



January 2025

Introduction

Cadent is largest energy provider in the UK today, carrying 30% of all energy consumed by UK homes, businesses and industry. Our network alone carries almost as much energy as the entirety of the UK's electricity network does today, and includes the three largest cities in the UK, London, Birmingham and Manchester, as well as supplying big brands like Rolls Royce, British Sugar and Liberty Steel.

Today the energy in our network comes from methane. This methane must be replaced with clean alternatives as part of a transition to low carbon energy. We are working to achieve that by reducing emissions associated with the ongoing use of the network as we transition, and by investing in replacing that methane with low carbon gases such as biomethane and hydrogen. In 2021 we committed to delivering ten things that underpinned our work in this area. Three years on and we continue to make progress, albeit with slower delivery in some areas. We will continue to work with government and the wider sector as we deliver against each.

Ten Point Plan

as set out in 2021

Preparing and scaling hydrogen production



Introduce net zero construction sites from 2023



Deliver the first scaled hydrogen blending facility from 2025



Deliver the UK's first 100% pipeline by 2027



Enable 5GW of hydrogen production in our region by 2030

Looking afetr our colleagues and consumers



Provide finance for low carbon heating for our employees now



Publish plans to demonstrate heat decarbonisation of whole communities by 2025



Install hydrogen-ready appliances by 2026 or sooner





Launch a Hydrogen Skills Academy by 2024



Develop a hydrogen education programme by 2024



Put pace into the adoption of hydrogen vehicles by 2025



Introduce net zero construction sites from 2023

We committed to introduce the first net zero construction site in 2023, by using zero emission technologies such as hydrogen fuelled power generation and low carbon construction plant for our large construction sites. Not only will this reduce our carbon footprint, but it will also support investment and jobs in the UK hydrogen supply chain.

We have now tested a range of low-carbon equipment at different sites, including hydrogen-powered welfare cabins, solar panels, batteries and Hydrogenated Vegetable Oil (HVO) electricity generators. We have also conducted studies on reducing the embedded carbon content of the materials we use on site. We are planning to bring this together with low-carbon plant equipment at a site at Burwell and are currently working with partners to identify ways to do this at least cost to consumers.

Deliver the first scaled hydrogen blending facility from 2025

We committed to implement the first hydrogen blending to thousands of homes and hundreds of industrial and commercial users in the North-West by 2025 with hydrogen supplied from the HyNet North-West project.

The government have now taken a decision to support the blending of hydrogen in the existing gas network, subject to confirmation of the safety case from the HSE. We are also continuing to develop the regulatory framework needed to enable blending to happen in both the transmission and distribution networks. This is now likely to be closer to 2030 but could be sooner.

Deliver the UK's first 100% hydrogen pipeline by 2027

We committed to designing and building the first 100% hydrogen pipeline by 2027, delivering 100% hydrogen to multiple industrial users, power generation stations and other users across the North-West.

We continue to progress delivery of dedicated hydrogen pipelines as part of our regional hydrogen programmes – HyNet, East Coast Hydrogen, Hydrogen Valley and Capital Hydrogen. The HyNet hydrogen pipeline is the most advanced and we've recently completed public consultation on our routing and design proposals. The next step is for Government to finalise the business models for hydrogen pipelines and storage and open the competition for bidding. If successful, this will enable commissioning of the pipeline by 2030.

Enable 5GW of hydrogen production in our region by 2030

We committed to partner, support and facilitate the development of at least 5GW of hydrogen production within our region by 2030.

We continue to actively develop the hydrogen supply chain across our regions and currently project more than 6.7GW of hydrogen production across our region, including 2.7GW production capacity on the East coast and 1.4GW in the North-West. In addition, multiple electrolytic hydrogen producers are actively developing projects across our region, with more applying for funding. All in all, we are on track to deliver this commitment.

Launch a Hydrogen Skills Academy by 2024

We committed to launching a Hydrogen Skills Academy to deliver the necessary upskilling and hydrogen career opportunities. This includes upskilling our current workforce and supporting new career opportunities in the wider industry, including supporting the ambition of the UK Hydrogen Strategy in setting up the new Early Career Professionals Forum.

The hydrogen sector has developed more slowly than we first envisaged in 2022. As a result, we have adjusted our plans to provide for a softer launch focused on those involved in delivering our near to medium term projects. The first of these is a pipeline project due to commission in 2026, hence we now intend to launch the Academy through our Learning & Development program during 2025.

Develop a hydrogen education programme by 2024

We committed to developing a school programme to support education in the future gas sector and hydrogen. As part of this, we also aimed to help all our customers learn about the role hydrogen can play in decarbonising their homes.

We are partnering with Skewb to create a wider education program, as part of our innovation work with Ofgem. Work on this has now begun and will complete early next year, with content available for schools and colleges thereafter. We are also working with the wider gas sector on the Hello Hydrogen campaign, designed to raise consumer awareness about hydrogen's future potential.

Put pace into the adoption of hydrogen vehicles from 2025

We committed to work in partnership with others to catalyse the development of hydrogen refuelling hubs in Cadent's region. The intention is to enable our fleet of vehicles, as well as those of local public and private sector organisations to switch to hydrogen at a greater pace. We also committed to target one hydrogen refuelling station by 2025 and 2030 for the first gas network connected refuelling station.

Government continues to support the development of hydrogen fuel cell vehicles and refuelling infrastructure. We are supportive of changes to policy enabling hydrogen combustion engines to be considered under existing government support programs. We have now bought our own hydrogen vehicles and are working with several large automotive manufacturers to identify what support we can give to their own hydrogen vehicle programs.

Provide finance options for low carbon heating for our employees now

We committed to work with partners to enable access to new finance options and 'heat as a service' solutions for all 6,000+ of our employees, enabling them to purchase low carbon heating systems that met their needs right now.

After engaging with the market for these services we have evolved our approach into a more holistic employee energy efficiency scheme, enabling colleagues to access home surveys, grants and funding. We will continue to work with the market to develop our employee offer still further as the financing market and range of available products grow.

Publish plans to demonstrate heat decarbonisation of whole communities by 2025

We committed to convene a wide cross section of industry to develop plans showing how it can be done, ensuring that no homes are left behind.

Government rejected proposals for demonstration projects at Ellesmere Port and Redcar and are instead now placing weight on the technical and safety evidence we continue to collaborate on, as well as the outcome of trials in Fife (H100) and in Europe. We continue to work across the sector on the role of low carbon gas in supporting the wider energy system, and on the role hybrid heat pumps can play in reducing both emissions and the cost of the transition.

Install hydrogen ready appliances by 2026 or sooner

We committed to deliver hydrogen-ready appliances through our Fuel Poverty programme as soon as they were available. We also said we'd explore what we can do to ensure new gas consumers were aware of any up-coming hydrogen options and that their homes were ready for hydrogen.

Government has decided to delay the decision on mandating hydrogen ready boilers until after they have made a decision about the role of hydrogen in decarbonising home heating. We will therefore review this target at that point, whilst continuing to support customers understand the role of hydrogen through initiatives such as the 'Hello Hydrogen' campaign.





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