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Making a positive difference  
for energy consumers

Gwneud gwahaniaeth gwirioneddol  
i ddefnyddwyr ynni

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30<sup>th</sup> August 2018

Dear Stephen,

**Network Innovation Competition (NIC) – amendments to the Project Direction for Northern Gas Networks’ (NGN) Low Carbon Gas Preheating (LCGP) project**

The NIC funds a number of large-scale innovation projects and was set up to encourage network licensees to innovate in the design, development, and operation of their networks.

The purpose of the LCGP NIC project is to assess the performance of alternative technologies for gas preheating.

NGN wish to amend the Project Direction to facilitate the change in the timing of some of the Successful Delivery Reward Criteria (SDRC) and to delaying the project completion date from December 2017 to May 2019

This letter contains our<sup>1</sup> decision to approve requested amendments to certain sections of the Project Direction<sup>2</sup> dated 19 December 2013 for NGN’s LCGP project. The amendments we are approving are set out in the amended Project Direction in the schedule to this letter.

**Background**

On 19 December 2013, we issued a Project Direction<sup>3</sup> to you under the Gas NIC Governance Document<sup>4</sup>. The Project Direction contains the terms to be followed in relation to the project as a condition of it being funded under the NIC.<sup>5</sup>

<sup>1</sup> The terms ‘we’, ‘us’, ‘our’ refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority. The terms ‘you’ and ‘your’ are used to refer to Northern Gas Networks Limited

<sup>2</sup> All capitalised terms not otherwise defined in this letter have the meaning given to them in the Project Direction.

<sup>3</sup>

[https://www.ofgem.gov.uk/sites/default/files/docs/2014/01/project\\_direction\\_for\\_low\\_carbon\\_gas\\_preheating\\_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2014/01/project_direction_for_low_carbon_gas_preheating_0.pdf)

<sup>4</sup>

[https://www.ofgem.gov.uk/system/files/docs/2017/06/gas\\_network\\_innovation\\_competition\\_governance\\_document\\_version\\_3.0.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/06/gas_network_innovation_competition_governance_document_version_3.0.pdf)

<sup>5</sup> The Funding Return Mechanism is defined in 2F (Network Innovation Competition) of the National Grid Gas Plc (NTS) Gas Transporter Licence.

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On 17 May 2018, you asked us to make changes to the Project Direction (the change request).<sup>6</sup> The amendments relate to changes to the Successful Delivery Reward Criteria and the project completion date.

The rest of this letter contains a summary of the proposed changes and our decision to approve the changes requested.

### **Amendments to the SDRC**

The change request proposes a change to the SDRC:

NGN wishes to extend the project completion date because although the new pre-heating technologies have been commissioned at the designated 12 sites further specific operating problems have emerged at 3 sites:

- The pressure let down unit serving the new Proheat unit at Towton has suffered technical problems. This unit whilst not part of the Proheat unit is causing the Proheat unit to trip out.
- A problem occurred in the operation of the Bruest Hotcats at the Knottingley and Ganstead sites. The problem was due to more condensate being produced and collected than expected leading to unit trips and a site modification to the equipment being required.

The change request keeps the deliverable the same but moves the date back 17 months for SDRC 9.3 (Technology Build & Installation), SRDC 9.4 (Successful trialling and demonstration of alternative preheating technologies) and SRDC 9.7 (Project Evaluation & Final Project Report). NGN concluded that due to the issues above they have been unable to collect data associated with seasonal winter and summer operating conditions of the alternative equipment on these sites.

Based on our assessment of the change request we agree to the proposed changes to the SDRC. The changes would not alter the project deliverables and we see the value of conducting trials and collecting data associated with seasonal winter and summer operating conditions at all sites.

Schedule one below sets out the necessary changes to the Project Direction to reflect our approval of the changes being requested.

### **Decision**

We consider that, with the proposed amendments contained in your change request, you will still deliver the expected benefits and outcomes outlined in the Full Submission and that these amendments are in the interests of customers to enable the project to continue.

Our assessment in this letter does not in any way fetter our discretion with respect to any future decision on the Successful Delivery Reward, should you make a submission after the completion of the project.

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<sup>6</sup> NGN's change request is published alongside this letter.

In accordance with Section 13 of the Project Direction, we hereby amend the Schedule to the Project Direction in the manner set out in Schedule one to this letter. This letter constitutes notice of reasons for our decision pursuant to section 38A of the Gas Act 1986.

If you would like to discuss any of the issues raised in this letter, please contact Ian Bagworth at [ian.bagworth@ofgem.gov.uk](mailto:ian.bagworth@ofgem.gov.uk) or 020 7901 3893.

