High Level Solution Options Change Pack

# Communication Detail

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| Comm Reference: | 3174.1 - VO - PO |
| Comm Title: | XRN 5531 - Hydrogen Village Trial |
| Comm Date: | 15/05/2023 |

**Change Representation**

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| Action Required: | For Representation |
| Close Out Date: | 30/05/2023 |

# Change Detail

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| Xoserve Reference Number: | [XRN5531](https://www.xoserve.com/change/customer-change-register/xrn-5531-hydrogen-village-trial/) |
| \*ChMC Constituency Impacted: | Shipper All Classes, Distribution Networks (DNs) and Independent Gas Transporters (IGTs) |
| Change Owner: | [uklink@xoserve.com](mailto:uklink@xoserve.com) |
| Background and Context: | As part of the progression towards Net Zero, Cadent and Northern Gas Networks have been awarded funding by Ofgem to develop the design of a Hydrogen Village Trial. The aim of the trial is to repurpose an existing gas network to supply 100% hydrogen to end consumers.  Both Cadent and Northern Gas Networks have submitted proposals to Ofgem with a comprehensive design of their Hydrogen Village Trial. Each Distribution Network Operator has chosen a specific location for the trial to take place. Cadent has chosen Whitby in Ellesmere Port and Northern Gas Networks has chosen Redcar. From late 2025 and early 2026 up to 2,000 domestic and smaller industrial and commercial end consumers will be supplied with 100% hydrogen for an expected duration of 2 years.  As the natural gas pipework will be repurposed, end consumers will have the option to opt out of the trial by either converting to electricity (Northern Gas Networks) or converting to a new natural gas pipeline (Cadent).  To support the objectives of H100 Fife Neighbourhood Trial, a solution (Multiplication Factor) has been developed and delivered by the CDSP under [XRN5298](https://www.xoserve.com/change/customer-change-register/xrn-5298-h100-fife-project-phase-1-initial-assessment/) - This solution has been assessed for its suitably by the Hydrogen Village Trial team. Some challenges have been identified with Hydrogen Ready meters and smart metering data which will need to be overcome to make it a suitable option for the Hydrogen Village Trial. Consequently, the CDSP have been asked by Distribution Network Operators, to investigate an alternative solution centred around the use of Conversion Factor.  **For full details, please see attached High-Level Solution Option document.** |

# Solution Options

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| Solution Option Summary: | To support both Cadent and Northern Gas Networks proposals, the CDSP has considered multiple options to support billing and settlement accuracy for the period of the trial.  **Option 1: CDSP Manages Conversion Factor**  The hydrogen Conversion Factors, provided by the Distribution Network Operator, will be applied to Supply Meter Points when both a hydrogen meter is installed in UK Link and the Supply Meter Point is taking part in the trial. The existing Network Project Flag will be used to identify Supply Meter Points taking part in the trial. When a Supply Meter Point is no longer taking part in the trial the activity required is dependent on the type of meter installed:   * Hydrogen only meter – In line with existing rules the Gas Shipper will be required to send a RGMA file with the meter exchange details including the appropriate Conversion Factor to update UK Link. The CDSP will not make any changes to the Conversion Factor in this scenario. * Hydrogen ready meter - (therefore not requiring a meter exchange) CDSP will update the Conversion Factor to last appropriate non-hydrogen Conversion Factor.   *This change is estimated to be a major/standalone release with a cost range between £122,000 - £236,000.*  **Option 2: CDSP manages all metering data including Conversion Factor**  The existing Network Project Flag will be used to identify Supply Meter Points taking part in the trial. Where a Supply Meter Point is assigned to the trial the CDSP will use the meter exchange details, submitted by the Meter Equipment Manager to the Connections and Disconnections (C&D) store, to perform a meter exchange in UK Link. Any RGMA files received by Gas Shippers prior to, during and following the Supply Meter Point taking part in the trial will be rejected using a new rejection code. When a Supply Meter Point is no longer taking part in the trial the activity required is dependent on the type of meter installed:   * Hydrogen only meter – CDSP will process a meter exchange in UK Link. * Hydrogen ready meter – (therefore not requiring a meter exchange) CDSP will update the Conversion Factor to last appropriate non-hydrogen Conversion Factor.   *This change is estimated to be a major/standalone release with a cost range between £232,000- £400,000.*  **Main differences between both options:**   * For option 1 where a Supply Meter Point is assigned to the trial the meter exchange details will be sent by Gas Shippers via RGMA files, however for Supply Meter Point assigned to the trial in option 2 the CDSP will use the Meter exchange details submitted by the Meter Asset Manager. * In option 1 the RGMA file is received for a Supply Meter Point, the CDSP will validate the Conversion Factor and amend to the hydrogen Conversion Factor if necessary. Whereas for option 2 any RGMA files received from the Gas Shippers prior to, during and following the Supply Meter Point taking part in the trial will be rejected with a new rejection code. * For option 2 Distribution Network Operator will provide meter details via a new screen in Portal where meter exchange details in the Connections & Disconnections store have not been received or are incomplete. * For option 1 when a Supply Meter Point is no longer taking part in the trial, for Hydrogen only meter the Shipper will be required to send a RGMA file with meter exchange details, including appropriate Conversion Factor to update UK Link. In option 2 CDSP will utilise and process the meter exchange details received from the Distribution Network Operators via the proposed solution.   **For full details, please see attached High-Level Solution Option document.** |
| Proposed Implementation Date: | TBC - both options have been identified as Major-Standalone Release candidates |
| Xoserve preferred option:  (including rationale) | N/A |
| DSG preferred solution option:  (including rationale) | TBD at DSG on 22nd May 2023 |

