

Company Secretary
Scotland Gas Networks Plc
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Email: Cara.Yates@ofgem.gov.uk

Date: 16 April 2021

Dear Company Secretary,

Network Innovation Competition: Decision on outcome of Condition 3 of the 2021 Project Direction for Scotland Gas Network Plc's H100 Fife Project

Background

Scotland Gas Networks Plc (ScGN) was awarded NIC Funding in November 2020 for H100 Fife ("the Project") subject to compliance with the terms contained in the Amended Project Direction issued on 8 February 2021 ("the February 2021 Direction")¹.

These terms included, under Condition 3, a requirement for ScGN to submit a report to the Authority by 17 March 2021, demonstrating an end-to-end regulatory framework plan, covering regulatory issues identified by the Authority, proposals to resolve these and indicators of what the ScGN considers should constitute evidence of resolution and an estimated date of resolution for each issue.

This letter contains our decision on the outcome of Condition 3 and sets out, in Annex 1, the Authority's amendments to the February 2021 Direction ("the April 2021 Direction").

The 2020 decision

¹

https://www.ofgem.gov.uk/system/files/docs/2021/02/h100_fife_amended_project_direction_2021_final_signed_002_0.pdf

In the NIC Decision Document in November 2020 (“the 2020 Decision”)², the Authority decided that the Project required further assurance that regulatory issues had been identified with a plan to address these given the unprecedented and end-to-end nature of the project.

The decision noted that engagement with stakeholders in the retail space had been limited and it was essential to understand how consumer protection standards will be upheld, how participating consumer’s suppliers will engage with the project, and how customers are charged for hydrogen at the same rate as natural gas. The Authority therefore required ScGN to work with relevant stakeholders, regulatory bodies and code administrators in the development of a regulatory framework plan as described in Condition 3 of the February 2021 Direction.

Condition 3 – ScGN Report and our views

On 17 March 2021, ScGN submitted a report to the Authority as required under Condition 3 of the February 2021 Direction. A summary of ScGN’s report and our assessment of the information provided is below.

- i) Retail and commodity balancing proposals, including:
 - *Evidence of engagement with licensed suppliers/shippers, including plans for how the terms of commodity balancing will be established and agreed to ensure participating customers pay the same per unit of energy for hydrogen as they would for natural gas.*

ScGN provided evidence of their engagement to date with suppliers and shippers through a number of industry forums and platforms where they have presented the project at a high level.³ They provided evidence of the outcomes of this engagement, including their communication of commodity balancing proposals, which has not identified any barriers for suppliers or shippers thus far. We note that engagement is somewhat limited at this stage as work on the details of the proposals continues to be explored with Xoserve, including the full system impacts for suppliers and the level of awareness that will be required. We are satisfied with the level of engagement ScGN has achieved with suppliers and shippers for the project so far and their commitments to continue regular engagement with industry as this methodology continues to develop.

²² [NIC Decision Document 2020 \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/nic-decision-document-2020)

³ This includes (but is not limited to) Energy UK, DSC Change, UNC Panel, a Distribution sub-committee, SPAA Expert Group, Citizens Advice and IGEM.

- *Details on potential methodologies for the manner in which a specific Calorific Value will be determined to calculate energy consumed at hydrogen premises and communication of this to suppliers.*

ScGN outlined their ongoing work with Xoserve to develop solutions to ensure the energy content calculated for hydrogen meters on the H100 Fife network are not adversely impacted due to the additional volume of gas that will be passing through. This included a breakdown of options identified and their associated levels of change and risk. At this stage, the recommendation suggests a correction factor applied to hydrogen meters through Xoserve's systems will adjust hydrogen volumes so that the resulting energy calculation is comparable to natural gas when customers are billed. It is recognised that gas shippers and suppliers may need a level of awareness of potential disparities between volume and energy charges which is still being explored by ScGN.

Whilst this work has been communicated to industry (including suppliers) through industry forums, further development of the end solution and conclusive engagement with code administrators will be required once a solution is fully formulated. ScGN note that they are committed to continuing this work and engaging with the Authority to ensure the H100 CV is excluded from the FWACV calculations for the Scotland Local Distribution Zone for the purposes of the trial. We are content with ScGN's progress on the billing methodology thus far and expect ScGN to continue to provide regular updates on the development of this work and communication of it to stakeholders.

