nationalgrid

Reaching Real Zero

Our Climate Transition Plan 2022

PRINCIPAL PARTNER
COP26 PRESIDENCY UK 2022
DELIVERING THE GLASGOW CLIMATE PACT

Foreword

I am pleased to present our first Climate Transition Plan, the publication of which we committed to shareholders last year. Climate change is the defining challenge of the 21st century, and the science is clear that we need to act now to limit global warming to 1.5 degrees and avoid the worst effects of climate change on people and the planet. As The Energy Transition Company, we have a critical role to play in navigating the change and uncertainty facing the economies we serve in reaching their carbon reduction targets. We also have our own, stretching, science-based emissions reduction targets to meet. This plan sets out in detail the actions and assumptions that underpin our plan, how this dovetails with our business strategy and some of the challenges we face in achieving the required reductions.

As set out in most national and international plans to meet the Paris Agreement and deliver net-zero, absolute emissions in the energy sector must be zero, or very close to zero, by 2050. That's why we've set out the concept of 'real-zero' in this plan – our aim to achieve zero emissions by 2050, or very close to this, without using offsets to achieve our net-zero commitment.

We believe that the decarbonisation of power grids in the 2030s – in line with International Energy Agency (IEA) forecasts – and our clean energy vision of fossil-free gas networks by 2050, will enable us to get close to 'real-zero', with only small residual emissions in sectors that currently look hard to abate, such as air travel and elements in our upstream supply chain.

In more detail:

- In the UK, our acquisition of Western Power Distribution (WPD) has seen us pivot to electricity, enhancing our role in the delivery of decarbonised power grids and the electrification of transport and heat.
- In the US, we set out our vision for a fossil-free gas network in April 2022. This clean energy vision will be fundamental in reducing our absolute emissions, not only from pipeline leakage, but also from the gas we sell to domestic customers and businesses – our most significant source of Scope 3 emissions.
- We have announced new partnerships to help remove SF_6 gases from our networks, a change that requires innovation now and delivery in the long term to remove this small but important emission source from our assets. We have also committed to a zero carbon car and light duty vehicle fleet by 2030.
- To help drive the transition across the power sector and support the reduction of emissions from operating our electricity networks, we have committed to an extensive programme of work to deliver the connections and network upgrades needed to meet the UK Government's 50GW by 2030 offshore wind target. In New York, our joint venture with RWE has been successful in securing a new offshore wind development block.

We will continue to review the targets we have across our Group and at a business unit level. A demonstration of this is the specific science-based targets aligned to a 1.5 degree pathway for our UK Electricity Transmission, UK Electricity System Operator and UK Electricity Distribution (WPD) businesses, all of which were approved in the past year.

I thank you for taking the time to read this plan. Please let us know your thoughts as we continue to evolve and adapt our approach to achieving our emissions reduction commitments.

Duncan Burt
Chief Sustainability Officer

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A transition to zero based on the climate science

The science is clear. The coming decade is critical in limiting the impact of global warming. The actions we take now to keep increases close to 1.5ºC can substantially reduce projected losses and damage related to climate change

Being at the centre of the UK and US energy transition we understand the leading role we need to play in enabling and accelerating the move to a cleaner future. Our energy systems will all look very different in the coming decades, and we are working with governments and partners around the world to accelerate this transition, while balancing decarbonisation, affordability and reliability.

We are changing the way our organisation operates to ensure our business model is consistent with the objectives of the Paris Agreement and Glasgow Climate Pact. This Climate Transition Plan sets out our science-based targets, but more importantly the actions we're taking to make significant near-term reductions in our greenhouse gas (GHG) emissions and ensure we remain on track to meet our longer-term ambition to reach zero emissions by 2050.

Our business strategy and emissions reduction plan are aligned to a low carbon economy and decarbonising our operations, an example of this being our pivot to electricity in our UK business (see page 14). Our role in the energy transition in enabling the decarbonisation of energy networks will support regional emissions reduction targets in the geographies in which we operate, as well as reducing our own emissions.

Strategic repositioning of our portfolio:

In March 2021 we announced an intention to pivot our UK portfolio towards electricity, through the sale of a majority stake in Gas Transmission (GT) and acquisition of Western Power Distribution (WPD), the UK's largest electricity distribution business. These changes significantly enhance National Grid's central role in the delivery of the UK's net zero targets. In the US, we continue to own and operate gas and electricity networks across Massachusetts and New York State. However, we have recently sold our Rhode Island (RI) business.

What we mean by 'Real Zero'

As the urgency of tackling climate change increases, we have seen many countries around the world legislate for deep reductions in greenhouse gas emissions. In both the UK and US, our primary markets, economy-wide commitments to achieve net-zero emissions by the middle of the century have been widely publicised.

Alongside many other organisations we aligned our own climate strategy to reflect and support these commitments, launching a net-zero 2050 target in 2019 covering emissions generated by our own business activities.

However, as net-zero commitments become increasingly commonplace amongst businesses, we believe it's now equally important to transparently outline our approach to reducing emissions and the role offsetting plays in meeting these commitments. In 2022, there are few real offsetting options to remove and/or capture greenhouse gas emissions at scale, with tree planting or large forestry schemes (the most common type of offset) unable to legitimately compensate for the sheer number of net-zero commitments pledged by large organisations around the world.

Our view is a simple one: that companies, especially those at the heart of the energy transition such as National Grid, should not rely on large-scale offsetting or unproven removal technologies to meet their long-term climate commitments. Instead, we know that meeting the 1.5ºC ambition of the Paris Agreement will require us to make deep, tangible emissions reductions in line with the latest climate science, aligning to initiatives such as the Science Based Targets initiative (SBTi). We know this will necessitate fundamental changes to the way our business operates, not just as we get closer to 2050, but within the next decade. It will also require us to influence and support the decarbonisation of our wider value chain and those emissions that we do not directly control.

Through the actions outlined within this Climate Transition Plan we're planning to halve emissions across the Group by 2030 (from 2016) and reduce them to zero by 2050, limiting our use of external offsets to get there. This means that we are striving for our operational emissions to reach zero in absolute terms, with potentially only a very small amount of residual emissions remaining . These would likely be in our upstream supply chain and within hard to abate areas where UK and US national plans still have emissions in 2050, such as air travel. These activities are examples of areas where achieving zero emissions quickly is very difficult, but where offsets delivered responsibly, can play a supporting role when combined with absolute emissions reductions.

We will only use offsets if we believe they can play a small tactical role in accelerating emissions reductions in the short-term and importantly they must accelerate real cuts to emissions.

Legislating for deep reductions in greenhouse gas emissions

US:

The US is committed to net-zero by 2050 with strong state specific reduction targets

Massachusetts: Senate Bill 9 – An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy: Codifies the target of net-zero greenhouse gas emissions by 2050

New York: Climate Leadership and Community Protection Act (CLCPA) of 2019: Calls for an 85% reduction in greenhouse gas emissions by 2050

UK:

The Climate Change Act (as amended in 2019): Commits the UK to 'net-zero' by 2050

Leveraging technology to reach Real Zero: National Grid Partners

National Grid Partners (NGP) is the venture investment and innovation arm of National Grid, created to help National Grid 'disrupt itself' and drive toward a smarter, greener, and more reliable energy future. Through NGP, we're actively exploring investments in and collaborations with organisations that are at the forefront of carbon capture, utilisation, and sequestration to create durable and meaningful offsets.

