

A stylized white silhouette of a landscape on a blue background. It includes a factory with smokestacks, trees, a house, a bus, and a truck.

# GAS GOES GREEN

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DELIVERING  
THE PATHWAY  
TO NET ZERO

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# MISSION STATEMENT

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The need for action has never been greater – the climate emergency is now upon us. And ensuring that homes and businesses across the UK are connected to the world’s first net zero gas network is one of the best ways that we can take that action. Starting from now.

Gas Goes Green brings together the engineering expertise from the UK’s five gas network operators, building on the foundations of our existing grid infrastructure, innovation projects and the wider scientific community. This is a blueprint to meet the challenges and opportunities of climate change, delivering net zero in the most cost effective and least disruptive way possible.

Delivering our vision is not just an engineering challenge but will involve active participation from policy makers, regulators, the energy industry and consumers.

Gas Goes Green will undertake extensive engagement to deliver our programme and collaborate with existing projects already being delivered across the country.

Britain’s extensive gas network infrastructure provides businesses and the public with the energy they need, at the times when they need it the most. The gas we deliver plays a critical role in our everyday lives, generating electricity, fuelling vehicles, heating our homes and providing the significant amounts of energy UK heavy industry needs. The Gas Goes Green programme aims to ensure that consumers continue to realise these benefits by transitioning our infrastructure into a net zero energy system.

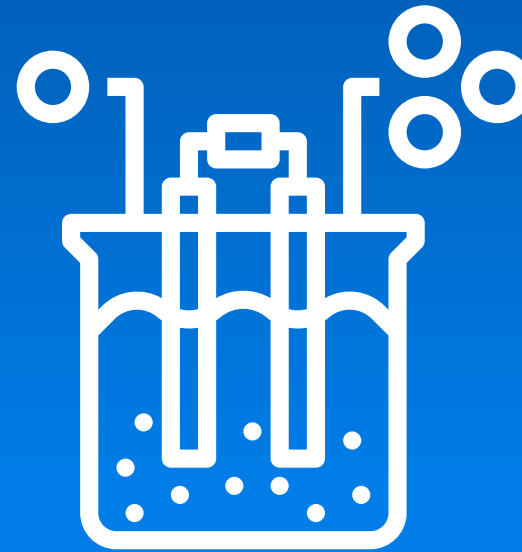


# WHAT ARE GREEN GASES?



## BIOMETHANE

Biomethane is molecule for molecule the same as natural gas but is made from organic compounds, with the carbon released during combustion having been recycled. It can be produced from household waste, sewage, farm material, and by-products, through processes such as anaerobic digestion or thermal gasification.



## HYDROGEN

Hydrogen is a gas that can be combusted in a way that produces no greenhouse gas emissions. It can be produced through electrolysis of water or by reforming methane, where the carbon dioxide generated can be captured and stored.



# WHY IS GAS GOES GREEN IMPORTANT?

## Tackling climate change is the defining challenge of the 21st Century

Great Britain led the industrial revolution in the 1800s with revolutionary energy technologies, including the development of the world's first public gas networks. The UK gas networks are a world class asset and we are ensuring that they are fit for a net zero future.

This is an opportunity as well as a challenge. Our technology and expertise can lead the world's decarbonisation efforts, and our gas networks are already at the forefront of efforts to explore and develop the role of hydrogen and smart technologies on the gas system.

The Gas Goes Green programme builds on the recent successes of the gas network operators to remove fossil based natural gas from the system. This has included supporting the connection to the grid of more than 100 green gas plants, and undertaking engineering and research projects relating to hydrogen, synthetic gas and hybrid heating systems across the country.

This plan sets out our commitment for 2020, and how we will coordinate the activity of the gas network companies and the interaction with wider industry to transition to a more environmentally sustainable energy system.

During its first year Gas Goes Green will take demonstrable steps on the net zero journey. From a plan for hydrogen transformation, to evidence on the emissions savings gas network investment is delivering today. As well as, assessments on hydrogen storage and determining the future role of biomethane and hydrogen in transport. The programme will develop more national and regional pathways studies and will share all learnings through events, videos, reports and our social media channels.

Twitter: [#GasGoesGreen](https://twitter.com/GasGoesGreen)

To stay informed of programme updates email [GasGoesGreen@energynetworks.org](mailto:GasGoesGreen@energynetworks.org)



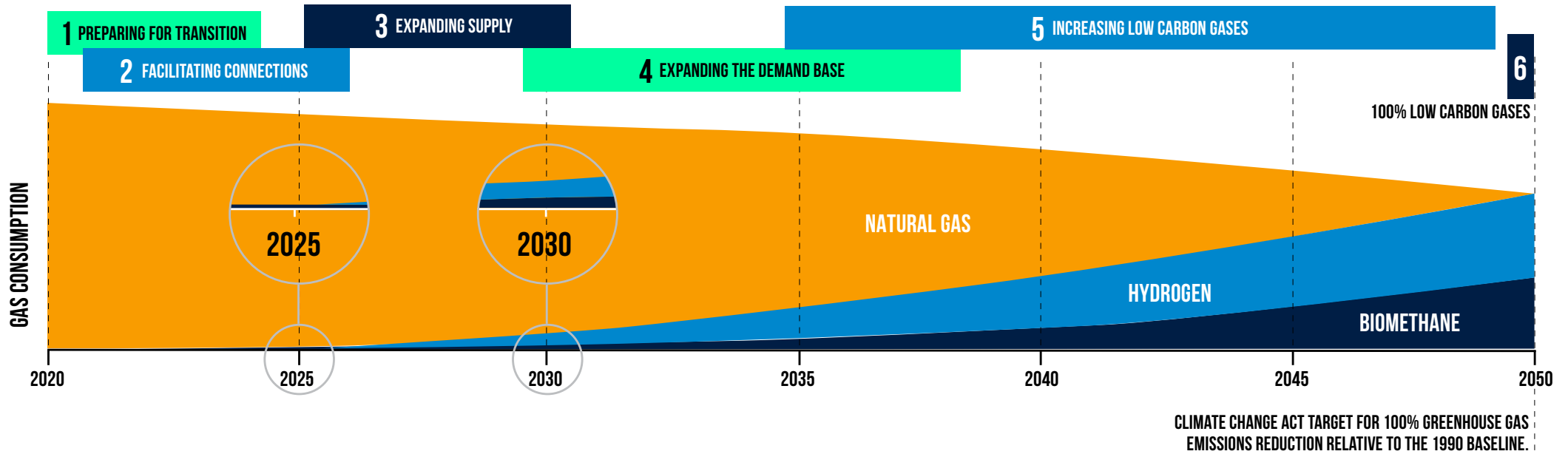
GAS GOES  
GREEN

# THE PATHWAY TO 2050

The 'Pathways to Net Zero' report, written by leading energy consultancy Guidehouse (formerly Navigant) and peer reviewed by Imperial College, sets out a detailed plan to deliver solutions that allow our existing gas pipelines to move away from natural gas and instead transport gases that deliver net zero carbon emissions.

The Pathway is built around four core elements, which work together to reduce the overall cost and disruption of decarbonising the energy system:

1. Low carbon and renewable gases supplied for all end-users
2. Continued electrification
3. Carbon capture, utilisation and storage
4. Energy efficiency





# THE PATHWAY TO 2050

To reduce emissions and create the world's first net zero gas grid requires the below practical steps be taken. Further detail on these steps is described in the Pathways to Net Zero report.

## 1 PREPARING FOR TRANSITION

Strategic, technical and policy planning to enable low carbon gases to play a significant role in GB's transition to net zero, while maintaining safe and reliable operation.

- Update Gas Safety (Management) Regulations and Calculation of Thermal Energy Regulations
- Conduct trials and certification of key technologies
- Develop commercial models and funding mechanisms
- Develop skills and labour capacity
- Raise awareness of the transition to net zero

## 2 FACILITATING CONNECTIONS

More anaerobic digestion (AD) biomethane plants connect to the gas grid. Preparations accelerate for first hydrogen projects.

- Ramp up energy efficiency improvements throughout GB
- Conduct joint network planning for GB gas grid infrastructure needs
- Standardise connection requirements for low carbon gas production
- Implement grid capacity solutions to facilitate AD biomethane injection
- Reduce fugitive methane emissions
- Deploy energy efficiency improvements (e.g. insulation and hybrid heat systems)

## 3 EXPANDING SUPPLY

First hydrogen projects integrated with carbon capture, utilisation & storage (CCUS) and anchored by baseload consumers, likely from industry and transport. Continuing scale-up of biomethane supply.