- *Evidence of an understanding of the legal basis for supplier/shipper participation in the project and whether industry licence derogations or code modifications are required.*

ScGN provided evidence of their engagement through industry forums to understand if there are further legal barriers for supplier/shipper participation in the project beyond their own licence and code analysis, and to date have not identified any barriers. They provided a statement from a third party shipper that supports the proposed regulatory and commercial model and does not envisage that licence changes for suppliers/shippers will be required. They noted that though this is the viewpoint of an individual shipper, 60 organisations have been engaged on the regulatory proposals, and they have not raised any legal concerns so far. ScGN have begun reviewing sections of the Uniform Network Code ("UNC") and is exploring a modification with NGN that is in progress to potentially facilitate the project. Though licence changes are not expected, work is still ongoing to validate this position and the review of wider industry codes will continue as the regulatory model develops. We are satisfied with ScGN's level of analysis and commitments to

maintain ongoing engagement in this area, including a full analysis of industry licences with external support if required.

- *Details on changes required to Xoserve's systems as part of any proposed billing arrangements and anticipated industry code modifications*

ScGN outlined Xoserve's indicative 12-month plan to undertake a detailed assessment of, and implement a solution (agreed with industry) to, billing arrangements, which includes systems, processes and data. At this stage, it is envisaged that system changes will be managed centrally through Xoserve to minimise disruption and avoid adjustments to supplier billing systems. This would allow Xoserve to update or amend data to account for the lower Calorific Value of hydrogen and ensure end consumers are not exposed to additional costs. ScGN state that Xoserve is still analysing the full extent of change requirements to their systems and it is noted that the current plan is indicative based on high level information which will evolve as the project progresses. Whilst Xoserve's delivery plan is initiated, ScGN will continue engagement with industry and provide updates to the Authority. We are satisfied with the level of progress in analysing system impacts so far and recognise this work will need to be explored in further detail as the delivery plan progresses.

- ii) Other outstanding issues across the gas network and the supply chain, including those related to retail, charging and access matters. The regulatory approvals plan should ensure they have considered impacts and interactions with the regulatory framework applicable to the gas network and to the supply of gas, including where relevant with reference to the Gas Act 1986, other relevant legislation and the licence conditions of all licensees engaged in this Project. The plan must demonstrate:

- *Evidence of wider industry engagement, including with the Oil and Gas Authority, code administrators, suppliers and (third party) shippers.*

ScGN provided evidence of engagement planned with wider stakeholders in industry, including the Oil and Gas Authority and other members of the Institute of Gas Engineers and Managers (IGEM). A meeting has also been scheduled with Citizens Advice, and engagement with suppliers and shippers through industry forums is ongoing, with Code Administrator support from the Joint Office of Gas Transporters. We are satisfied with ScGN's plans to engage with wider industry and their commitments to continue monitoring the need to engage with wider stakeholders as the project progresses.

- *Confirmation of any interactions with current balancing arrangements on the network at a whole system level.*

ScGN provided evidence of the electricity arrangements for the project and an analysis of relevant legislation. The 7MW wind turbine (owned by ORE Catapult) will be connected to the electrolyser by a private wire and does not require a generation licence as it is less than 50MW⁴ and is a private commercial arrangement. Electricity imports to the electrolyser and associated balancing arrangements will be structured through a power purchase agreement with an electricity supplier. This approach has been validated by an external consultant who does not expect issues with any existing electricity balancing arrangements, as these will be accounted for in the registered supplier's settlement position.

ScGN also set out that gas suppliers will remain responsible for the energy balance of their gas customers that reside on the H100 Fife network as if they were natural gas users. Evidence provided included support from a third party shipper that gas shippers supplying non methane gas will remain compliant with their licence as they will continue to balance their energy portfolios on a normal "energy" basis (despite the customer consuming a non-methane based gas)⁵. The UNC will continue to govern the relationship between gas shippers and transporters, though it is noted a change to the UNC's definition of gas is required. While the H100 Fife network will be distinctly (physically) separated from the existing gas network, it will still participate in existing central system arrangements.

We are satisfied with the arrangements agreed with ORE Catapult in principle and the analysis of interactions with existing electricity and gas balancing arrangements. ScGN will continue to engage and notify the Authority if any issues are identified in this area as the regulatory model develops.

