

Cadent

Your Gas Network

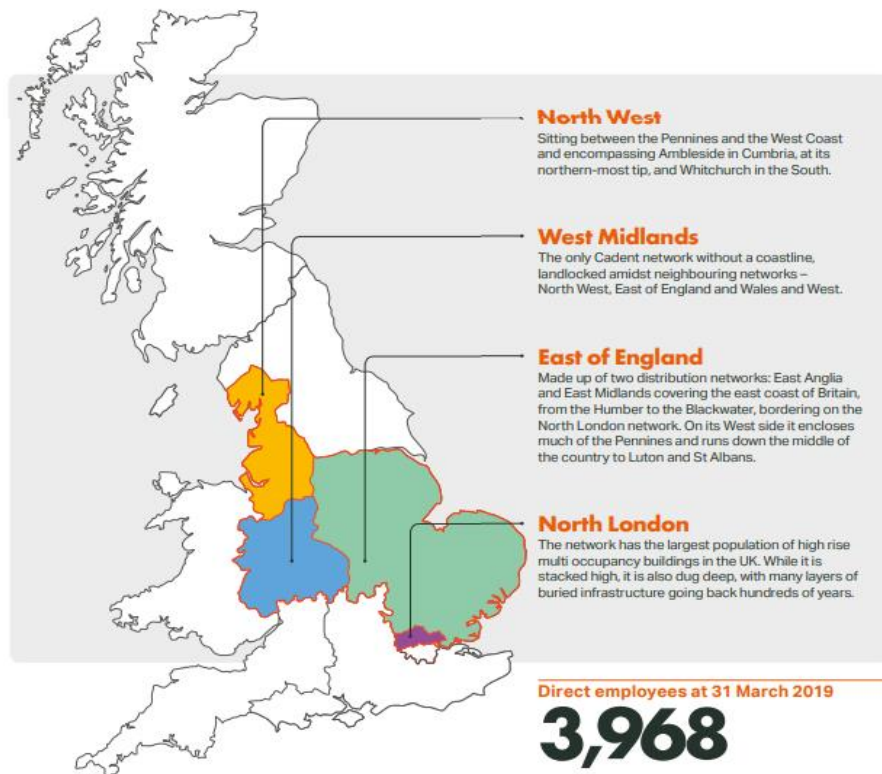
Cadent Transition Bond Framework



I. Introduction

1. Company overview

Cadent is the largest distributor of Gas in Great Britain, owning and operating four of the eight regulated gas distribution networks in West Midlands, North West England, East of England, and North London and is responsible for the safe and efficient transportation of gas from the high-pressure national transmission system in these areas. This includes some of the largest and most densely populated cities in Great Britain, including London, Birmingham and Manchester.