- Establish first hydrogen projects with CCUS to supply baseload customers
- Deploy small scale hydrogen storage to manage peaks
- Roll out hydrogen-ready appliances to prepare to cluster development
- Increase AD biomethane supply
- Demonstrate bioSNG production technology

## 4 EXPANDING THE DEMAND BASE

Hydrogen use extends to commercial and residential consumers near the first hydrogen projects, initially via low blends (up to 20%) but developing into 100% hydrogen clusters. Consumers in other regions continue to receive natural gas, with rising blends of biomethane.

- Implement programme to switch more consumers to hydrogen
- Use hydrogen blending for flexible network management
- Deploy large-scale hydrogen storage to manage peaks
- Increase biomethane supply including via bioSNG
- Continue improving energy efficient

## 5 INCREASING LOW CARBON GASES

Hydrogen clusters spread and connect to become extensive hydrogen zones, enabled by an evolving, carefully managed National Transmission System (NTS). Greater volumes and diversification of low carbon gas supply as more production methods mature technically and economically.

- Expand supply and demand to form larger hydrogen zones and biomethane zones
- Increase green hydrogen supply via electrolysis using renewable power
- Maintain biomethane availability at transport hubs all over GB, including within hydrogen zones
- Continue joint network planning to manage the transition, including reconfiguring the NTS

## 6 100% LOW CARBON GASES

Low carbon gases fully integrated across the GB energy system, with distinct regional solutions.

- All gas end-users are supplied with hydrogen and/or biomethane, the principal type varying by region
- Natural gas no longer used, unless abated with CCUS for blue hydrogen production
- Net zero energy system achieved by 2050

# GAS GOES GREEN PROGRAMME SCOPE

'Pathways to Net Zero' identified fifteen specific recommended near-term low-regret actions that gas network operators should take in order to enable progress on the pathway to net zero. A further set of policy related actions were also identified, actions fundamental to the delivery of the pathway.

These recommended actions were informed from new modelling and analysis, stakeholder workshops and from discussions with government, regulators and the wider energy industry throughout 2019.

Gas Goes Green is a response to the challenge of climate change and to the energy industry appraisal of what the gas network operators need to do to enable the first steps to be taken in delivering net zero.

But the programme goes further than this and introduces deliverables that go beyond the recommendations, reflecting the growing ambition in the networks to move at a pace, to go green.

Gas Goes Green has allocated the scope of work across six workstreams, each of which supports the net zero drive.

## PROGRAMME WORKSTREAMS

### 1 INVESTING IN NET ZERO

Deliverables in this workstream will examine the role the gas networks have in delivering the cost optimal route to a net zero future in a balanced energy system

### 2 GAS QUALITY AND SAFETY

Ensuring the safe transportation and distribution of net zero compliant low carbon gases

### 3 CONSUMER OPTIONS

Deliverables here will evaluate the implications on consumers of net zero compliant gases and whole systems interfaces

### 4 SYSTEM ENHANCEMENT

Revising network equipment and processes to facilitate net zero networks and smart operation

### 5 HYDROGEN TRANSFORMATION

Deliverables here will establish hydrogen as a feasible means of delivering and transitioning to net zero

### 6 COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT

This workstream will receive feedback on the programme and will engage stakeholders on the environmental, economic and social benefits of a decarbonised gas grid



# HOW THE PROGRAMME WILL WORK

The UK gas network infrastructure is a major national infrastructure asset, operated by network companies on behalf of the country. Our approach to decarbonising it must be just, transparent & accountable. Ensuring we have the right governance in place is therefore key.

## GAS GOES GREEN STEERING GROUP

The gas networks will meet monthly to monitor progress and review programme deliverables.

## ADVISORY GROUP

The programme's Advisory Group provides opportunity for regular stakeholder input into the programme and feedback from the team on progress to date. The Group will meet quarterly.

If you would like to register your interest in joining the Advisory Group please email [GasGoesGreen@energynetworks.org](mailto:GasGoesGreen@energynetworks.org)

During the 2020 the Advisory Group will meet on:

1. 14th May 2020
2. 5th August 2020
3. 4th November 2020



# WORKSTREAM 1 — INVESTING IN NET ZERO

The gas networks have set out their intentions to deliver the world's first net zero compliant network

This workstream addresses the need to deliver the right investments to allow the network to transition to net zero. UK gas networks have now submitted their business plans to Ofgem, the energy industry regulator, for the next regulatory period (RIIO2) commencing April 2021. These plans detail the progress that can be made in the early 2020s to deliver net zero and pave the way for accelerated decarbonisation in subsequent years.

Workstream 1 brings together the business plan commitments from the gas networks and sets out on the pathway to 2050 the progress that can be made. Investing in net zero builds on the innovation projects undertaken to date by the gas networks and their close cooperation with green gas producers and suppliers.

As well as the deliverables set out below, during 2020 the gas networks will continue to support delivery of energy efficiency measures to reduce demand and fuel poverty. Support for the greening of the gas grid will also continue, both with the extension to the Renewable Heat Incentive and with the development of the green gas levy. The gas networks will continue their involvement in industrial clusters throughout the UK and in CCUS development.



# WORKSTREAM 1 – INVESTING IN NET ZERO

## WS1.1 – Carbon commitment

The gas networks will demonstrate through Gas Goes Green how the future proofing of the existing network will deliver the most cost effective and least disruptive way to deliver the UK government's 2050 target.

In doing so this will minimise the behavioural changes needed to reduce emissions and provide current and future consumers with solutions that are familiar and deliver the comfort, flexibility and affordability they require.

This work will be published in April.

## WS1.2 – Iron Mains Risk Reduction Programme emissions saving

Gas Goes Green will assess the greenhouse gas emissions reductions that have been delivered through the Iron Mains Risk Reduction Programme and those that will be saved in the years to come as the networks continue to build a network fit for the future. It will identify the climate change benefits that could be delivered through accelerating the Programme.

This work will be completed in May.

### IRON MAINS RISK REDUCTION PROGRAMME

Through the Iron Mains Risk Reduction Programme (IMRRP) gas networks have invested £28 billion to remove the risk to members of the public from all iron mains within 30 metres of property over a 30-year period. Often referred to as the '30/30' programme, an additional benefit of this nationwide work is that the new polyethylene plastic (PE) pipes are suitable for transporting a range of gases including hydrogen. The programme directly reduces greenhouse gas emissions, and makes the network cheaper to run.

## WS1.3 – Developing the pathway to net zero

Through Gas Goes Green, the gas networks have a plan to go green and deliver the pathway to net zero. Building on existing work, the networks will develop a timeline for when policy and investment is needed and the steps towards delivering net zero that this will unlock.

This work will assess the changing mix of gas supply and demand volumes (or energy requirements), locations and regional profiles, regulation and funding required to develop clusters and zones. Cost implications will also be assessed.

This report will be published in October.



# WORKSTREAM 1 – INVESTING IN NET ZERO

## WS1.4 - Local, regional and national pathways studies

The Pathways to Net Zero report established high level pathways for achieving net zero emissions for buildings, transport, industry and power across the whole of Great Britain. Building on this learning, Gas Goes Green will take forward various projects to understand more about the opportunities in particular sectors and geographies, and potential impacts. The wider energy industry and stakeholders will be engaged throughout. Several pathways studies are planned for 2020.

### SCOTTISH PATHWAYS

Gas Goes Green will undertake a pathways study to evaluate the key policy and regulatory enablers for decarbonising the gas networks and their customers in Scotland. Scotland has distinct opportunities for producing and using low carbon gases and ambitious greenhouse gas emissions targets of 75% by 2030 and net zero by 2045. Options for accelerating gas network projects in different areas of Scotland will be considered with the emissions reductions and other benefits for Scotland and for the UK as a whole being quantified.

### WELSH PATHWAYS

Wales also has distinct opportunities and Gas Goes Green will work with stakeholders to develop a detailed, regionalised pathway for the whole of Wales that is consistent with Welsh Government energy and decarbonisation ambitions, objectives and targets. There is potential for Wales to drive decarbonisation through use of hydrogen in transport, heat and industry, and through use of biomethane. The role of hybrid heating systems in reducing demand of gas and providing energy system balancing will also be considered.