- *Detailed analysis of industry licences following engagement with relevant licensees including confirmation that licensees are able to meet their existing licence obligations and if any derogations or additional licence obligations would be required to facilitate the project; including the Funding Licensee, participating suppliers and shippers.*

ScGN provided evidence of their ongoing engagement and monitoring of industry licences that will continue as the regulatory model progresses. ScGN has presented the project to suppliers and shippers, who have not yet raised any concerns that they would be unable to

⁴ Therefore, qualifies for a licence exemption under the Electricity (Class Exemption from the Requirement for a Licence) Order 2001. <https://www.legislation.gov.uk/ukxi/2001/3270/contents/made>

⁵ The balancing of energy is a system managed process to ensure the energy entering the networks meets the energy exiting the network. Shippers have licence requirements to balance this portfolio and incentives to meet this exist under the UNC rules.

comply with their existing licence obligations by participating in the project. A third party shipper has also provided their support for the proposed regulatory model and commercial arrangements and does not envisage non-compliance with existing industry licences.

As part of the proposed regulatory model, ScGN plans to use an affiliate company “SGN Futures” to own and operate production for the purposes of the trial. ScGN is required to notify the Authority that they will be part of a vertically integrated undertaking as both ScGN and SGN Futures will be indirectly controlled by the same parent company. ScGN will be obligated to ensure they are compliant with their licence and maintain sufficient independence of their transportation business from SGN Futures throughout the Project’s duration, in accordance with Standard Special Conditions A33, A34 and A36 of their licence. ScGN must submit a notification to Ofgem no later than 7 April 2022, that includes a statement of the measures they will implement to ensure full compliance with their licence and the independence of the transportation business for the purposes of the trial.

In addition, ScGN must submit an exit strategy for the Project to the Authority no later than 26 January 2026 for approval. The exit strategy must consider whether it is appropriate for other parties outside of ScGN’s vertically integrated undertaking to take on ownership of production elements of the project once the trial has concluded, including whether any profits resulting from a transfer of ownership will be returned to consumers. The Authority will provide its decision no later than three months from receipt of the exit strategy. ScGN will be unable to access funding pertaining to Project Deliverable 9 onwards until the exit strategy has been approved for the project.

We are satisfied that the need for derogations or additional licence obligations will continue to be explored as the regulatory model develops, and we expect ScGN to continue regular engagement with the Authority to provide updates on any concerns identified in this area.

- *Demonstration of the interactions between suppliers and shippers within the project, including what regulatory proposals will need to be agreed with these parties as separate entities.*

ScGN confirmed that whilst H100 Fife will be physically separated from the existing gas network, it will still participate in central system arrangements meaning existing processes that govern relationships between shippers and suppliers will continue. It is noted that though a change to the UNC is required, interactions between entry and exit shippers is managed through existing UNC arrangements and will remain the same for H100 Fife (where no direct engagement between the two parties is required). Suppliers will remain able to use their existing exit shippers whilst participating in the project, though it is likely suppliers will need a level of awareness of the Project which is still being explored.

We recognise work to map and draft detailed commercial arrangements is ongoing and expected to conclude prior 7 April 2022. We are satisfied with the level of analysis provided by ScGN so far and their ongoing engagement with suppliers and shippers to identify and agree suitable arrangements as the regulatory model progresses.

- *Details of third party shippers appointed to assume licensable activities under the Gas Act and their associated appointments of Metter Asset Managers (MAM).*

ScGN set out that they are still in the process of onboarding a third party shipper for network entry under the project and are defining the terms of this appointment. An internal ScGN regulatory working group has been mobilised that will track progress in contracting arrangements, including the strategy for appointments of MAM's where expert support will be used as required (such as DCC). We are satisfied with the level of progress made in this area so far and expect ScGN to continue to provide updates to the Authority as the relevant appointments and processes are defined.

- *Confirmation of whether appointed MAM's will require additional qualification to work on hydrogen meters.*

ScGN have confirmed that hydrogen meters will be compliant with the Measuring Instruments Directive and are continuing to explore whether additional qualifications will be required for MAM's to work on these. We are satisfied with ScGN's commitments to engage through relevant industry metering forums to establish any further requirements and to ensure provisions are in place for MAM upskilling if this is needed.

