Why the Network Licensee will not fund such a Project as part of their business as usual activities;
iii. Why the Project can only be undertaken with the support of the NIC, including reference to the specific risks (e.g. commercial, technical, operational or regulatory) associated with the Project.

The Real-Time Network project looks to challenge industry orthodoxy in terms of management of demand, capacity, leakage, integration of renewable technologies and acceptance of distributed sources of non-conventional gases.
Throughout GB gas network analysis models are driven by snapshot in time data, processed through historical calculations driven by assumptions of demand derived in the 1980s.

The market for this innovative project is emerging as a result of advances in 'big data', communications and sensor technology. Along with the requirement for a flexible network suitable for integrating renewable technologies, all indicators suggest that this is the right time for a change in the industry planning process and a move to real-time modelling.

Due to the comprehensive changes to the as-is processes required to reach real-time modelling, and the uncertainty of success, this project would not be possible under business as usual activities. The complexity of bringing together innovations in sensors, communications, cloud storage and big data management, to work alongside existing developed technologies form the key technical challenges for this project.

How is the project innovative and with an unproven business case where the innovation risk warrants a limited Development or Demonstration Project to demonstrate its effectiveness - continued

The NIC funding mechanism will allow developments and demonstration of new technologies alongside those that are already established whether through previous studies under the NIA/NIC or research and development in the global gas industry. However, there are a number of risks that relate to this project:

- Diversification
- Early investment is required to carry out development on measurement of gas flow on a micro level alongside affordable options for gas quality and calorific value
- The timescales and locations surrounding the Smart Metering roll out are unconfirmed and questions still remain over the accessibility of data. This element is considered low risk as Smart Meter data is likely to be used to bolster data collected using sensor innovations and is therefore non critical to real-time modelling
- Many of the intangible, wider industry benefits will not be realised with the project lifetime. For example the development of a flexible network may lay the foundations for flexible/cross sector energy supply beyond the project horizon
- The use of a cloud based system to provide all our future big data needs is a novel arrangement which may redefine the way in which networks are managed throughout the GB gas industry. However, this is likely to provide both security and commercial risks which will need to be addressed and mitigated

Project Partners and external resourcing/funding

The Funding Licensee should provide a description of the internal systems, procedures and processes used by the Funding Licensee to identify Project Participants and Project ideas.

The Funding Licensees should also include details of any Project Partners, External Funders or Non-Network Licensees who will be actively involved in the Project and are prepared to devote time, resources and/or funding to the Project. If the Funding Licensee has not identified any specific Project Partners, it should provide details of the type of Project Partners it wishes to attract to the Project.

There are two key project participants; SGN (funding licensee) and DNV-GL (project partner).
DNV-GL deliver world-renowned testing and advisory services to the energy value chain including renewables and energy efficiency. Their expertise spans onshore and offshore wind power, solar, conventional generation, transmission and distribution, smart grids, and sustainable energy use, as well as energy markets and regulation.

In 2014 an open invite was sent out to over 1000 potential partners offering the opportunity to propose a project on how to run a future gas network with a view to utilising recent advances in sensoring technology and big data. From a large number of notes of interest, the parties that submitted bids were narrowed down to four. These remaining companies were invited to present their methodology to delivering this innovative project. These presentations, coupled with feedback from various stakeholder meetings helped refine the scope of the project.

Two stand out bids were received, one from Enzen, the other from DNV-GL. Although their methods differed, each had their own merits and specific strengths. In order to stimulate a competitive process and drive out the best project, the decision was made to run two discrete feasibility studies in parallel under the NIA stimulus (NIA_SGN0067).
The reporting produced by the project partners sets out a road map to achieving our goal of a Real-Time Network from our current position with recommendations on sensors, communications and data solutions and technical service providers within relevant domains.

Project Partners and external resourcing / funding - continued

The two feasibility studies were subjected to internal and external (IGEM) screening, with both parties concluding DNV-GL as the preferred partner.