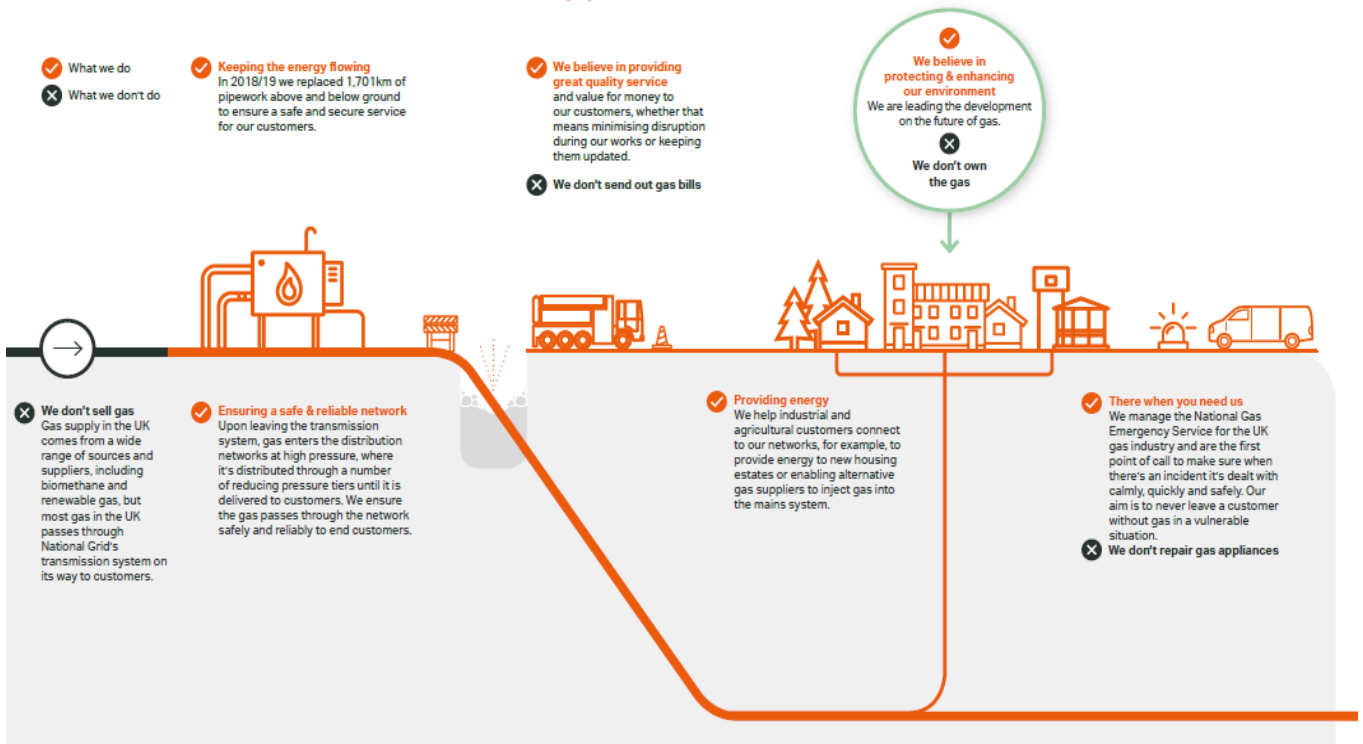


Source: Cadent Safety and Sustainability report 2018/19

The business controls and operates a wide range of infrastructure assets required to provide safe and efficient gas distribution. The four networks operate approximately 131,000 kilometres of lower-pressure gas distribution mains, serving 11 million customers.

Cadent provides an essential service that keeps the energy flowing to 11 million homes, offices and businesses. The company performs various services in relation to operating the gas network:

- Connect, disconnect and alter gas connections for homes and businesses
- Help renewable energy producers connect to the network
- Manage the National Gas Emergency Service for the UK gas industry



Cadent's strategy has three key aims:

1. To deliver the best value outcomes for its customers across all networks by focusing on performance and continuously improving service. The vision is to set standards all customers love and others aspire to.
2. To shape the future of the energy system through the networks playing a key role in decarbonising heat and transport and facilitating the most sustainable and least disruptive path to meeting the Paris Agreement.
3. In order to support the two aims above, Cadent has developed an effective organisational capability with clear accountabilities alongside its new customer service strategy, together with data management and information systems.

Cadent is regulated by the Office of Gas and Electricity Markets (Ofgem). Ofgem sets price controls, a ceiling on the amount companies can earn from charges to use the network, with the current regulatory period (RIIO (Revenue= Incentives + Innovation + Outputs) -GD1) running from 2013-2021. RIIO-2 will be the next network price control and will start from 2021.

Within the current period Cadent will continue to deliver its primary outputs and seek to provide value for money and good service to its customers. Cadent is forecasting a reduction in customers' bills by £16 in real terms over the RIIO-GD1 period alongside delivering the outputs that customers need. This includes the 99.99% reliability of gas supply and a 24/7 gas emergency service which is free at the point of use.

Cadent maintains strong performance in safety and reliability achieved through, amongst other things, maintaining and repairing its assets and replacing up to 13,000km of Tier 1 pipes¹ over the RIIO-GD1 period, and as part of the 30-year Mains Replacement Programme (MRP) that began in 2002.

¹ 8 inches and below (approximately 80% of all at risk iron pipes)

2. Transitioning to a more sustainable future:

As the largest gas distribution business in the UK, Cadent recognises that it has a responsibility to provide leadership with government and regulators, and work with other distribution networks and relevant stakeholders to help set the right policy frameworks to ensure that low carbon gas plays an important role in the future energy system.

