



Our Environmental Action Plan and Five-year Targets

Leading a clean energy future for everyone.





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“To achieve our environmental action plan targets, we’ll need active engagement from everyone. In these pages, we’ll be taking a deeper look into the targets that each business unit is focusing on, as well as some targets that’ll require the participation of all our employees.”



Christine Glew
Environmental
Sustainability Manager,
National Gas Transmission

Introduction

Our purpose at National Gas Transmission is to lead a clean energy future for everyone.

We'll do this by keeping gas flowing around the country to our businesses and homes via the 7,627km National Transmission System.

We'll also be leading the transition towards cleaner sources of energy by adapting around 1,250 miles of Britain's gas transmission pipeline – along with some new-build – to deliver a hydrogen backbone for the UK by the early 2030s.

The UK energy challenge

At any one time, we can supply over 50% of the nation's energy by gas to heat our homes and keep our businesses running.

But the UK is facing a stark challenge to reduce our greenhouse gas emissions.

The Climate Change Committee predicts that, without any intervention, global temperatures could rise by as much as 7°C over the next century.

That's why we want to support the UK's commitment to the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

We want to play our part in helping the UK meet some of these big climate challenges.

But more than that, we're passionate about reducing the impact of National Gas Transmission's operations on the environment while delivering positive benefits for the communities we serve.

Building a nature positive future

Alongside the climate crisis, we are also in the midst of a biodiversity crisis. We are fighting against this as a business through our own net gain targets, which have come ahead of the provisions under the 2021 Environment Act to require anyone granted planning permission to deliver at least a 10% net gain in biodiversity value on all new developments in England from November 2023.

In this document...

We set out National Gas Transmission's environmental action plan and targets, which demonstrate how we plan to work together with our employees and stakeholders to reduce our impact on the environment.

It includes five pillars and 30 commitments that'll underpin our environmental plan and help us to measure how we're doing.

The commitments will be in place until the end of this regulatory period (RIIO-2*), which is due to conclude in 2026.



Climate



Leadership



Air quality



Resources



Nature

*RIIO (Revenue = Incentives + Innovation + Outputs).

Executive summary

At National Gas, we care passionately about the environment.

As a responsible business, we're committed to delivering environmental benefits for the communities we serve, while prioritising the issues that matter most to our customers, our employees and our wider stakeholders.

In particular, we recognise the challenge ahead if the UK is going to meet its goal of net zero carbon emissions by 2050. We want to play a significant part in meeting that challenge with the lowest-possible impact on society.

That's why the environment and the cost of carbon will become core factors for future decisions we make on all of our major investment proposals – and especially when we're investing in something that meets a specific environmental challenge. One example of this is our work to upgrade our compressor stations, which is being carried out to reduce the higher NOx emissions associated with our older compressors.

Our 30 commitments demonstrate how we, as a business, intend to reduce our impact on the environment.

30 commitments for change

In this document, we set out 30 commitments within our Environmental Action Plan (EAP) to demonstrate how we, as a business, intend to reduce our impact on the environment.

These commitments are driven by both legislative and non-legislative factors. They're grouped into the following five broad areas or pillars:

1. Air quality – compressor emissions

We'll work to reduce NOx emissions from our operations by the end of RIIO-2* and beyond. This includes replacing some of the older compressors in our network with cleaner technology, so we can improve local air quality.

2. Climate change – our climate commitment

Our key commitment here is to develop a science-based target for carbon reduction by 2023. Science-based targets are borne out of industry best practice, but developing them is no easy task.

It's particularly challenging for the gas industry where routes to decarbonisation are uncertain, because policy decisions impacting a future hydrogen economy are still to be made, for example, the role of hydrogen in domestic heat.

3. Responsible asset use

We'll address 84 redundant assets, asset groups or sites, contributing to a sustainable, lower-carbon future by decommissioning them responsibly or changing their purpose where possible.

4. Caring for the natural environment

We'll make sure both new construction and decommissioning projects include initiatives to protect and promote biodiversity. We'll also enhance the value of natural assets on non-operational land that we own.

5. Leadership for change

We'll embed sustainability in our decision making, be transparent on our progress, and work with industry to drive forward the sustainability agenda.

