

Wales & West House,
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NP10 8FZ

Direct Dial: 020 7901 7295

Email: Marzia.Zafar@ofgem.gov.uk

Date: 1st February 2026

Dear WALES & WEST UTILITIES LIMITED,

WALES & WEST UTILITIES LIMITED submitted Hydrogen-Enhanced Biomethane for Energy System Resilience (the Project) to be considered for funding through the Alpha Phase of Round 5 of the Strategic Innovation Fund (SIF). In our SIF Funding Decision issued on 1st February 2026, we selected the Project for conditional funding for the Round 5 Alpha Phase and as a result we are now issuing this SIF Project Direction to implement that decision.

WALES & WEST UTILITIES LIMITED must comply with the conditions contained in this SIF Project Direction as a condition of the Project receiving funding through the SIF. These conditions can be found in the Schedule to this document.

Progression through SIF Phases

The SIF consists of a multi-phase approach for Projects in order to mitigate the risk associated with innovations. The Discovery Phase focuses on feasibility, the Alpha Phase on experimental development, and the Beta Phase on deployment and demonstration. The Innovation Challenge issued for each Round will state if a Project can apply directly to Alpha or Beta, without the requirement to have progressed through Discovery and Alpha.

Role of UK Research & Innovation (UKRI)

As per Chapter 1 of the [SIF Governance Document](#) the role of UKRI is to deliver the SIF in line with the SIF Governance Document - administering the funding programme, monitoring the delivery of Projects, collating data from Projects on benefits, making recommendations to Ofgem on operational matters, supporting third-party innovators and, where possible, successful Projects to become 'business as usual' activities. To

support the success of the Projects and the SIF programme, we expect that the Funding Party and Project Partners collaborate with Ofgem and UKRI.

SIF Project Direction

Paragraph 5.14 of the SIF Governance Document states that a SIF Project Direction will:

- Set out the Project-specific conditions, to which the Funding Party is committing in accepting SIF Funding.
- Require the Funding Party to undertake the Project in accordance with the commitments made in the Application. Where appropriate, the SIF Project Direction may therefore include extracts from the Application or refer to specific sections of the Application.
- Where applicable, set out conditions (such as Project stage gates) linked to milestones and deliverables, which Projects must meet.
- Set out the SIF Approved Amount for the Project, that will form part of the calculation contained in the SIF Funding Direction issued by the Authority under chapter 7 of the SIF Governance Document.
- Set out the Project budget that the Funding Party must report against and how variations in the Project budget will be reported.
- Where applicable, set out special information sharing requirements applicable to the Project.
- Set out the mechanism for the Funding Party receiving the SIF Approved Amount as set out in the SIF Funding Direction.

All SIF Project Direction requirements are detailed in the Schedule to this SIF Project Direction.

Decision

Provided the Funding Party complies with the SIF Governance Document and with the Schedule to this SIF Project Direction, the Project is deemed to be an Eligible SIF Project.

This SIF Project Direction constitutes notice pursuant to section 38A (Reasons for decisions) of the Gas Act 1990.

Marzia Zafar

Deputy Director, Decentralisation & Digitalisation

The Office of Gas and Electricity Markets

Commonwealth House, 32 Albion Street, Glasgow, G1 1LH Tel 020 7901 7000

www.ofgem.gov.uk

SRO for the Strategic Innovation Fund

For and on behalf of the Authority

Schedule to SIF Project Direction

1. PROJECT DETAILS

Application number: 10179029

Project title: Hydrogen-Enhanced Biomethane for Energy System Resilience

Innovation Challenge/Project Phase: Green Gas/ Round 5 Alpha Phase

Project start date: 1st February 2026

Project end date: 30th September 2026

SIF Approved Amount for SIF Funding: £371,186

2. PREAMBLE

This SIF Project Direction is issued by the Gas and Electricity Markets Authority (the "Authority") to WALES & WEST UTILITIES LIMITED (the "Funding Party") pursuant to the SIF Governance Document issued pursuant to Special Condition 5.7 of the Gas Transporter Licence. It sets out the conditions to be complied with in relation to Hydrogen-Enhanced Biomethane for Energy System Resilience (the "Project") as a condition of it being funded under the SIF Funding Mechanism, as defined in the SIF Governance.