To bring focus to our innovation portfolio we have set out an innovation strategy to do a number of things:

- Improve the way in which we work to be more efficient, more customer focussed, less disruptive whilst carrying out roadworks and reduce our carbon footprint
- Support entry into the network from renewable sources of gas and support the low carbon economy
- Open up competition in gas distribution through provision of alternative entry points

To support our innovation strategy, we adopt both a proactive and reactive approach to idea generation. We run a suggestions scheme, called Ignite (Ignitescheme@sgn.co.uk), for our staff, our project partners, suppliers and anyone else who wishes to make a suggestion, offer a new product or share an idea. We are also proactive in seeking new innovations and project partners, through our industrywatch; our external memberships with greater access to SMEs; and most successfully through challenging our ever increasing array of project partners to come up with solutions to our industry issues. We continually prioritise the ideas and develop projects for both the NIA and NIC based on their scale, feasibility, potential to add value to the UK gas consumer and support our outputs under RIIO GD1. The project proposals are subject to a challenge and review at our Innovation Board, which reports to our Executive. Having followed this process, we believe the Real-Time Network project to be of significant scale and potential to be considered under the NIC.

Derogations or exemptions

The Licensee should outline if it considers that the Project will require any derogations, exemptions or changes to the regulatory arrangements.

No derogations or exemptions required to undertake the project.

However, the GB rollout roadmap for Opening up the Gas Markets and its relevant impact on GS(M)R has influenced the project scope.

Customer impact

The Licensee should outline any planned interaction with Customers or Customers' premises as part of the Project, and any other impacts (such as amended contractual or charging arrangements, or supply interruptions).

Key stakeholders have been identified in the NIA report produced by DNV-GL. This engagement plan will be developed further for the project. Information relating directly to customers is explained below.

Contact with customers will begin 2 to 3 months in advance of any direct impact event. This will be undertaken by proven contact routes such as public meetings, local authority contact, letters, leaflets and phone calls. In addition modern media such as the Internet, twitter and Facebook can also be employed. Internet inclusion can allow use of interactive visuals to clearly describe the advantages of a Real-Time Network. This can include a high-level strategy description and feedback route for any queries. Similarly, a customer feedback route will be included in the legacy contact options.

Customer impact - continued

The Licensee should outline any planned interaction with Customers or Customers' premises as part of the Project, and any other impacts (such as amended contractual or charging arrangements, or supply interruptions).

In the early stages of the project there may be a need to undertake sensor installation near or in customers premises. Any access to customer's premise will be on a planned basis only. SGN already has a robust procedure for planned interruptions and this will be utilised as-is or tailored to suit the specific needs for this project. The smart metering programme may gain momentum during the project and inclusion of this data (via DCC) may prove advantageous in reducing ongoing requirements to interrupt customers directly.

Details of cross sector aspects

The Licensee should complete this box only if this Project forms part of a larger cross sector Project that is seeking funding from multiple competitions (Gas NIC and Electricity NIC). The Licensee should explain about the Project it will be collaborating with, how it all fits together, and must add a justification for the funding split.

N/A

Any further details the Licensee feels would add to the submission

Through a period of comprehensive stakeholder engagement we have engaged with a number of parties that we believe to be significantly impacted by this project.
The Real-Time Networks project concept has been disseminated through presentations the Smart Metering Team at DECC via the Gas Futures Group and at the Utility Week Demand Response & Future Networks conference and will CEO presentation at Utility Week Live.

Following discussions at the Gas Futures Group and Gas Innovation Governance Group, support and interest has been shown by the Energy Networks Association as well as all the participating Gas Distribution Networks.

To date, SSEPD and National Grid Transmission have noted interest in the project and further investigating how the development of a Real-Time Network could offer further value and benefits to their business areas. National Grid Transmission have also offered to participate in stakeholder groups for Real-Time Networks.

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