



DSC Delivery Sub Group

Monday 27th September at 10:30am

Microsoft Teams Meeting

Meeting Minutes

| Industry Attendees | | |
|--------------------|---------------|----------|
| NAME | ORGANISATION | INITIALS |
| Amy Penny | ESPUG | AP |
| Ikram Bashir | npower | IB |
| Helen Bevan | Scottishpower | HB |
| Daniel Kearney | Utilita | DK |
| Sally Hardman | SGN | SHa |
| Eleanor Laurence | EDF Energy | EL |
| Steph Podgorski | Generis | SP |

| Xoserve Attendees | |
|---------------------|----|
| Paul Orsler (Chair) | PO |
| Chan Singh | CS |
| James Barlow | JB |
| Simon Harris | SH |
| Steve Pownall | SP |
| Joanne Williams | JW |
| Michelle Niits | MN |

Slides available [here](#).

1. General Meeting Administration

1a. Welcome and Introductions

1b. Previous DSG Meeting Minutes and Action Updates

Paul Orsler (PO) introduced the meeting and the minutes from the previous meeting were accepted and approved by DSG.

2. Changes in Capture

2a. New Change Proposals – Initial Overview of the Change – None for this meeting

2b. Change Proposal Initial View Representations – None for this meeting

2c. Undergoing Solution Options Impact Assessment Review – None for this meeting

2d. Solution Options Impact Assessment Review Completed – None for this meeting

3. Changes in Detailed Design

3a. Design Considerations – None for this meeting

3b. Requirements Clarification – None for this meeting

4. Major Release Update

4a. Minor Release Drop 10 Update

PO presented this agenda item. PO confirmed that this release was successfully implemented early September 2021.

Implemented Changes:

- **XRN5309** - FSG Automation of FSR Process
- **XRN5188** - MAP ID Data Upload to UK Link
- **XRN5246** - Confirmation File Performance improvements

This is progressing along the plan and within PIS looking for closedown at the next ChMC.

4b. Minor Release Drop 11

PO presented this agenda item. PO stated the MIR Drop 11 delivery date was discussed at the last ChMC meeting. PO advised that two changes were discussed beforehand and at the last ChMC meeting, it was confirmed the proposed candidates would not be progressed due to insufficient lead time for customers to understand the design and make provisions to make any changes to their systems that might need to be completed prior to the implementation.

PO confirmed that MIR Drop 11 has not been approved at this stage and that ChMC have asked the project team to review the drop 11 plan for a re-review and approval at October ChMC. The indicative implementation date, for all changes is 20th November 2021.

4b. June 2021

PO presented this agenda item. PO stated a general update will be provided at each monthly meeting. Post implementation support (PIS) period 2 to commence on 27/09/21

PIS is running to track and project overall running to a green RAG status.

4c. November 2021

PO presented this agenda item. PO stated the User Acceptance Testing is complete for XRN5142 and in progress for remaining changes. XRN4780C is in progress through build and test. Furthermore, regression testing is in preparation for XRN5142.

The overall RAG status of this release is tracking to green.

Risk - (RTC66544) - Increase in the number of BAU defects being found impacting XRN5072, XRN5007 and XRN5180 during testing. Mitigation, defects are currently all planned to be deployed prior to exiting test

- **In Scope – XRN4941** - MOD0692 - Auto updates to meter read frequency
- **In Scope - XRN5007** - Enhancement to reconciliation process where prevailing volume is zero
- **In Scope - XRN5072** - Application and derivation of TTZ indicator and calculation of volume and energy – all classes
- **In Scope - XRN5142** - New allowable values for DCC Service Flag in DXI File from DCC
- **In Scope - XRN5180** - Inner tolerance validation for replacement reads and read insertions
- **In Scope – XRN4780C** – Inclusion of Meter Asset Provider Identity (MAP Id) in the UK Link system (CSS Consequential Change)
- **Descoped - XRN5091** - Deferral of creation of Class change reads at transfer of ownership
- **Descoped - XRN5186** MOD0701 – Aligning capacity booking under the UNC and arrangements set out in relevant NExAs
- **Descoped - XRN5187** MOD0696 – Addressing inequalities between capacity booking under the UNC and arrangements set out in the relevant NExAs

5. Change Pipeline

PO presented this agenda item. PO advised on the following stages and the changes within the pipeline:

- 28 changes pre-capture
- 3 within initial review
- 23 in Capture
- 4 in Solution consultation

PO discussed the timeline slide of the change pipeline as well as the future scope and timeline of future releases. This includes the current live and recently implemented releases

of change as well as the future scheduled releases. PO provided a broad update on the Change pipeline and asked DSG to note all standalone changes can be seen within the schedule map under the relevant section.

