

UNC Workgroup 0799 Minutes
UNC arrangements for the H100 Fife project (100% hydrogen)
Friday 25 February 2022
via Microsoft Teams

Attendees

Rebecca Hailes (Chair)	(RH)	Joint Office
Mike Berrisford (Secretary)	(HB)	Joint Office
Andy Clasper	(AC)	Cadent
Cara Yates	(CY)	Ofgem
Cathy Mulliss	(CM)	E.ON Next Energy
Clare Manning	(CMa)	E.ON Next Energy
Darren Dunkley	(DD)	Cadent
Darren Lond	(DL)	National Grid
David Mitchell	(DM)	SGN
Ellie Rogers	(ER)	Xoserve
Eric Fowler	(EF)	Association of Meter Operators
Fiona Cottam	(FC)	Xoserve
Guv Dosanjh	(GD)	Cadent
Harry Brazier	(HB)	Ofgem
Helen Bennett	(HBe)	Joint Office
Hursley Moss	(HM)	Cornwall Energy
Jaimee LeResche	(JL)	Xoserve
Joel Martin	(JM)	SGN
Kundai Matiringe	(KM)	BU-UK
Lauren Jauss	(LJ)	RWE
Lorna Archer	(LA)	SGN
Martin Shannon	(MS)	Cadent
Michele Downes	(MD)	Xoserve
Michelle King	(MK)	Energy Assets
Michelle Niits	(MN)	Xoserve
Nitin Lawrence	(NL)	Independent Utilities Consultant
Paul Senior	(PS)	Utilita
Reshad Auckloo	(RA)	Total Gas & Power
Richard Fairholme	(RF)	Uniper Energy
Sally Hardman	(SH)	SGN
Sam Hughes	(Shu)	Citizens Advice
Stephen Tomlinson	(ST)	SGN
Tracey Saunders	(TS)	Northern Gas Networks

Copies of all papers are available at: <https://www.gasgovernance.co.uk/0799/250222>

The Workgroup Report is due to be presented at the UNC Modification Panel by 21 April 2022.

1.0 Outline of Modification

In looking to provide an outline of the Modification, Joel Martin (JM) provided an overview of the 'UNC Modification 799 – UNC arrangements for the H100 Fife project (100% hydrogen)' presentation, during which the following key points are recorded (by exception) as follows:

Background to project: Requirement for UNC Modification – slide 3

When asked whether Ofgem have the power to introduce hydrogen into the Uniform Network Code (the Code), on the grounds that so far the UK Government has not indicated a position on the matter, Cara Yates (CY) explained that Ofgem believe that this matter naturally falls under its Regulatory role and pointed out that The Gas Act does include provision for hydrogen – the matter has also been discussed with BEIS.

In noting that a UNC Modification in itself might not be enough, Richard Fairholme (RF) suggested that perhaps provision of a joint BEIS/Ofgem statement might prove beneficial.

New Action 0201: *Reference background to the H100 Fife project – Ofgem (CY) to look to provide clarification of the Governmental view on the H100 Fife project.*

Noting the point being raised, JM reminded those in attendance that the Modification is specifically targeted at the H100 Fife project before handing over to his colleague Stephen Tomlinson (ST) to provide an overview of the accompanying 'H100 Fife Overview – UNC MOD 799' presentation, (by exception) as follows:

Hydrogen Context – slide 2

In referring to the UK 2050 Net Zero Target, ST advised that this project forms part of the Government plan.

Hydrogen Evidence Base – slide 3

ST pointed out that it has taken the best part of 5 years to reach this point in the project.

System Overview – End to End Demonstration – slide 4

When asked in respect of the appliance relationships, whether the network would be supported by the metering operator and/or provider, ST responded by advising that this is currently being considered with the view to developing a suitable model.

When asked, ST confirmed that the circa 5MW electrolyser would be disconnected from the distribution network.

H100 Fife – Levenmouth Site – slide 6

When asked, ST confirmed that the storage tanks (circa 4.5 tonne units and therefore below the 5 tonne threshold) conform to COMMA requirements and would be run in keeping with the spirit of COMMA provisions.

In considering the network would potentially have up to 300 customers, with 270 being a minimum number, it was noted that this complies with the Ofgem funding requirements.

Governance – slide 7

JM pointed out that the hydrogen production side of the project resides under SGN, although outside of its current licence obligations and is sub-contracted out (as outlined in more detail on slide 10 in this presentation).

