DSC Change Proposal Document

Customers to fill out all of the information in the sections coloured

Xoserve to fill out all of the information in the sections coloured

# A1: General Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Change Reference: | XRN5298 | | | |
| Change Title: | H100 Fife Project - Phase 1 (Initial Assessment) | | | |
| Date Raised: | 13/01/2021 | | | |
| Sponsor Representative Details: | Organisation: | SGN | | |
| Name: | Joel Martin | | |
| Email: | joel.martin@sgn.co.uk | | |
| Telephone: | +44 (0)7966 317785 | | |
| Xoserve Representative Details: | Name: | Victoria mustard | | |
| Email: | victoria.mustard1@xoserve.com | | |
| Telephone: | 07519605322 | | |
| Business Owner: | tbc | | |
| Change Status: | ☐ Proposal | | ☐ With DSG | ☐ Out for Review |
| ☐ Voting | | ☐ Approved | ☐ Rejected |

# A2: Impacted Parties

|  |  |  |
| --- | --- | --- |
| Customer Class(es): | Shipper | Distribution Network Operator |
| ☐ NG Transmission | ☐ IGT |
| ☐ All | ☐ Other [solution dependant - could potentially impact all customer types] |
| Justification for Customer Class(es) selection | Unknown yet as will be solution dependent | |

# A3: Proposer Requirements / Final (redlined) Change

|  |  |  |
| --- | --- | --- |
| Problem Statement: | SGN’s strategic ambition towards Net Zero includes a network innovation, ‘proof of concept’, project; H100 Fife. This project will see SGN injecting 100% hydrogen into a new, purpose-built network which will be located in parallel to the existing natural gas network. Initially, 300 existing domestic consumers will be invited to migrate their supplies from natural gas to hydrogen for their energy requirements.  Ofgem has recently approved the SGN H100 Fife project as a Network Innovation Competition (NIC) candidate. The project is considered of national and strategic importance to demonstrating the capability to meet the UK Net Zero target ambition.  SGN’s current plan anticipates H100 customers will commence offtaking hydrogen in Q2 2023.  Xoserve is to collaborate with SGN to initially assess the impacts and develop high-level solutions.  **Important notes:**   1. SGN will construct a bespoke hydrogen network alongside its existing gas network. Customers in the location of the hydrogen network will be able to ‘opt in’ to H100;  * SGN will physically disconnect the customer from its existing gas network and connect it to the hydrogen network * For each H100 ‘opt-in’ customer, their supply will be migrated from natural gas to hydrogen. There will be a bespoke hydrogen meter. There is the potential for new Hydrogen connections which do not currently have a natural gas supply. * A H100 customer may subsequently ‘opt out’ of H100, in which case, SGN will disconnect the customer from the hydrogen network and reconnect to its standard gas network (and meter)  1. The Thermal Energy Regulations require DNs to calculate a daily LDZ CV. The LDZ CV is used by Shippers/Suppliers to bill their customers within that LDZ. The intention of the project will be to keep the H100 MPRNs within Scotland LDZ in CDSP systems as creating a new LDZ is deemed cost prohibitive. The H100 CV (~11MJ/M3) will need to be excluded from the SC LDZ FWACV calculation to prevent LDZ capping (this requires a further discussion with Ofgem). 2. In comparison to standard mains gas, hydrogen has a lower Calorific Value (CV) and requires a greater volume of gas to pass through the customer’s meter to achieve the same energy content. As the H100 MPRNs will remain within SC LDZ the solution will need to ensure energy settlements and Shipper charges for H100 MPRNs reflect what their energy consumption would have been if they were supplied with natural gas. We also need to consider how customer bills will be impacted by these changes and any solution implemented. 3. Xoserve will need to consider a solution that will adjust metered hydrogen volume into energy (kWh) whilst being cognisant of the existing processes e.g. daily LDZ CV | |
| Change Description: | **Phase 1:** Xoserve to undertake an initial assessment to develop high-level solution options and a delivery project plan that SGN will present to Ofgem in March 2021. Xoserve should consider the impacts on, but not be limited to:   * Shippers’ daily Energy Balancing   + including NDM forecasting/allocation * Meter Supply Point; AQs, SOQs and reads * Invoicing; settlement & reconciliation * LDZ Shrinkage, CV shrinkage and UIG * Faster Switching and RGMA * Implications on DN LDZ daily CV calculation (FWACV); specifically, LDZ CV capping (Thermal Energy Regulations) * Impacts of any solution on customer end gas bills. [tbc] * Potential solution *might* include new MPRN correction factors   **Phase 2:** Xoserve will undertake the detailed assessment, design and development of an agreed solution design. Xoserve will implement the solution to support SGN’s H100 Fife during Q2 2023. | |
| Proposed Release: | April 2023 | |
| Proposed Consultation Period: | ☐ 10 Working Days | ☐ 15 Working Days |
| ☐ 20 Working Days | ☐ Other [Not known] |