Progress against each of the 30 commitments in our EAP will be measured appropriately and our progress will be reported each year via our annual Environmental Report, which is publicly available on our website.

Eight out of these 30 commitments have direct financial rewards and penalties due to their benefit for society (you can find out more about these eight commitments and the penalty/reward thresholds in fig. 14 of last year's Environmental Report).

*RIIO (Revenue = Incentives + Innovation + Outputs).

Important dates on our journey to net zero

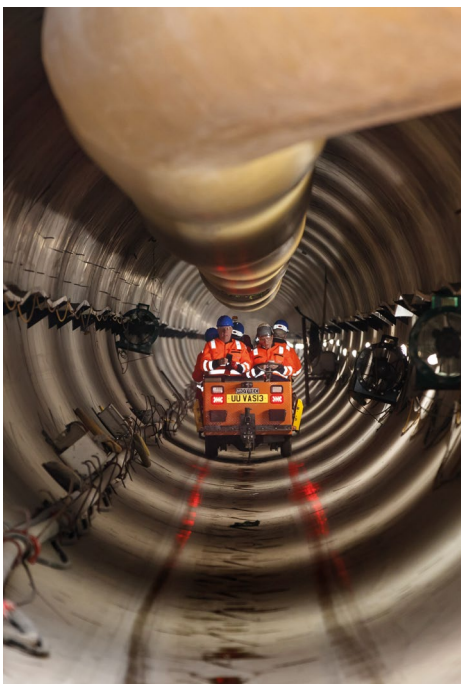
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The role of our employees

Meeting the commitments within our EAP will require National Gas to fundamentally change many aspects of the way we do things – everything from adopting new technologies and systems to working with local communities and wider stakeholders in different ways.

We hope that our 30 commitments will give employees a point of focus for their own ideas and behaviours, galvanising the whole organisation into action to safeguard the environment.

We can only make change happen within National Gas through the enthusiasm and talent of our employees, driving us forward to create a lower-carbon future for everyone.



APRIL 2021

Start of the price control period (the date when the EAP commitments were set)

MARCH 2023

New high-efficiency, low-emission NOx compressors at Peterborough and Huntingdon due to receive operational acceptance

SEPTEMBER 2023

National Gas decarbonisation strategy launched from June 2023 to September 2023

DECEMBER 2023

Hatton's new compressor due to be fully operational

END OF 2025

Achieve 1GW of hydrogen production capacity

MARCH 2026

End of RIIO-2 price control

2040

National Gas net zero ambition

2045

National Hydrogen Transmission network established

2050

UK Government net zero ambition

Our action plan at a glance

	Assets and Operations	Construction	Procurement	Land and Property	All
Resources	Address 84 redundant assets, asset groups or sites in RIIO-T2.	Reduce the waste intensity of our construction projects year-on-year based on a 2019/2020 baseline.	Pilot and implement circular economy principles for raw materials, goods procured and existing assets.	Reduce water use in our offices by 20%.	Reduce the waste we create at our offices (waste tonnage) by 20%.
	Extend the life of equipment where appropriate by refurbishment.	Construction projects: zero waste to landfill from 2022/2023 and increase the recycling or reuse of materials. Construction projects: increase the proportion of recycled materials used on construction projects during RIIO-T2.	Implement the ISO 20400 sustainable sourcing process.		Recycle 60% of our office waste by 2026.
Climate	Continue to participate in the UK ETS.	Achieve carbon neutral construction for major projects starting in RIIO-T2.	75% of top suppliers (by category/spend) will have carbon reduction targets.	Install renewable generation on our operational sites for our own use.	Reduce carbon emissions for our business transport by 10%.
	Reduce methane emissions from leaks on the network.			Purchase 100% of electricity for our offices from renewable sources.	
	Deliver a science-based target for NGGT by 2023.			Reduce carbon emissions from our office energy use by 20%.	
	Assess and report our risk from climate change on our assets.			30% of our operational fleet replaced with AFV (80 vehicles and charging points at 45 sites).	
Nature		Deliver 10% net gain in environmental value (including biodiversity) on all planned construction projects.		10% increase in environmental value on all non-operational land.	Educate the public about environmental issues through outreach linked to major compressor emissions projects.
				Act as custodians of our redundant sites by ensuring we reinstate them to a net gain in environmental value.	
Leadership	Produce an Annual Environmental Report (including Business Carbon Footprint reporting).	Transparency on capital carbon and natural capital, using data and tools to collaborate and drive environmental progress.			Sustainability is fully embedded in our decision making. An engaged workforce on environmental issues that leads by example.
Air quality	Enable reduction in NOx emissions per hour of gas turbine running from the business by the end of RIIO-T2.				