Yours sincerely,

**Steven McMahon**

Deputy Director, Electricity Distribution & Cross Sector Policy, Network Price Controls  
**For and behalf of the Authority**

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## Schedule 1 –Project Direction changes

**This change request proposes that the following changes are made to the Project Direction:**

### PROJECT PROGRESS THROUGH PHASES

The SDRC relating to each phase (9.1 to 9.7) are detailed in Table 1 of this Project Direction.

Table 1: Successful Delivery Reward Criteria

Successful Delivery Reward criterion	Evidence
<p>(9.1) Preheating Site Selection</p> <p>Each of the 12 sites is selected based on the identified criteria to ensure that the sites represent a good sample of preheating sites and operating characteristics.</p>	<ul style="list-style-type: none"> <li>• Ensuring that project results are both scalable and can be replicated across other sites and networks by March 2014.</li> <li>• Publication of site evaluation criteria.</li> <li>• Publication of preheating site evaluation results and details of analysis undertaken.</li> <li>• Publication of sites identified for inclusion in project.</li> </ul>
<p>(9.2) Preheating Site &amp; Technology Design</p> <p>Completion of the detailed designs of smart metering, HotCat and LP Steam technologies at each of the selected sites.</p>	<ul style="list-style-type: none"> <li>• Smart Metering to install alongside existing technology – June 2014</li> <li>• HotCat and LP Steam Small Site Design – January 2014</li> <li>• HotCat &amp; LP Steam Medium and Large Site Design - December 2014</li> </ul>
<p>(9.3) Technology Build &amp; Installation</p> <p>All hardware, including metering technology, telemetry, HotCat and LP Steam preheating assets installed and commissioned on each of the selected sites by December 2015</p>	<ul style="list-style-type: none"> <li>• Smart metering, monitoring &amp; telemetry equipment to be installed to existing WBH &amp; BH sites – December 2014</li> <li>• HotCat, smart metering, monitoring &amp; telemetry equipment installed to selected sites - May 2019</li> <li>• LP Steam, smart metering, monitoring &amp; telemetry equipment installed to selected sites - May 2019</li> </ul>
<p>(9.4) Successful trialling and demonstration of alternative preheating technologies</p> <p>The knowledge, learning and understanding gathered from the trialling of the two alternative preheating technologies will be captured and shared within the project timescales.</p>	<p>This will include:</p> <ul style="list-style-type: none"> <li>• Designs published alongside knowledge and learning and disseminated via project website – December 2014</li> <li>• Knowledge and learning associated with the installation and commissioning of alternative technologies published and shared via project website – January 2016</li> <li>• Technical data relating to the operational performance of</li> </ul>

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	<p>preheating technologies – ongoing to May 2019.</p> <ul style="list-style-type: none"> <li>Asset performance including planned and reactive maintenance requirements – ongoing to May 2019.</li> </ul>
<p>(9.5) Successful estimation of system efficiencies of existing preheating technologies</p> <p>The system efficiency of existing technologies will be monitored continuously over the period from installation to the end of the project</p>	<ul style="list-style-type: none"> <li>System efficiency data calculated in accordance with efficiency calculation specified within the project (as set out in Section 2). Information to be provided 2 months post installation of smart metering and monitoring technology at each site.</li> <li>System efficiency data published to the project website via a live feed and available for download – December 2015 (all sites won't be installed and commissioned until 2015 see 9.3).</li> </ul>
<p>(9.6) Knowledge, Learning &amp; Dissemination Strategy</p> <p>Deliver project website, accessible by all interested parties and able to receive and publish data on system efficiency for all selected sites.</p>	<ul style="list-style-type: none"> <li>Website Procured – March 2014</li> <li>Website development completed to deliver reporting of system efficiencies, knowledge and learning sharing – December 2014.</li> <li>Capability for data and information to be downloaded from website – December 2014 (for Small site builds and existing technologies)</li> <li>Capability for data and information to be downloaded from website – December 2015 for all sites NGN participation in the Annual NIC Fund Conferences with Low Carbon Gas Preheating project information in 2014, 2015 &amp; 2016.</li> </ul>
<p>(9.7) Project Evaluation &amp; Final Project Report</p> <p>Produce a detailed final report to close down the project which will include project findings, knowledge and learning generated and clear recommendations on the system efficiencies of existing and alternative technologies. The report will clearly set out recommendations on the potential for alternative technologies to provide the preheating requirements at sites of different scales of heat output and operating conditions.</p> <p>The report will also evaluate the benefit of a longer term monitoring study of</p>	<p>Publish final report by May 2019.</p>

sites and technologies included within project.

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## ANNEX 1: PROJECT BUDGET

Cost Category	Cost
Labour	2,406,800
Equipment	3,055,000
Contractors	n/a
IT	150,000
IPR Costs	n/a
Travel & Expenses	n/a
Payments to users	n/a
Contingency	719,725
Decommissioning	n/a
Other	n/a
Total	6,331,525

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