All Interested Parties

Craig Dyke
Gas Network Development Manager
Craig.Dyke@nationalgrid.com

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Dear Industry Colleagues

INVITATION FOR EXPRESSIONS OF INTEREST – FOR ESTABLISHMENT OF PROJECT CLOCC CUSTOMER PILOT

Purpose of the document

This document is intended to give parties interested in becoming National Grid's Project CLoCC customer pilot project the necessary information to structure their Expression of Interest (EOI) submissions and apply for this collaborative opportunity.

Introduction

This letter sets out National Grid Gas Transmission's (NGGT) requirements for the selection of an appropriate customer pilot facility to support the innovation work being carried out by National Grid's Project CLoCC. The information outlined within this EOI will form the basis for which applicants will be assessed upon through a robust and quantifiable scoring process.

Background

As part of the RIIO-GD1 and RIIO-T1 price controls which set out the regulatory framework for the distribution and transmission networks, Ofgem introduced the Gas Network Innovation Competition (NIC). This process offers an annual opportunity for gas network companies to compete for funding for innovation projects. Examples include the development and demonstration of new technologies, operating arrangements and commercial arrangements which help address issues associated with the move to a low carbon economy.

Project CLoCC is National Grid Gas Transmission's successful entry into the 2015 Gas NIC and aims to minimise the cost and time of connections to the National Transmission System (NTS) to less than £1M and within a 12 months timeframe from customer application to flowing gas. The project is achieving these core objectives by combining three separate workstreams in unison:

1) Producing pre-approved and pre-appraised standardised connection designs suitable for customer flow requirements
2) Development of a new gas customer connections portal to streamline the applications process and improve communication
3) Optimisation of commercial arrangements in support of changes being made by the project

The project was primarily established to support the feasibility of lower flow, non-traditional gas customers considering connections to the NTS. However, where possible the learning achieved through this project will aim to improve connection options for all gas customers of the NTS.

Initiated on 1 February 2016, the project is planned to complete at the end of October 2018.
It consists of the following main stages:

- Stage 1: Market Assessment, Tech Watch and Feasibility Studies (1/2/16 – 29/7/16)
- Stage 2: Conceptual Design and Change Plan (1/8/16 – 28/4/17)
- Stage 3: Detailed Design, Build, Test and Business Readiness (1/5/17 – 29/10/18)

More information can be found at:
www.ProjectCLoCC.com

Call for Expression of Interest

As noted above, Project CLoCC is now in stage 3 of 3 – Detailed Design, Build, Test and Business Readiness. As such, NGGT invites expressions of interest from parties wishing to collaborate with the Project CLoCC team in order to directly support our project's stage 3 requirements, specifically testing and verification of project outputs prior to project completion.

We are seeking interest from parties wishing to become the Project CLoCC pilot customer. Broadening testing of our project outputs to date at a connection site in collaboration with a customer would provide valuable proof of concept information prior to project completion. Timeline and cost reductions developed so far by the project would be able to be practically validated improving confidence and accuracy in the final deliverables provided to National Grid by the project in October 2018. Furthermore, it is our objective to assess the entire new gas customer connections journey developed by the project in partnership with our pilot customer from initial application to commissioning.

Currently we aim to build and test our 80mm standardised design connection solution and information provided within this Expression of Interest is tailored to this solution size. We are however interested to receive proposals from all potential projects that meet the flow criteria set out in Table 2 (below).

Summary of Expectations

Project CLoCC is currently on target to complete by the end of October 2018, as such, we are still very much a "live" project that is in a state of "progress". As a team we are proactively working on a large number of items which are at various stages of being complete. It is our intention to offer whatever learning and outputs have been achieved to date to our pilot customer. Interested parties should consider our current project status and their ability to work with the CLoCC team in a flexible way.

- Collaborative attitude of partnership and engagement with project team to evaluate project outputs when available; including but not limited to:

    1. New online gas customer connections portal
    2. Physical assets designed by the project that require build, test and commissioning
    3. Commercial arrangements where applicable

- Enthusiasm for innovation and finding a better way

Commercial Details

This EOI seeks parties wishing to collaborate and proactively support the project team in their innovative efforts. As with any innovative venture flexibility is essential to ensure the project continues to progress in a positive direction.