Construction

Through these commitments, we aim to reduce the impact of our construction activities on the climate.

COMMITMENT 1

Achieve carbon-neutral construction for major projects

Our aim is to offset 26,000 tonnes of CO₂ emissions (CO₂e) by 2026. That's the equivalent emissions of more than 5,600 petrol passenger vehicles being driven continually for one year*.

We'll do this by building new assets as efficiently as possible, taking advantage of new technology and favouring low-carbon materials. We'll follow the principles of PAS 2080 ('carbon management in infrastructure'), to find alternative low-carbon designs, and to ensure we build smartly and efficiently.

We'll also embed circular-economy thinking into our strategy, reducing our carbon footprint as much as possible before offsetting the rest.

*Source: www.epa.gov



COMMITMENT 2

Deliver 10% minimum net gain in environmental value on all construction projects

Through Biodiversity Net Gain (BNG), we're committed to leaving the natural environment in a measurably better state after our construction projects than it was beforehand.

We can calculate BNG by looking at the difference in data covering habitats before and after we've carried out a particular development. It applies to all schemes that have an impact on the local habitat and ecosystems, or schemes that lead to permanent or temporary habitat loss.

So far, we've largely focused on raising awareness of our target, embedding it into procedures and policies, and carrying out baseline assessments. To date, we've made BNG assessments at 69 sites, with a total planned net gain of 4.2 BNG units required. For reference, 1 BNG unit is the equivalent of a 250m line of established trees. In years 3, 4 and 5, we'll continue to ensure that applicable projects have high-quality baseline data, encourage best practice sharing and hold the main works contractors to account for ecological data at project closure.



COMMITMENT 3

Lead in transparency on capital carbon and natural capital reporting

We want to become industry leaders in the deployment of carbon-measuring tools for our construction activities that we've created alongside Mott MacDonald, a UK engineering and management consultancy.

We also aim to promote and share best practice around carbon reduction and biodiversity improvement.



Construction

Through these commitments, we aim to reduce the impact of our construction activities on the climate.

COMMITMENT 4

Reduce the waste intensity of our construction projects

In 2018, construction, demolition and excavation activities in the UK accounted for 138 tonnes of waste, more than half of the nation's total.

We'll target the most waste-intensive aspects of our projects, such as the use of aggregates, by recycling and reusing non-contaminated materials, facilitated by our participation in a cross-industry forum, [CL:AIRE](#).

In order to increase the visibility of our reporting, we've developed a dashboard for construction, showing data for biodiversity, waste and carbon, that compares projects so we can quickly spot areas for improvement.



COMMITMENT 5

Send zero waste to landfill from our construction projects while, at the same time, increasing the recycling and reuse of materials

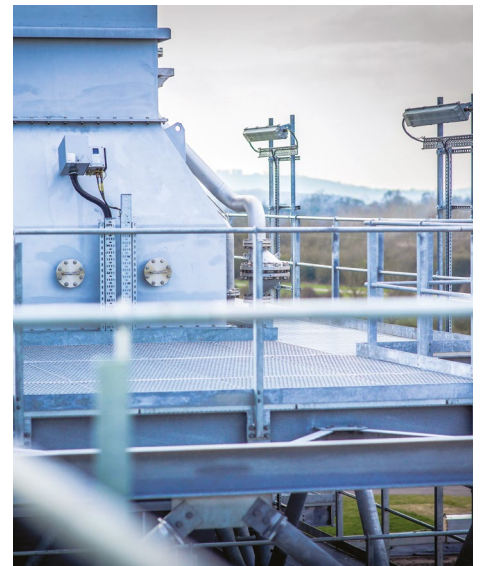
We'll aim to achieve zero waste to landfill and then set a target on recycling rates during the RIIO-2 period to increase this figure from the baseline.