Cadent has a major role to play in the delivery of low-carbon fuels, now and into the future and is undertaking important research and development projects to support the transition to a sustainable energy system, in the home, for industry, and for transport. As such, Cadent is well positioned to play a key role within the changing energy landscape and has developed a framework for delivering more sustainable outcomes for its customers, stakeholders and its business. Cadent has published its first Safety and Sustainability Report which sets out Cadent’s position as a responsible business and its commitments to deliver for customers and the society that it serves. The framework provides the key vehicle to define Cadent’s future ambition, to set standards others aspire to across all the material areas of sustainability. The report also demonstrates the progress that has been made and some of the areas of challenge on the journey to become the leading gas distribution business.

The framework developed for the Report has been adopted to help set out Cadent’s future business plan to provide a consistent set of themes to describe current and future priorities.

Our sustainability framework

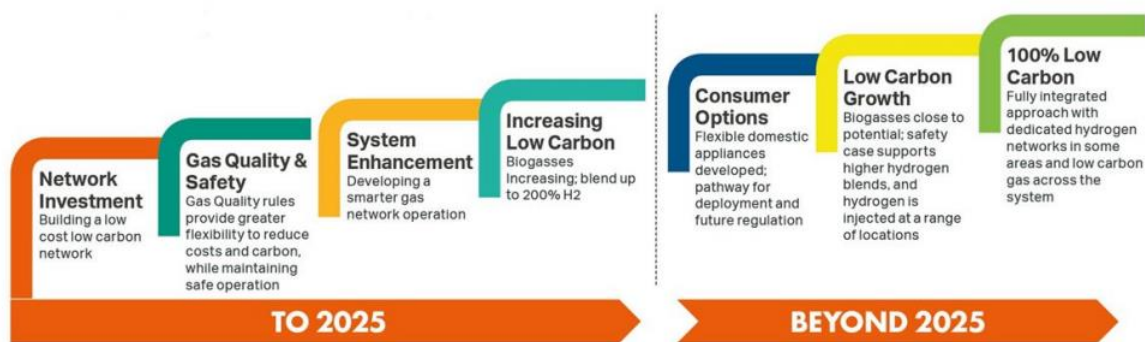
Making a positive impact through our strategy



Gas networks are at the centre of this energy transition, and Cadent is committed to playing a leading role and move towards a low carbon future.

Cadent supports the Energy Networks Association ('ENA') Gas Decarbonisation Pathways Project, a major industry initiative to build a low cost, low carbon network and develop new technologies that make the most of renewable gas and hydrogen. It will help coordinate network activity and support policy making for decarbonised gas. Cadent is also taking action by developing projects and partnerships at scale to demonstrate that this future is realistic and deliverable, and provides a route to decarbonisation, at lower cost and with less disruption to customers and communities.

The ENA Pathways Project:



Source: Cadent Safety and Sustainability report 2018/19

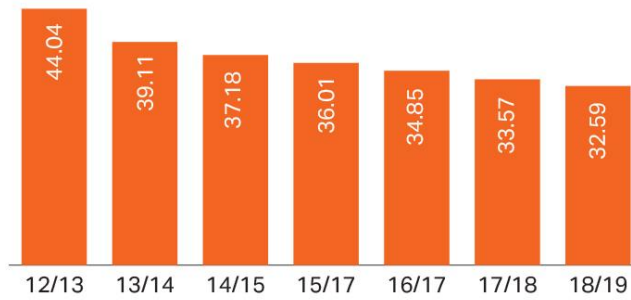
3. Cadent’s Sustainable Goals:

Cadent’s framework for sustainability includes a range of goals to deliver short medium and long term change across each of the seven themes shown above. These range from continued delivery of effective demonstration projects highlighting the future role of decarbonised gas a cost-effective transition to a future energy system to enhancing safety and providing greater support to vulnerable and fuel poor customers.

A key element of shaping a more sustainable future focuses on how Cadent will address its key environmental impacts, including greenhouse gas emissions and waste and resource management.