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

References to specific sections of the Funding Party's Application in this SIF Project Direction are, for ease of reference, made by referring to the section number in the Funding Party's Application.

3. PROJECT-SPECIFIC CONDITIONS

In accepting funding for the Project, the Funding Party is subject to the following Project-specific condition(s):

Condition 1

The Funding Party must not spend any SIF Funding until contracts are signed with the Project Partners named in Table 1 for the purpose of completing the Project.

Table 1. Project Partners

HYDROSTAR EUROPE LTD
DWR CYMRU CYFYNGEDIG

Condition 2

The Funding Party must report on the financial contributions made to the Project as set out in its Application. Any financial contributions made over and above that stated in its Application should also be reported and included on the Innovation Funding Service (IFS).

Condition 3

The Funding Party must make reasonable endeavours to participate in all meetings related to the Project that they are invited to by Ofgem, UKRI and Department for Energy Security and Net Zero during the Alpha Phase.

Condition 4

The Project will be allowed a flexible start date and duration within the 8-month period from the date the Project Direction is issued. The Project must tell the monitoring officer the start date and end date of the Project.

4. COMPLIANCE

The Funding Party must comply with Special Condition 5.7 of the Gas Transporter Licence, the SIF Governance Document and with this SIF Project Direction.

5. SIF APPROVED AMOUNT

The SIF Approved amount of £371186 (as detailed under Section 1: Project details of this Project Direction) will be recovered by National Gas from GB customers and transferred to the Funding Party. The Funding Party is responsible for notifying National Gas of the bank account details to which transfers must be made, in addition to completing Annex 2 of this SIF Project Direction. If a Funding Party is required to return funding to National Gas, the reverse applies. The Funding Party must provide bank account details to National Gas within two weeks of accepting this SIF Project Direction.

6. PROJECT BUDGET

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

The Funding Party must report on expenditure against each line under the category total in the Project Budget and explain any projected variance against each line as part of its detailed report which is to be provided, in accordance with Chapter 7 of the SIF

Governance Document. The Funding Party must report variations in the Project budget as outlined in Chapter 6 of the SIF Governance Document.

7. PROJECT IMPLEMENTATION

The Funding Party must undertake the Project in accordance with the commitments it has made in the Application and with the conditions of this SIF Project Direction. These include (but are not limited to) the following:

- (i) complete the Project on or before the Project completion date as detailed under Section 1 of the Schedule of this SIF Project Direction, and
- (ii) disseminate the learning from the Project at least to the level described in Chapter 3 of the SIF Governance Document. Dissemination of learning must be carried out whether the Project was concluded successfully or otherwise.

8. REPORTING

Ofgem and UKRI may issue guidance (and amend it from time to time) about the structure and content of the Project reporting required by Chapter 6 of the SIF Governance Document. The Funding Party must follow this guidance in preparing the reports.

As set out in Chapter 6 of the SIF Governance Document, the Funding Party may be required to submit an end of Phase report to the UKRI monitoring officer within six months of the Project ending, if the Project is not planning on submitting an Application to Beta Phase and, if the Funding Party submits an Application for the Project for Beta Phase but is not successful. Within this report, the Funding Party must submit information related to questions on Project delivery as detailed in Chapter 6, table 5 of the SIF Governance Document.

9. MONITORING

The Funding Party must comply with any reasonable request for information by its monitoring officer at UKRI and with related deadlines. Ofgem, with the support of UKRI, will together monitor Project delivery, impacts and benefits. Throughout the term of the Project, progress is monitored by UKRI through a monitoring officer. The monitoring officer is the first point of contact for official notifications, queries and correspondence with UKRI and the Authority, unless otherwise required by this SIF Project Direction.

As detailed in Chapter 6 of the SIF Governance Document, meetings with the monitoring officer will take place at regular intervals, as advised by Ofgem or the monitoring officer during the delivery of the Project, and at the end of each Project Phase.

10. EVALUATION

The Funding Party has acknowledged when it submitted its Application for this Project, that reporting information and data gathered during the Project's timescales (as detailed in Section 1 of this SIF Project Direction) will be used to evaluate Project performance. In addition, the Funding Party may be required to provide requested information outside of the Project timescales and, in particular, for the period from the Project end date to the end of the SIF Programme. Further data and reporting information may be requested (frequency and method based on requirement) outside of standard monitoring and reporting requirements as deemed necessary. Further data and information requirements must be complied with by the Funding Party and Project Partners.