### MANCHESTER NORTH WEST PATHWAYS

As well as devolved administrations, county and combined authorities are also progressing pathways studies to determine the steps required to achieve net zero emissions. Hundreds of local authorities have declared climate emergencies and Gas Goes Green can help deliver the greenhouse gas emissions reductions needed to meet the challenge of climate change. Studies such as the Manchester North West Pathways that will be undertaken during 2020 need to meet local decarbonisation targets but they must also be developed in a way that ensures national energy system decarbonisation and resilience is taken into consideration.



# WORKSTREAM 2 — GAS QUALITY AND SAFETY

Existing gas legislation and regulation will need to change to allow for greater proportions of net zero compliant gases

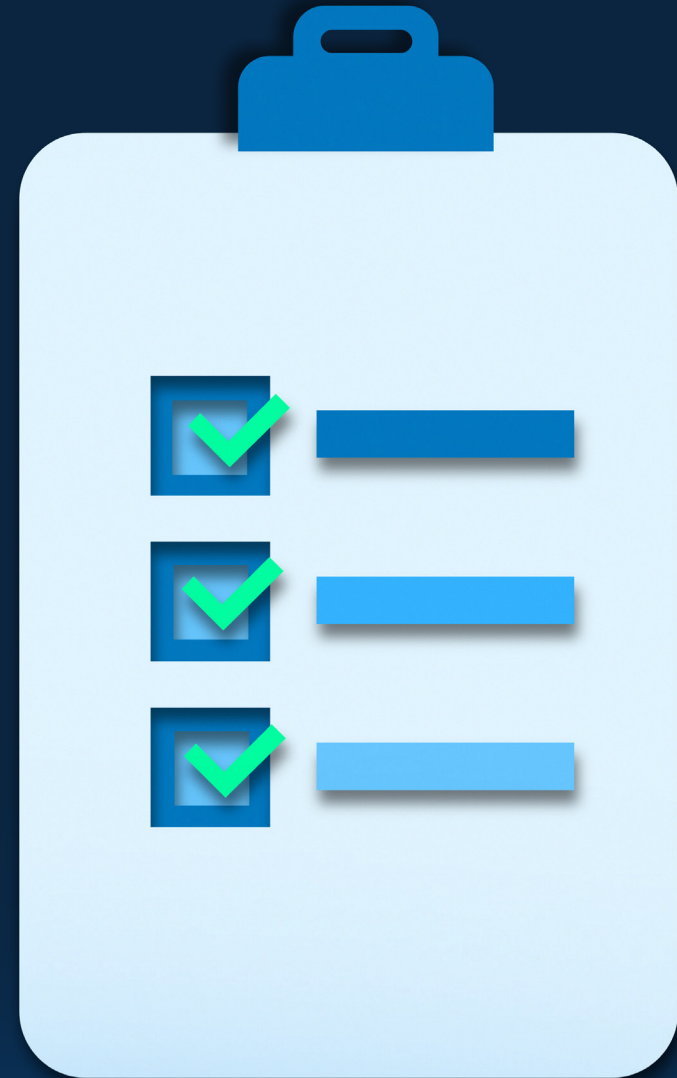
Changes to gas safety, metering and billing regulations are required to facilitate and enable greater supply and use of low carbon and renewable gases.

Work is underway to consider how the Gas Safety (Management) Regulations (GS(M)R) that currently restricts the quantity of hydrogen that can be supplied by the gas system to 0.1% vol., should be changed.

Metering and billing procedures will also need to change to ensure that end-users pay for the energy they receive, rather than the volume of gas as is the case today, thereby facilitating more flexible but still robust Calculation of Thermal Energy Regulations.

Workstream 2 will support efforts to enable a wider range of gases to be flowed through the gas networks and for these to be billed appropriately. This is a first step that needs to be taken in this area of the pathway to net zero.

Gas quality and safety will also consider gas separation technologies (splitting of blended gas streams into their component parts) and their potential role in the future energy system.



# WORKSTREAM 2 – GAS QUALITY AND SAFETY

## WS2.1 – Strengthen case for Gas Safety (Management) Regulations amendment

Gas Goes Green will support progress on GS(M)R changes being undertaken by the Institute of Gas Engineers and Managers (IGEM) to move quality rules from legislation to a new more flexible industry standard. This will include consideration of any Cost Benefit Analysis that has been produced and impact assessments, including decarbonisation benefits associated with a wider Wobbe Index.

National Grid's Gas Markets Plan (GMaP) is promoting discussion with industry and stakeholders on how gas market frameworks may need to evolve and adapt over the next decade, to support the energy transition and to continue to deliver value for consumers.

GMaP has proposed further collaborative work for 2020 on gas quality. While this needs to be maintained for safety and reliability reasons it may be possible to relax the standards of our gas system in a carefully controlled way to support new suppliers who offer greener gases.

This work will continue throughout 2020 with recommendations of subsequent work.

## WS2.2 – Grid-scale trials of gas separation

We are undertaking analysis and bringing together relevant stakeholders in order to assess possible opportunities of gas separation.

A workshop will be held in July to update on the research and planned next steps.

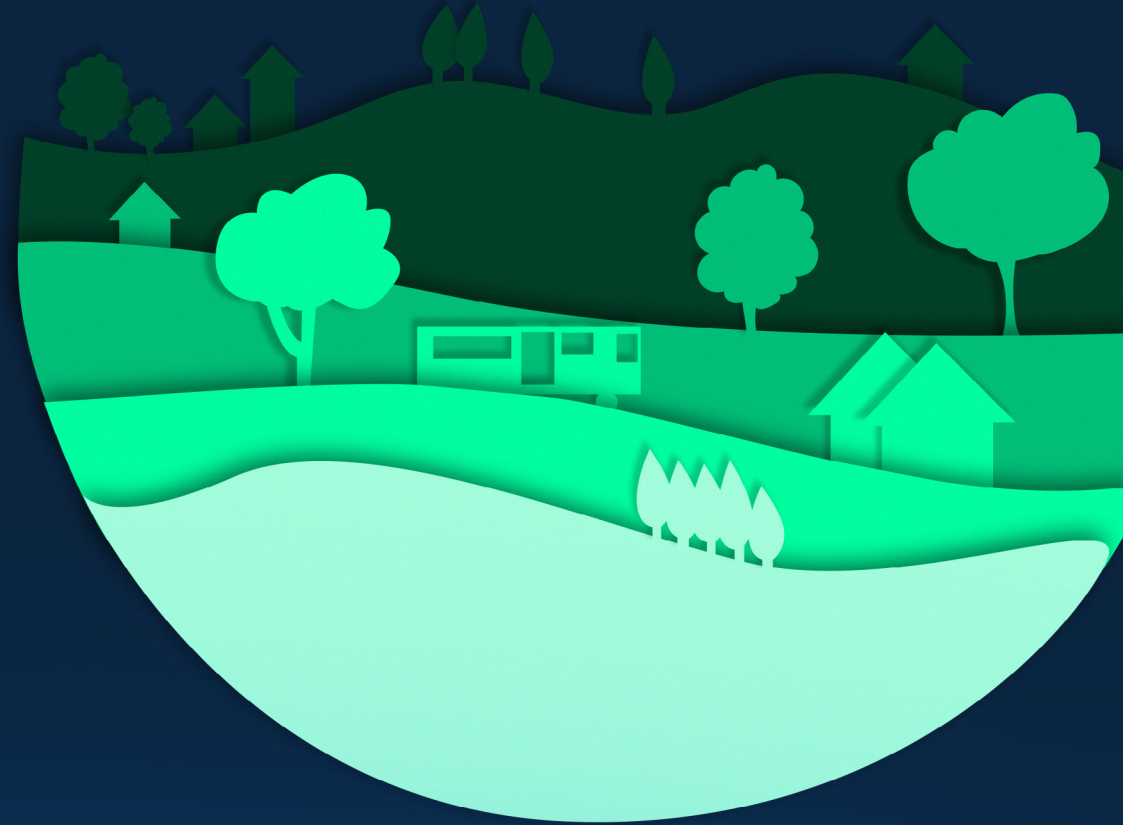
# WORKSTREAM 3 — CONSUMER OPTIONS

Gas supply and demand are set to change in the net zero world, with green gas transport options and new hydrogen ready domestic appliances

Decarbonisation of the gas grid may impact industrial, commercial and domestic customers in many different ways, with such impacts in turn affecting the role of gas in the net zero energy system of the future. By working together with the gas networks, the industrial, power, transport and heat sectors will be able to meet their own decarbonisation ambitions and ensure a smooth and just transition.

