

WALES & WEST UTILITIES

# Innovation Report 2021/22



# Welcome

## I'm proud to introduce our 2021-22 Network Innovation Report – our first of GD2.

It builds on the innovative and exciting work of our team through GD1 – and sharpens our focus on designing the future of energy and of our business and looking after the most vulnerable in our communities. And it's aligned to the collaborative Energy Networks Innovation Strategy, which sets out the strategic direction for network innovation projects.

The challenge facing us could not be starker. In early 2022, the UN's Intergovernmental Panel on Climate Change (IPCC) reported that "time was running out" to reverse climate change, with around 40% of the world's population "highly vulnerable" to its impacts. Responding to the climate emergency by reducing carbon emissions will impact virtually everything we do as a country, and everything we do as a company – from the gas we transport through our network, to transitioning our fleet to electric and hydrogen vehicles.

Since COP26, the awareness of energy and environmental issues has grown among our customers and our stakeholders. And they want us to take action – innovating and investing to decarbonise and transition to a sustainable, green society. In the last 12 months the cost of energy has risen – for many by up to 50%. Policy on the future of the energy system must address this challenge – and our customers and stakeholders tell us that cost and disruption, for both homes and businesses, must be at the heart of decarbonisation policy.

The transition to green electricity in the UK – already a decarbonisation success story – has been delivered with minimal impact to homes and communities. The decarbonisation of heat, however, is perhaps the greatest challenge to delivering net zero. It will mean changes to central heating systems in virtually every home in the country.

This will need innovation – developing new ways of using existing energy infrastructure, while delivering the technical evidence for how we can deliver a safe and cost-effective transition for the customers and communities we serve.

We are working hard to understand the practicalities of converting the energy customer base in the UK from natural gas to hydrogen, with a particular focus on the most vulnerable in communities. This work highlights the issues to be faced by a hydrogen transition and identifies the steps that could be taken to maximise the likelihood of success and customer acceptance.

We are partnering with NGN in the exciting Redcar Hydrogen Village Trial – converting around 2,000 homes and businesses from natural gas to hydrogen. And the findings of the report 'Inclusive Innovation: Safeguarding the switch to domestic hydrogen' will inform the project's approach to engaging with customers and converting their homes. Alongside wider lessons drawn from the project, the report will help design the conversion process and support measures that should be considered for larger scale conversion.

Decarbonising heat will also require understanding how energy networks of the future will support communities and industry to achieve net zero. Our exciting Tools of Engagement project, developed in partnership with industry experts Delta-EE, created an Energy Systems Toolkit which supports authorities and organisations with their own local energy planning.

Meanwhile, our Regional Decarbonisation Pathways modelling – supported by independent partners Energy Systems Catapult and Costain, and benefitting from Network Innovation Allowance (NIA) funding – provides the evidence to support the development of the gas network towards net zero. It demonstrates that repurposing the gas grid to transport hydrogen is

essential to delivering net zero homes and industry – even with high levels of electrification of home heating.

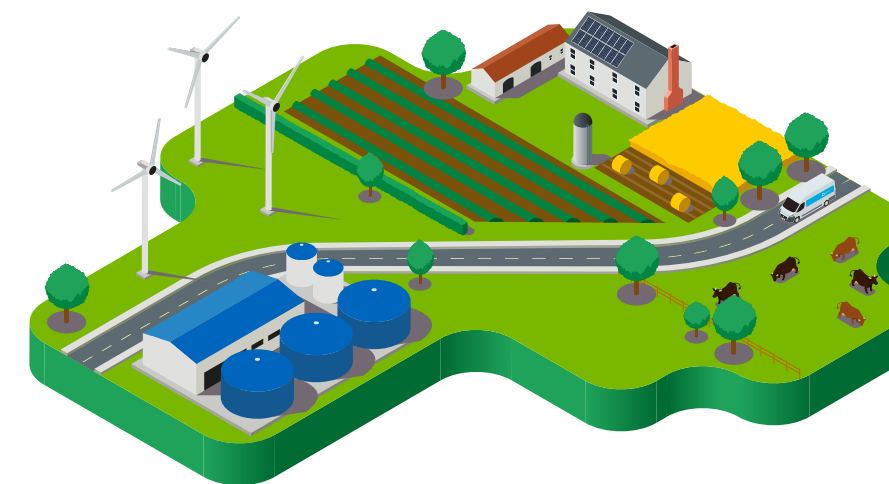
Industry collaboration continues to be hugely important to make sure learning from the various projects is being shared with other networks – helping the decarbonisation efforts of the UK's energy networks. And we are building relationships with others outside our sector. For example, our HyPark project, which was supported by the Strategic Innovation Fund (SIF) and explored how the gas network and a fuel-cell could support the roll-out of rapid charging points at communal locations and enable the fuelling of hydrogen vehicles, is a project in partnership with three electricity networks and a smart systems provider.