COMMITMENT 6

Measure the proportion of recycled materials used on construction projects

We'll work with contractors to measure the proportion of high-recycled material content on materials we've purchased and used on construction projects.



Assets and Operations

Through these commitments, we'll address redundant assets or sites, supporting a sustainable lower-carbon future by demolishing them or finding new uses for them where possible.

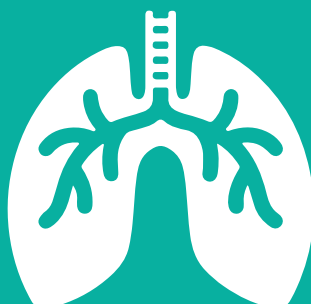
COMMITMENT 7

Reduce nitrous oxide (NOx) emissions that are harmful to health

We want to reduce our NOx emissions at the 23 gas compressor and terminal sites we manage and maintain on the National Transmission System.

We'll do this by replacing compressors at these sites where necessary, using a formal environmental assessment process to identify the best available techniques (BAT) that performs best for our needs.

As part of RIIO-T2, we'll also be spending £156.7m on compressor-emissions compliance.



COMMITMENT 8

Assess and report our risk from climate change on our assets

It's vital for the UK's energy supply that we continue to operate safely and reliably. That's why in 2020, as part of National Grid Group, we added climate change as a principal risk in our company's risk profile.

The World Economic Forum recently concluded that four out of the top five global risks over the next 10 years are linked to climate change.

By considering climate change as a principal risk, we can factor into our planning the effect that hazards such as warmer temperatures and coastal and river flooding may have on our compressor stations, terminals and pipelines.



COMMITMENT 9

Reduce our methane emissions from leaking assets

We want to reduce the level of methane released as a result of our operational activities, while nonetheless responding to demand for gas from our customers.

We'll achieve this by introducing new mobile and fixed natural gas recompression technologies, improving the way we detect gas escape and accelerating work to investigate how our network could be repurposed to transport hydrogen, which will reduce our methane emissions.

In 2021, the Global Methane Pledge was signed at COP26 in Glasgow. This encourages signatory countries to work together to collectively reduce methane emissions to at least 30% below 2020 levels by 2030. Our methane emission reduction efforts contribute to the UK's commitment under the pledge.



Assets and Operations

Through these commitments, we'll address redundant assets or sites, supporting a sustainable lower-carbon future by demolishing them or finding new uses for them where possible.



COMMITMENT 10

Deliver a science-based target for gas transmission

At the beginning of RIIO-T2, we committed to establishing a science-based target. The Science Based Targets initiative (SBTi) stated that the oil and gas sector is imperative and one of the most challenging sectors to decarbonise.

While fossil fuels represent the largest source of carbon dioxide emissions and one of the largest methane emitters, there is currently no pathway for companies in this sector is imperative and one of the most challenging. Therefore the SBTi is developing sector-specific methodologies for oil and gas (O&G) companies to set science-based targets.

National Gas Transmission is also developing a decarbonisation strategy that will include a glide path to net zero. This strategy will align to the methodology of a science-based target.



COMMITMENT 11

Continue to participate in emissions trading schemes

Through the UK Emissions Trading Scheme (ETS), we'll continue to register and measure all assets over 3MW on sites where we have assets over 30MW that burn a fuel.

This will help us to focus on our CO₂ emissions across the business and adhere to a tonnage of CO₂ emissions permitted to us under the terms of the scheme at certain sites where they're covered by environmental permits.



COMMITMENT 12

Produce an annual environmental report that includes our business carbon footprint

Publishing our environmental performance every year will increase the trust of our stakeholders in National Gas as a responsible business.

We'll also encourage feedback from these stakeholders using tools to help us improve our performance, such as our Shaping the Future webinars held in December 2022.



Assets and Operations

Through these commitments, we'll address redundant assets or sites, supporting a sustainable lower-carbon future by demolishing them or finding new uses for them where possible.