During the transition to net zero emissions, gas vehicles and flexible domestic appliances, like hybrid heating systems, will become commonplace. And with this deployment pathway new regulation will be required.

This workstream will also consider implications of gas and electricity systems becoming increasingly linked and whole systems in their operation.





# WORKSTREAM 3 – CONSUMER OPTIONS

## WS3.1 – Hydrogen production, storage and carbon capture geological studies

As industrial clusters begin to develop in the 2020s seasonal storage for hydrogen may be necessary. Hydrogen storage is also intricately related to system resilience raising whole systems considerations in respect of determining optimal storage in comparison to alternatives such as reformation.

Gas Goes Green will undertake a review of the long term options for hydrogen storage, production locations and geological suitability and CCUS implications.

A report will be produced in October.

## WS3.2 – Production, Storage and Carbon Capture Locational and Capacity Requirements

Learning from WS3.1, the programme will then commence subsequent research on long-term hydrogen supply and demand forecasts & storage sites. It is from such studies as this that we will begin to see in detail what the energy system of the future will look like.

A project scope will be produced in December.

## WS3.3 – Future of gas in transport

To achieve the ambitious target of net zero emissions requires progress across all sectors. Heavy vehicles have previously not seen as much focus as light passenger vehicles, yet to meet the target, almost all HGVs must be converted to low carbon alternatives with an acceleration towards 100% low carbon sales.

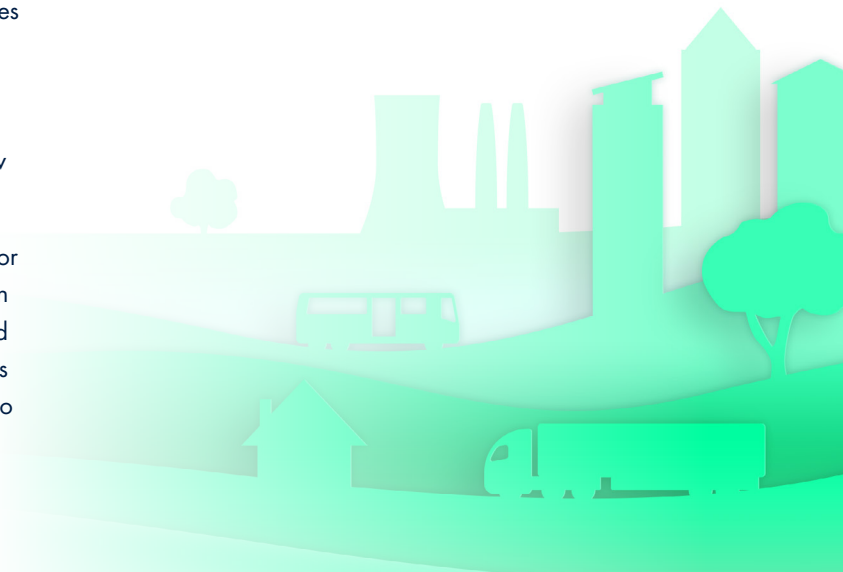
Gas has an important role to play in the heavy vehicle sector and for trains and shipping. To assess this, Gas Goes Green will prescribe practical transition pathways from fossil based and renewable gas today to a net zero transport future. This will give manufacturers and fleet operators the confidence to invest in green sustainable transport options.

A report will be produced in July.

## WS3.4 – Heating system demonstrations

The gas networks are already involved in plans for large demonstrations of hydrogen networks and hybrid heating systems. Delivery of these are likely to depend on direction from policymakers.

During the summer the Gas Goes Green Steering Group and Advisory Group will evaluate the latest research and analysis and update on the progress of these various demonstrations.

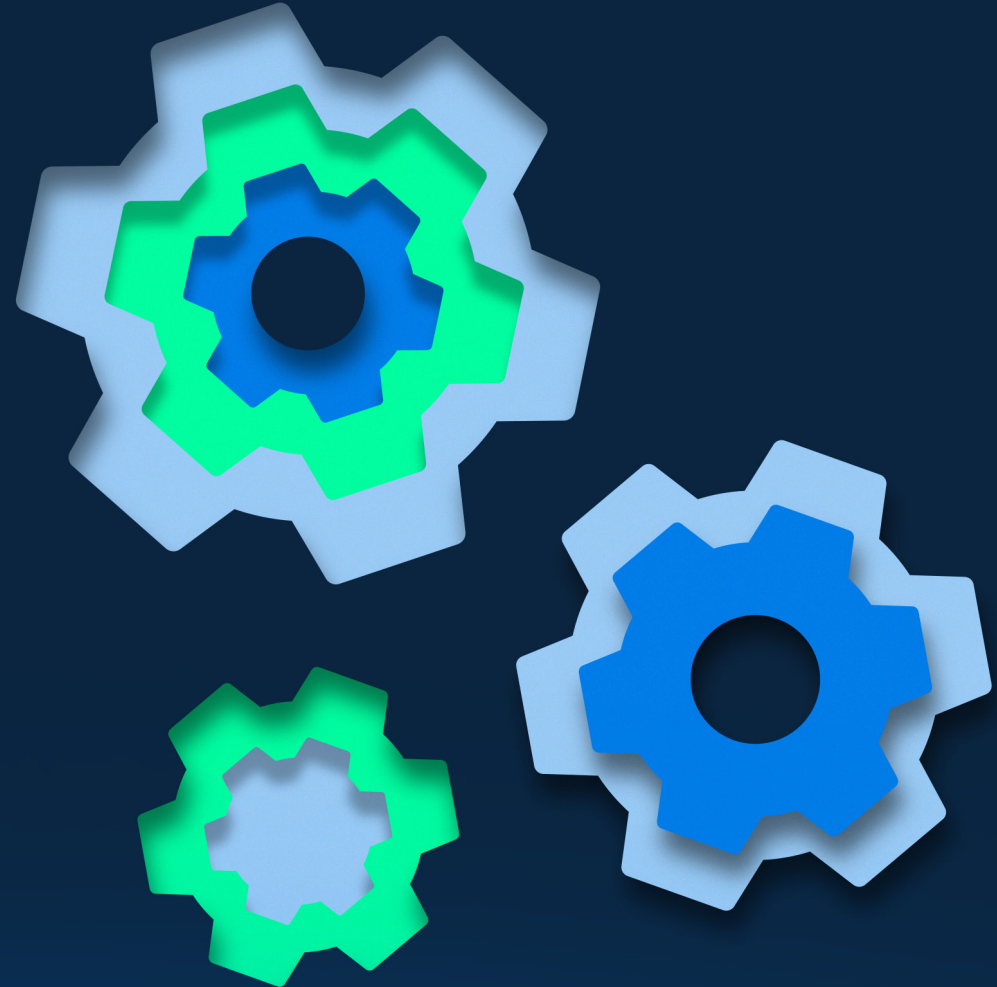


# WORKSTREAM 4 – SYSTEM ENHANCEMENT

New connections processes can make it simpler and cheaper to connect to the gas network, and can improve system operation

As the gas networks continue on the pathway to net zero there is a need for the network to be smarter and be responsive to the optimised future system as it begins to take shape, facilitating more decentralised gas production or through new maintenance and replacement practices.

The System enhancement workstream will anticipate the net zero emissions world and the changes required of gas network assets to deliver it. This may include changes to processes such as gas entry and exit connections, to assets such as pipelines, plant and equipment, rotating equipment, or to services to respond to new network configurations and smart system operation.



# WORKSTREAM 4 – SYSTEM ENHANCEMENT

## WS4.1 – Entry connection standardisation

Distributed gas entry is becoming ever more commonplace in the gas network. The technical requirements to connect these onshore and typically small scale sites differ from network to network company and as such a programme of standardisation has been ongoing since 2018.

Gas Goes Green will evaluate the current standardisation programme, determining what aspects can be brought into effect now and what further efforts to simplify connections and reduce costs can be introduced for new customers commissioning after 1 April 2021, when the new regulatory period begins. The diagram to the right shows the current progress of the standardisation programme.