- *Detailed analysis of industry codes across all sectors engaged with through this project, that will require amendment, including but not limited to consideration of the Uniform Network Code, the Retail Energy Code, the Smart Energy Code, the Supply Point Administration Agreement, the Master Registration Agreement, relevant metering codes of practice and consumer protection regulations. This should also consider if changes are required to accommodate third-party shipping.*

ScGN outlined the relevant sections of the UNC that are being reviewed for potential changes to facilitate the project and their work with NGN on a carve out modification that may provide a vehicle for this amendment. We are satisfied with ScGN's commitment to ensure a full analysis of industry codes with external support and administration assistance through the Joint Office for Gas Transporters and expect ScGN to continue to provide regular updates to the Authority as this progresses.

ScGN provided additional confirmation of their commitments on protections for customers participating in the Project. They noted the Project's aim to mirror existing regulatory arrangements as closely as possible and ensure participation in the Project is simple and attractive for customers. ScGN set out the principles they are committed to maintaining for customers throughout the project and provided an analysis of relevant legislation they will continue to comply with. We have set out below some of the principles of customer protections under the Project that will be maintained throughout its duration.

- It will be cost-neutral to participate in the project as the cost differential between hydrogen and natural gas will be borne by the Project
- Metering and billing will be managed through system processes, without the need for input from the customer beyond normal practices
- Customer information packs will be made available for those who participate, including details of billing arrangements and relevant contact information
- Customers can remain with their existing suppliers and retain the flexibility to switch
- Customers will retain the flexibility to opt-in and subsequently opt-out of the project throughout the Project duration, meaning they can revert back to natural gas at any time if desired
- Customers who opt-in and subsequently opt-out will have their natural gas appliances back-converted or replaced for natural gas substitutes at no additional cost
- Hydrogen appliances and meters will be installed and maintained for the project duration at no additional cost to customers
- Customers are entitled to keep any appliances provided under the Project should the hydrogen network endure beyond the trial
- If the project is halted at any time, appliances will be converted back to natural gas or new natural gas appliances will be provided
- Customers will be invited to experience hydrogen appliances at a Hydrogen Demonstration Facility prior to participation
- 24 hour emergency call out support will be available
- The principles of the Gas (Standards of Performance Regulations) 2005 will be adhered to including expectation interruptions at any time will not exceed 24 hours, otherwise compensation will be paid

We are satisfied with customer protection commitments outlined by ScGN and understand this work is ongoing to ensure customers participating in the project are not disadvantaged. We expect ScGN to continue to work closely with the Authority, and retail and commercial stakeholders to ensure all existing customer protections are maintained for those on the H100 network and explore whether any additional protections are required.

iii) For each regulatory concern identified, a detailed timetable of deadlines for securing the relevant agreements with the relevant parties on the required regulatory arrangements with the above parties.

ScGN noted that the issues identified above require further work for solutions to be sufficiently explored and validated beyond April 2021. We also note their concerns about retaining flexibility in the timelines for delivering evidence to close each regulatory issue, given the uncertainty in how the regulatory framework may evolve at this stage. To ensure sufficient attention to detail for the areas outlined above and any wider regulatory work required to support the project, we are satisfied with the overarching deadline to identify and agree a suitable regulatory and commercial framework for the project for 7 April 2022, in line with Project Deliverable 3. However, ScGN is required to continue engagement with the Authority (as a minimum) every three months from the date of this Project Direction, to provide further evidence and prove adequate resolution of regulatory issues while implementing their regulatory plan. Funding pertaining to Project Deliverable 4 onwards will not be able to be accessed until we are satisfied all regulatory issues are resolved.

Upon receipt of the report, we are satisfied that ScGN have developed an acceptable regulatory framework plan. We are satisfied with the progress ScGN has made to engage with relevant industry bodies to ensure delivery of the Project, and its ongoing analysis to ensure an acceptable framework to support the regulatory and commercial proposals is established by 7 April 2022.

Our decision

In light of the evidence provided, we have decided that Condition 3 of the February 2021 Direction has been fulfilled.

In accordance with Condition 3 of the 2020 Direction, we hereby amend the schedule to the 2020 Direction in the manner set out in Schedule 1 of this letter. This letter constitutes notice pursuant to Section 38A (Reasons for decisions) of the Gas Act 1986.

Our assessment in this letter does not fetter our discretion with respect to any future decisions on the fulfilment of further conditions.

If you would like to discuss any of the issues raised in this letter, please contact Cara Yates at Cara.Yates@ofgem.gov.uk.