11. DATA SHARING

As set out in Chapter 3 of the SIF Governance Document, the Funding Party must follow the Data Best Practice Guidance issued by Ofgem with regard to all data gathered or created in the course of a Project. We expect the Funding Party to document any reasons, such as commercial sensitivities, for desensitising data. As defined by, and in accordance with, Data Best Practice Guidance, Funding Parties must have a data triage process. Where multiple Project Partners are collaborating on a Project, the consortium must adopt a consistent Open Triage Process for the data related to the Project. Ofgem may require that Project information and data is also shared with other specified parties, such as parties working on complementary innovation funding programmes (subject to redaction of sensitive data).

12. CYBER SECURITY

It is the responsibility of the Funding Party and all Project Partners to implement and maintain appropriate security measures to protect personal data in accordance with The [GDPR \(General Data Protection Regulation\)](#) and [DPA \(Data Protection Act\) 2018](#). Protection of computer systems from unauthorised access or being otherwise damaged or made inaccessible must be in place alongside effective working practices. These must be maintained in line with the Funding Party's IT management strategies and policies.

13. PROJECT WORK PACKAGES

The Funding Party must provide an outline in its end of Project Phase meeting with its UKRI monitoring officer that verifies the Project work packages have been achieved or explains why they have not.

Project Work Packages are outlined below in Table 2, based upon details contained within Question 7 and Appendix Question 9 in the Funding Party's Application.

Table 2. Project Work Packages

Reference	Project Work Packages	Deadline	Overall objectives and key tasks	SIF Funding Request
WP1	Project Management & Reporting	31/08/2026	<p>Describe overall Work Package Objectives</p> <ol style="list-style-type: none"> 1. Compliance with Ofgem’s SIF governance requirements 2. Effective coordination between partners 3. Maintain project alignment across all partners and work packages. 4. Provide regular progress monitoring, financial tracking, and risk management. <p>Describe the high level tasks to achieve the work package objectives.</p> <ol style="list-style-type: none"> 1. Establish baseline Project Management Plan 2. Risk Management 3. Reporting and Documentation 	£24,927.00
WP2	Exploitation and Dissemination	31/08/2026	<p>Describe overall Work Package Objectives</p> <ol style="list-style-type: none"> 1. To ensure knowledge generated through the Alpha project is effectively captured, communicated, and shared across the gas, waste, and energy sectors. 2. To engage stakeholders, including GDNs, AD operators, regulators, and funding bodies, to maximise project impact and alignment with wider decarbonisation goals. 3. To develop the exploitation strategy that will guide future Beta-phase development and commercialisation. 	£23,254.00

Reference	Project Work Packages	Deadline	Overall objectives and key tasks	SIF Funding Request
			<p>Describe the high level tasks to achieve the work package objectives.</p> <ol style="list-style-type: none"> 1. Exploitation Management (incl. IP management) 2. Information dissemination and stakeholder engagement activities 3. Regulatory analyses for flexible network injection 4. Techno-economic analyses of hydrogen optimisation process 	
WP3	Analysis of network demand fluctuations and current AD plants across WWU network	31/08/2026	<p>Describe overall Work Package Objectives</p> <ol style="list-style-type: none"> 1. Analyse WWU network demand variability to understand daily, seasonal, and spatial fluctuations. 2. Assess current AD plant operation, injection rates, and their contribution to network balancing. 3. Develop visual and analytical tools to support strategic decision-making for flexible biomethane injection. <p>Describe the high level tasks to achieve the work package objectives.</p> <ol style="list-style-type: none"> 1. Data analysis of daily and seasonal demand levels at different network nodes 2. Review of current AD plants and their injection rates 3. Analysis of current linepack requirements across different network areas 4. Calculation of potential increases in biomethane possible through hydrogen optimisation 5. Development of digital twin interface to visually communicate system flexibility 6. Identification of network sectors with highest potential for scaled demonstration 	£28,050.00