# A4: Benefits and Justification

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| --- | --- |
| Benefit Description: | SGN’s H100 Fife is a strategic Net Zero project that has received approval (and funding) from Ofgem. H100 Fife is initially a ‘proof of concept’, primarily to assess safety, physical network operation and the effects on customers’ energy use.  The commercial arrangements e.g. Xoserve meter reconciliation, settlement, need to be adapted to support and ensure a successful outcome for H100 Fife. |
| *What, if any, are the tangible benefits of introducing this change? What, if any, are the intangible benefits of introducing this change?* |
| Benefit Realisation: | The benefits will be realised immediately upon a successful CDSP solution delivery. |
| *When are the benefits of the change likely to be realised?* |
| Benefit Dependencies: | SGN will need to consider;   * if changes are required to statutory/regulatory arrangements e.g. Thermal Energy Regulations, UNC, DSC * potential dependency on Ofgem’s CSS/Faster Switching programme |
| *Please detail any dependencies that would be outside the scope of the change, this could be reliance on another delivery, reliance on some other event that the projects has not got direct control of.* |

# A5: Final Delivery Sub-Group (DSG) Recommendations – Removed (see Section C for DSG recommendations)

# A6: Service Lines and Funding

|  |  |  |  |
| --- | --- | --- | --- |
| Service Line(s) Impacted - New or existing | tbc | | |
| Level of Impact | Major/ Minor/ Unclear/ None | | |
| If None please give justification |  | | |
| Impacts on UK Link Manual/ Data Permissions Matrix |  | | |
| Level of Impact | Major/ Minor/ Unclear/ None | | |
| If None please give justification |  | | |
| Funding Classes  : | Customer Classes/ Funding | Delivery of Change | On-going Budget Amendment |
| ☐ Shipper | XX % | XX % |
| ☐ National Grid Transmission | XX % | XX % |
| ☐ Distribution Network Operator | XX % | XX % |
| ☐ IGT | XX % | XX % |
| ☐ Other <please specify> | XX % | XX % |
| ROM or funding details: |  | | |
| Funding Comments: |  | | |

# A7: ChMC Recommendation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Change Status: | ☐ Approve | ☐ Reject | | ☐ Defer |
| Industry Consultation: | ☐ 10 Working Days | | ☐ 15 Working Days | |
| ☐ 20 Working Days | | ☐ Other [Specify Here] | |
| Expected date of receipt for responses (to Xoserve) | XX/XX/XXXX | | | |

|  |  |  |
| --- | --- | --- |
| DSC Consultation Issue: | ☐ Yes | ☐ No |
| Date Issued: | Click here to enter a date. | |
| Comms Ref(s): |  | |
| Number of Responses: |  | |

# A8: DSC Voting Outcome

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Solution Voting: | ☐ Shipper | | | Please select. |
| ☐ National Grid Transmission | | | Please select. |
| ☐ Distribution Network Operator | | | Please select. |
| ☐ IGT | | | Please select. |
| Meeting Date: | Click here to enter a date. | | | |
| Release Date: | Release: Feb / Jun / Nov XX or Adhoc DD/MM/YYYY or NA | | | |
| Overall Outcome: | ☐ No | ☐ Yes | If [Yes] please specify <Release> | |

Please send the completed forms to: [box.xoserve.portfoliooffice@xoserve.com](mailto:box.xoserve.portfoliooffice@xoserve.com)

Version Control

# Document

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Status | Date | Author(s) | Remarks |
| 1.0 | Final | 12/01/2021 | Joel Martin | Updated following review |
| 0.2 | draft | 15/12/20 | Steve Pownall | redraft |

# Template

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| --- | --- | --- | --- | --- |
| Version | Status | Date | Author(s) | Remarks |
| 3.0 | Superseded | 17/07/2018 | Emma Smith | Template approved at ChMC on 11th July 2018 |
| 4.0 | Superseded | 07/09/2018 | Emma Smith | Minor wording amendments and additional customer group impact within Appendix 1 |
| 5.0 | Superseded | 10/12/2018 | Heather Spensley | Template moved to new Word template as part of Corporate Identity changes. |
| 6.0 | Approved | 12/12/2018 | Simon Harris | Cosmetic changes made. Approved at ChMC on the 12th December 2018. |
| 6.1 | In Draft | 26/03/2019 | Richard Johnson/ Alison Cross | The following minor changes were made:   * Inclusion of an All ‘Impacted Parties’ option in A2 * Justification section added to section A2 * Change Description replaced with Problem Statement in section A3 * Remove ‘X’ in Release information (sections A3, A5, A7, C1 and G8) * Updated Service Line and UK Link impacts and funding section (A6) to include further detail * Amended questions 3 and 4 in section B * Added Service Line/UK link Assessment in section D * Removed Section A5 |
| 6.2 | For approval | 14/05/2019 | Alison Cross | Following review at DSC Governance review group re-added Change Description text box |
| 7.0 | Approved | 13/06/2019 | Richard Johnson | DSC Governance Review Group changes to the template approved at Change Management Committee on 12th June 2019 |