ST provided a brief outline of the six principal Conditions as outlined on slide 10 of the 'UNC Modification 799 – UNC arrangements for the H100 Fife project (100% hydrogen)' presentation before explaining that the prevailing licence conditions for the hydrogen project aspects are the same as those for Natural Gas (Condition 3) and that current plans are to provide up to 5 days of reserve storage capacity (Condition 4) whilst ensuring compliance with HSE requirements (Condition 5) and satisfying the minimum household rollout (Condition 6).

Project Phasing & Staging – slide 8

ST explained that Phases 1 & 2 now align with the 10 point plan definitions and that the O₂ generation and underground storage aspects would be developed further as the project progressed.

Customer Promise – slide 9

When asked, ST confirmed that whatever your new Supplier rate is, this is what customers could expect to be billed (i.e. no additional 'hidden' charges associated with the move to utilising hydrogen gas instead of natural gas).

It was noted that there would not be parallel services installed to a property (i.e. one for NG and one for hydrogen), instead just the one service pipe suitable for the gas being conveyed to the property would be installed at any one time. The whole process is aimed at making it as easy as possible for customers to switch between either fuel provision – it is only the colour of the service pipe which is different, and any switch is free of charge.

Customer Centric Regulatory Model – slide 10

When ST advised that SGN are happy to work with any potential Suppliers on the project, JM explained that this would be covered / developed in more detail (to be provided with Xoserve support) at future Workgroup meetings, supported by industry engagement sessions to be undertaken in due course including support from Ofgem.

When asked whether it is envisaged that the wind turbine / electrolyser would be 'sole use' items, and whether production costs would / could be impacted by wholesale (gas) prices, ST explained that SGN would have first use of the equipment, whilst any surplus hydrogen produced could be sold on (at an equivalent natural gas day ahead rate) to Shippers.

When asked whether there would be any potential energy balancing knock on impacts, JM interjected by explaining that this is covered in more detail later in the presentations, but in essence, the energy derived from hydrogen will be at a total system level and form a part of a parties' energy balances.

When Nitin Lawrence (NL) enquired whether the project would be utilising specific hydrogen meters and what the consequence of Calorific Values (CVs) would be, JM responded by agreeing that this is a dilemma insofar as hydrogen has a CV of circa 12MJ and natural gas circa 41MJ (involving higher volumes of hydrogen gas in order to match the energy value for natural gas), and that currently Xoserve are looking into this aspect as part of the billing review for which the consultation closes on Monday 28 February 2022.

JM went on to explain that ideally, he would have liked a separate LDZ creating, but that this was deemed to be both cost and time prohibited – it is expected that this area would be considered and developed further (inc. provision of hydrogen meters) at future Workgroup meetings.

It was noted that Energy UK could assist in the industry (Supplier) engagement process and that SGN had already been in discussions with them early in 2021, and have been providing regular updates to Energy UK since that time – this will also link into the Ofgem engagement letter / process in due course.

In considering potential Shipper agreements, JM advised that a single Shipper would purchase gas from SGN for entry requirements, whilst multiple Shippers would be involved on the exit side of the equation, similar in concept to the bio-methane entry point model (inc. Gemini energy balancing provisions).

Fiona Cottam (FC) advised that there would be no day to day changes involved in utilising the Gemini system and the only real issue that parties need to consider is whether your customer is using hydrogen or natural gas so that you can ensure that you bill them correctly – parties will still buy gas in the same way as they currently do.

Billing – slide 11

ST advised that the 'Multiplication Factor' aspects are currently going through a detailed Xoserve design stage assessment, at which point JM advised that all project proposals aim to align with the Thermal Energy Regulations, in order to avoid invoking the flow weighted capping process. A specific customer MPRN will be utilised to convert from hydrogen to natural gas equivalent (and visa versa), as part of the set up processes within the system which allows parties to utilise the LDZ CV for the site concerned in order to obtain the correct volume.

When asked, JM confirmed that whilst the natural gas CV can vary on a daily basis, the hydrogen CV is static at circa 12MJ and furthermore, Xoserve would be undertaking additional analysis to refine the proposed approach.

Attention then reverted back to the original '*UNC Modification 799 – UNC arrangements for the H100 Fife project (100% hydrogen)*' presentation.