# Service Lines and Funding – for each option

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| Service Line(s) Impacted - New or existing | No new service lines or amendments to existing service lines are expected |
| Level of Impact | High |
| Impacts on UK Link Manual/ Data Permissions Matrix | Option 1: None identified Option 2: New rejection code (RGMA) and new screen in Portal |

Industry Response Solution Options Review

# *Please consider any commercial impacts to your organisation that Xoserve need to be aware of when formulating your response*

# Organisation’s preferred solution option

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| --- | --- | --- |
| User Contact Details: | Organisation: | SSE Energy Supply Limited |
| Name: | Mark Jones |
| Email: | mark.jones@sse.com |
| Telephone: | 07467646256 |
| Organisation’s preferred solution option, including rationale taking into account costs, risks, resource etc. | SSE's preference is for Option 2. | |
| Implementation Date: | approved | |
| Xoserve preferred solution option: | defer | |
| DSG preferred solution option: | defer | |
| Publication of consultation response: | N/A | |

# Xoserve’ s Response

# *Please consider any commercial impacts to your organisation that Xoserve need to be aware of when formulating your response*

# Organisation’s preferred solution option

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| --- | --- | --- |
| User Contact Details: | Organisation: | Cadent Gas |
| Name: | Andy Clasper |
| Email: | andy.clasper@cadentgas.com |
| Option 2 | |
| Implementation Date: | Approve | |
| Xoserve preferred solution option: | 2 | |
| Publication of consultation response: | N/A | |

# Xoserve’ s Response

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| Xoserve Response to Organisations Comments: | Thank you for your representation, we will feed this into ChMC for a final decision. |

# *Please consider any commercial impacts to your organisation that Xoserve need to be aware of when formulating your response*

# Organisation’s preferred solution option

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| User Contact Details: | Organisation: | Utilita |
| Name: | Kevin Clark |
| Email: | kevinclark@utilita.co.uk |
| We would prefer Option 1, providing that the format of the RGMA file does not materially change to a degree that would require system updates to process and produce the new files.We believe that the added expense of Option 2 is unpalatable when Shippers are already set up to work with the RGMA process. | |
| Implementation Date: | Approve | |
| Xoserve preferred solution option: | Approve | |
| Publication of consultation response: | N/A | |

# Xoserve’ s Response

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| Xoserve Response to Organisations Comments: | To clarify there are no proposed changes to the file formats of RGMA files for solution option 1. |

# *Please consider any commercial impacts to your organisation that Xoserve need to be aware of when formulating your response*

# Organisation’s preferred solution option

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| --- | --- | --- |
| User Contact Details: | Organisation: | Northern |
| Name: | Mark Cockayne |
| Email: | mcockayne@northerngas.co.uk |
| Telephone: | 07858 364076 |
| Organisation’s preferred solution option, including rationale taking into account costs, risks, resource etc. | Option 2 is NGN’s preferred option | |
| Publication of consultation response: | N/A | |

# Xoserve’ s Response

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| Xoserve Response to Organisations Comments: | Thank you for your representation, we will feed this into ChMC for a final decision. |

# *Please consider any commercial impacts to your organisation that Xoserve need to be aware of when formulating your response*