6. CMS Rebuild

JW presented this agenda item. JW stated that there are extraordinary DSG meeting which are ongoing, with four meetings having been held so far. JW added that there have been catch up session for those that have not been able to attend those sessions. JW has continued to use the same miraboard links. JW stated that notifications are being looked at across CMS to delve down into deeper requirements with new customers attending and providing their views during the detailed design phase.

SHa asked JW when there will be a change pack issued in relation to detail design. JW advised that CoMC will be informed in October of the recommended approach which subject to approval will then be presented at November's ChMC meeting.

7. AOB

7a. XRN5298 – (H100) Fife Project - Phase 1 (Initial Assessment)

MN and PO presented this agenda item. MN provided an overview of H100 Fife and SGN's development of a world's first 100% hydrogen network in Levenmouth that will bring renewable hydrogen into homes in early 2023, providing zero-carbon fuel for heating and cooking. MN advised that in the project's first phase, the network will heat around 300 local homes using clean gas produced by a dedicated electrolysis plant, powered by a nearby offshore wind turbine.

The H100 Fife project is set out to prove the role that hydrogen can play in decarbonizing heat and will comprise of an end to end system, including power generation incorporating offshore wind, hydrogen production, storage, pressure reduction, odourisation, distribution and customer connections serving domestic hydrogen meters and appliances.

Approximately 300 End Consumers in Levenmouth will be asked if they want to take part in the demonstration (opt in). For those consumers taking part they will have their gas appliances changed (i.e. boilers, cookers) to ones that run on 100% Hydrogen which also includes installing a new gas meter.

SGN has a short video on their website if you wish to learn more about what the project entails [H100 Fife | Future of Gas | SGN](#)

Furthermore, H100 Fife is a critical project, funded by Ofgem NIC, to show that 100% Hydrogen can play a role in the future of Gas and help us achieve the Governments Net Zero targets by 2050.

As well as showing that 100% Hydrogen can be used as an alternative to Natural Gas, consumers that opt in to the H100 Fife demonstration must

- Be able to opt out of the demonstration – i.e. revert back to Natural Gas provisions should they choose to
- Be able to switch their Shipper and/or Supplier
- Not be (negatively) financially impacted, participation is on a cost neutral basis
- Have any disruption kept to a minimum

Xoserve have been looking at how we can support this project to achieve the above within the timescales of the project (targeting November 2022 Major Release).

MN further explained the impacts on the calorific value due to the difference in natural gas and hydrogen. Calorific Value (CV) is a measure of heating power and is dependent upon the composition of the gas. It is used within the calculation to determine the amount of energy (kWh) required or used. We need to calculate kWh for a wide range of processes like AQ calculations, reconciliation and Suppliers use this to bill end consumers.

The Calorific Value of Natural Gas is measured at over 110 different locations on the pipeline system. Each LDZ (Local Distribution Zone) has a number of these measuring locations within it – the CV from all the locations is taken and a Flow Weighted Average CV (FWACV or LDZ CV) is determined for each LDZ. The FWACV is capped at 1MJ/m³ (megajoule per cubic meter) above the lowest CV value for that LDZ. This FWACV CV is sent to Shippers and issued on National Grids MIPI website.

The CV of 100% Hydrogen is greatly different than the CV of Natural Gas (Scotland's hydrogen CV approx. 12, Natural Gas CV approx. 39.3). This means that more Hydrogen needs to flow through the meter to burn the same amount of energy as Natural Gas.

If we were to use the associated FWACV attributed to the LDZ that these sites reside within, it would appear as though these sites were utilising approx. 3 times the amount of energy they actually use – this is due to Hydrogen requiring 3 times the amount of volume to generate the equivalent amount of energy that Natural Gas would produce.

If we used the Hydrogen CV in the current FWACV process, the CV for Scotland LDZ would be capped at 13 - This would mean that Hydrogen energy was overstated and Natural Gas was understated – this would present impacts to energy balancing and settlement processes for all sites not included within the demonstration.