There is a huge amount of innovation going on in our sector at present, and I hope you find this report of interest. If you would like to talk about how we could work together, please get in touch at [innovation@wwutilities.co.uk](mailto:innovation@wwutilities.co.uk)



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# Welcome to the new price control period

Ofgem provides NIA funding in this price control period, with the focus on enabling innovation projects that have the potential to address consumer vulnerability and/or help drive the energy system transmission. This approach supports the decarbonisation of all sectors of the UK economy to meet the government's net zero target by 2050. We have £13.3m NIA funding for eligible projects in 2021-26.

## RIIO-2

We have an exciting new funding mechanism called the Strategic Innovation Fund (SIF), which aims to find and fund ambitious, innovative projects with the potential to accelerate the transition to net zero, and help shape the future of the gas and electricity networks and their commercial success.

We also have another new funding mechanism called Use it or Lose it (UIOLI), which enables necessary development work on net zero projects and will help progress low-regret net zero facilitation capital projects for the gas sector. These projects can then build into delivery schemes through the Ofgem re-opener process in areas such as optioneering, FEED/desktop studies, initial feasibility/early new work, technical design, consulting and stakeholder engagement.



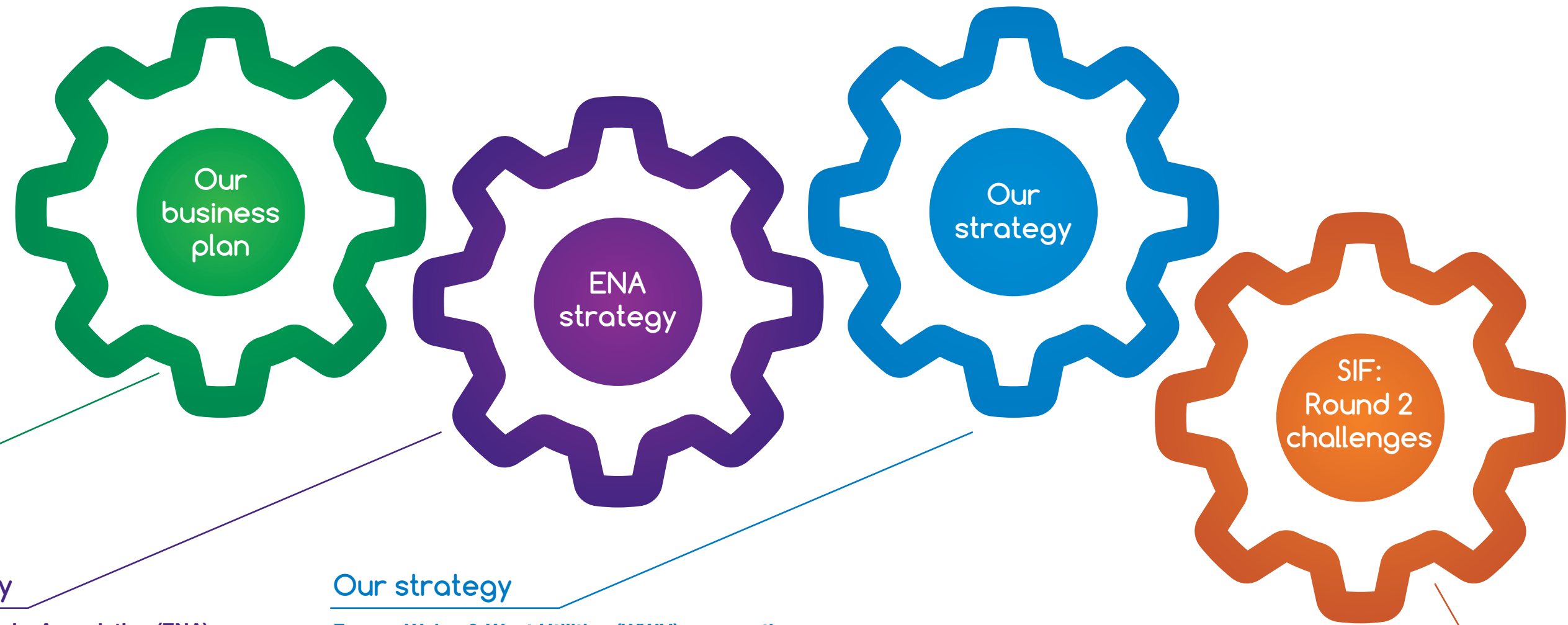
## RIIO-1

On April 1, 2021, Wales & West Utilities entered a new price control period, moving from RIIO-1 to RIIO-2. RIIO (Revenues = Incentives + Innovation + Outputs) is the mechanism our regulator Ofgem uses to make sure networks have enough revenue to run an efficient network that delivers what customers need.

For RIIO-1 innovation funding, we used the Network Innovation Allowance (NIA) for smaller technical, commercial or operational network-related projects that had the potential to deliver financial benefits to the licensee and its customers.

# Net zero strategy

Our strategic interest for innovation projects is focused in the following four areas and we'd love to work with partners in each, including for the SIF challenges for Round 2:



## Our business plan

- **Meeting the needs of consumers and network users:** support projects that bear uncertainty or where benefits are valid to society but difficult to commercialise
- **Delivering an environmentally sustainable network:** deliver customer benefits and provide the lowest cost pathway to heat decarbonisation
- **Maintaining a safe and resilient network:** support projects that help our business to adapt to a changing environment that will be fit to provide energy for generations to come

## ENA strategy

The Energy Networks Association (ENA) key strategic areas are:

