Section D: High Level Solution Options

# D1: Solution Options

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| Solution Option Summary: | NGN is working in partnership on the HyDeploy2 Project to blend up to 20 vol% (6% by energy) hydrogen on its network. This Innovation Project is entering Phase 2 that will involve a Live Pilot on a small section of a gas network  The use of a hydrogen blend will result in a lower Calorific Value (CV), requiring a higher gas volume being passed through the consumer meters to achieve the same energy content as natural gas. The exact CV being received from the Pilot area will be monitored throughout the period.  The consumers at those affected properties will be engaged directly by a dedicated NGN team. There are approximately ~670 largely domestic properties involved. The Live Pilot is scheduled to commence in December 2020 for a period of 10 months.  The commercial impacts of the hydrogen blend will be managed through the CDSP Central Systems e.g. MPRN reconciliation, settlement and invoicing.  The Link to the change proposal can be [**found here**](https://www.xoserve.com/change/change-proposals/xrn-5014-facilitating-hydeploy2-live-pilot/)  The High-Level Solution Option (HLSO) for this change is available and can be found here: [HLSO](https://www.xoserve.com/media/7914/xrn5014-high-level-solution-option-impact-assessment-v13.pdf)  The HLSO outlines that Xoserve has identified a single, tactical option (in two parts) to deliver the requirements of the change.   * Part 1: Utilising the AQ Backstop Date in order to fix the AQs for the pilot MPRNs * Part 2: Introduction of a new MPRN ‘Trial Indicator’ |
| Implementation Date Solution Options: | The HLSO has identified the solution as a candidate for a Major Release.  To meet the commencement of the Live Pilot, the solution will need be delivered in the Major Release scheduled for November 2020. |
| Xoserve preferred option:  (including rationale) | Single option, both parts  Part 1 could be implemented without Part 2.  However, without Part 2 Xoserve would be required to put in place daily, manual processes to support the Pilot. For example, during the Pilot, identify those MPRNs (~670) that had switched suppliers, required an AQ Correction or, the AQ Backstop had to be reapplied.  The use of the Trial Indicator will assist NGN, Shippers and Xoserve in the facilitation and support of this (and other) projects of a similar nature. |
| DSG preferred solution option:  (including rationale) | As this is a single, tactical option, it will be discussed at DSG on 27th January 2020 following the solution consultation close-out. |
| Consultation closeout: | 27/01/2020 |

Section E: Industry Response Solution Options Review

# E1: Organisation’s preferred solution option

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| User Contact Details: | Organisation: | EDF |
| Name: | Eleanor Laurence |
| Email: | eleanor.laurence@edfenergy.com |
| Telephone: | 07875117771 |
| Organisation’s preferred solution option, including rationale taking into account costs, risks, resource etc. | In the change pack you mention ‘The use of a hydrogen blend will result in a lower Calorific Value’. I am unable to see how this proposal has considered the impacts in terms of customer billing by the supplier, how the different calorific values would be considered. If this goes ahead changes will be large at supplier end for the sample subset of customers, which would be unquantifiable in terms of a business case. This is why we have rejected this change until this is explored further. | |
| Implementation Date: | Reject | |
| Xoserve preferred solution option: | Reject | |
| DSG preferred solution option: | Reject | |
| Publication of consultation response: | N/A | |

# E2: Xoserve’ s Response

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| Xoserve Response to Organisations Comments: | Thank you for your representation.  The materiality of this change was discussed at the DSG Meeting on 27th January.   Northern Gas Networks (NGN) clarified that it had undertaken analysis to establish the materiality impact was low:  • In a worst case scenario, the injection of 20% hydrogen into the network (pilot area) might affect a reduction of 5.9 in the CV range; the current range is 39.9 to 40.1 • There are approximately 670 MPRNs within the HyDeploy2 Pilot area; the average with AQs ~12,000 kWh • NGN has estimated the financial impact to an end-consumer will be less than £60 for the whole 10-month period  • End-consumers will be financially recompensed by NGN through the new GT Voluntary Consumer Payment   We will feed this into ChMC for a final decision. |

# E1: Organisation’s preferred solution option

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| User Contact Details: | Organisation: | NGN |
| Name: | Helen Chandler |
| Email: | HChandler@northerngas.co.uk |
| Telephone: | 07580704123 |
| Organisation’s preferred solution option, including rationale taking into account costs, risks, resource etc. | NGN are supportive of the proposed solution. We would like to note that Part 2: Introduction of a new MPRN ‘Trial Indicator’ mentioned in the Solution Options consultation document relates to a separate change proposal: XRN5048 ‘Make an indicator available where a Supply Meter Point form part of a Network Trial’ and agree that both XRNs should be implemented together.   The HyDeploy2 Pilot related to this proposal is scheduled to begin in November/December 2020, we require this and XRN5048 to be implemented prior to this date. | |
| Implementation Date: | Approve | |
| Xoserve preferred solution option: | Approve | |
| DSG preferred solution option: | Defer | |
| Publication of consultation response: | N/A | |

# E2: Xoserve’ s Response

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| Xoserve Response to Organisations Comments: | Thank you for your representation.  We will contact you prior to ChMC in relation to your comments on Part 2 / XRN5048. |

# E1: Organisation’s preferred solution option

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| User Contact Details: | Organisation: | Npower Ltd |
| Name: | Alison Price |
| Email: | alison.price@npower.com |
| Telephone: | 07557202065 |
| Organisation’s preferred solution option, including rationale taking into account costs, risks, resource etc. | We support the proposed solution but need to understand the cost vs. benefits of part 2 being delivered. | |
| Implementation Date: | Approve | |
| Xoserve preferred solution option: | Approve | |
| DSG preferred solution option: | Approve | |
| Publication of consultation response: | N/A | |

# E2: Xoserve’ s Response

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| Xoserve Response to Organisations Comments: | Thank you for your representation. It should be noted that Part 2 will be wholly funded by the Networks.   We will feed this into ChMC for a final decision. |