Solution Options discussed due to the impacts of the CV we will have to manage the MPRNs in the demonstration differently. A number of options have been investigated for the 300 domestic properties that will be included.

Solution Options:

Option 1

Title: Create a New LDZ

Overview

By creating a new LDZ the accurate CV can be applied to each MPRN in that LDZ. The new LDZ would have to be created across the industry including Gemini and UKLink

Main Constraints

The time to implement a new LDZ cannot be achieved within the timescales of the project

Option 2

Title: Create a new Scottish Independent Network

Overview

Scottish Independent Networks are effectively LDZs with discrete MPRNs and arrangements associated to them. This was investigated as an alternative to setting up a new LDZ

Main Constraints

Although less processes impacted it is just as complex as creating a new LDZ as many of the arrangements are mirrored due to the arrangements that relate to a Scottish Independent Network.

Option 3

Title: Process Compensation Payments

Overview

An AQ backstop would be applied to the MPRNs to prevent any impacts to the AQ. Compensation payments would be issued to the registered Shipper which would need to be passed onto the Supplier and ultimately the end consumer

Main Constraints

This solution is currently being used for Hydeploy Phase 2. Following feedback this has challenges for both Shippers and Supplier processes.

-As H100 does not have an end date multiple AQ backstops will need to be applied.

- Compensation payments are likely to be 3x billed position and therefore not sustainable or fair to impose on consumer

Option 4

Title: Calculate CV for every MPRN

Overview

Each MPRN would have its own CV value which would be used for calculation energy. The FWACV at LDZ level would not be used.

Main Constraints

It has not been determined that Hydrogen is an alternative to Gas yet so a change at this scale is not yet required.

MN stated these options have not been developed further due to the constraints above.

There are three further options that have been discussed also which further detail can be found within the slide deck.

Options:

Conversion Factor (correction Factor)

Overview

The correction factor is made up of temperature, pressure and compressibility conversion factors. For customers with an AQ less than 732,000 kWh a standard correction factor of 1.02264 is used as specified in The Gas (Calculation of Thermal Energy) Regulations 1996.

Rather than using the standard correction factor a determined figure would be used which will effectively convert the hydrogen volume into natural gas volume. This would ensure that Shippers are billed as if natural gas has been used.

Key Challenges

The Gas (Calculation of Thermal Energy) Regulations would require updating which cannot be achieved within the timescales of the project.

CDSP system changes required to prevent updating a non standard conversion factor for AQ<732,000 kWh (this functionality was introduced as part of XRN4932).

Shippers and Suppliers would need to use the same conversion factor in their downstream processes.

Conversion Factor is set out under Thermal Energy Regulations – therefore derogation may be required in order to set bespoke Conversion Factor for affected sites

Consumption Adjustments

Overview

After a read is received, which calculates the volume and energy used from the previous read, a consumption adjustment is applied to override the volume by calculating the energy used as if natural gas had been consumed.

The adjusted volume would then be used in downstream processes i.e. AQ calculation, Invoicing.

In order to re-calculate the volume the CV (for 100% Hydrogen) will be received from SGN, stored by the CDSP and issued to Shippers.

Key Challenges

There could be an impact on reads being accepted due to tolerance validation. Validation will be based on non adjusted energy whereas the AQ (used to validate the tolerance) will be calculated using the adjusted volume.

Shippers and Suppliers would need to calculate energy for these sites differently to the rest of their portfolios.

Shippers will need to issue the Hydrogen CV to Suppliers to ensure there is no financial impact to end consumers.

Multiplication Factor

Overview

Each meter has a multiplication factor applied which is set out in MDD (Market Domain Data). For larger sites this is applied when the actual voltage/current used is too large to be registered by the meter. For most domestic properties this value is set as 1.

Rather than using the 'standard' multiplication factor a determined figure would be used which will effectively convert the hydrogen volume into natural gas volume ensuring that Shippers are billed as if natural gas has been used. The determined Multiplication Factor would be added to MDD when the meter is added.

Key Challenges

End consumers will need to be engaged as a multiplication factor is not currently shown in the 'volume to Energy' calculation on domestic bills

The new Hydrogen meter may be capable of flowing 100% Hydrogen and Natural Gas therefore CDSP will need to develop new processes to ensure the MPRN has the appropriate multiplication factor set and allow the CDSP to update the metering where necessary.