Reference	Project Work Packages	Deadline	Overall objectives and key tasks	SIF Funding Request
WP4	Simulation of the hydrogen injection for flexible digester operation process	31/06/2026	<p>Describe overall Work Package Objectives</p> <ol style="list-style-type: none"> 1. Establish a robust modelling foundation to predict how hydrogen injection influences anaerobic digestion kinetics and methane yield. 2. Enhance the model's applicability to real operational environments 3 Build a Python-based simulation platform that enables partners to test operating scenarios, optimise hydrogen dosing, and visualise outcomes. 4. Validate the model with Welsh Water and ENGIE <p>Describe the high level tasks to achieve the work package objectives.</p> <ol style="list-style-type: none"> 1. Development of baseline computational model for hydrogen injection into standard AD process 2. Addition of model functionality to include injection into pressurised AD reactor systems 3. Migration of models into Python framework with visual interface for optimisation analysis 4. Determine predicted stable injection levels and rates to maintain digester stability 5. Validate and run the model with operational data from Welsh Water and Engie 	£59,763.00
WP5	Design and build of flexible digester system and hydrogen injection control	31/06/2026	<p>Describe overall Work Package Objectives</p> <ol style="list-style-type: none"> 1. Design and construct a small-scale flexible digester demonstrator to enable controlled hydrogen injection under variable operating conditions. 2. Establish safety and operational protocols to ensure secure handling, monitoring, and injection of hydrogen into anaerobic systems. 	£186,817.00

Reference	Project Work Packages	Deadline	Overall objectives and key tasks	SIF Funding Request
			<p>Describe the high level tasks to achieve the work package objectives.</p> <ol style="list-style-type: none"> 1. Design the system architecture, including reactors, hydrogen injection, and control systems 2. Source and procure necessary materials and components 3. Construct the small-scale demonstrator system 4 Develop safety protocols and operational guidelines, with safety testing of individual systems during build phase 5. Initial operability and system response tests for hydrogen injection and AD systems 	
WP6	Extensive testing phase and refinement of flexible digester system	31/08/2026	<p>Describe overall Work Package Objectives</p> <ol style="list-style-type: none"> 1. Conduct an extensive experimental programme to evaluate the performance, stability, and responsiveness of the flexible digester system. 2. Assess operational limits for hydrogen injection, including rapid-response and high-intensity test scenarios. 3. Refine and optimise control parameters based on empirical test data to improve reliability, safety, and performance. <p>Describe the high level tasks to achieve the work package objectives.</p> <ol style="list-style-type: none"> 1. Develop testing protocols, success criteria and performance metrics 2. Performance testing -- Baseline hydrogen injection test to identify instability thresholds (standard and pressurised vessel) 3. Performance testing -- Rapid injection and response testing using known 	£64,765.00

Reference	Project Work Packages	Deadline	Overall objectives and key tasks	SIF Funding Request
			<p>stability thresholds</p> <p>4. Performance testing -- Rapid injection and response testing to theoretically unstable levels to assess maximum levels</p> <p>5. Performance testing -- Simulated theoretical daily/seasonal demand levels based off network analyses</p> <p>6. Analyse results to identify performance improvements and issues</p> <p>7. Optimisation phase with repeated and refined testing based off results</p>	
WP7	IP and patenting	31/08/2026	<p>Describe overall Work Package Objectives</p> <p>1. Protect the intellectual property (IP) generated through the project's technical developments</p> <p>2. Deliver a fully reviewed and compliant patent submission ready for filing.</p> <p>Describe the high level tasks to achieve the work package objectives.</p> <p>1. Basic core patent research</p> <p>2. Draft patent with all relevant or required claims</p> <p>3. Final patent reviews for submission</p>	£12,552.00
WP8	Project analysis and next steps	31/08/2026	<p>Describe overall Work Package Objectives</p> <p>1. Consolidate and evaluate all experimental, modelling, and analytical outcomes from the Alpha phase.</p> <p>2. Derive clear insights and recommendations to inform the design and scope of the Beta-phase demonstration.</p>	£12,302.00



Making a positive difference
for energy consumers

Reference	Project Work Packages	Deadline	Overall objectives and key tasks	SIF Funding Request
			<p>Describe the high level tasks to achieve the work package objectives.</p> <ol style="list-style-type: none">1. Summarisation of all experimental studies into a report2. Analysis of all work package results to inform Beta project designs3. Beta phase planning and preparation of proposed development locations	

The Office of Gas and Electricity Markets

Commonwealth House, 32 Albion Street, Glasgow, G1 1LH **Tel** 020 7901 7000

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14. USE OF LOGO

The Funding Party and the Project Partners, External Funders and Project Supporters or subcontractors, as detailed in the Application, must not use the Innovate UK/UKRI and/or Ofgem logo for purposes associated with the Project in any circumstances.