- Data & Digitalisation
- Flexibility & Market Evolution
- Net Zero and the Energy System Transformation
- Optimised Assets and Practices
- Supporting Consumers in Vulnerable Situations
- Whole Energy System

## Our strategy

From a Wales & West Utilities (WWU) perspective, the five innovation priority areas are:

- **Hydrogen:** this includes the role of hydrogen at blended and 100% levels and involves research, evidence building, practical demonstration and delivery of commercial solutions
- **Data & Modelling:** future evidence for forecasting and capacity, sharing of data and data to support local area planning, particularly in reference to our Pathfinder Project
- **Transport:** understanding and exploring the role of gas in transport and investigating fuel choices, particularly our own fleet, to provide consumer choice and fuel solution options, especially around hydrogen
- **Consumer Heating Solutions:** exploring consumer options for use of hydrogen to support hybrid heat development
- **Biomethane:** connecting new production capacity to our network

## SIF: Strategic innovation challenges

For SIF, the Round 2 challenges for 2022 (Data & Digitalisation weaves through all themes) are:

- Supporting a Just Energy Transition
- Improving Energy System Resilience and Robustness
- Preparing for a Net Zero Power System
- Accelerating Decarbonisation of Major Demands

# Our innovation project portfolio

At Wales & West Utilities we are developing a robust and balanced portfolio of net zero and vulnerable customer projects. These will progress our net zero strategy with research, evidence and pilots that demonstrate the critical role of gas networks in achieving net zero.

The portfolio currently represents early research and development projects as we evidence the role of gas in net zero decarbonisation, but this will evolve as we develop through future price control periods, moving to delivery of commercial solutions to support the ambitious government 2050 net zero decarbonisation targets in later price controls. Every NIA project is assessed using our new **Vulnerable Customer Tool**, which ensures a just transition for all, including the most vulnerable in our society.

**These projects will enable us to provide future of energy evidence and options for consumers and future delivery, aligning with one or more of the following:**

- **Our business plan**
- The **Energy Networks Association (ENA) strategy**, developed with all gas and electricity networks
- The evolving Wales & West Utilities **internal strategy** for net zero
- Consumer and stakeholder research and outputs.

Collaboration with the other gas and electricity distribution and transmission networks and external innovation partners is key to our journey to net zero, as is taking the best global innovation and learnings from other industries.