This study will report in November.

To put producers of green gas firmly in the driving seat a new Decentralised Gas Forum will meet quarterly with stakeholders representing hydrogen production and biomethane developers (anaerobic digestion and thermal gasification). The Forum will allow members to table items to challenge network practices and to work together to produce policies and procedures that will best deliver changes required and, including but not limited to non-standardised processes.

If you would like to express your interest in joining this group please email [GasGoesGreen@energynetworks.org](mailto:GasGoesGreen@energynetworks.org)

- Calibration Methodology
- IO Schedule
- GQ8
- GSMR (Siloxanes)
- ME2
- SAT
- Central Feedstock Register
- Gas Sampling
- LGT
- PSSR Compliance

- G19 GEU

R1101

DESIGN

- 35 day test
- Site Acceptance Testing (including simulation of gas prior to G2G tests)
- Calibration methodology
- GSMR (Siloxanes)
- Simulation of gas prior to G2G (Valve arrangement - Design)

R1102

# WORKSTREAM 4 – SYSTEM ENHANCEMENT

## WS4.2 – Grid capacity optioneering

Green gas entry connections, such as biomethane plants, may often be in rural areas where local gas demand is low. This can lead to otherwise viable projects not going forward. And for those that do the plants may not be able to inject gas year round. Lack of capacity can lead to the flaring of gas in existing biomethane plants, particularly during summer months when local demand for gas is low.

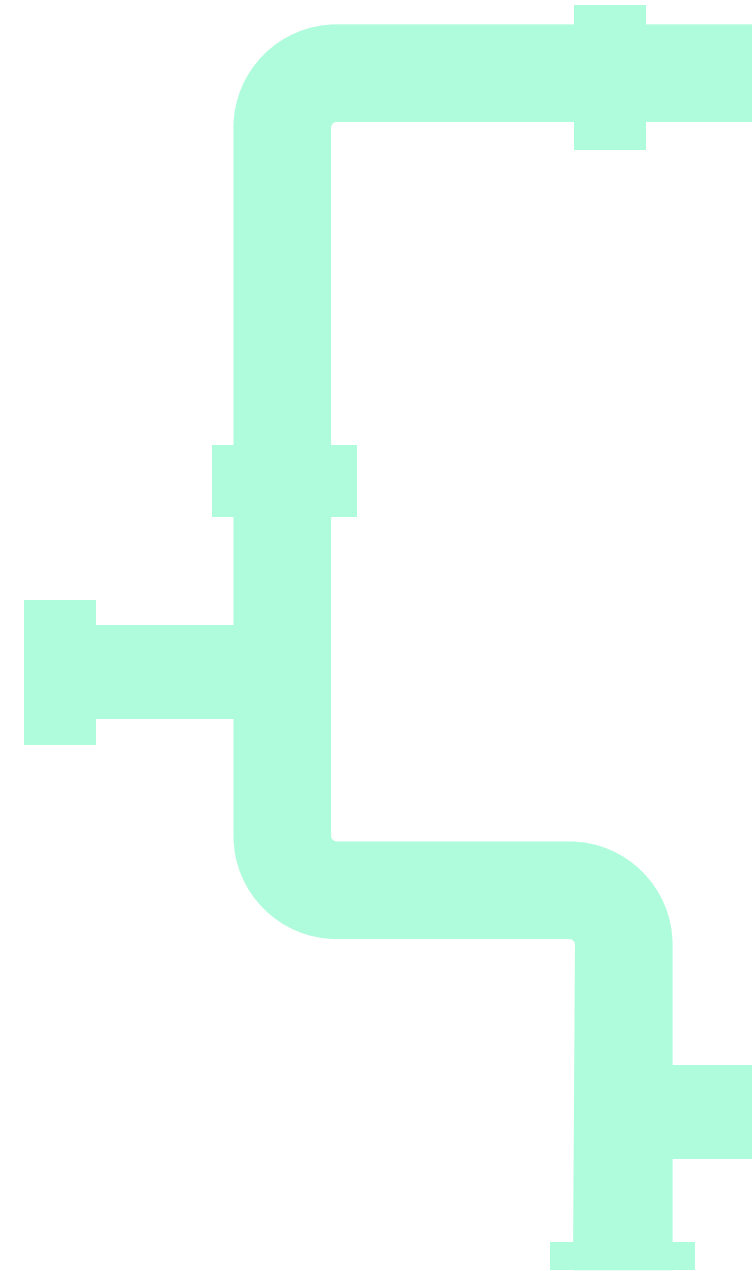
Gas Goes Green will evaluate network capacity solutions that could increase the gas networks' scope to receive biomethane supplies in areas of the lower pressure gas network that have limited local demand. For example, network compression (enabling gas to move up to high pressure tiers in the network) could be implemented strategically for reverse flow enabling flexible injection and management of biomethane, including for seasonal storage. New approaches to gas priority dispatch could also encourage greater green gas injection, including hydrogen in years to come.

A project to consider options will commence in July.

## WS4.3 – Assessing network fugitive emissions

System enhancement is not only required at connection sites. While the Iron Mains Risk Reduction Programme (IMRRP) has reduced the emissions of the UK gas network, fugitive emissions from biomethane transportation and from above ground installations should be evaluated and possible mitigations tested. Live trials could follow in subsequent years, delivering further emissions savings from an ever modernising gas network.

This work will commence during 2020 with recommendations of subsequent work.



# WORKSTREAM 5 — HYDROGEN TRANSFORMATION

Hydrogen is critical for delivering net zero, with all major new studies expecting it to have a significant role

For several years the gas networks have been working together to evaluate and provide technical, safety, quality and financial evidence to demonstrate the viability of using the gas networks to transport and distribute 100% hydrogen through existing and new networks.

This workstream will take this work forward while also coordinating with other gas network projects and with government activity relating to hydrogen.

Gas Goes Green will coordinate all of the network activities relating to hydrogen including Hy4Heat and BEIS' hydrogen programme.