To date, NGP invested nearly $350 million into a portfolio of 38 start-ups to support National Grid's decarbonisation strategy going forward – including:

Leap, a distributed energy marketplace platform that efficiently brings Demand Response and Distributed Energy Resources assets to market;

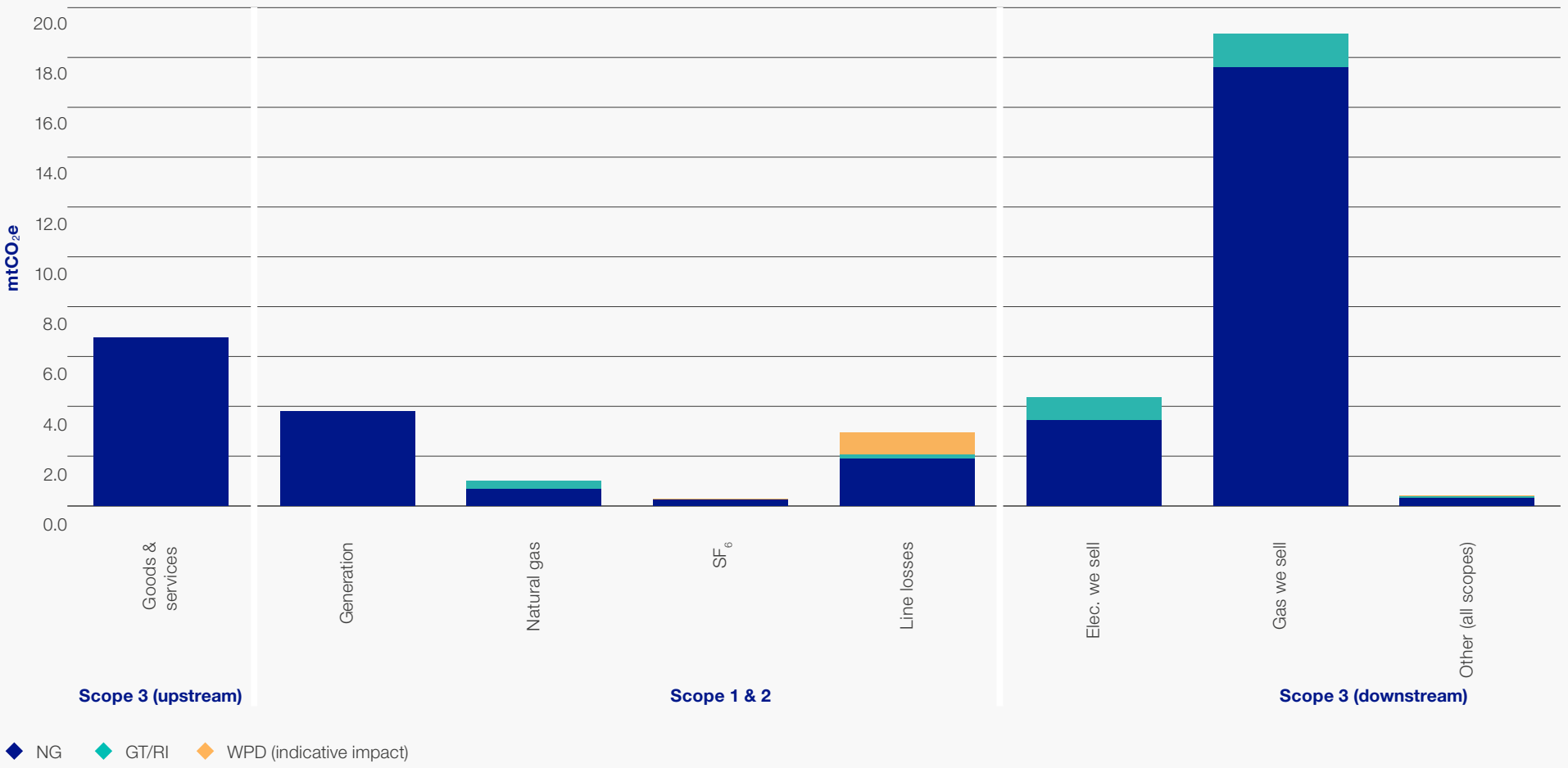
TS Conductor, a next-generation high temperature, low sag conductor that doubles line capacity and reduces line losses; and

Risilience, a climate and enterprise risk management solution that empowers net-zero planners to develop, track and report on climate impact mitigation strategies.

NGP's Innovation team has delivered innovation projects that are projected to result in more than 12 million tons of wider societal carbon savings through new business models and technologies over a 10 year period.

Where we are: National Grid's FY22 climate footprint

- Our FY22 climate footprint across direct (Scope 1), indirect (Scope 2) and value chain (Scope 3) emissions was 37,553 $ktCO_2e$.
- To date we have reduced our Scope 1 and 2 emissions by 65% from 1990, and our Scope 3 emissions by 10% from 2019



In line with wider group reporting, UK Gas Transmission and US Rhode Island businesses are included in our baseline and current year climate footprints but omitted from forward looking pathways.
UK Electricity Distribution (WPD) is not yet included but it's indicative impact is shown where relevant and discussed on page 14.

Where we're going: a strategy to reach Real Zero

Our climate change strategy has its foundation in a solid understanding of where our material areas of impacts are; not only within our own operations (direct Scope 1 emissions) and the energy we use (indirect Scope 2 emissions), but also impacts from our wider value chain (Scope 3 emissions). Considering the entirety of our climate footprint in a combined way allows us to identify which areas of our business operations have most significance and where we have the most influence and control. We can then put strategies in place to ensure alignment with our science-based greenhouse gas reduction targets.

This Climate Transition Plan sets out our Group greenhouse gas reduction targets, our overall pathway to 2050, and the actions we're taking across each of the material areas of our climate footprint.

Material Scope 1&2 emissions

- Power generation
- Natural gas losses (combustion, fugitives and venting)
- SF_6 leakage (an insulating gas used in electricity networks)
- Electricity line losses

Material Scope 3 emissions

- Gas we sell directly to customers
- Electricity we sell directly to customers
- Goods and services that we buy

Our Group climate targets

Our climate strategy is guided by a set of absolute GHG reduction targets covering the entirety of our direct (Scope 1), indirect (Scope 2) and value chain (Scope 3) emissions.

We commit to reduce absolute Scope 1 and 2 GHG emissions:

80% by 2030

from a 1990 base-year* (SBTi aligned) – our near-term target

90% by 2040

from a 1990 base-year – our medium-term target

Net Zero by 2050

– our long-term target

We commit to reduce absolute Scope 3 value chain GHG emissions including sold gas and electricity:

37.5% by 2034

from a 2018 base-year (SBTi aligned)

Net Zero by 2050

* This is equivalent to a 50% absolute reduction from a FY2016 base-year, aligned to the SBTi criteria on more recent baseline years.

External accreditation from the Science Based Targets initiative (SBTi)

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Over the last few years, we have been working with the Science Based Targets initiative to ensure that our greenhouse gas emission reduction targets are in line with the pathways necessary to limit global average temperature rise to well below 2°C above preindustrial levels. Our group direct (Scope 1), indirect (Scope 2) and value chain (Scope 3) emissions targets were verified by the SBTi in 2021.

We are a signatory to the Business Ambition 1.5°C campaign and are actively assessing how we can increase our Group-wide ambition even further to be consistent with SBTi's new net-zero pathway (released earlier this year). Our UK Electricity Transmission, UK Electricity Distribution and Electricity System Operator businesses have already gone further to align their 2030 emissions reduction targets to SBTi's more ambitious 1.5°C pathway.

Where we're going: a strategy to reach Real Zero continued

Calculating our climate footprint

Our greenhouse gas reporting covers Scope 1, 2 and 3 emissions across our entire value chain with no significant omissions.

Our Scope 1 and 2 greenhouse gas emissions are reported in line with the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol Corporate Standard for all seven Kyoto gases, using the operational control approach for emissions accounting. These Scope 1 and 2 emissions are independently assured against the international standard ISO14064-3 Greenhouse Gas Assurance Protocol. Our Scope 3 greenhouse gas emissions are reported in line with the WRI/WBCSD Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard.

All of our greenhouse gas data is subject to external verification. This provides assurance that our reporting is complete, accurate, consistent, transparent, and free of material discrepancies. In order to continually improve our reporting, any assurance findings identified are recorded and actioned after verification is complete. Some findings will require immediate action, whilst others will be included as part of the recommendations report. The external assurance body will only provide a verification statement if they are satisfied with the final statement of emissions.