We're focused on generating new ideas by having an innovation culture across our organisation, other networks and partners and **we want to work with you**.

In 2021/22 we invested £1.5m combined in NIA and Carry Over NIA projects.

**The following pages outline the projects we have initiated so far in RIIO-2.**



# Project overviews

Project reference	Project name	Description	ENA theme	Partner
NIA_WWU_2_01	SWIC Hydrogen Supply Pipeline Infrastructure	Develop a study to perform an early identification and evaluation of supply and demand scenarios for hydrogen in south Wales and the pipeline infrastructure required to meet potential demand	Net zero and the energy system transition	Costain
NIA_CAD0072	FI-0001 HyNet Homes – Understand Phase (technical)	A project that looks at the early technical development of a hydrogen village in the north west of England	Net zero and the energy system transition	WSP, Progressive Energy, KIWA, Element Energy, DNV, Cadent
NIA_WWU_2_06	Consumer Vulnerability Impact Assessment Tool	A Consumer Vulnerability Impact Assessment Tool that can be used on every NIA-funded project and ensures innovation for all	Supporting consumers in vulnerable situations	Sirio
NIA_WWU_2_03	SWIC Market-Accelerating Hydrogen Distribution and Storage	Evaluate market-accelerating hydrogen distribution and storage options to connect large-scale production with demand as an alternative to gas network development	Net zero and the energy system transition	Costain
NIA_WWU_2_04	Tools of Engagement phase 2	Engage with a group of potential stakeholders to test the Energy Systems Toolkit, which was created in GD1, in real-life situations	Whole Energy System	Delta-EE
NIA_WWU_2_07	SWIC: Assessment of potential hydrogen demand in 2030 - 2050	Assess the development of hydrogen infrastructure in south Wales under the SWIC Deployment Phase 2	Net zero and the energy system transition	Progressive Energy
NIA_NGN_337	Biomethane study	Identify areas for potential growth in biomethane production by reviewing feedstock potential and gas grid capacity	Net zero and the energy system transition	CNG Services, NGN
NIA_WWU_2_02	Regional Decarbonisation Pathway	Provide a strategic plan to decarbonise Wales and the south west of England (strategic plan) and provide details of the future gas network requirements to achieve the optimal energy system for the Wales & West Utilities network (conceptual plan).	Net zero and the energy system transition	Costain & Energy Systems Catapult
NIA_WWU_2_05	Safely switching vulnerable consumers to hydrogen	Research into how switching customers to hydrogen could affect consumers in vulnerable situations and what mitigations need to be put in place to make the transition as comfortable as possible	Supporting consumers in vulnerable situations	Energy Systems Catapult
NIA_NGN_302	H21 Wider Impacts of Hydrogen	A research review and assessment of the known characteristic changes of hydrogen vs methane and how that will affect the transportation of hydrogen through the existing gas network	Net zero and the energy system transition	National Engineering Laboratory, Cadent, SGN, NGN

# Project overviews (continued)

Project reference	Project name	Description	ENA theme	Partner
<b>NIA_NGGT0179</b>	HGR&D ST – Assessment Methodologies	Assess the key strategic gas system options, impacts, barriers and opportunities to support policy decisions on whether to proceed with a transition to hydrogen to produce heat across domestic, commercial and industrial sectors	Net zero and the energy system transition	Frontier Economics, Cadent, SGN, NGN, NGGT
<b>NIA_NGN_338</b>	StreetScore Phase 2	The project looks to improve the experience of vulnerable customers and the wider public when navigating through street works	Supporting consumers in vulnerable situations	Steer Energy, Cadent, SGN, NGN, NPG, SSE
<b>NIA_CAD0073</b>	Common Future End States	This project will develop a set of credible and compatible end states, pathways to those end states and scenarios can be used as test cases for the System Transformation programme.	Net zero and the energy system transition	Element Energy, Cadent, SGN, NGN, NGGT
<b>NIA_CAD0074</b>	Hydrogen Village Consumer Village	Research with domestic consumers and businesses to understand their wants and needs when taking part in a trial when their energy choice is limited to hydrogen or electrification	Net zero and the energy system transition	Britain Thinks & Savanta, Cadent, SGN, NGN
<b>NIA_CAD0076</b>	Hydrogen Blending: Functional Spec for Commercial Frameworks (Phase A)	Explore and recommend adaptations to the existing commercial frameworks to enable hydrogen blending into the UK gas networks from industrial clusters	Flexibility and market evolution	Frontier Economics, Cadent, SGN, NGN, NGGT
<b>NIA_WWU_2_08</b>	SWIC – Hydrogen Peaking Plant Feasibility Study	Develop a study to assess the interaction of gas-fired peaking plants connected to Wales & West Utilities' network when the plant is converted to hydrogen	Net zero and the energy system transition	Costain
<b>NIA_WWU_2_09</b>	Industrial Fuel Switching (IFS2)	Identify barriers and solutions to allow industrial users, within the GDN and new connections, to accelerate their decarbonisation	Net zero and the energy system transition	Apollo Engineering
<b>SIF_WWU_2_01</b>	HyPark Discovery	Assess the part gas could play in helping to power EV charging stations in commercial and local authority properties and in areas where the electricity network is unable to support EV charging at scale	Flexibility and market evolution	Passiv UK, Easee, WPD, SSE, SPEN