Background to project: Requirement for UNC Modification – slide 4

JM advised that following a thorough trawl through the Code, a new definition for a hydrogen MPRN would be established, to ensure that as a site transitions to hydrogen, the associated MPRN would change accordingly.

Overview of business rules in Modification – slides 5 to 9

- BR1 – provisions could be extended, if needed, through an additional UNC Modification;
 - It is suggested that provision of a 'sunset date' might prove beneficial;
 - This will be considered further as part of the development of legal text in Workgroup meetings 2 and 3;
 - Duration of H100 trial outlined within legal text to be considered;
 - Where a site switches back from hydrogen to natural gas, the transitional rules would no longer apply;
 - Any associated costs would be 'covered' by the H100 Fife project;
 - At the end of the trial period (circa 2027) any legal text provisions would die away and meters would revert back to natural gas ones, including the supporting billing re-alignment arrangements;
 - Other (similar) projects could 'piggy back' onto the H100 Fife project, even with differing timescales and could therefore in theory run beyond 2027 – legal text will be developed in such a way as to cover this requirement;
 - UNC Modification 0800 'Introducing the concept of derogation framework into Uniform Network Code (UNC) (Authority Direction)' would assist this project and also similar initiatives going forward;
 - Any H100 Fife project legal text would be transitional text only;
 - Care needed around protecting Suppliers commercial positions when meters switch from natural gas to hydrogen;
 - H100 project team are considering the best options in order to accommodate any concerns in this area;
- BR3 – Currently Code GTC defines gas as being predominately methane;
- BR4 – hydrogen meters will be SMART capable, although how much of their functionality would be utilised remains to be determined;
 - SMET2 are in scope of the project;
- BR5 – rationale for this rule provided including GDPR aspects and the fact the information would be held on a secure platform provision;

- BR6 - Xoserve to provide more information around multiplication factor in due course (which could be appended to the Modification at some point);
- BR7 – represents prudent proposals;
- BR9 – includes shrinkage volumes / calculations;
- BR10 – provided for clarification purposes – in essence, H100 Fife project is not a storage facility (as defined under Code);
- BR11 – to be developed further during Workgroup meeting 2;
- BR12 – provided for clarity purposes;
- BR14 – reliant on timely provision of information to Xoserve and aligns with previous discussions between SGN and Xoserve relating to this matter;
 - MAM / MAP discussions around their roles remain ongoing;
 - End read dates required (within the secure information portal) for meters switching from hydrogen to natural gas;
 - As per RGMA provisions will need to include CDSP and Registered Supplier information;
 - It remains the responsibility of the Shipper to update the UKLink system;
 - Subject to no GDPR contraventions, Start read date to also be available on the secure information portal;
 - TPD Section Q (Emergency) provisions aim to exclude H100 Fife from Code rules;
 - In respect of connection / disconnection 48hr notification to the CDSP requirements are concerned, the RGMA rules have changed, so there might be benefit in considering the REC discussions;
 - SGN have previously engaged with REC on these matters, so could always re-engage;
 - There are NO plans to ‘mirror’ the secure portal information within the Xoserve data enquiry system, although it is noted that the RGMA update information will flow through to the data enquiry system;
- BR16 – questions asked around the ‘Connected Delivery Facility’ reference, which SGN believes is correct - JM will look to clarify at the next Workgroup meeting;
 - Also links into potential settlement impacts;
- BR18 – provided for clarity purposes;

Modification implementation considerations – slide 10

JM pointed out that in respect of Condition 5 (Safety) previously Ofgem rejected UNC Modification 0760 ‘*Introducing the concept of a derogation framework into Uniform Network Code (UNC)*’ on the grounds of safety related concerns.

ST pointed out that whilst the HSE decision is not expected until later in 2022, an interim indication as to whether there are any potential ‘show stoppers’ would be provided.

When asked whether Ofgem would be happy for Panel to make a decision around the H100 Fife project Modification under the proposed timeline, Harry Brazier (HB) agreed to discuss the matter with his Ofgem colleagues and provide a view at the next Workgroup meeting.

New Action 0202: *Reference Condition 5 – Safety April 2022 deadline* – Ofgem (HB) to discuss the proposal around Panel making a decision on the H100 Fife project timeline and provide a view at the next Workgroup meeting.

New Action 0203: *Reference Condition 5 – Safety Energy UK Timeline Concerns – SGN (JM)* to consider providing a clear H100 Fife project and Modification timeline and a view on any potential interaction areas.