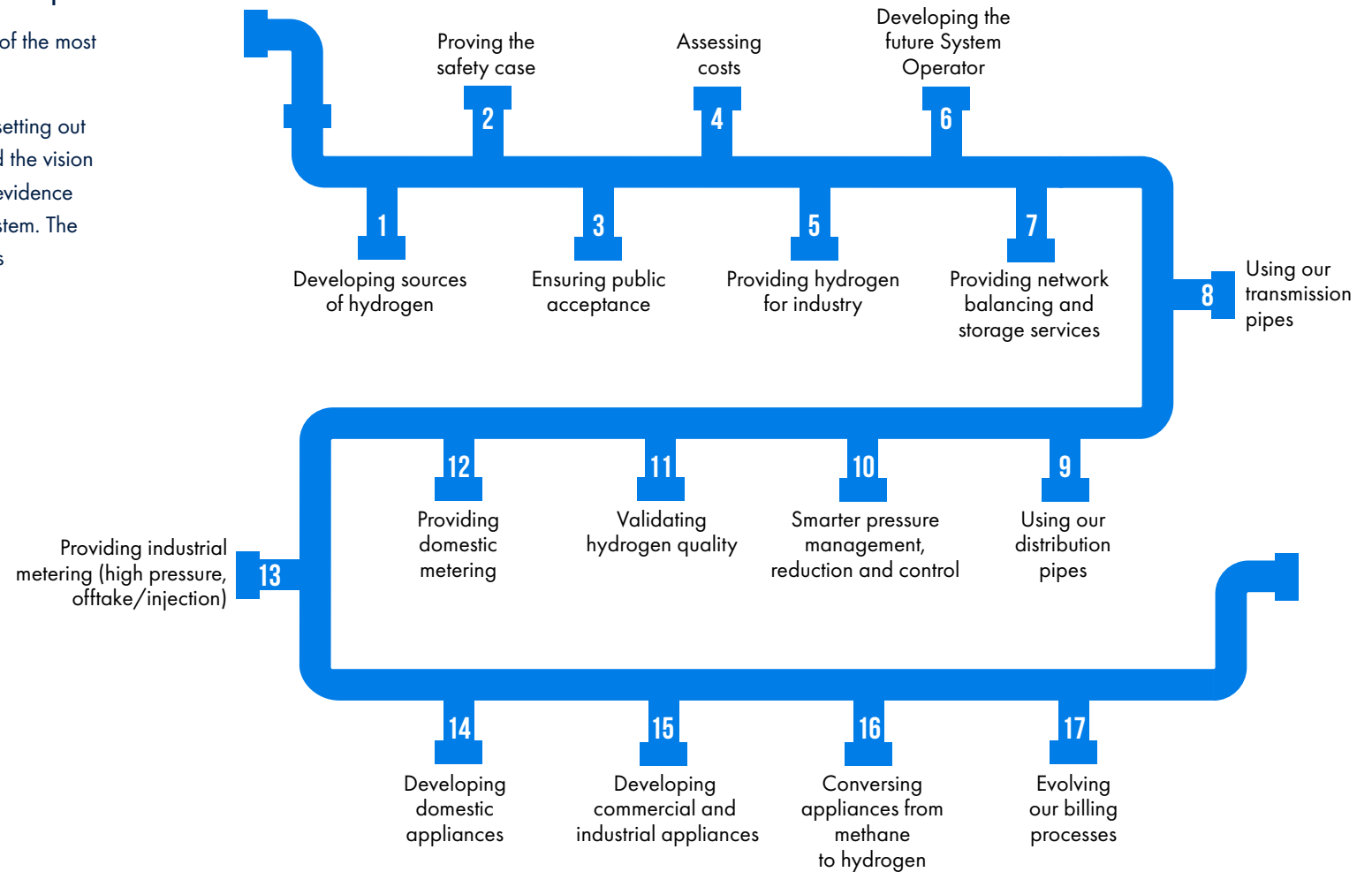
# WORKSTREAM 5 – HYDROGEN TRANSFORMATION

## WS5.1 – Hydrogen transformation plan

Transition of our existing assets to hydrogen is one of the most important parts of the decarbonisation challenge.

Gas Goes Green will chart the hydrogen journey, setting out the state of the art network innovation projects, and the vision for how network and wider activity is building the evidence base for the role of hydrogen across the energy system. The plan will support the case for hydrogen as a means of achieving net zero.

The plan will be published in July.



# WORKSTREAM 5 – HYDROGEN TRANSFORMATION

This map shows some of the major projects where the gas networks are collaborating to address essential questions relating to the building and operation of new hydrogen and repurposed networks. Many more projects are underway and in development to accelerate progress to net zero.

UK WIDE PROJECTS

**NTS HYDROGEN INJECTION**

**HYDROGEN DEBLENDING**

**H2GV**

**NORTH WEST HYNET**

**KEELE HYDEPLOY**

**CARDIFF HYHY**

**ST FERGUS HYDROGEN IN THE NTS FEASIBILITY STUDY**

**ABERDEEN ABERDEEN VISION**

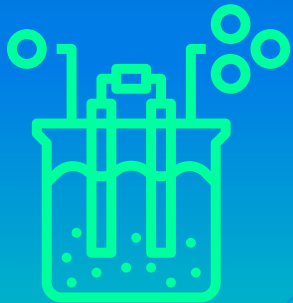
**FIFE H100**

**EDINBURGH THE FUTURE OF THE LTS**

**WINLATON HYDEPLOY2**

**LEEDS H21**

**LONDON PROJECT CAVENDISH**





# WORKSTREAM 5 – HYDROGEN TRANSFORMATION

## WS5.2 - Collaboration and dissemination

Throughout 2020 the gas networks will disseminate the latest research and project findings relating to hydrogen.

The Gas Goes Green website contains up to date information on all network projects and many network events. Visit <https://www.energynetworks.org/>

To stay informed of other events taking place throughout the year register for updates via email [GasGoesGreen@energynetworks.org](mailto:GasGoesGreen@energynetworks.org)



**GAS GOES  
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# WORKSTREAM 6 – COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT

Greening the gas grid is about more than decarbonisation. Gas Goes Green can unlock green jobs and regional economic growth

The gas networks have a pathway to net zero emissions - but how this will be accomplished? When will actions need to be taken, and by whom?

This workstream will begin to tackle such questions while also engaging stakeholders from within and outside the energy industry on the important role gas has to play in tackling climate change.

Outside of the energy industry there is low public awareness of the implications of the decarbonisation of heat which Gas Goes Green can address. Consumers, be they transport, industry or households are likely to look to advice from energy suppliers, equipment manufacturers and installers of low carbon appliances so all will need to be involved in the programme.