Data presentation:

As outlined on page 3 we have pivoted our UK business towards electricity with the acquisition of Western Power Distribution in the UK and the sale of a majority stake in our UK Gas Transmission and Metering businesses, plus the sale of our Rhode Island business. Within this document we have presented historical data including emissions from our UK Gas Transmission (GT) and Rhode Island (RI) businesses. Forward projections do not include the emissions from these businesses. Emissions from our WPD business have not been fully incorporated into our scenario modelling or analysis, however we have shown the indicative impact of including these emissions in the relevant charts within this document. Over the course of the next year we will be fully integrating these emissions into our projection models.

Stress-testing our strategy against the impacts of climate transition risk:

As The Energy Transition Company we understand the critical role we need to play in navigating the change and uncertainty facing the economies we serve in reaching their carbon reduction targets. That change and uncertainty presents significant risks and opportunities to our business model that we manage with the due focus and attention required to enable the positive, responsible change needed by all of our stakeholders.

Further detail on the risks and opportunities associated with the energy transition are detailed in our annual Taskforce on Climate-Related Financial Disclosures (TCFD) report. This is included within our Annual Report and Accounts (pages 70 to 83). In this year's disclosure we have fully complied with the FCA listing rule LR 9.8.6R(b). Our climate-related financial disclosures are considered to be consistent with the TCFD's recommendations.

In reaching full TCFD compliance, alongside the publication of this Climate Transition Plan, we have refreshed our energy transition scenarios and completed the first stage of our comprehensive Group-wide assessment into the physical risks facing the Group under 2 degrees and 4 degrees scenarios.

Scenario analysis to 2050 and beyond guides our strategic and financial planning with respect to climate change. We consider the potential transitional impacts of different scenarios, as outlined below.

The scenarios developed in 2021/22 build on those of previous years and will evolve as we continually monitor emerging trends in technology and wider market developments. We developed the following stretching, plausible alternative futures for our society by using different assumptions across variables, including (but not limited to) technology, policy, consumer behaviour, competition, and science. We tested the resilience of our business strategy against these different transition scenarios.

Why is this important for our own emissions targets? The role we play means that enabling the transition also helps us to reduce the emissions for our own activities. These scenarios inform our pathways to achieving zero emissions for our business. In this document you will see where we have applied these scenarios to relevant emissions projections.

Transition scenarios modelled

4 degrees — 2 degrees — 1.5 degrees

Slow progress

- Decarbonisation progress is made but too slow to meet Net Zero targets
- Increase in distributed generation and local solutions where local authorities compensate for lack of overall national progress
- System becomes increasingly unequal

Orderly transition

- Reaches most Net Zero targets through an orderly approach
- Governments pursue suite of solutions for large scale and consumer options
- Coordinated pathway between key market players e.g. orderly reduction in natural gas
- Increase investment in renewable electric generation and networks
- Gas network evolution to allow H2 clusters and/or clean gas blending

Acceleration

- Reaches 2030 Net Zero targets to be on track for 2050
- Electrification of heat and transport at fast pace
- Accompanied by large scale investments (network, storage)
- Increased grid scale and interconnection with smart homes and end-use electrification
- Faster gas demand reduction

Where we're going: a strategy to reach Real Zero continued

Actions we are taking over the next decade:

SF_6

We will reduce SF_6 emissions from our global operation 50% by 2030, through leak identification and repair, as well as investment in SF_6 alternatives.

Natural gas

We will invest in network modernisation to reduce fugitive natural gas emissions and increase safety and reliability.

We will invest in infrastructure to deliver fossil-free gas and electric solutions, serving 10-20% of gas demand with renewable national gas (RNG) by 2030.

Generation

We will work with Long Island Power Authority (LIPA) during our current generation contract period (due to end in 2028) to responsibly reduce emissions to ensure we're on track for NY State's 2040 decarbonisation path.

Our joint venture with RWE Renewables was successful in the NY Bight offshore capacity auction, which has the potential to connect up to 3000 MW of clean renewable energy to NY by the end of the decade. Opportunities to grow our renewable generation business in the US over the coming decade will significantly lower the overall intensity of our generation portfolio.

Line losses

We will efficiently connect renewables and continue to build interconnectors supporting wider decarbonisation of electricity markets.

Transport

We will move to a 100% electric fleet by 2030 for our light-duty vehicles.

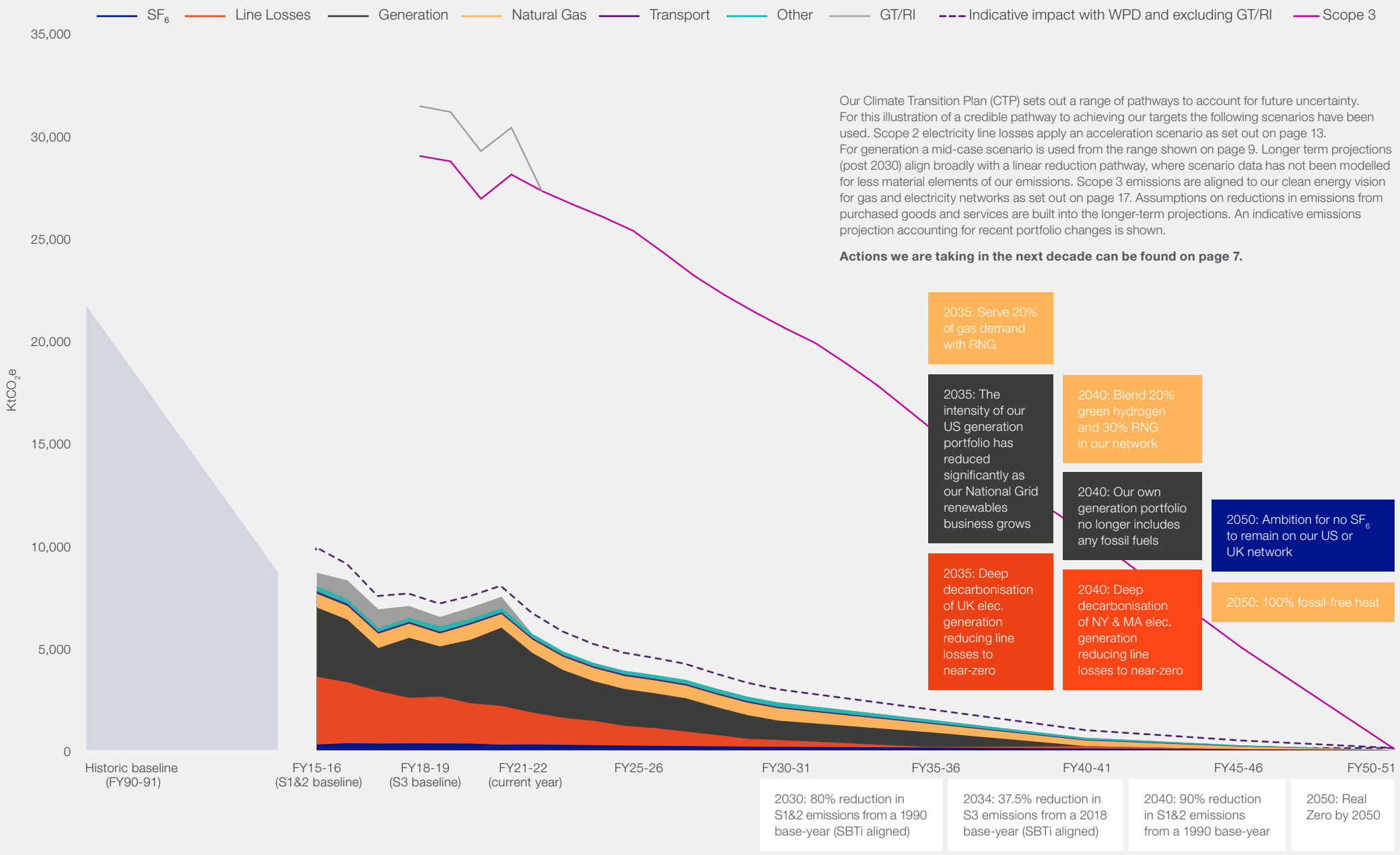
Value chain

We will continue innovation in nation-leading energy efficiency programmes for gas and electricity customers.