# Tools of Engagement

Understanding how the gas network and local authorities will create local energy plans to deliver a new decentralised and decarbonised energy system is a critical step towards achieving net zero targets by 2050.

This NIA-funded project aims to test, develop and finalise a toolkit that will help bring networks and local authorities together to improve community planning for the energy system of the future and the role each plays in decarbonising energy.

## Project breakdown

**HOW:** Follow-on project

**WHO:** Wales & West Utilities

**PROJECT PARTNERS:** Delta-EE

**FUNDING MECHANISM:** NIA



## Need

Many local authorities in the UK have declared a climate emergency and have formulated decarbonisation strategies and plans, but need input and support from networks to understand the whole energy system implications. This project aims to provide them with easily accessible, comprehensive information to facilitate informed policy decisions, and help develop future projects to meet their ambitions.

## Approach

Responding to our call for innovation, project partner Delta-EE, which worked with us to develop our 2050 Energy Pathfinder whole-system model (further info can be found [here](#)), carried out a high-level stakeholder engagement survey that identified the need for some kind of tool to help promote better links between local authorities and energy networks.

Following this, we used feedback from the survey to develop a simplified version of the Pathfinder tool with a better user interface and less populated layout. The survey also informed the type of data local authorities would need and the best way of presenting it, which we used to create two information documents in PowerPoint – one to accompany the simplified Pathfinder tool and the other a rich and easy-to-navigate source of information on energy systems.

After initial testing, we made some alterations to the Pathfinder tool and have since taken this from a prototype to a working, usable version. The intention for the remainder of the project is to use the tools as a focal point for engagement activities such as workshops and discussions between energy networks and local authorities.

## Benefits

**This is the first time this kind of sophisticated pathway tool has been made available to local authorities. Using it will give local authorities all the information they need to:**

- create net zero policy that delivers decarbonised systems in the most efficient, cost-effective way
- understand, plan and choose energy projects in the context of network planning
- forge closer links with energy networks when devising net zero policy.

The Pathfinder modelling is customisable to any geography, meaning the tool can be shared by gas networks across the UK, helping them take the decisions they need to make to accelerate their journey towards decarbonised energy systems.



# Regional Decarbonisation Pathways

Achieving net zero emissions targets by 2050 will mean we have to dramatically change the way we transport, store, convert and use energy across the country. While there have been high-level studies into how that will happen, until recently there has been little research in to what it means at the local level.

This project developed an analysis of how we might decarbonise our gas network at a regional and sub-regional level.

## Project breakdown

**HOW:** Wales & West Utilities-led call for innovation

**WHO:** Wales & West Utilities

**PROJECT PARTNERS:** Energy Systems Catapult, Costain

**FUNDING MECHANISM:** NIA



**Net Zero and the Energy System Transformation**

## Need

The UK has an extensive gas network that delivers around 600TWh of natural gas to domestic, commercial and industrial consumers and a further 300TWh to generate power, and low-carbon solutions are required in all of these sectors to meet net zero. Hydrogen will be required to deliver a fully decarbonised gas network that can service the UK's energy requirements. We therefore needed a robust, independent investigation into the future of the gas network and a roadmap for how we get there.