Michael Wagner
Deputy Director, Gas Sector
For and on behalf of the Authority

Amended Schedule to Project Direction

1. TITLE

Project Direction ref: ScGN / H100 Fife / [16 April 2021](#)

2. PREAMBLE

This Project Direction is issued by the Gas and Electricity Markets Authority (the "Authority") to Scotland Gas Networks Plc (the "Funding Licensee") pursuant to the Gas NIC Governance Document issued pursuant to Special Condition 1I (The Network Innovation Competition) of the ScGN Gas Transporter Licence (the "Licence"). It sets out the terms to be complied with in relation to H100 Fife (the "Project") as a condition of it being funded under the NIC and the Funding Return Mechanisms.⁶ [This Project Direction supersedes the Project Direction issued on 8 February 2021 \("the February 2021 Direction"\).](#)

Unless otherwise specified, defined terms in this Project Direction have the meaning given to them in Appendix 1 of the Gas NIC Governance Document.

References to specific sections of the Funding Licensee's Full Submission in this Project Direction are, for ease of reference, made by referring to the section number in the Funding Licensee's Full Submission pro-forma.

3. CONDITIONS PRECEDENT

In accepting funding for the Project, the Funding Licensee is subject to the following Project-specific conditions:

⁶ The Funding Return Mechanism is defined in Part C of Special Condition 1I of the Licence.

Condition 1

~~The Funding Licensee will not access any NIC funds from the Project Bank Account until it has signed contracts with the Project Partners named in Table 1, signed a Memorandum of Understanding with Project Partners named in Table 2, and letters of commitment from the proposed project partners in Table 3.~~

Table 1. Licenced Project Partners

Cadent Gas Ltd
Northern Gas Networks Ltd
Wales and West Utilities Ltd

Table 2. Established non-licensed Project Partners

Baxi Heating UK Ltd
Bosch Thermotechnology Ltd

Table 3. Project Partners currently in the Hy4Heat consortium

HyCookers (Consortium led by Enertek International Ltd) or derivative thereof
HyFires (Consortium led by Enertek International Ltd) or derivative thereof

The Licensee will not be able to access NIC funding pertaining to Project Deliverable 5 until it has signed contracts with all Project Partners named in Table 1, Table 2 and Table 3.

~~Condition 2—Value for money~~

~~Fulfilled pursuant to our decision on Condition 2 dated 8 February 2021.⁷~~

~~Condition 3—Evidence of satisfactory regulatory model~~

~~The Funding Licensee is required to develop an end-to-end regulatory framework plan, including regulatory issues identified, proposals to resolve these, clear indicators of what the Funding Licensee considers should constitute evidence of resolution, and an estimated date of resolution for each issue. This plan should be submitted to Ofgem for approval no later than three months from the date of issue of this Project Direction and should cover (but not be limited to) the following regulatory issues identified:~~

- ~~i)——Retail and commodity balancing proposals, including:~~
 - ~~•Evidence of engagement with licensed suppliers/shippers, including plans for how the terms of commodity balancing will be established and agreed to ensure~~

⁷ <https://www.ofgem.gov.uk/publications-and-updates/amended-project-direction-h100-fife-sgn>

~~participating customers pay the same per unit of energy for hydrogen as they would for natural gas.~~

- ~~• Details on potential methodologies for the manner in which a specific Calorific Value will be determined to calculate energy consumed at hydrogen premises and communication of this to suppliers.~~
 - ~~• Evidence of an understanding of the legal basis for supplier/shipper participation in the project and whether industry licence derogations or code modifications are required.~~
 - ~~• Details on changes required to Xoserve's systems as part of any proposed billing arrangements and anticipated industry code modifications.~~
- ii) ~~Other outstanding issues across the gas network and the supply chain, including those related to retail, charging and access matters. The regulatory approvals plan should ensure they have considered impacts and interactions with the regulatory framework applicable to the gas network and to the supply of gas, including where relevant with reference to the Gas Act 1986, other relevant legislation and the licence conditions of all licensees engaged in this Project. The plan must demonstrate:~~
- ~~• Evidence of wider industry engagement, including with the Oil and Gas Authority, code administrators, suppliers and (third party) shippers.~~
 - ~~• Confirmation of any interactions with current balancing arrangements on the network at a whole system level.~~
 - ~~• Detailed analysis of industry licences following engagement with relevant licensees including confirmation that licensees are able to meet their existing licence obligations and if any derogations or additional licence obligations would be required to facilitate the project; including the Funding Licensee, participating suppliers and shippers.~~
 - ~~• Demonstration of the interactions between suppliers and shippers within the project, including what regulatory proposals will need to be agreed with these parties as separate entities.~~
 - ~~• Details of third party shippers appointed to assume licensable activities under the Gas Act and their associated appointments of Metter Asset Managers (MAM).~~
 - ~~• Confirmation of whether appointed MAM's will require additional qualification to work on hydrogen meters.~~