We will convert a majority of customers who heat with oil to electric heat pumps.

We will continue to integrate carbon as a weighted element within our design and tender decision-making process. We have also identified our material hotspots for construction activities and will continue to work with partners across the industry on lower carbon alternatives.

Our pathway to Real Zero by 2050



Generating electricity (US)

51%

of S1&2 emissions in FY22

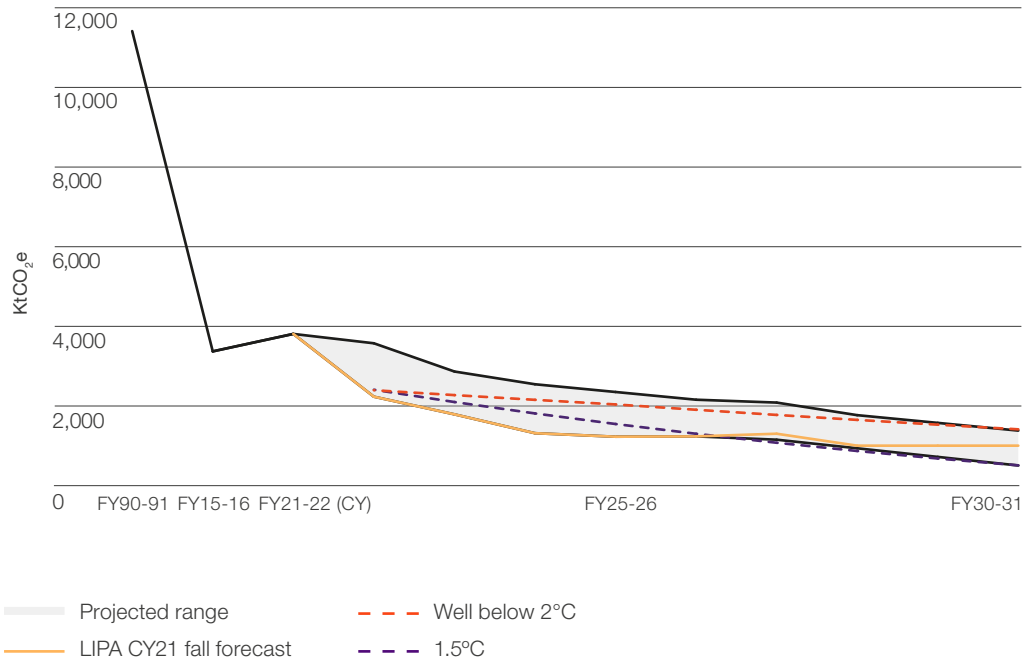
We own and operate 3800MW of fossil fuel powered generation facilities on Long Island (New York State). We also have 1250MW of renewable generation in operation or under construction, including solar and wind installations across the United States. Our generation plants in New York sell capacity to the Long Island Power Authority (LIPA) through fixed term power supply agreements. Under our existing contracts which extend through to 2028, LIPA determines their reliability and sustainability needs, as well as which units are operated, retired, or transformed. Due to this arrangement, our day-to-day control over greenhouse gas emissions from the electricity generation fleet of power stations on Long Island is limited. In FY22 we have seen an increase in Scope 1 emissions from these facilities, due to increased LIPA operating hours, required to replace shortfalls in off-island generation and transmission.

In 2019 New York State passed the Climate Leadership and Community Protection Act (CLCPA), legislating for an ambitious long-term target of 100 percent clean power by 2040. National Grid is actively supporting a number of goals in the CLCPA, including working to facilitate further renewable generation in NY. In the short term, we believe responsible management of generation units will continue to play a part in the affordable transition to a clean energy future and remain critical to meeting the energy needs of our customers.

Sub-targets:

- We will continue to work with LIPA to meet NY State's 2040 decarbonisation target.
- By 2030, we project the carbon intensity (tCO_2/MWh) of our group generation portfolio will reduce by 80%, from a FY21 base-year.

Projected range of emissions to 2030 for power generation



SBTi models some business areas, such as power generation, against a sector specific pathway that requires a higher level of decarbonisation in the near-term. This sector specific pathway is reflected in our overall 2030 target ambition. The chart below shows the pathway for our existing target Well Below 2 degrees and a notional pathway for 1.5 degrees (the actual pathway is determined by several factors related to operation and capacity).

Generating electricity (US) continued

What we're doing to get there:

Each September, LIPA update their 5-year forecast of usage and emissions based on load and fuel price forecasts. LIPA's forecast includes a projected rise in renewable generation and distributed energy resources (solar) across Long Island, towards the end of the decade. However, it does not provide for extreme or other out of the ordinary occurrences. Over the previous 16 months, our emissions have exceeded the LIPA forecast due to unplanned interconnector cable outages, and supply / demand patterns impacted by weather. We anticipate this continuing in the short term and as such, our range of projected emissions includes a more conservative view. We have included the LIPA forecast in our forward projections but see this as being towards the lower end of the range of potential emissions. There are several factors that will impact emissions from our power plant, with uncertainty associated with all of them. We do project a reduction in emissions over the next decade with the following contributory factors:

- Offshore wind generation capacity increases. 2.2GW of offshore wind is contracted in the Long Island region.
- Solar PV capacity on Long Island increases.
- Transmission capacity connecting Long Island to off island generating resources increases.
- Existing generation units retire as renewable and transmission capacity increases.

LIPA will announce their Integrated Resource Plan (IRP) for 2022 in late summer and it is expected to include further information on retirements of generation facilities. Strides in emissions reductions will be made as select facilities come offline in 2025 and 2028. We will work with LIPA in advance of their IRP to help guide outcomes that will further our ability to reduce emissions while responsibly managing operational sites. As we begin to transition our generation activities away from fossil fuels, we will work with LIPA to transform our generation fleet.

Reducing generation emissions intensity through the growth of National Grid Renewables

At the heart of what we do, National Grid is working to accelerate the development of our clean energy future. In support of this goal, we've made significant investments in renewable energy.

In 2019, we acquired Geronimo, a leading developer of wind and solar generation assets and the following year we launched National Grid Renewables as the new brand name for our US renewable energy business, focused on accelerating the clean energy transition through developing, owning and operating large-scale renewable energy assets, including solar, onshore wind and battery storage, across the United States.

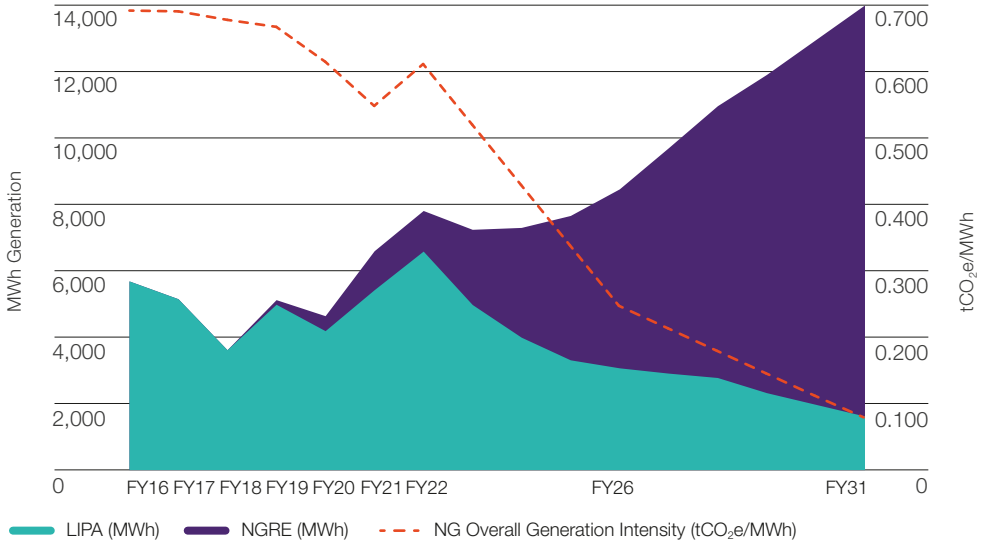
National Grid Renewables has a robust development pipeline of onshore renewable energy projects in various stages of development as well as geographically diverse operational assets across the country. We're also developing projects for corporations and utilities that seek to repower America's electricity grid by reigniting local economies and reinvesting in a sustainable, clean energy future.