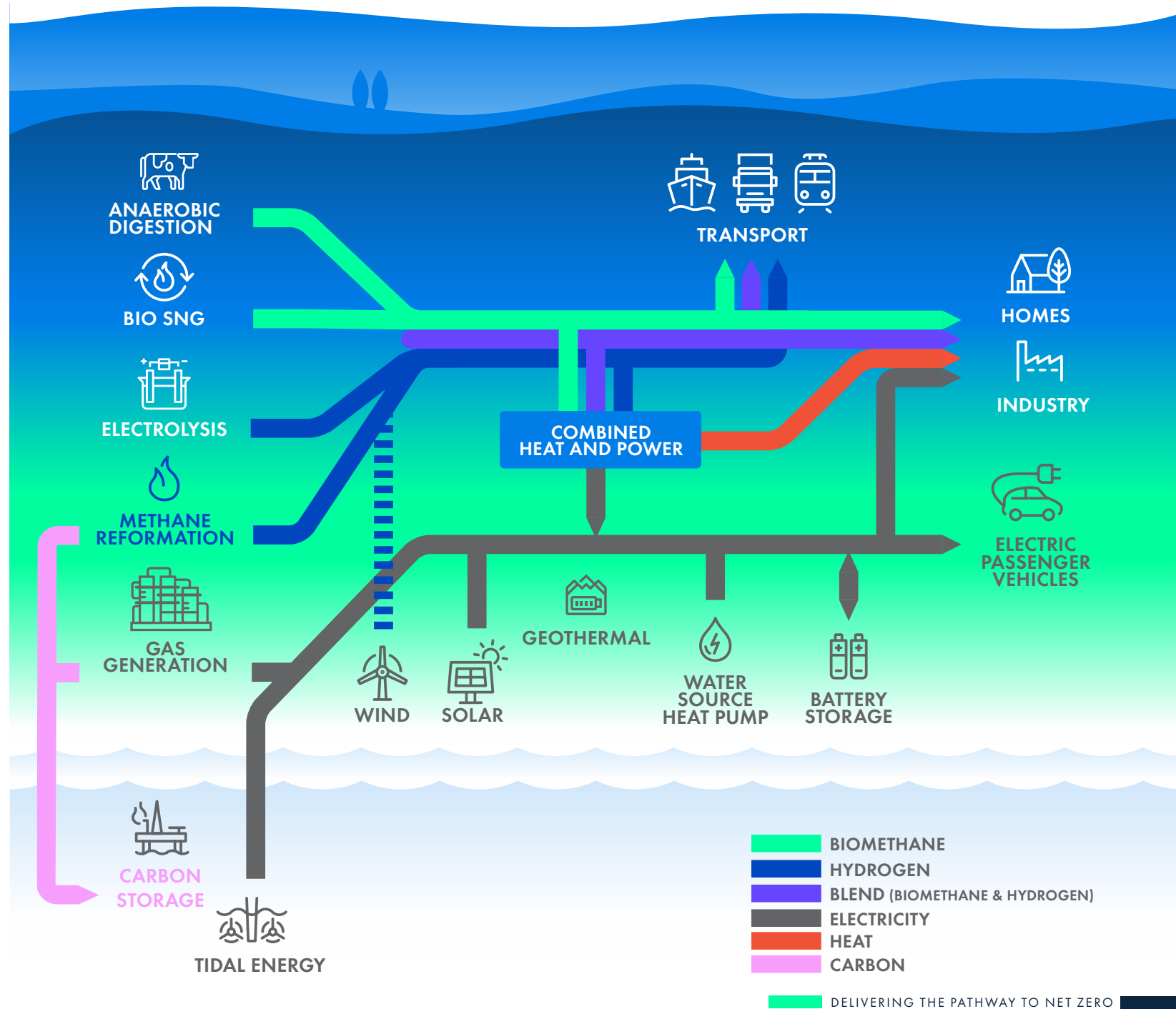


# WORKSTREAM 6 – COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT

## WS6.1 – A whole systems approach to heat decarbonisation

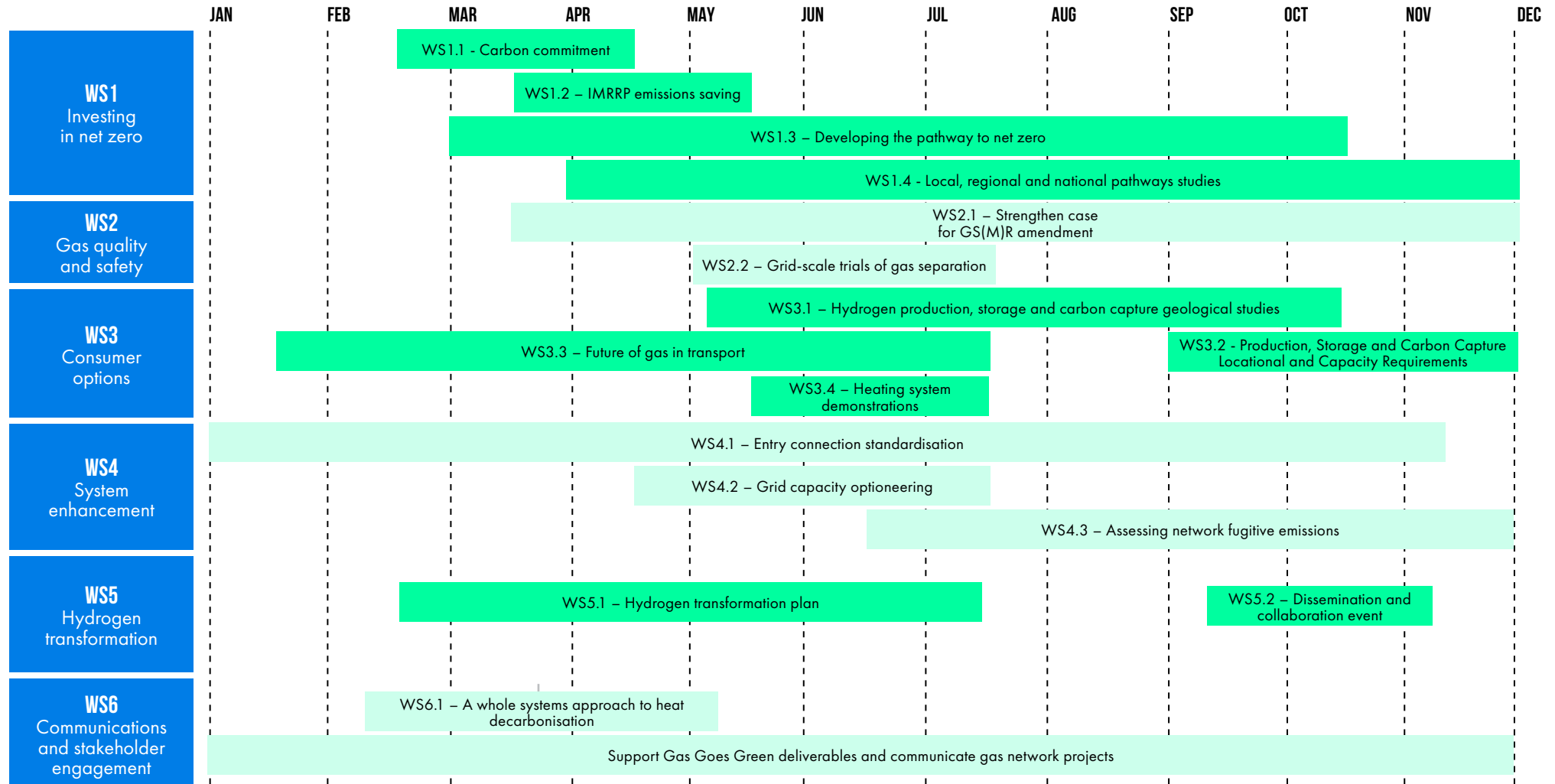
To achieve the net zero emission target, government policy will need to support several technologies that have the potential to be a significant part of a decarbonised energy system, but today are relatively expensive to implement. While a consensus is beginning to emerge that different solutions will be required for different types of consumers and for different types of buildings, Gas Goes Green will develop this thinking and evaluate policy required to unlock each option.

This work, to be published in June, will set out the choices different types of energy consumers have on the pathway to net zero, from which point targeted policy options can be developed.



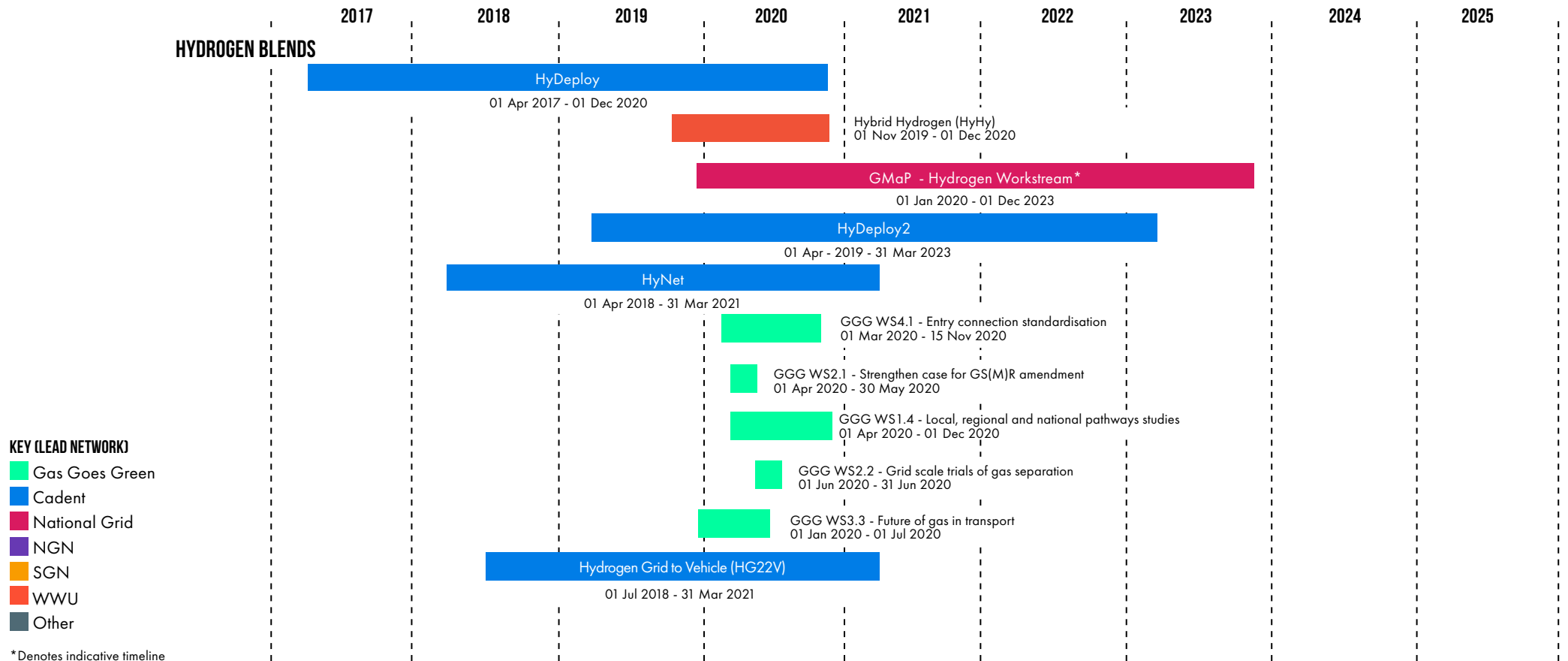
# 2020 DELIVERABLES SUMMARY

The following table shows the outputs that will be delivered through the Gas Goes Green programme during 2020. On the following pages these are shown alongside the gas network company decarbonisation projects.