## Approach

Working with project partners Energy Systems Catapult (ESC) and Costain, we undertook two integrated studies to devise a strategic plan and a conceptual plan for the decarbonisation of our gas network.

The strategic plan was developed by ESC, with input from Costain, and consisted of whole system modelling and assessment of the network implications, while the conceptual plan was an engineering analysis by Costain showing what the gas network could look like and how to achieve it.

### The analysis is based on three credible energy system pathway scenarios to net zero by 2050:

- a high hydrogen scenario
- a high electrification scenario
- a balanced scenario lying midway between these.

In all three scenarios, hydrogen and the gas networks have a significant role to play. Natural gas was largely removed, with industrial and heating demand being met by hydrogen, although some use alongside carbon capture and storage by industry was modelled in all three scenarios.

## Benefits

**Both in-depth plans have helped provide the data and analysis we need to advise on energy network transformation policy on the pathway towards net zero.**

### In particular, they show:

- hydrogen has an important role in energy system designs that cost-effectively meet carbon budgets and net zero goals
- adopting hybrid heating systems offers significant value to the energy system
- hydrogen can completely replace liquid fossil fuel use in industry
- the decisions made by industry will have a large impact on the scale of hydrogen production
- a transition to hydrogen can be achieved by developing a dedicated hydrogen backbone.

Alongside these results, the project also demonstrated how Wales could become a net exporter of hydrogen in future thanks to the potential for production in the South Wales Industrial Cluster.

# HyPark

As the number of electric vehicles (EVs) on our roads increases, so does the demand for charging facilities. This Strategic Innovation Fund (SIF) project aimed to assess the part gas could play in helping to power EV charging stations in commercial and local authority properties and in areas where the electricity network is not of a sufficiently high standard to support EV charging at scale.

## Project breakdown

**HOW:** SIF Zero-Emission-Transport Challenge

**WHO:** Wales & West Utilities, Western Power Distribution, Scottish and Southern Electricity Networks and SP Energy Networks

**PROJECT PARTNERS:** Easee and Passiv UK

**FUNDING MECHANISM:** Strategic Innovation Fund (SIF)



**Flexibility  
& Market  
Evolution**

## Need

With the sale of new petrol and diesel vehicles set to be banned in the UK by 2030, there is an increasingly pressing need for more and better infrastructure to charge zero-emissions vehicles. While many owners will be able to use their domestic electricity supply for this, around a quarter of UK households do not have off-street parking and will have to rely on public charging stations. This issue is compounded in areas where the electricity network is not up to scratch.

## Approach

HyPark seeks to bring together existing technology such as fuel cells, battery storage and photovoltaic solar panels into shipping container-sized charging stations that use intelligent controls to charge vehicles using the most efficient energy source according to the time and conditions.

The discovery phase was to prove the concept's viability and consider the investment case in taking the stations to commercial production against upgrading the existing electricity networks.

Partnering with EV charging specialists Easee and Passiv UK, a developer of advanced algorithms for aggregation and flexibility services, we looked at current and predicted EV uptake, future traffic patterns and likely charger use over the next 15 years to assess the need for capacity.

Following this, we worked with Western Power Distribution, Scottish and Southern Electricity Networks and SP Energy Networks to measure indicative costs for the upgrade of the electricity network against the cost of connecting fuel cells to the existing gas grid.

Using this data, we proved the feasibility of HyPark and its potential commercial viability and have submitted an application to take the project to alpha testing.

## Benefits

**Successful completion of the discovery phase proves gas has a viable and important part to play in the future of EV charging. Among the benefits HyPark would bring are:**

- accessible EV charging stations that ease the pressure on the electricity grid
- energy efficient fast and slow charging
- potential heat from fuel cells fed into local heating networks
- potential for HyPark to become community energy hubs.

# Consumer Vulnerability Impact Assessment Tool

Innovation is at the forefront of our efforts to keep the gas flowing safely, introduce greener gas into the network, achieve our ambitious net zero targets, and provide better services to our customers.

Since April 2021, energy network operators have been required to undertake assessments of how RIIO-2 innovation projects might affect vulnerable customers, but until now, there was no simple way of doing so. This project will help deliver a just transition for all energy customers.