GHG emissions reduction – Cadent has publicly committed to medium and long-term targets to reduce its GHG emissions by 80% against a 1990 baseline by 2050 and has successfully exceeded its 2020 target ahead of schedule (cutting emissions by 68% vs the 2020 target of 45%). As part of its future business plan, Cadent’s long term emissions reduction targets will be refreshed in line with the Science Based Targets Initiative.

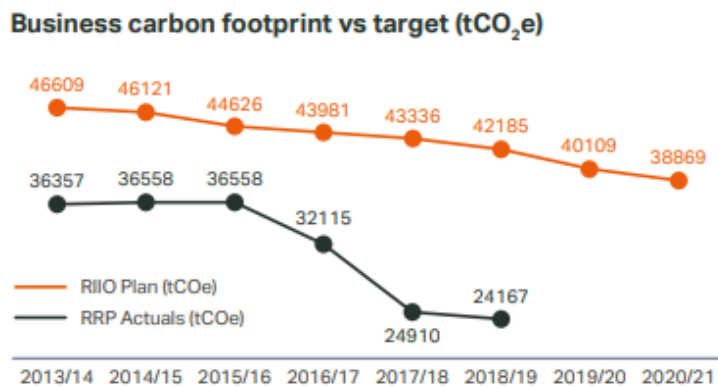
Emissions – percentage of baseline



Source: Cadent Safety and Sustainability report 2018/19

The most significant component of Cadent’s emissions inventory is leakage from underground metallic gas pipes across the distribution networks. In common with other gas distribution networks, the regulator requires Cadent to drive a mains replacement programme, replacing these old leaky assets with modern, low leakage plastic (polyethylene, PE) pipes. This activity is a major contributor to Cadent’s emissions reductions to date and continued delivery of the programme will help Cadent achieve its current longer-term emissions target significantly ahead of the target date.

Business carbon footprint – As a responsible regulated business Cadent aims to reduce its business carbon footprint (‘BCF’). This element of emissions is under more direct control and Cadent is already ahead of the Regulatory targets as shown in the graph below.



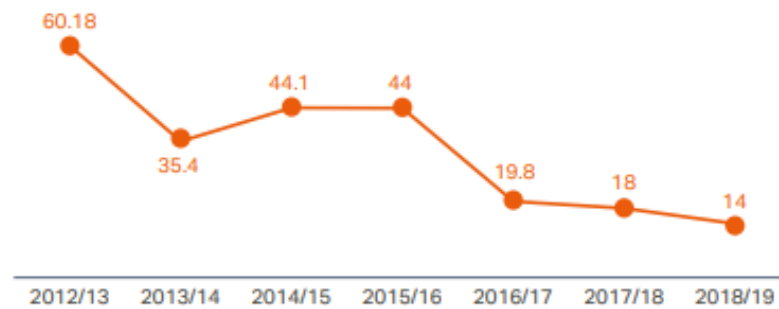
Source: Cadent Safety and Sustainability report 2018/19

As part of Cadent’s future business plan, the ambition is to drive a step change reduction in business carbon footprint, in line with UK Government commitments to net-zero emissions. Cadent’s commitments include:

- Procure certified renewable energy,
- Further reduce business travel,
- Support greater use of low emissions and zero emission vehicles,
- Work with contract partners to reduce their emissions,
- Supporting employees and communities to reduce their environmental footprint.

Resource Management – Cadent believes that no avoidable waste should be sent to landfill. Its goal is for zero avoidable waste to landfill by 2021/22. The company intends to achieve this by improving facilities for waste segregation and employee awareness, embedding new recycling activities. Cadent is also working with the supply chain to develop closed-loop approaches to procurement including the plastic barriers, signage and cones from street works, and engaging with suppliers to minimise packaging and other waste at source.

Percentage of waste to landfill



Source: Cadent Safety and Sustainability report 2018/19

Low carbon fleet – Cadent has reduced its average emissions from its car fleet from 106g/km to 94 g/km over the course of 2018/19 by:

- Procuring efficient vehicles for the fleet;
- Having a cap on company car emissions;
- Offering 'green' incentives to company car users, which have been taken up by 90% of drivers;
- Operating a no-idling policy for the vans at worksites.

Cadent's Safety and Sustainability Report helps set out the performance to date and set a baseline across all the themes in the framework and sets the priorities for the business going forwards. The recent formation of a Board level Safety and Sustainability Committee to provide the independent oversight and challenge of the strategy and performance will help ensure that Cadent delivers against its commitments.