As we begin to transition our existing generation fleet activities away from fossil fuels, we will work with LIPA to transform our Long Island fleet in order to reduce emissions over the next decade. In parallel to this we will continue to grow our renewable generation capacity across the US through our National Grid Renewables business. We believe these combined actions will significantly improve the emissions intensity of our generation portfolio. The graph below shows our progress to date and the progress we aim to make in the next 5-10 years (our near-term target period).

Investing in New York State's clean energy transition:

In February 2022 our joint venture with RWE Renewables was successful in the NY Bight offshore capacity auction, which has the potential to connect up to 3000 MW of clean renewable energy to NY by the end of the decade.

We also have several pilot projects that are either now or will soon reduce greenhouse gas emissions from other Northeast carbon-emitting sources. On Long Island these include working with NextEra to develop two battery energy storage facilities that provide 10 MW of stored energy on eight hours of every summer day and constructing a 23 MW solar facility.



Projections for Fossil Fuel Generation are based upon a mid-case from the range shown in the chart on page 9. Projections for Renewable Generation are also based upon a mid-case scenario of future capacity buildout.

Sulfur hexafluoride (UK/US)

4%

of S1&2 emissions in FY22

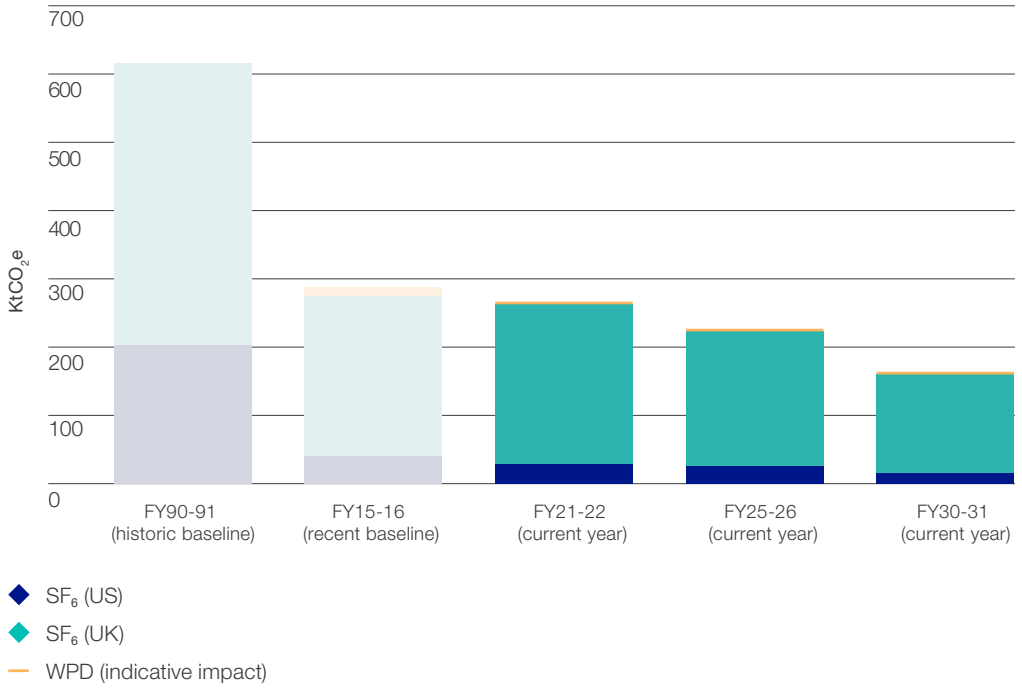
Sulfur hexafluoride (SF_6) is a potent greenhouse gas with a global warming potential of around 22,800 times that of CO_2. For decades SF_6 has been the standard gas used within high voltage electricity equipment due to its excellent electrical insulating and current interrupting properties, which are both vital to the safe and efficient operation of electricity grids. Whilst equipment containing SF_6 is designed to be effectively sealed very small levels of SF_6 leaks to the atmosphere do occur as assets age.

Even small emissions of SF_6 are ultimately incompatible with our environmental aims and we are committed to reducing emissions from this gas. We will achieve this using a combination of leak prevention, leak repair, asset refurbishment, retro-fill (deploying alternative gases to SF_6 within existing equipment) and asset replacement. We have set an ambition to eliminate SF_6 from our assets, and hence reduce SF_6 emissions to zero, by 2050, with an interim target of reducing SF_6 emissions by 50% over this decade.

Sub targets:

- We will reduce SF_6 emissions from our global operations 50% by 2030. In the UK this is consistent with an externally validated 1.5 degree Science Based Target for our Electricity Transmission business.
- We have an ambition to eliminate all SF_6 gas from our assets by 2050.

Projected SF_6 emissions to 2030



Sulfur hexafluoride (UK/US) continued

What we're doing to get there:

We're working with regulators to secure the necessary funding to achieve our 2030 targets and establish a sustainable long-term emission reduction trajectory to 2050. We will bring forward new funding applications in a timely manner, consistent with our developing long-term strategy.

Achieving our 2050 targets and ambitions will require an ambitious programme of SF_6 removal, including the replacement or retro-fill of assets well in advance of their presently anticipated replacement date. Stakeholder engagement and support will be vital to the development and delivery of these plans.

SF_6 free technologies and repair/refurbishment techniques suitable for the highest voltage systems are still in development and we are working with partners from across the sector to identify, develop, and implement these solutions at the earliest opportunity.

We have taken, and are taking, the following actions to reduce near-term emissions:

Leak prevention: We have secured regulatory funding in the UK for a programme of pre-emptive enhanced protection to minimise the risk of future excessive leaks from our assets. We will be reviewing our maintenance requirements for the most critical assets to ensure that we are doing everything possible to prevent future excessive leakage.

Leak detection & repair: As the market for SF_6 free solutions is still developing, leak detection and repair remains a strategic priority. In the US we are hiring specialist SF_6 engineers to supervise our current SF_6 inventory, aggressively reducing existing equipment leaks. In the UK we have already invested £1.2m in SF_6 activities such as leak reduction, repair, capture and reuse. Investment focuses on our top SF_6 leaking assets. For example, our National Grid Ventures business has embarked on an asset replacement programme relating to the IFA interconnector sub-station, which estimates a reduction in SF_6 emissions by over 70% at this site, by 2025. We are collaborating with other UK transmission owners to identify, develop and deploy new and innovation solutions.

Asset refurbishment: We are targeting assets which are leaking excessively for strategic refurbishment to repair existing leaks and to prevent further leaks developing for the remaining life of the asset. This is part of our UK funding intervention programme and will be developed further in future years.

Retro-fill: We are working with manufacturers and researchers to identify opportunities to retain existing assets designed for use with SF_6 by retro-filling them with an alternative gas with a much lower environmental impact. This is technically very challenging but has the potential to make a valuable contribution to our commitments and targets for inventory reduction. We have recently deployed a successful pilot project at our Richborough substation (see SF_6 free assets case study on this page).

SF_6 free assets

For the last decade we have been working with partners from across the sector to identify, develop and implement SF_6-free solutions at the earliest opportunity. In 2017, we achieved a huge industry milestone with the energisation of the first SF_6-free 420 kV gas-insulated line on our South-East England network. The introduction of the g-cubed (G3) solution provided an opportunity for National Grid to be at the forefront of new technology development. We have continued to take opportunities to adopt SF_6-free technologies and in the UK we will only be deploying SF_6-free technology for 132kV applications, where these technologies are now commercially available. At higher voltages, where technology development is still ongoing, we are already committed to hybrid SF_6/SF_6-free projects which dramatically reduce the amount of SF_6 installed and will be adopting fully SF_6-free solutions as they become available.