- ~~Detailed analysis of industry codes across all sectors engaged with through this project, that will require amendment, including but not limited to consideration of the Uniform Network Code, the Retail Energy Code, the Smart Energy Code, the Supply Point Administration Agreement, the Master Registration Agreement, relevant metering codes of practice and consumer protection regulations. This should also consider if changes are required to accommodate third-party shipping.~~
 - ~~This list is not exhaustive and the Funding Licensee must identify and consider all relevant regulatory considerations relating to the gas network and to the supply of gas. The Authority may contact the Funding Licensee during the three-month plan development period to request further evidence and information in relation to the regulatory issues arising in respect of this Project, including the issues set out in the Funding Licensee's Full Submission and the Regulatory Analysis paper received by the Authority on 19th October 2020.~~
- iii) ~~For each regulatory concern identified, a detailed timetable of deadlines for securing the relevant agreements with the relevant parties on the required regulatory arrangements with the above parties.~~

~~The Licensee must engage with the Authority on a monthly basis to provide updates in the course of developing its regulatory plan and will be expected to provide evidence of its engagement with wider stakeholders.~~

~~The Authority will provide its decision no later than one month from receipt of the plan and, if approved, amend this direction to set further conditions on the basis of the regulatory approval plan submitted. This will define which evidence the Licensee will need to provide to prove adequate resolution of regulatory issues if necessary, including the deadlines within which this evidence needs to be submitted to the Authority.~~

~~The Licensee will not be able to access funding pertaining to Project Deliverable 4 onwards until the regulatory model has been approved and the Authority is satisfied that all regulatory issues are resolved.~~

Condition 4 - Security of hydrogen supply

The Funding Licensee is required, no later than its deadline for Project Deliverable 1, to provide notice to the Authority of its contingency plans in the event of electrolyser failure and insufficient storage capacity. The notice should include what redundancy measures have been considered in the procurement of electrolysers as well as protections for customers that experience an interruption (eg Guaranteed Standards of Performance should still apply).

Condition 5 - Safety

The Funding Licensee is required to provide Ofgem with evidence of engagement with the HSE in relation to its Safety Management Framework, no later than one week from the closure of its stated objection window in Project Deliverable 3. In the event that the HSE has an objection to the Project, the Funding Licensee must pause all project activities until objections have been resolved to the satisfaction of the Health and Safety Executive.

Condition 6 – Minimum household engagement

The Funding Licensee is required to ensure that sufficient households have signed up to the trials in order to achieve statistical representation, and will be required to ensure that the number of households opted-in is representative throughout the trial. The Funding Licensee is required to report to the Authority if the number of participating households falls below statistically representative levels or, alternatively, 270 households, during the course of the four-year trial. The Funding Licensee must report within one week of each occasion in which this threshold is triggered, and include in its correspondence to the potential effect that this fall in numbers could have on project outputs if sustained. Ofgem may deem Project Deliverable 4 to be incomplete if household representation cannot be maintained to a sufficient level throughout the course of the trial.

4. COMPLIANCE

The Funding Licensee must comply with Special Condition 1I of the Licence, the Gas NIC Governance Document (as may be modified from time to time in accordance with Part E of Special Condition 1I) and with this Project Direction.

Any part of the Approved Amounts that the Authority determines not to have been spent in accordance with this Project Direction (or in accordance with the Gas NIC Governance Document) is deemed to be Disallowed Expenditure.

Pursuant to Special Condition 1I of the Licence, Disallowed Expenditure is any revenue received (whether by the Funding Licensee or by another Licensee) from the NTS Operator under the NIC Funding Mechanism that the Authority determines not to have been spent in accordance with the applicable provisions of the Gas NIC Governance Document or the terms of the relevant Project Direction.