II. Cadent's Transition Bond Framework

Cadent believes that the issuance of Transition Bond Instruments could contribute to fostering the transition to a low-carbon economy, giving financial backing to the projects (existing or new ones) enabling this transition.









Cadent has decided to commit to the Sustainable Capital Markets as a way of financing Transition projects and has created a Transition Bond Framework.

The Transition Bond Framework has been reviewed by DNV GL. Cadent intends to follow best market practise and will communicate in a transparent manner on:

- i. Use of Proceeds
- ii. Process for Project Evaluation and Selection
- iii. Management of Proceeds
- iv. Reporting

i. Use of Proceeds

Cadent will use the proceeds of the Transition Bonds to finance and/or refinance, in whole and in part, new and/or existing Eligible Projects falling within one of the following eligible categories.

Eligible Category	Scope and definition for Eligible Projects	SDGs
<p>Retrofit of gas transmission and distribution networks</p>	<ul style="list-style-type: none"> ▪ Replacement of pipeline to facilitate the integration of hydrogen and other low-carbon gases, and reduce methane leakage ▪ Repair and replacement of existing gas pipeline that is already hydrogen-ready in order to reduce methane leakage <p>For avoidance of doubt, gas network expansion is excluded</p>	 
<p>Renewable Energy</p>	<p>Projects aimed at developing the production and use of low carbon energy, such as:</p> <ul style="list-style-type: none"> ▪ Development of biomethane and bio-Substitute Natural Gas (BioSNG) plants, which convert² household waste into gas, with an emissions threshold of 100g CO₂e/kWh 	  
<p>Clean Transportation</p>	<p>Projects aimed at developing new sustainable transport infrastructure, including but not limited to:</p> <ul style="list-style-type: none"> ▪ Hydrogen fueling station ▪ High pressure CNG refueling station ▪ CNG Iveco vans which incorporate a split-drive power take off system that enables the vehicle to generate electrical power and pneumatic air ▪ Investments in alternatively fueled low/zero tail pipe emission vehicles such as electric and electric-hybrid vehicles operational fleet (vehicles with tailpipe emission intensity of max. 50g CO₂/km) 	 
<p>Energy Efficient Buildings</p>	<ul style="list-style-type: none"> ▪ Projects aimed at reducing the energy consumption of buildings, offices and depots, including but not limited to: <ul style="list-style-type: none"> ▪ replacement of traditional lamps with LED lamps; ▪ walls, roof, ground floor insulation ▪ any other energy efficient solutions leading to energy savings of at least 30% compared to a baseline performance before the renovation ▪ On-site renewable energy installations (solar, wind) ▪ Construction of new buildings which are expected to receive a certification of at least LEED “Gold” or at least BREEAM “Excellent” 	

² DEFRA conversion factors of 0.0002 kg/kwh, based on overall lifecycle of the gas production process

ii. Process for Project Evaluation and Selection

Within Cadent all investments are subject to approval through an investment or sanction committee. This is also the case for major projects or change within the business. Each of these should be accompanied by a justification which includes explicit assessment of risks and opportunities relating to environment, safety, stakeholders, customers communities.

All procurement is guided by Cadent's policy for Sustainable procurement and any contractors or suppliers appointed to work with Cadent or on its behalf in the delivery of eligible projects will be subject to prequalification through the Achilles/UVDB process. Furthermore, they are all obliged to become signatories to the Global Supplier Code of Conduct³ which specifies minimum standards for safe, responsible, ethical and environmentally focused delivery.

Projects financed and/or refinanced through the net proceeds of the Transition Bonds notes are evaluated and selected by a working group of representatives with the required level of expertise and seniority from Cadent.

This team will be constituted of representatives from:

- the Treasury team,
- the CSR team,
- the Project team

The Project team will evaluate the nominated projects and assets and report the information to this working group. The working group will be responsible to select the Eligible Projects that are compliant with the eligible categories described in the previous section.

Eligible Projects may include new projects, projects under construction or in Cadent's portfolio, with a disbursement date no older than 36 months.