In the US we recently asked circuit breaker manufacturers for available SF_6 alternatives, and as a result, we have ordered a newly introduced 115kV vacuum circuit breaker for delivery in 2023. By letting manufacturers know utilities are in the market for more environmentally friendly solutions, we hope to not only reduce our direct emissions, but to also advance the US market to offer more sustainable options for all buyers. We also piloted a non-SF_6 69 kV vacuum circuit breaker in 2012 and have since installed an additional twelve 69 kV vacuum circuit breakers. We have partnered with The Electric Power Research Institute (EPRI), a US-based non-profit research and development organization, for the monitoring and evaluation of SF_6 alternatives.

At our Richborough 400kV substation in the UK, working in close collaboration with the original equipment manufacturer (OEM), we have recently commissioned a pilot project to remove SF_6 from an existing gas insulated busbar and replace it with an alternative gas delivering around 99% reduction in greenhouse gas emissions. The pilot project has replaced 755kg of SF_6 and has required minimal other changes to the equipment. This technique has the potential to remove circa 28,000kg of SF_6 from assets of the same design across our UK network, and we will be working with all of our key OEMs to explore further opportunities.

Electricity network losses (UK/US)

28%

of S1&2 emissions in FY22

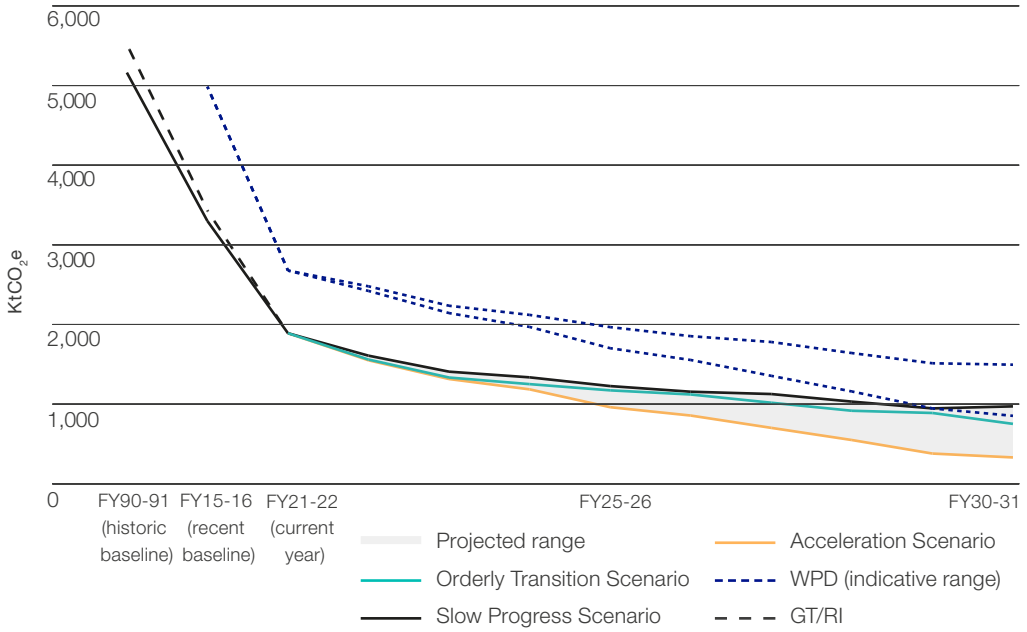
Electricity network losses occur when transferring energy across our transmission and distribution systems. They are a measure of the difference between the amount of electrical energy entering and leaving a network and occur for several reasons. The main reason is energy that is used by network equipment, such as transformers, overhead lines and cables, when transporting energy. Some of these losses are fixed and occur regardless of electricity demand or current, whereas some will be more variable and fluctuate dependent upon these factors. These losses have a tangible impact upon our customers and the environment, so we have a responsibility, as well as a regulatory obligation, to ensure that network losses are kept as low as practicable.

Emissions from electricity line losses are simply calculated as the total energy losses on the network multiplied by the average carbon intensity of the electricity transported across the network. Over time, it is anticipated that energy losses will increase as new generation capacity results in new network infrastructure being built. The carbon intensity of electricity will fall, however, as this new low-carbon generation displaces existing fossil fuel generation. Under the scenarios we have modelled, the falling carbon intensity of electricity results in falling emissions from line losses, despite any increase in energy lost.

Sub targets:

- Supporting the connection of 50GW of offshore offshore wind capacity in the UK and 30GW in the US by 2030.

Projected emissions from network losses under a range of scenarios to 2030



What we're doing to get there:

We will continue to connect renewables to our network as quickly and efficiently as possible, whilst also investing in grid modernisation and continuing to build international interconnectors to support the decarbonisation of our networks.

We will continue to integrate embodied and operational carbon as a consideration within our design and procurement activities, building on our existing programme of work within UK Electricity Transmission.

We are focusing on the losses associated with transferring power across our networks. The nature of our assets means that there will always be some losses in the network associated with transferring power, but there are steps we can take to reduce losses when we make investments on the transmission system. These must be balanced with the overall cost to ensure the investment decision is optimised against a range of factors.

Replacement of assets/research and development: We have to replace our equipment, such as overhead lines and cables, as they age and their condition deteriorates, to ensure the network remains reliable and efficient. We consider the cost and emissions impact of losses in our cost-benefit analysis when we are making investment decisions to replace this equipment. For example, overhead line conductors with a lower resistance and therefore lower losses, have a higher capital cost as there are more 'cable bundles' in these conductors. Therefore, our analysis has to include an assessment of the overall cost and emissions impacts to ensure we make the fully informed investment decision.

Electricity network losses (UK/US) continued

Impact of WPD acquisition:

WPD has now joined us at National Grid Group working together for a clean, fair and affordable energy future. We are now the biggest electricity transmission and distribution operator in the UK. This will change the makeup of our carbon footprint. We know that distribution line losses tend to be higher (as a percentage of overall electricity demand) than in transmission networks. These emissions from line losses will have a material impact on our Scope 2 carbon footprint, adding 788 $ktCO_2e$ to our existing inventory in FY22, putting greater emphasis on our role in supporting the decarbonisation of electricity networks. We will fully incorporate the impact of WPD emissions into our Climate Transition Plan going forward, however the principles outlined in this section apply across our electricity networks.

Decarbonising electricity networks in the face of increasing demand:

Over the coming decades we expect demand for electricity to rise as transport and some heat becomes electrified. The decarbonisation of electricity generation will be fundamental in reducing absolute emissions from increasing electricity line losses (which make up ~99% of our overall Scope 2 emissions) and from the electricity we sell in the US – one of our most significant Scope 3 emissions. Therefore, the role we play in supporting the energy transition not only supports wider societal decarbonisation, but it also helps reduce our own emissions.

Transitioning our networks towards net-zero emissions will require a dramatic shift in how we produce and use energy, transforming and enabling our electricity systems to be powered by zero-carbon generation.

To give an idea of scale, governments in the UK and US have recently set ambitious targets to deploy 50 GW and 30GW of offshore wind capacity respectively by 2030. Connecting large volumes of renewable generation to the grid is a challenge and requires us to think differently.

In the UK we're building interconnectors to ensure zero-carbon generation can be moved from where it is plentiful to where it is needed most. Interconnectors are high voltage cables that are used to connect the electricity systems of neighbouring countries. They allow us to trade excess power, such as renewable energy created by the sun, wind and water, between different countries. We already have interconnectors linking the UK to France, Belgium, Norway and the Netherlands, and each year they power five million homes. We're currently working on another interconnector to link the UK with Denmark, and by 2030, 90% of the energy imported by our interconnectors will be from zero carbon energy sources. North Sea Link (NSL) is our latest and the world's longest sub-sea interconnector. This high voltage direct current (HVDC) electrical interconnector connects the UK electricity network at Blyth in Northumberland with the Norwegian village of Kvilldal and is able to transport enough clean electricity to power 1.4 million UK homes.