When asked, JM advised that SGN would be looking for a January 2023 effective implementation date for the Modification.

2.0 Initial Discussion

2.1. Issues and Questions from Panel

In highlighting the three Panel questions raised at the 20 January 2022 Panel meeting, RH requested that SGN provide a brief presentation at the next Workgroup meeting in response to questions 1 and 2.

New Action 0204: *Reference Panel Questions 1 and 2 – SGN (JM)* to provide a brief presentation at the next Workgroup meeting in response to the questions posed.

2.1.1. Does the Modification have a potential impact on (Switching) SCR?

Not specifically discussed.

2.1.2. Do the Workgroup agree with the Proposer's view on SCR?

Not specifically discussed.

2.1.3. Does the Modification have any potential IGT & other Code impacts?

RH pointed out that there are potential REC, SCR and other code impacts associated with the Modification and that SGN (as Proposer) would also need to consider any potential PAC impacts / interactions, especially in relation to the timely provision of reads.

RH then enquired as to when it would be possible for her to formally request provision of the accompanying Rough Order of Magnitude (ROM), to which Michelle Niits (MN) replied advising that as discussions had already taken place with Ofgem and others, Xoserve already has a set of high-level cost assessments.

New Action 0205: *Reference High-Level H100 Fife Project Costs – Xoserve (ER)* to provide copies of the projected implementation costs and associated timelines.

When asked when legal text would be available, JM indicated that hopefully in time for consideration at the 2nd or 3rd Workgroup meeting. Dave Mitchell (DM) also advised that he would take the feedback from today's meeting and discuss legal text requirements further with the lawyers involved.

When RF enquired as to who would pay the Xoserve costs for their involvement in the project, and whether utilising the Ofgem 'sandbox' would be a better option than going through this Modification, Tracey Saunders (TS) responded by pointing out that the Ofgem 'sandbox' approach relies on derogation being present within Code, which at this time, is not the case. MN also pointed out that Xoserve already has a decarbonisation fund and their H100 Fife project costs will be 100% covered off by the DN's under this provision.

2.2. Initial Representations

None.

2.3. Terms of Reference

As matters have been referred from Panel a specific Terms of Reference has been published alongside the Modification at: <https://www.gasgovernance.co.uk/0799>

3.0 Next Steps

RH confirmed that next steps as being:

- Overview of Multiplication Factors
- Consideration of Project Implementation Costs
- Consideration of Modification v's Project Timeline Interactions
- Consideration of Panel Question Responses
- Consideration of Legal Text

4.0 Any Other Business

None.

5.0 Diary Planning

Further details of planned meetings are available at: www.gasgovernance.co.uk/events-calendar/month

Workgroup meetings will take place as follows:

Time / Date	Paper Publication Deadline	Venue	Workgroup Programme
09:30 Friday 11 March 2022	17:00, Monday 07 March 2022	Teams Meeting	Standard Workgroup Agenda
11:00 Wednesday 30 March 2022	17:00, Monday 21 March 2022	Teams Meeting	Standard Workgroup Agenda

Action Table (as at 25 February 2022)

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
0201	25/02/22	1.0	<i>Reference background to the H100 Fife project – Ofgem (CY) to look to provide clarification of the Governmental view on the H100 Fife project.</i>	Ofgem (CY)	Pending Update due 11/03/22
0202	25/02/22	1.0	<i>Reference Condition 5 – Safety April 2022 deadline – Ofgem (HB) to discuss the proposal around Panel making a decision on the H100 Fife project timeline and provide a view at the next Workgroup meeting.</i>	Ofgem (HB)	Pending Update due 11/03/22
0203	25/02/22	1.0	<i>Reference Condition 5 – Safety Energy UK Timeline Concerns – SGN (JM) to consider providing a clear H100 Fife project and Modification timeline and a view on any potential interaction areas.</i>	SGN (JM)	Pending Update due 11/03/22

Action Table (as at 25 February 2022)

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
0204	25/02/22	2.1	<i>Reference Panel Questions 1 and 2</i> – SGN (JM) to provide a brief presentation at the next Workgroup meeting in response to the questions posed.	SGN (JM)	Pending Update due 11/03/22
0205	25/02/22	2.1	<i>Reference High-Level H100 Fife Project Costs</i> – Xoserve (ER) to provide copies of the projected implementation costs and associated timelines.	Xoserve (ER)	Pending Update due 11/03/22