COMMITMENT 13

Address 84 redundant assets, asset groups or sites

We want to take positive action on our redundant assets by decommissioning them or changing their purpose where possible.

We'll also use our price-control deliverable – which is one of the ways that Ofgem allocates our revenue as a regulated business – to measure our performance against this commitment across different parts of our operation.



COMMITMENT 14

Extend the life of equipment where we can by refurbishing it

Refurbishing our equipment rather than replacing it allows us to control the resources we use and meet our targets for reducing waste.

That's one of the reasons behind the creation of a 'Refurb and Re-life' team within our Pipelines Maintenance Centre (PMC).

The new team will help us deliver the most-efficient use of equipment like valves through its expert knowledge, detailed surveys and a strong incentive to extend the life of our assets.



Land and Property

Through these commitments we aim to manage our land and property responsibly to support a sustainable, lower carbon future.

COMMITMENT 15

Reduce water use in our offices by 20%

We'll implement a programme at all the sites we own and operate that will reduce the amount of water we use, set against a 2019/20 baseline of 7,380m³. One of the ways we'll do this is by reviewing shower and water usage at our Warwick office.



COMMITMENT 16

Buy 100% of electricity for our offices from renewable sources

We are reviewing contracts with energy suppliers and periodically switching to green tariffs when these become available.



COMMITMENT 17

Reduce energy usage in our offices by 20%

This commitment will cover two offices, and some of our plans to reduce energy in our Warwick office include: installing further presence and light-level detection lighting; reducing the temperature control on floorplates where shift staff are not based outside of core hours; taking cooling towers offline in winter months instead of leaving them on standby; reviewing shower usage and more.



Land and Property

Through these commitments we aim to manage our land and property responsibly to support a sustainable, lower carbon future.

COMMITMENT 18

Ensure our vehicle fleet comprises at least 30% alternative fuel vehicles. To support this, we'll install 45 charging points across our sites

We want to reduce carbon emissions from operational transport, such as vans and commercial vehicles, by 22% over RIIO-1 levels.

This commitment will cover 80 vehicles and require us to install 45 charging points across our sites.



COMMITMENT 19

Achieve a minimum 10% increase in the environmental value on all non-operational land

National Gas Transmission holds a significant amount of land in the UK, which includes a total area open to habitat of 878 hectares, the equivalent of 1,230 football pitches. We can increase the environmental value of this land by improving these habitats, encouraging populations of existing and new species, and having a positive impact on the habitats in the vicinity of our operations.

Our Land and Property teams are developing strategies and partnership agreements with volunteering organisations, such as The Conservation Volunteers (TCV) and Creekside Discovery Centre, to enhance biodiversity.



COMMITMENT 20

Act as custodians of our redundant sites by ensuring that we reinstate them to deliver a net gain in environmental value

We'll work with local partners such as Living Landscapers to help us reinstate sites in a way that best meets the needs of the community.

We are working actively to engage Gas Construction, Land and Property, and Consent teams together to gain mutual ownerships for this target and put forward an initial plan.



COMMITMENT 21

Install renewable generation at our operational sites

As a UK business, our sites experience all sorts of weather conditions, meaning some of them will be better suited than others to support wind and solar power generation.

We are collaborating with other teams in our organisation to assess and facilitate investment opportunities for renewable energy generation projects across a number of operational sites, to best balance our energy generation needs and meet our environmental commitments.



Procurement

Through these commitments, we aim to embed sustainability within our procurement activity to drive environmental improvements across our supply chain.



COMMITMENT 22

Implement the ISO 20400 sustainable sourcing process

This is an international standard that provides guidance and a framework for sustainable procurement. It's used by organisations that want to improve their social, economic, and environmental sustainability.

We'll conduct an internal assurance audit in 2023 and at intervals afterwards to make sure we're in compliance with ISO 20400.



COMMITMENT 23

Pilot and implement circular economy principles for raw materials, goods procured and existing assets

A circular economy system reduces the use of materials and recaptures waste as a resource for the manufacture of new materials and products.