## Project breakdown

**HOW:** Collaborative Call for Innovation

**WHO:** Collaboration between Cadent, Electricity North West, National Grid Gas Transmission, National Grid Electricity Transmission, National Grid ESO, Northern Gas Networks, Northern Powergrid, Scottish & Southern Electricity Networks Transmission & Distribution, SGN, SP Energy Networks, UK Power Networks and Western Power Distribution

**PROJECT PARTNER:** SIRIO | **FUNDING MECHANISM:** NIA



**Supporting Consumers in Vulnerable Situations**

## Need

Including the most vulnerable customers in our assessments at the beginning of projects means we can make sure future investments are at the right level and that we can mitigate any potential negative impact on customers.

All energy distribution networks needed a simple tool to identify the potential technical, financial and wellbeing-related impacts of their NIA-funded projects as part of RIIO-2, so this project was designed to fulfil that requirement.

## Approach

In what was the first network-wide collaboration project involving all gas and electricity networks, we developed, trialled and delivered a Microsoft Excel-based impact assessment tool that requires simple yes and no answers.

The tool uses a decision tree that produces a clear heatmap of the impact of each project on customers affected by a wide range of situations based on those responses. Designed to be easy to use, the tool requires no specialist training and can be used quickly and efficiently to report consistently measured results.

The first part of the project featured creation sessions, a bespoke online survey and initial engagement with stakeholders, while phase two included validation and testing. It has now been implemented and the supplier is providing ongoing maintenance and refinement.

The tool will be used by the networks to assess all NIA projects. It details whether the project has a positive or negative impact on consumers in vulnerable situations and suggests mitigations for project managers to consider during scoping.

## Benefits

**This project will:**

- deliver better outcomes for vulnerable customers in the transition to net zero
- identify potential risks and barriers to success at an early stage
- support networks in cost-effectively meeting the need to assess the impact of innovation projects on vulnerable customers.

# Planned project summary

If you would like to work with us to help solve the challenges we face, take a look at our forthcoming projects and see if any are relevant to your areas of expertise.

Pipeline project name	Description
<b>H21 Ignition Consequence Research</b>	The project will investigate the limitations of existing knowledge when it comes to natural gas as a fuel and how this might change with the introduction of hydrogen into domestic settings
<b>Hybrid Hydrogen Hubs</b>	This research project will determine if hybrid hydrogen and district heating systems can support the decarbonisation of transport and heat at the lowest cost for customers
<b>ATEX Equipment and SR/25 Impact Assessment</b>	This project aims to determine the impact of conversion to a 100% hydrogen network on existing natural gas transmission and distribution assets, specifically targeting electrical and instrumentation assets with regards to hazardous area classification
<b>Hydrogen in Multi-Occupancy Buildings</b>	Feasibility study with subsequent infrastructure testing of multi-occupancy buildings to assess the technical and safety requirements for introducing hydrogen
<b>Interventions for Hydrogen by Asset Groups</b>	Develop a functional specification of a generic hydrogen-to-grid blending facility and test the feasibility of the functional specification
<b>Gas Control System – Impact Assessment (Future requirements)</b>	An impact assessment to consider any new functionality and business processes required to support decarbonisation in line with any other requirements, eg for hydrogen villages and towns, cyber and digitalisation
<b>LPG to H2 Village</b>	The project will assess implications on transportation, storage and the associated property equipment (industrial, commercial and domestic boilers/fires, cookers, etc)
<b>EUSE Ventilation</b>	This project will understand the additional ventilation required once converted to hydrogen from natural gas in a domestic property
<b>EUSE Hazardous Areas Within Buildings</b>	This project will understand any separation distances between existing services once converted to hydrogen from natural gas in a domestic property
<b>HyCompact Testing</b>	Carry out a series of laboratory tests on the HyCompact unit and Passiv Systems control systems to understand how gas usage may change in the future
<b>NSIB Skills &amp; Competencies</b>	A project to identify the known gaps of standards and policies that will drive the networks' training and competency needs
<b>End-to-end green hydrogen-to-grid feasibility (SWIC Phase 2)</b>	The impact of direct-wire green hydrogen-to-grid production on the operation of a gas network is still unknown – this project aims to prove the feasibility of deploying such a system at a) an existing renewable site or b) a new renewable site
<b>Hydrogen storage assessment of the Somerset and Wessex Triassic salt fields</b>	A project to assess the storage potential of the triassic Somerset basin and Wessex basin salt fields to help support a future hydrogen network in Wales & West Utilities' existing network area
<b>Hydrogen for Aviation across the Western Gateway</b>	This project will undertake a projected demand assessment from aviation across the Western Gateway region, focusing on Bristol and Cardiff airports as case studies
<b>Customer Preference for Low Carbon Heating Solutions</b>	A project to better understand customer awareness of and preferences for low-carbon heating solutions in Great Britain