1. It is hoped that the awarded party **will not *** be required to financially contribute for the following elements of the standard gas connections process:

    A. Application Fee
    B. Conceptual Design Study

2. The awarded party **will be** expected to financially contribute 100% to the following elements of the gas connections process:

    C. Construction Works (including Detailed Design, Build, Testing and Commissioning)

***** A consultation to update the Statement for Gas Transmission Connection Charging was submitted on the 20th December 2017 to introduce a new Connection Application category, Project CLoCC Customer Pilot, with an application fee of £0.00 . Whether or not the Project CLoCC pilot customer will be required to pay an application fee is solely dependant on the outcome of this industry consultation. This informal consultation closes on 19th January 2018.
The documentation has been published on National Grid's website:
https://www.nationalgrid.com/uk/gas/connections/applying-connection

Estimated customer pilot costs are shown in the table below for a Minimum Offtake Connection (MOC) for both entry and exit projects. The below figures include the costs for; materials, factory/on-site construction works and a standard telemetry kiosk.

Indirect costs are not represented in the below table, an example includes but is not limited to; land ownership, gaining land consent, site electricity supply, environmentals studies if required, customers connecting pipework. A customer is responsible for covering such costs.

An updated quote will be provided to the successful applicant prior to award.

	Estimated ROV** Solution	Estimated Non-ROV Solution
Entry Connection MOC (80mm)	£475,145*	n/a
Exit Connection MOC (80mm)	£475,145*	£377,783*

Table 1 – Estimated costs for Customer Pilot

*Prices are estimated +/- 30%, as per current National Grid contractual terms.

**ROV – Remote Operable Valve. Currently National Grid specifies that a ROV is included for all entry and exit connections. As the ROV is not classified as a safety device the project has been working to remove this requirement for exit connections only (UNC modification 0627s). Exit Connections considered for a non-ROV solution will be required to undertake a risk assessment in order to confirm that a non-ROV solution is appropriate.

Note: Contractual arrangements will require Agreement prior to award of a Construction Agreement.

Assessment Criteria in Detail

Parties should provide their expression of interest to NGGT with an outline of their capability to support our requirements against (but not limited to) the below topic areas. A template is attached to help structure your submission.

1. Proposed Site Location

Within our project's technical workstream the greatest cost saving benefits have been identified through the connection of project designed assets to existing National Grid Above Ground Installations (AGI's). Please provide location information and note that applicants will be considered against their proximity to suitable AGI facilities and their respective access, land ownership and footprint.

2. Connection Type

Both entry and exit connection types are supported by the outputs of Project CLoCC. Please provide information as to the type of connection you require.

3. Customer Flow Rate Information

Standardised designs have been developed as part of the project to support connection sizes of 80mm, 200mm and 300mm NB (nominal bore) pipework. It has been determined that an 80mm Connection Suite will be built during stage 3 of the project and it is this connection size that we aim to install and test at a customers site.

MOC Connection Size (mm)	Max Volume Flowrate (kscm/hr)	Max Energy Flowrate (GWh/day)
80	15	3.3
200	102	22.5
300	229	57.3

Table 2 – Maximum flows available at the minimum operating pressure of the NTS of 38 barg and limiting velocity of 20m/s.

Please indicate whether or not an 80mm connection size is suitable for your project.
If this size is unsuitable, please indicate which connection size you require from the options noted above.

Note: An 80mm (NB) connection size has been initially chosen as this size can accommodate the greatest range of customers who would have previously experienced the greatest number of barriers to considering connecting to the NTS.

4. National Transmission System Pressure

Operating pressues for the National Transmission System typically operate between 38barg – 70barg but will vary depending on location. Currently in some parts of the network operating pressures can reach 94barg.

As an entry customer, please be aware that you are responsible for providing sufficient gas compression; up to the maximum operating pressure of the connecting pipeline.

As an exit customer, please be aware that you are responsible for regulating or/and compressing gas to ensure that it transfers at an appropriate operating pressure for your equipment/assets.

5. Electricity Supply to Site

An electricity supply is required at all connection site locations in order to power the telemetry sytems that enable signals to be sent back to the Gas National Control Centre. The electricity supply required is a 18kVA, 1 phase 230V, 80 A protected supply.

Please provide information on whether you already have a suitable electricity supply in place, or how you intend to provide this requirement within the timescales of Project CLoCC.

6. Requirement for Enhancements

Through Project CLoCC two additional enhancements beyond a standard MOC have been developed following initial stakeholder feedback. Standardised designs for both metering and filtering units are in development and National Grid continues to consider the commercial environment surrounding this element of the project.

As this work is still in relative infancy it is unable to be offered with certainty to our pilot customer. However, it would provide valuable data to the project as to whether you would require one, both or neither of the enhancements developed by the project. Any information/opinion you are able to provide relating to National Grid offering enhancements beyond a standard MOC would be appreciated.

7. Capacity Availability

Due to the aforementioned project close deadline customer locations in areas of limited capacity may require works which cannot be realistically undertaken under our timeframe requirements, therefore project capacity availability must be considered when evaluating a suitable pilot customer.