We want to pilot and implement a circular economy framework for raw materials, goods procured and existing assets. As part of this, we'll aim to buy more products for use in our business that can be reused and recycled, while working towards achieving an industry standard, such as BS 8001.



COMMITMENT 24

Ensure that at least 75% of our suppliers have carbon-reduction targets

If we work together, we can make a big difference to the environment. We're encouraging 75% of our top suppliers by category and spend to have their own carbon-reduction targets by the end of 2026.

We will continue to work collaboratively across our industry to promote best practice, for example by continuing our membership of initiatives such as the United Nations Global Compact.



Active engagement and leadership

Through these commitments, we'll embed sustainability in our decision making, be transparent on our progress, and work with industry and our local communities to drive forward the sustainability agenda.

COMMITMENT 25

Engage our colleagues on environmental issues

We're implementing a comprehensive employee-engagement programme on environmental issues including emissions, waste, reduction in plastics and employee travel.

To manage risks and realise opportunities, we need an engaged and well informed workforce, so we'll provide regular updates while including the environment and sustainability in our EAP targets and training plans. For example, we've relaunched our business-specific environment and sustainability e-learning.

We've set up an internal champions' network, so employees from all departments can engage with the topic, share information, challenge us to do more and solve real business problems. We've also issued an employee survey, which will enable us to develop future effective environment plans and build on the levels of engagement and understanding.



COMMITMENT 26

Fully embed sustainability in our decision making

Not only has sustainability been written into our network development process (ENV30), but the cost of carbon to the environment will be considered when we review project options.

Ultimately, we want to use our data to show that reducing carbon emissions will also reduce the whole-life cost of the project.



COMMITMENT 27

Educate and engage the public on environmental issues

The transition to clean energy is more than an environmental issue. It's also about the impact that our use of energy will have on society and local communities at large.

It's never been more important to engage with our communities about how we'll provide affordable, reliable and cleaner energy for our customers in the future. We'll achieve this engagement by activities such as offering energy advice through local housing associations, school visits and local talks.

We'll also encourage our employees to share their expertise through our employee volunteering programme, so they can support activities near to our operations that bring environmental benefits for charities, community groups and not-for-profit groups.



Active engagement and leadership

Through these commitments, we'll embed sustainability in our decision making, be transparent on our progress, and work with industry and our local communities to drive forward the sustainability agenda.

COMMITMENT 28

Reduce carbon emissions associated with business transport by 10%

Emissions from transport make up 23% of energy-related carbon emissions globally*.

We'll cut the number of journeys our employees make by encouraging the use of rail for transport and by scheduling virtual meetings. We'll also promote electric vehicles on our company car scheme and install electric car-charging points at our compressor sites.

We operate a shuttle bus for employees running from the train station in Leamington Spa to our main office in Warwick to reduce car journeys. Finally, we also provide incentives for our 'green commuters' and we're looking to incentivise those who share lifts and 'carpool'.



COMMITMENT 29

Reduce the waste that we create in our offices by 20%

We'll reduce the waste we create at our offices by 20% (in terms of waste tonnage) compared to our 2019/20 baseline.

As part of this, we're rolling out a programme at all sites to segregate waste and increase the amount we can recycle and divert from going to landfill.



COMMITMENT 30

Recycle 60% of our office waste

We'll verify the percentage of waste streams diverted to landfill by category in the next financial year, so we can set a baseline and annual targets for each one.

Measuring the proportions of waste means we can assess how well we're recycling materials and focus on areas for improvement.

In addition, a trial of food-waste caddies within a section of NG House will be extended across the building, and we're exploring further partnerships with 'too-good-to-go' food schemes.



*Source: National Grid Gas Annual report 2021/22



Get in touch

We need everyone at National Gas Transmission to work together to help us reduce our impact on the environment.

For our most recent annual environmental report, visit our external page:

<https://www.nationalgas.com/contact-us/stakeholder-resources>

If you have questions or suggestions, please email us at box.GTSHE.EnvSust@nationalgrid.com

Get involved

Let us know how you are contributing to our targets. If you are working towards one of our targets and want your work or your team's work to be represented in our future updates, then please get in touch!



**National Gas Transmission
& National Gas Metering**

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