Pursuant to Chapter 8 of the Gas NIC Governance Document, Disallowed Expenditure includes any funds that must be returned if the Project is halted without Ofgem's permission, any funds that have not been spent in accordance with the approved Project Budget contained within the Project Direction, and any unspent funds for completed

Projects, and any Directly Attributable Costs that the Authority deems to have been misreported following a Project audit. In particular, it includes the proportion of funds associated with a Project Deliverable (as proposed by the Network Licensee), where the Network Licensee is deemed by Ofgem to be at fault for the non-delivery of that Project Deliverable.

5. APPROVED AMOUNT FOR THE PROJECT

The Approved Amount is **£17,999,968**.

The Approved Amount will be recovered by the System Operator from GB customers and transferred to the Network Licensee in the Relevant Year following the issue of the Project Direction. The Relevant Year is a period of twelve months beginning on 1 April in any calendar year and ending on 31 March of the next calendar year. Transfer of revenue between the System Operator and one or more Network Licensees must be made monthly on an equal basis, for the entirety of the Relevant Year, on the day of the month agreed by the Network Licensee making the transfer. The Network Licensee is responsible for notifying the System Operator of the bank account details to which transfers must be made. If a Network Licensee is required to return funding to the System Operator, the reverse applies.

6. PROJECT BUDGET

The Project Budget is set out in Annex 1 of this Project Direction.

The Funding Licensee will report on expenditure against each line under the category total in the Project Budget, and explain any projected variance against each line total in excess of 5% as part of its detailed report which will be provided, in accordance with Chapter 8 of the Gas NIC Governance Document. Ofgem will use the reported expenditure and the explanation to assess whether the funding has been spent in accordance with the Gas NIC Governance Document and with this Project Direction.

7. PROJECT IMPLEMENTATION

The Funding Licensee must undertake the Project in accordance with the commitments it has made in the Full Submission approved by the Authority pursuant to the Gas NIC Governance Document and with the terms of this Project Direction. These include (but are not limited to) the following:

- (i) undertake the Project in accordance with the description set out in Section 2 (Project Description) of the Full Submission;
- (ii) provide a Network Licensee Compulsory Contribution of £2,043,103;
- (iii) complete the Project on or before the Project completion date of 31 March 2027;
and
- (iv) disseminate the learning from the Project as a minimum to the level described in Section 5 (Knowledge Dissemination) of the Full Submission.

8. REPORTING

Ofgem may issue guidance (and amend it from time to time) about the structure and content of the Project Progress Report required by Chapter 8 of the Gas NIC Governance Document. The Funding Licensee must follow this guidance in preparing the reports.

As required by Chapter 8 of the Gas NIC Governance Document, the Funding Licensee must inform the Authority promptly in writing of any material event or circumstance likely to affect its ability to deliver the Project as set out in its Full Submission.

9. INTELLECTUAL PROPERTY RIGHTS (“IPR”)

In Section 5 of its Full Submission (Knowledge Dissemination) the Funding Licensee has stated that the Project conforms to the default IPR arrangements set out in Chapter 9 of the Gas NIC Governance Document. The Funding Licensee must therefore undertake the Project in accordance with the default IPR arrangements.

10. PROJECT DELIVERABLES

At the end of a Project, the Funding Licensee must commission a report from an independent third party that verifies whether the Project Deliverables set out in Table 2 below (which comply with Chapter 5 of the Gas NIC Governance Document) have been achieved.

After it has received the report, the Funding Licensee must send it to the Authority. Where a Project Deliverable has not been achieved, we will consider whether funding should be returned to customers using the Funding Return Mechanism. If the Network Licensee is deemed by Ofgem to be at fault for the non-delivery of the Project Deliverable, it is the proportion of funding assigned to it within Table 2 below, which may be returned to customers.

Table 2. Project Deliverables

Reference	Project Deliverable	Deadline	Evidence	NIC funding request (100%)
1	Detailed designs and specifications produced.	22 September 2021	<ol style="list-style-type: none"> 1. Approved and appraised design packs (tender versions) 2. Signed off versions of tender documentation including detailed specifications and award criteria. 	6.6%
2	Demonstration facility constructed	10 March 2022	<ol style="list-style-type: none"> 1. Build completion certificate. 2. Certified hydrogen appliances installed and commissioned 	3.7%
3	Pre-construction activities completed	07 April 2022	<ol style="list-style-type: none"> 1. H100 Fife QRA produced 2. Local Operating Procedures produced and approved 3. Safety Management Framework completed 4. Training delivered and training and competency records produced 5. HSE window for objection closes 6. Evidence to resolve regulatory issues provided and Rregulatory model agreed 7. Project insurance in place and documentation available 8. Statement of compliance with Special Licence Conditions A33, A34 and A36. 	7.3%
4	Procurement phase completed	20 October 2022	<ol style="list-style-type: none"> 1. Signed contracts completed (including from the Project Partners listed in condition 1 of this Project Direction) 2. Evidence of customer commitment 3. Evidence of cost discounts and savings from appliance manufacturers 	0.8%