In the US we are partnering closely with our States to meet large-scale renewable policy targets by enabling the deployment of cost-effective zero-carbon generation resources, including first-in-the-nation offshore wind projects. We are working to accelerate electricity transmission infrastructure build-out to provide more system capacity for renewables while making long-term commitments to new energy projects through power purchase agreements, or other mechanisms that help project developers secure necessary financing. For example, we are building local transmission upgrades on our NY network to support the state of NY's Climate Leadership and Community Protection Act (CLCPA) goals. We also won rights to develop the NY Smart Path Connect project (NY's first competitive priority transmission project), which will enable integration of renewables in northern NY by increasing transfer capacity by 1,300 MW. In MA, we are supporting the development of offshore wind in partnership with other local utilities by negotiating long-term contracts to enable projects that could eventually bring up to 5,600 MW of offshore wind to the network.

Fugitive natural gas emissions (US)

13%

of S1&2 emissions in FY22

We own and operate natural gas distribution networks across Massachusetts and New York State. In transporting natural gas to our customers a very small percentage is emitted through pipeline leakages; these fugitive emissions whilst small represent a material component of our Scope 1 emissions.

Natural gas leakage is difficult to measure at the point where the emissions occur. We estimate the natural gas leakage from our networks using the most up to date Environmental Protection Agency (EPA) approved emission factors. These are effectively standard leakage factors that are applied to different types of network equipment or lengths of pipeline. This is an industry recognised standard approach to calculating these emissions.

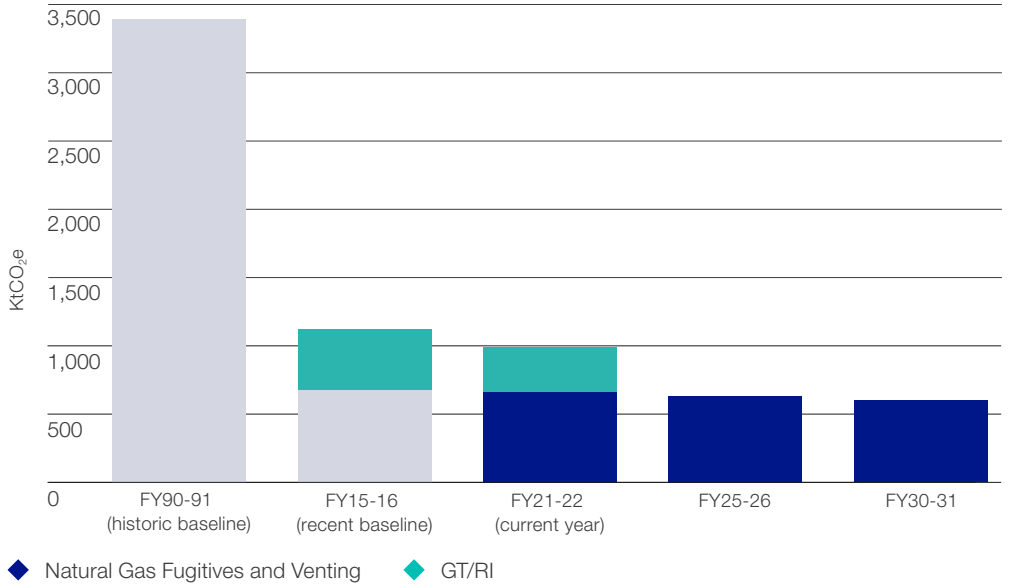
In the short to medium term natural gas has a significant role to play in the US transition towards a zero-carbon economy, providing safe, secure, affordable energy to millions of homes and businesses. However, our vision remains to fully eliminate fossil fuels from the US gas system, enabling the customers and communities we serve to meet their heating needs without using fossil fuels by 2050, if not sooner.

In 2022, we've continued to advance efforts to decarbonise our gas network for a clean energy future and are committed to reducing natural gas emissions across our entire gas supply chain including our own gas pipelines, downstream/ production processes, and upstream emissions.

Sub targets:

- Our vision is to fully eliminate fossil fuels from the US gas system by 2050, if not sooner.
- We will continue to reduce natural gas emissions from our distribution mains through the replacement of leak prone pipe (LPP). This will support an overall reduction in natural gas emissions of 10% over the next decade.
- Our strategic LPP program is expected to result in over 90% emission reductions in our distribution mains by its completion in the 2040s from our 1990 baseline.

Projected emissions from US Gas Distribution methane leakage to 2030



What we're doing to get there:

Replacing and repairing leak prone pipe: Across our US gas businesses, we invested $1.77 billion in 2021 on the replacement of more than 350 miles (563 kilometres) of LPP. We continue to work with external partners including the EPA to determine the best ways to identify, account for, and address leaks in our gas distribution systems. As a member of the EPA's Methane Challenge and their ONE Future initiative, (programmes that promote companies to disclose externally shared reduction targets), we are benchmarking our progress with other companies as we work towards a common goal of reducing methane emissions across the entire natural gas value chain to less than 1% by 2025.

Integrating renewable natural gas (RNG) and hydrogen: We are preparing for the transformation of the gas network by integrating RNG and hydrogen into our supply, anticipating development of supportive regulatory and policy frameworks. Some of our current initiatives include: Partnering with Massachusetts and New York to propose a regional Hydrogen (H2) Hub; Participating in university led H2 blending studies; and investing in pilot projects such as at New York City's largest wastewater treatment plant (Newton Creek) to utilise wastewater and food waste to produce RNG.

Regulatory environment: We're supporting legislative and regulatory policies to grow fossil-free gas, including, for example, adoption of a renewable heating portfolio standard and the development of voluntary tariffs for customer participation in fossil-free gas offerings. We're also working closely with regulators to seek approval for research development and demonstration to transition the gas network to net-zero, including piloting fossil-free gas and networked geothermal.

Fugitive natural gas emissions (US) continued

Our vision for a fossil-free gas network in the US:

The role we play in decarbonisation of the natural gas network will be fundamental in reducing our absolute emissions, not only from pipeline leakage, but also from the gas we sell to domestic customers and businesses –our most significant Scope 3 emission.

Today, in Massachusetts and New York heating of homes and businesses is provided by a diverse set of fuels and systems. Of the roughly 10 million households within those states, nearly 6 million (57%) have a gas furnace or boiler system, 2.5 million (25%) use a boiler fuelled by oil or propane, and 1.4 million (14%) use electricity. Of those using electricity, most use electric resistance, an inefficient heating source, and about 100,000 (1%) use a heat pump – a type of efficient heating equipment that can also provide air conditioning.

Draft climate action plans from the Massachusetts and New York state agencies propose that nearly 10 million households change their heating systems to electric heat pumps by 2050.

National Grid's vision for fossil-free heat targets a hybrid approach. Just as we have decarbonised electricity with wind and solar, we can decarbonise the gas system with renewable natural gas and green hydrogen. This will enable customers to have choices in how to become fossil-free. And, by utilizing our existing gas and electric networks, our vision will more quickly deliver a reliable and cost-effective transition to a net-zero future for the entire energy system.

Our fossil-free vision rests on four pillars of action that will enable all homes and businesses we serve to meet their heating needs without the use of fossil fuels by 2050, if not sooner. Therefore, achieving net-zero emissions while keeping energy affordable and preserving customer choice.

These four pillars will result in an integrated, fossil-free gas and electric system that will provide clear benefits to our US customers.

This Clean Energy Vision is also critical to us achieving our Scope 3 emissions reduction targets – see page 18.

Pillar one

Energy efficiency in buildings

We will continue to provide programmes for our customers to accelerate energy efficiency improvements to buildings, including deep retrofits and measures that reduce peak gas and electric demand; and support more rigorous building codes for new buildings.

Pillar two

100% fossil-free gas network

We will eliminate fossil fuels from our existing gas network no later than 2050 by delivering renewable natural gas and green hydrogen to our customers.

Pillar three

Hybrid electric-gas heating systems

We will support our customers by providing them strategies and tools to capture and maximise the benefits of paring electric heat pumps with their gas appliance.