# Organisation’s preferred solution option

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| --- | --- | --- |
| User Contact Details: | Organisation: | Engie |
| Name: | Colin Paine |
| Email: | colin.paine@engie.com |
| Telephone: | +44 (0) 113 306 2125 |
| Organisation’s preferred solution option, including rationale taking into account costs, risks, resource etc. | Option 1, as it appears to give the Shipper more visibility of sites joining and leaving the trial. | |
| Publication of consultation response: | N/A | |

# Xoserve’ s Response

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| --- | --- |
| Xoserve Response to Organisations Comments: | Thank you for your representation, we will feed this into ChMC for a final decision. |

# *Please consider any commercial impacts to your organisation that Xoserve need to be aware of when formulating your response*

# Organisation’s preferred solution option

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| User Contact Details: | Organisation: | E.ON |
| Name: | Edd Green |
| Email: | edd.green@eonnext.com |
| Option 2. Although 1 is cheaper on face value, it would ultimately result in the dissemination of any additional costs across a wide range of parties. These costs will vary by party and appear to be an unknown element. Given the traditional cost/ benefit ratio of making one change within a centralised organisation vs making a series of multiple changes across many devolved organisations there is less risk and less holistic financial impact to both E.ON and end user customers in option 2 than 1.  Option 2 would also likely result in a better controlled process as it would result in a singular set of standardised processes, ways of working etc etc, whereas option 1 would increase the likelihood of errors/ blockers arising from different parties processing their requisite data elements in their own way. In addition: a) E.ON fully supports the move away from Multiplication factor and the complexities this would create for suppliers for smart customers b) The HLSO seems to indicate that a new Hydrogen LDZ will not be created but it is not explicitly clear. Please can this be clarified c) Has it been determined what response CDSP will send on their conversion/meter exchanges if they are not using RGMA flow? | |
| Publication of consultation response: | N/A | |

# Xoserve’ s Response

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| Xoserve Response to Organisations Comments: | For clarification there will be no new LDZ created to support the Hydrogen Village Trial.   In regards to the response sent to Shippers following CDSP updating meter exchanges/conversion factors it is expected this will be an unsolicited .UPR file as this aligns to the existing process where CDSP updates a conversion factor (introduced as part of UNC Modification 0681.) |

Change Management Committee Outcome

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| Change Status: | Approve | Reject | | | Defer |
| Approved Solution Option | Option 2 | | | | |
| Industry Consultation: | 10 Working Days | | 15 Working Days | | |
| 20 Working Days | | Other [Specify Here] | | |
| Date Issued: | 15/05/2023 | | | | |
| Comms Ref(s): | 3174.1 - VO - PO | | | | |
| Number of Responses: | 6 | | | | |
| Solution Voting: | Shipper | | | Please select. | |
| National Grid Transmission | | | Please select. | |
| Distribution Network Operator | | | Please select. | |
| IGT | | | Please select. | |
| Meeting Date: | 09/06/2023 | | | | |
| Proposed Release Date: | Adhoc/Major | | | | |

Approved Solution Option

# Approved Solution Option

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| Solution Details: | Option 2: CDSP manages all metering data including Conversion Factor  The existing Network Project Flag will be used to identify Supply Meter Points taking part in the trial. Where a Supply Meter Point is assigned to the trial the CDSP will use the meter exchange details, submitted by the Meter Equipment Manager to the Connections and Disconnections (C&D) store, to perform a meter exchange in UK Link.  Any RGMA files received by Gas Shippers prior to, during and following the Supply Meter Point taking part in the trial will be rejected using a new rejection code.  When a Supply Meter Point is no longer taking part in the trial the activity required is dependent on the type of meter installed:  • Hydrogen only meter – CDSP will process a meter exchange in UK Link.  • Hydrogen ready meter – (therefore not requiring a meter exchange) CDSP will update the Conversion Factor to last appropriate non-hydrogen Conversion Factor.  This change is estimated to be a major/standalone release with a cost range between £232,000- £400,000. |
| Implementation Date: | TBC |
| Approved By: | Shippers, DNOs, IGTs |
| Date of Approval: | 09/06/2023 |

**Version Control**

**Document**

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| --- | --- | --- | --- | --- |
| Version | Status | Date | Author(s) | Remarks |
| 1.0 | Approved | 12/05/2023 | Xoserve | Approved version baselined |

**Template**

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| Version | Status | Date | Author(s) | Remarks | Approved By |
| 1.0 | Approved | 09/03/2022 | Rachel Taggart | Initial Review Change Pack transferred to own document | Change Management Committee on 09/03/2022 |
| 1.1 | Approved | 25/04/2023 | Rachel Taggart | Updated with new font branding | Emma Smith |