# High-priority areas for investment for 2022/2023



We have three key strategic areas of interest:

1. Meeting the needs of consumers and network users
2. Delivering an environmentally sustainable network
3. Maintaining a safe and resilient network

Specific high-priority areas to support the development of our net zero strategy are:

- **Hydrogen projects** to help evidence the role of blended and 100% hydrogen, involving research, practical demonstration, community engagement and delivery of commercial solutions
- **Data & Modelling projects** to develop understanding of the transition to a net zero energy system and support national, regional and local decision making
- **Transport projects** which explore the role of gasses in transport for all customers, and investigate fuel choices for our own fleet
- **Consumer Heating Solutions** exploring novel technology to decarbonise heat and minimise the cost and disruption of the transition
- **Biomethane projects** which support the ongoing development of biomethane production capacity in our network.

If you have ideas that you think can meet these high-priority innovation areas, we'd love to [work with you](#). If you think your idea could qualify for [SIF funding](#), please propose your idea urgently, since SIF challenges have strict timelines for application and project timelines.



# Innovation process

Why not follow the example set by our innovation project partners on the previous pages? Here's our handy guide to working with us as we respond to the challenges of the future.

1. **Idea generation** – review this report, particularly the strategic areas of interest, to make sure your idea aligns with one of our priorities and the themes and focus areas that we need to address.
2. **Initial proposal development** – review funding opportunities and eligibility criteria to see which innovation funding might best fit your idea.
3. **Proposal refinement with network sponsor** – you can either [contact us](#) directly or you can direct your idea through one of the national routes ([SNP](#), [UKRI](#), [KTN](#)) where other networks can also assess the ideas (networks can agree to collaborate at this stage).
4. **Apply for project funding** – after working out the best funding route, the next step is to apply for project funding with us.
5. **Project launch** – successful proposals will have a kick-off meeting and both NIA and SIF projects will be registered on the Smarter Networks portal.
6. **Delivery** – work with us (and any other network sponsors) to deliver the project, recording information and learning.
7. **Closedown and knowledge sharing** – project wrap stage, validating outcomes against objectives, sharing information, what was learned from the project journey and results with all stakeholders.
8. **Implementation** – help us implement the project into business-as-usual operation.
9. **Benefits realisation** – benefits will be tracked by the network.



# Working with us

## Get in touch – we're easy to work with

### Get in touch to submit your ideas

1. Click on the buttons below to submit your ideas via our web portal:

[Submit project idea >](#)

[Submit product idea >](#)

2. Sign up to our mailing list to receive calls for innovation and project updates:

[Let's connect >](#)

3. Email your ideas directly to

[innovation@wwutilities.co.uk >](mailto:innovation@wwutilities.co.uk)

- For ideas that are specific to us as a network, you can engage with us by [visiting our website and contacting us](#), and our social media accounts.
- Don't forget to read our [innovation strategy](#) and [business plan](#) to make sure your idea aligns to our priority areas.
- We also talk at events held throughout the year, including the annual [Energy Innovation Summit \(EIS\)](#)
- National routes include [The Smarter Networks Portal](#), which is the window into network innovation for regulatory-funded projects where you can see details on current projects, find partners and propose ideas for all network companies to review and consider.
- The [UK Research and Innovation \(UKRI\) website](#) contains details of UKRI's key funding programmes and includes a 'funding finder' tool where you can search for current funding opportunities across UKRI, research councils and Innovate UK.
- The [Knowledge Transfer Network \(KTN\)](#) is part of [Innovate UK](#) and exists to connect innovators with new partners who will work with you to refine your idea and direct you to appropriate funding opportunities.





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On Instagram [wwutilities](https://www.instagram.com/wwutilities)