Reference	Project Deliverable	Deadline	Evidence	NIC funding request (100%)
5	Construction phase completed	15 December 2022	<ol style="list-style-type: none"> 1. Distribution network installed and commissioned 2. Hydrogen production system installed and commissioned 3. AGI including storage, PRS, control and ancillary systems and buildings constructed and commissioned 4. As built documentation produced 5. Monthly progress reports available 6. Evidence of Fife Council engagement on considered investment opportunities and benefit-in-kind contributions to the project 	24.3%
6	Customer works completed	29 December 2023	<ol style="list-style-type: none"> 1. Services to participating properties installed and commissioned 2. Appliances installed in participating properties 3. Any required upgrades or mitigation measures carried out in participating properties 4. Installation certificates available 5. Monthly progress reports available 	15.7%

Reference	Project Deliverable	Deadline	Evidence	NIC funding request (100%)
7	Operational phase completed	31 March 2027	<ol style="list-style-type: none"> 1. Maintenance, emergency, and repair records available for phase. 2. Monthly progress reports available 3. Evidence submitted to Ofgem of hydrogen production costs achieved, and identification of funding returns if applicable. 	37.2%
8	Project Exit Strategy Finalised	30 April 2026	<ol style="list-style-type: none"> 1. Submit exit strategy to Ofgem for approval 2. Approved project exit strategy executed and complete 	2.1%
9	Stakeholder Engagement and Comms completed	31 March 2027	<ol style="list-style-type: none"> 1. Stakeholder engagement final report produced 2. Comms final report produced 	2.3%
N/A	Comply with knowledge transfer requirements of the Governance Document.	End of project	<ol style="list-style-type: none"> 1. Annual Project Progress Reports which comply with the requirements of the Governance Document. 2. Completed Close Down Report which complies with the requirements of the Governance Document. 3. Evidence of attendance and participation in the Annual Conference as described in the Governance Document. 	N/A

11. USE OF LOGO

The Funding Licensee and the Project Partners, External Funders and Project Supporters⁸ may use the NIC logo for purposes associated with the Project but not use the Ofgem logo in any circumstances.

12. AMENDMENT OR REVOCATION

As set out in Chapter 8 of the Gas NIC Governance Document and this Project Direction, this Project Direction may be amended or revoked under the following circumstances:

- (i) if the Funding Licensee considers that there has been a material change in circumstance that requires a change to the Project Direction, and the Authority agrees; or
- (ii) to reflect amendments made to the Licence.

13. HALTING OF PROJECTS

This Project Direction is subject to the provisions contained in Chapter 8 of the Gas NIC Governance Document relating to the halting of projects. By extension, this Project Direction is subject to any decision by the Authority to halt the Project to which this Project Direction relates and to any subsequent relevant Funding Direction issued by the Authority pursuant to Part E of Special Condition 1I of the Licence.

In the event of the Authority deciding to halt the Project to which this Project Direction relates, the Authority may issue a statement to the Funding Licensee clarifying the effect of that halting decision as regards the status and legal force of the conditions contained in this Project Direction.

NOW THEREFORE:

In accordance with the powers contained in the Gas NIC Governance Document issued pursuant to Part E of Special Condition 1I of the Licence the Authority hereby issues this Project Direction to the Funding Licensee in relation to the Project.

This constitutes notice of reasons for the Authority's decision pursuant to section 38A (Reasons for decisions) of the Gas Act 1986.

⁸ As listed in Box 1.6 in Section 1 of the Full Submission pro-forma.

ANNEX 1: PROJECT BUDGET

Cost Category	Cost
Labour	
	£2,665,362
Equipment	
	£4,624,240
Contractors	
	£8,836,677
IT	
	-
IPR Costs	
	-
Travel & Expenses	
	-
Payments to users	
	£4,192,000.00
Contingency	
	£612,750
Decommissioning	
	-
Other	
	-
Cost Category	£20,931,028.36