The role of the working group will be to:

1. Review, select, validate and monitor the pool of Eligible Projects, based on Sustainable Policy, enterprise risk valuation and the Transition Bond Framework;
2. Identify the proper impact metric that best describes the environmental benefits;
3. Draft, verify and validate annual reporting for investors;
4. Monitor the on-going evolution related to the Sustainable Capital Markets in terms of disclosure/reporting and update the Framework accordingly, when needed, in order to be in-line with market best practices; and
5. Review the Framework to reflect any changes about the Company's sustainability strategies and initiatives.

³ <https://cadentgas.com/nggdwsdev/media/Downloads/Supplier-Code-of-Conduct.pdf>

iii. **Management of Proceeds**

The net proceeds from Cadent's Transition Bonds will be deposited in the general account and an amount equal to the net proceeds will be earmarked for allocation to Eligible Projects, in accordance with Cadent's Transition Bond Framework.

All relevant information regarding the issuance of Transition Bonds and Eligible Projects (re)financed will be monitored and kept in Cadent's accounting systems. The balance of the tracked proceeds should be periodically adjusted on a quarterly basis, in order to match allocations to Eligible Projects (re)financed during this period.

Cadent will substitute any projects that are no longer eligible, as soon as practical once an appropriate substitution option has been identified.

The payment of principal and interest on any bond issued by Cadent under the Framework will be made from its general funds and will not be linked to the performance of any Eligible Project.

Pending the allocation or reallocation, as the case may be, of the net proceeds, Cadent will invest the balance of the net proceeds, at its own discretion, in cash or cash equivalent, or in other liquid marketable instruments, as per the company's liquidity management policy.

Cadent intends to allocate the full amount of proceeds within the next 24 months following the issuance of the Transition notes.

iv. Reporting

Cadent will report on the allocation of net proceeds and associated impact metrics of the Transition Bonds within one year from issuance date and annually thereafter until the proceeds have been fully allocated, and as necessary in the event of material development.

This report will be published as a standalone Transition Bond report and will be made available on Cadent’s website.

In case of several issuances, the annual report will be updated to reflect all bonds issued under the Framework.

Allocation Report

The report will include:

- The list of Eligible Projects (re)financed;
- The aggregated amount of allocation of the net proceeds to the Eligible Projects at category level
- The proportion of net proceeds used for financing versus refinancing; and,
- The balance of any unallocated proceeds invested in cash and/or cash equivalents (if any)

Impact Reporting

Where possible, Cadent will report on a number of impact metrics associated with the Eligible Projects funded with the net proceeds of the Transition Bond

Transition Bond Category	Impact Measurement Metrics - Examples
Retrofit of gas transmission and distribution networks	<ul style="list-style-type: none"> ▪ Estimated annual GHG emissions avoided (in tCO₂e) ▪ Reduction in leakage as a result of the project (in GWh/y or GWh/km replaced)⁴
Renewable energy⁵	<ul style="list-style-type: none"> ▪ Estimated annual GHG emissions avoided (in tCO₂e) ▪ Energy capacity installed in GW or MW
Energy efficient buildings	<ul style="list-style-type: none"> ▪ Number of new buildings / renovated buildings, along with the certification obtained (if any) ▪ Estimated annual GHG emissions avoided (in tCO₂e) ▪ Energy savings (KWh saved/reduced)⁶ ▪ Renewable energy capacity installed in GW or MW
Clean Transportation	<ul style="list-style-type: none"> ▪ Number of CNG station built

⁴ leakage model agreed with the regulator

⁵ All newly installed or commissioned renewable energy plant will be equipped with appropriate metering to record energy generated. The emissions saving compared to the equivalent energy provided by the electricity grid can then be readily calculated using (DEFRA) published conversion factors

⁶ Energy consumption at all buildings is metered, mostly through AMRs

v. **External Review**

a. **Pre-issuance**

Cadent has appointed DNV GL to provide a Second Party Opinion on its Transition Bond Framework.

The Second Party Opinion and the Transition Bond Framework will be made available on Cadent's website.

b. **Post-issuance**

An independent auditor who will provide a limited assurance will review the allocation of Transition Bond proceeds, adherence to asset selection criteria. The auditors' report will be made available on Cadent's website.

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