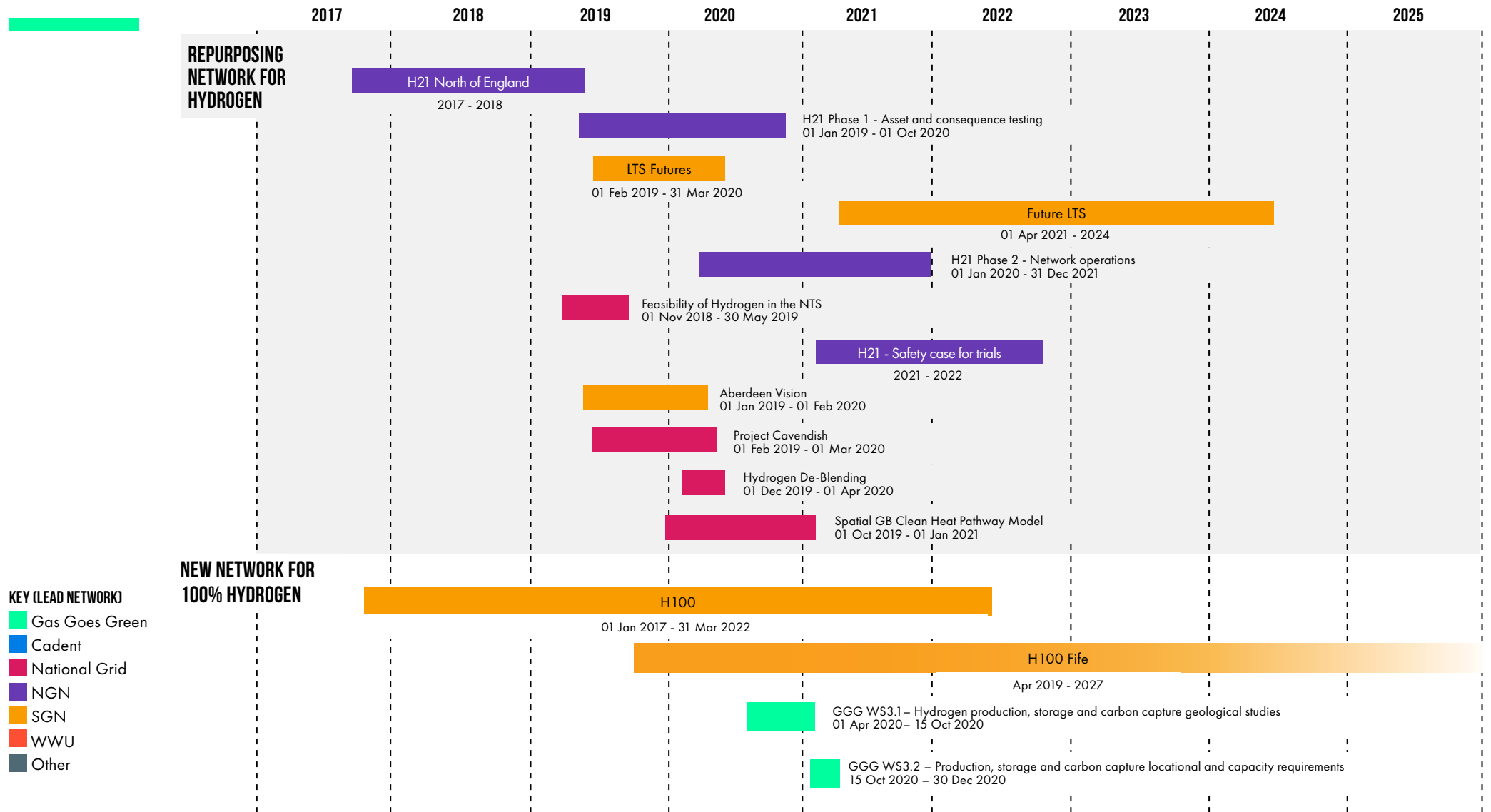


# GAS GOES GREEN AND THE GAS NETWORK COMPANY DECARBONISATION PROJECTS

The UK gas network companies have a long history of collaboration when it comes to innovation, including on projects relating to reducing emissions. Almost all of the projects listed below involve consortia of gas networks and the wider energy industry. Be sure to visit [ENA's website](#) for the most up to date project details.

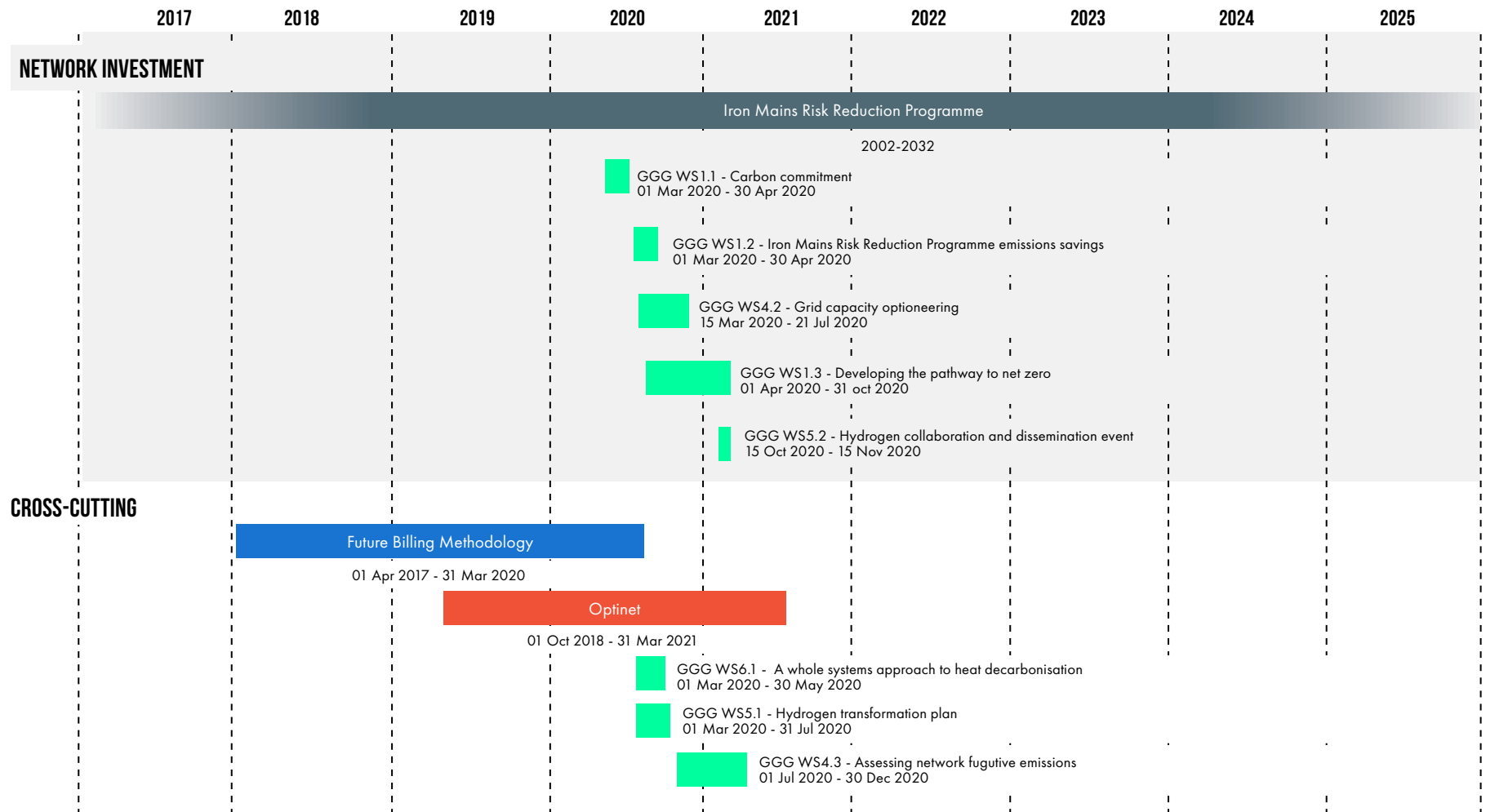


# GAS GOES GREEN AND THE GAS NETWORK COMPANY DECARBONISATION PROJECTS



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Visit [ENA's Smarter Energy Networks Portal](#) for the latest project details and outputs.





# 2020 GAS NETWORK INNOVATION

Integral to the Gas Goes Green programme, the gas network companies are engaged in innovation projects designed to identify and address important challenges and opportunities facing the gas transmission and distribution networks.

First published in March 2018 and updated in March 2020 the Gas Network Innovation Strategy addresses the innovative projects that are underway.

You can read the latest report on

[www.energynetworks.org](http://www.energynetworks.org)

If you have other ideas for network projects required to deliver net zero emissions email

[GasGoesGreen@energynetworks.org](mailto:GasGoesGreen@energynetworks.org)