MN outlined the next steps:

MN trust's that this has provided customers with a helpful overview of H100 Five, the impacts to the current processes and the solution options that have been investigated.

Based on those options assessed and discussed with DSG, MN is proposing to take two options forward;

- Consumption Adjustments
- Multiplication Factor

It is proposed these options are further elaborated upon within a Solution Option Change Pack, which will be issued in October for consultation with DSC Customers.

Xoserve welcome any input, comments or general queries DSC Customers have on this change and the options shared and ask that you contact using uklink@xoserve.com box account.

Discussions occurred throughout the presentation which have been collated below

- EL asked around the guidance Suppliers they will be provided re: principles or mandate to bill customers a certain way – and whether this was likely to be provided to them by Ofgem – PO/SHa clarified that our understanding is that the project will be responsible for confirming the principles that Suppliers should deploy when billing consumers at h100 premises.
- EL advised that early sight of details of those premises, that they supply, which could form part of the pilot would be advantageous.
- Metering arrangements - would meter data feed through existing channels (which they have in place with appointed agents) and via existing industry data flows (i.e. RGMA Meter Installation / Exchange / Removal notifications flows). MN/PO confirmed that the intention is that we use the existing processes. In the coming months we will be meeting with SGN to understand metering in more detail including if the meter can support both 100% hydrogen and natural gas.

H100 and CSS – it was noted that Shippers/Suppliers gaining a site would need notification /file flows to enable accurate billing where they had no customers at the commencement of the project.

7b. XRN5188 - Interim Data Loads of MAP Id into UK Link

SH presented this agenda item. SH provided a background which can be viewed within the slide deck. SH added that bulk load activity were completed under XRN5188 as part of MiR Drop 10. In addition. There may be a need to complete additional bulk loads of the MAP Id post November 2021 due to:

- Analysis of MAP Id data within the Supply Point Register has found significant degradation in this data since the initial bulk load
- The level of population of MAP Id data as a result of the enduring solution is unknown

SH added that to do this, additional considerations will need to be accounted for in the solution as a result of the enduring solution being live.

SH explained the existing rules in relation to XRN5188:

- Only MAP Id's registered with MDD/CDSP will be considered for upload (any MAP portfolios not registered will be rejected)
- MAP Id's are assigned to all current and historical assets where the MPRN/MSN match with MAP provided data
- Any data provided that successfully passes validation will replace data already loaded into UK Link (inc. RGMA provided MAP Id and previously provided MAP data)
- If multiple MAPs provide data for the same MPRN/MSN combination then both records will be rejected and MAPs informed accordingly
- Incorrect MPRN or MSN (when compared to UK Link) will be rejected back to the MAP and no data loaded
- Successfully loaded MAP Id's are played back to the submitting MAP informing them of the successful assigning of their Id to a MPRN/MSN
- No additional industry reporting/notification of assigned MAP Id is provided other than to the submitting MAPs (Shippers are not informed of MAP Id changes, but it is visible in DES)

Furthermore, SH discussed the working assumptions and changes needed. This will involve the following:

- The source of this information will continue to be the Meter Asset Providers (MAPs)
- Any data provided that successfully passes validation will NOT replace data already loaded into UK Link

- This will maintain the integrity of the data being populated by Shippers and MAMs
- There is not a requirement to inform the respective Shipper of the MAP Id assigned
 - The .SIM file is being introduced under XRN4780-C to inform Shippers of updates to the MAP Id. If required, this could be investigated as an additional requirement for future bulk loads

SH asked DSG members if they are supportive of the working assumptions. SH added that the slides will be published post meeting and once reviewed, customers are asked to get back to SH with their views on this. SH asked DSG if there are any specific scenarios or requirements industry parties feel need to be considered and to feed these into SH.

EL asked how this would be communicated to customers and who customers could provide their views. SH suggested it being a discussion at DSG meetings, leading to ratifying the requirements and solutions, to be then issued out in a change packs for industry views.

This was the end of 27th September 2021 DSC Delivery Sub Group meeting. Next Meeting: (Monday 25th October 2021)

If you have any questions relating to the above meeting minutes, please email uklink@xoserve.com