As an alternative for use of both Ofgem and UKRI logos, all external Project communications must include the following standard form of wording:

- (i) "this project is funded by network users and consumers under the Strategic Innovation Fund, an Ofgem programme managed in partnership with UKRI."

For additional guidance, refer to the communications and media guidelines for competition winners, detailed as part of your delivery pack. These guidelines are designed to help with some suggestions and encourage you to take a proactive approach to communicating about your Project.

15. SHARING OF LESSONS LEARNED

The Funding Party is required to ensure that the sharing of lessons learned and the facilitation of knowledge transfer is conducted as effectively as possible, to ensure that all parties, and therefore all consumers including future consumers, can benefit from Projects.

As outlined in Chapters 3 and 6 of the SIF Governance Document, we require the Funding Party to work collaboratively with other Networks and third-party innovators to disseminate the learnings and data from Projects and ensure that these are publicly available. This includes taking part in annual events.

16. COLLABORATION

The Funding Party must collaborate with third-party innovators as Project Partners, as well as work closely with other parties in the energy supply chain, as set out in Chapter 3 of the SIF Governance Document.

17. AMENDMENT OR REVOCATION

As set out in Chapter 7 of the SIF Governance Document, this SIF Project Direction may be amended or revoked under the following circumstances:

- (i) if the Funding Party considers that there has been a material change in circumstance that requires a change to the SIF Project Direction, and the Authority agrees; or

- (ii) to reflect amendments made to the Licence.

18. HALTING OF PROJECTS

This SIF Project Direction is subject to the provisions contained in Chapter 7 of the SIF Governance Document relating to the halting of Projects. By extension, this SIF Project Direction is subject to any decision by the Authority to halt the Project to which this SIF Project Direction relates and to any subsequent relevant SIF Funding Direction issued by the Authority pursuant to Special Condition 5.7 of the Gas Transporter Licence.

Further to the requirements in Chapter 7 of the SIF Governance Document, in the event the Authority decides to halt the Project to which this SIF Project Direction relates, the Authority may issue a statement to the Funding Party clarifying the effect of that halting decision as regards the status and legal force of the conditions contained in this SIF Project Direction.

NOW THEREFORE:

In accordance with the SIF Governance Document issued pursuant to Special Condition 5.7 of the Gas Transporter Licence of the Licence the Authority hereby issues this SIF Project Direction to the Funding Party 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 1990.

Failure to comply with the conditions of this SIF Project Direction means that Ofgem may treat all or part of the SIF Approved Amount received by the Funding Party as SIF Disallowed Expenditure.

ANNEX 1: PROJECT BUDGET

SIF Project Direction costs	
Cost Category	Total Project costs (£)
Labour	£213,050
Materials	£109,000
Subcontracting	£80,000
Travel and subsistence	£2,880
Other costs	£7,500
Total	£412,430

Project Partner	Total project costs (£)	Project contribution (£)	Total SIF Funding requested (£)	Project contribution (%)
WALES & WEST UTILITIES LIMITED	£34,849	£3,485	£31,364	
DWR CYMRU CYFYNGEDIG	£9,786	£979	£8,807	
HYDROSTAR EUROPE LTD	£367,795	£36,780	£331,015	
Total	£412,430	£41,244	£371,186	11%

**ANNEX 2 TO SCHEDULE: TEMPLATE OF BANK ACCOUNT DETAILS TO BE PROVIDED
TO EITHER NGT (BOX.GSOSETTLEMENTS@NATIONALGRID.COM) OR NESO
(revenue.invoice@nationalgrideso.com)**

Company name:

Primary Contact Details (only one contact permitted)

First Name:

Last Name:

Email address:

Mobile phone number:

Work phone number:

Address details

Address name:

Street address:

City:

State / region:

Post code:

PO box: (if applicable)

PO box post code: (if applicable)

Banking details

These should be evidenced in non-editable format. The evidence provided must show company name and bank details and it should be dated within the last 6 months.

Any of the below documents will suffice:

- Bank statement (scanned document)
- Void cheque
- Paying in slip
- Screenshot of online banking (showing a logged in account with bank account and sort code, with browser visible)