If applicable, please supply any information that may help us in assessing your application against this requirement. For example, please supply us within information on:

- Whether or not you already have secured NTS capacity
- What capacity you would require e.g. Firm or interruptible and when you would need certainty on available NTS capacity.

For information on available capacity products please visit:

https://www.nationalgrid.com/sites/default/files/documents/45759-Capacity%20Guidance%20Doc_v1_0-140616.pdf

8. Connection Timeline

The project is required to close in full by the end of October 2018. Any collaborative effort would ideally need to be achievable in full, in good time, to maintain this project core milestone.

Please indicate your anticipated project timelines and key milestones so that we can assess how these align to Project CLoCC's close date of October 2018. Please highlight any activities already completed/in progress that facilitate your project meeting these timescales e.g. land registry status, planning consents granted, environmental studies carried out.

Current project learning shows that many of our designs, if connected to a National Grid Above Ground Installation (AGI) fall within permitted development rules. This however is only applicable within the boundary of a National Grid facility. Land ownership and consent permission remain the responsibility of a customer for land required to support a development outside of National Grid's facility perimeter.

9. Previous Experiences with the NTS

Project CLoCC originated due to current NTS processes being identified as restrictive for certain customer groups to consider connecting. At the heart of this innovation project is the drive to open up the transmission network for those who may have otherwise experienced significant connection barriers. Please provide information to support this criteria.

Suggested information; previous experience(s) of connecting to the NTS, previous experience(s) of attempting to connect to the NTS, reasons for wishing to connect to the NTS on this occasion, reasons for dismissing making a connection to the NTS previously.

10. Contributing to a Sustainable Future

National Grid is passionate about making a positive contribution to the environment and the energy challenges that our society faces today. We believe that helping society to decarbonise is the biggest contribution we can make to the environment and we are committed to connecting low-carbon energy sources and supporting technologies that reduce the impact of energy generation and transmission.

A major challenge facing our energy systems is the need to decarbonise the gas network, please describe how you could help us achieve this.

Suggested material:

I. Sustainability of your organisation and operations
II. Carbon footprint of the fuel that will be connected to the grid (if any)

Further information about National Grid's environmental and sustainability strategy can be found at: https://www.nationalgrid.com/sites/default/files/documents/NG_OurContribution_PDF_Brochure_2017.pdf

11. Publicity

As a Network Innovation Competition project we look to share and disseminate all our learning and gained knowledge. We will look to widely share our work and appreciate applicants who will support this endeavour in the spirit of innovation and finding a better way.

Please indicate your thoughts on this subject and to what level you would feel comfortable supporting the team at public engagements.

12. Additional Information

Please provide any further information you believe will support your application and which may help us in making an assessment of the suitability of your proposed project.

Selection Process

The deadline for submission of expressions of interest is **10:00 on 2nd February 2018** .

NGGT will then assess submissions against the selection criteria and contact all parties by 15th February 2018 with information on whether their application has been shortlisted. Only shortlisted applications will be considered past this date.

From the 15th February 2018 the submissions from shortlisted applicants will be further validated for technical and commercial aspects, at this stage full commercial arrangements will be available to shortlisted applicants for consideration.

Due to project timeline restrictions a direct award process will be followed and connection offer made to the shortlisted applicant that best suits the requirements of Project CLoCC. The successful applicant will be required to enter into a connections contract with National Grid – this connections contract will include specific terms and conditions applicable to this pilot customer opportunity.

If you are interested in qualifying for this opportunity, please send your expression of interest submissions via email to **.box.ProjectCLoCC@nationalgrid.com**, to be received no later than **10:00 on 2nd February 2018**.

To support your submission the Project CLoCC team will be available via teleconference to help answer any questions or comments you may have.

Please contact Anne-Marie Liszczyk (anne-marie.liszczyk@nationalgrid.com) if you would like a timeslot to be reserved for you. Also, please note that; 1) available time is limited and will be allocated on a first come first serve basis, 2) for transparency purposes any frequently asked questions will be made available via the Project CLoCC website.

Thank you for considering this opportunity. We look forward to receiving your submission.

Yours sincerely,

Craig Dyke – Gas Network Development Manager

Cost of Participation and Withdrawal of Invitation

By submitting an Expression of Interest in response to this invitation you acknowledge and agree that:

- National Grid is not bound to accept, or proceed with any Expression of Interest at all;
- National Grid may withdraw from and/or decide not to proceed with, the project to which this invitation relates at any time up until a contract is signed which binds National Grid to so proceed;
- You shall be solely responsible and liable for all costs, expenses and liabilities incurred in connection with your preparation and submission of any Expression of Interest and any discussions, or negotiations which may follow any such submission.