Pillar four

Targeted electrification and networked geothermal

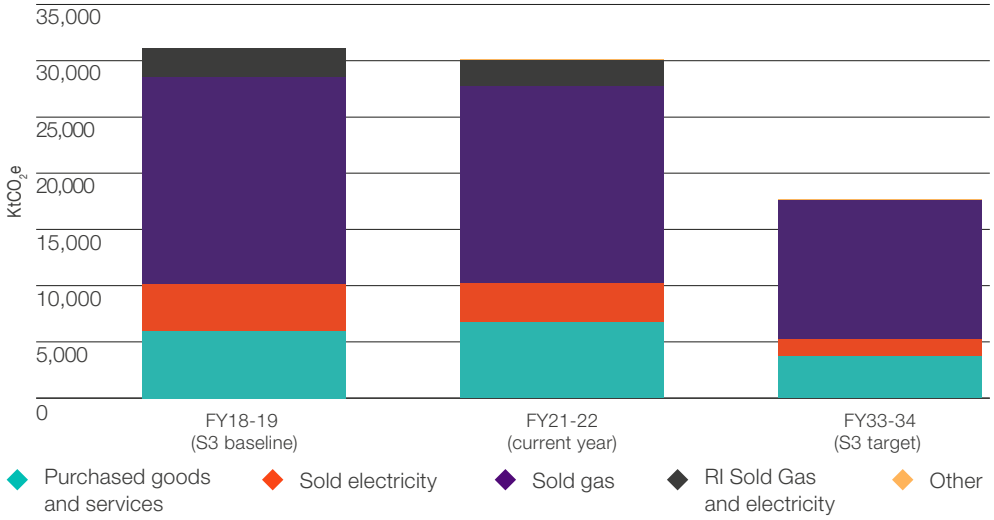
We will support cost-effective targeted electrification on our gas network, including piloting new solutions like networked geothermal. We will support customers who heat with oil and propane with strategies and tools to convert heat pumps.

Our value chain (Scope 3) emissions

Scope 3 emissions are indirect greenhouse gas emissions that occur within our value chain, as a result of our operations, but are not owned or controlled by us. In FY22, Scope 3 emissions represented 30,088 ktCO$_2$e from a total group climate footprint of 37,553 ktCO$_2$e, indicating their relative significance in comparison to Scope 1 and 2 emissions. The main contributors to our Scope 3 emissions include the energy we sell to customers downstream and the things that we buy (including construction activities) upstream. Whilst our control of these emissions is more limited than those directly within our influence, we realise the role we play in reducing greenhouse gas emissions across our entire value chain and are taking tangible actions to do this. We have also set science-based targets covering the entirety of our Scope 3 emissions.

We know the amount of gas and electricity we sell to our customers, therefore calculating the emissions from this sold energy is relatively straightforward. Other elements of Scope 3 emissions are harder to calculate. Emissions from the goods and services we procure are estimated using the amount of money we spend on different categories of goods and applying industry standard emissions factors to this spend. While this is a recognised approach to estimating these emissions, we want to improve this data. We are working with our supply chain to get better data, particularly through our construction programmes, which will enable us to better target emissions reduction activities.

Projected Scope 3 emissions to 2034



Scope 3 projections are aligned to our clean energy vision for gas and electricity networks.

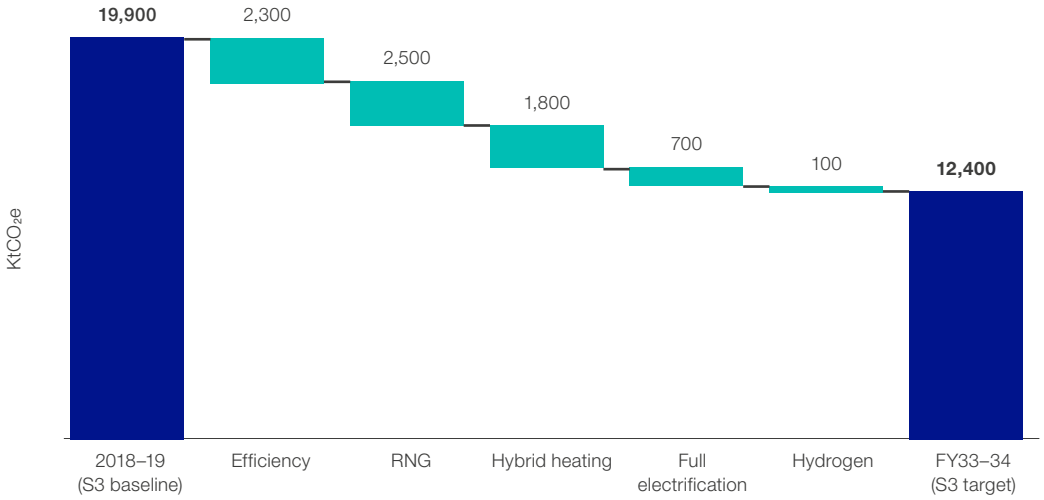
The energy we sell:

Sold Gas **63%** / Sold electricity **15%** of Scope 3 emissions in FY22

The energy that we sell to customers in our US business accounts for 78% of our overall value chain emissions. As such, the decarbonisation of power and heat networks will be critical in achieving our longer-term targets and we've discussed how we believe our role as The Energy Transition Company is critical in facilitating this.

Considering the impact of sold gas emissions specifically, in the short term we expect to see these emissions rise slightly as consumers switch to gas (which we supply) from more greenhouse gas-intensive fuels such as heating oil (which we don't). However, our vision remains to fully eliminate fossil fuels from the US gas system, enabling the customers and communities we serve to meet their heating needs without using fossil fuels by 2050, if not sooner. More detail on this approach is on page 15, including the levers that can contribute to reducing our Scope 3 emissions. An illustration of the relative potential contribution of each of these levers can be seen in the diagram below. As outlined on page 15, there are lot of things that need to happen to make this a reality, including supportive regulatory and legislative policies, with our fossil free vision setting out a roadmap to zero emissions by 2050.

Relative contribution of decarbonisation levers on our sold gas emissions (assuming supportive regulation and policy)

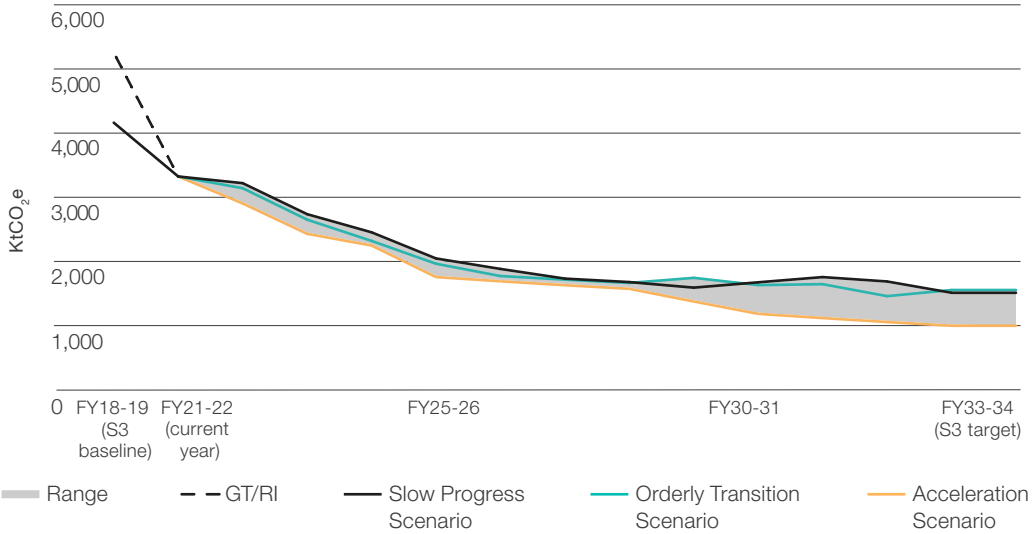


Our customer energy efficiency programs are rated in the top 5 in the United States by the American Council for an Energy – Efficient Economy — Massachusetts was #2, Rhode Island was #4, and New York was #5 — as of December 2020.

Our value chain (Scope 3) emissions continued

For sold electricity, we anticipate steeper, near-term decarbonisation across all three of our scenarios leading to a decease in overall emissions (see page 13). We are actively working to accelerate the building of electricity transmission infrastructure to provide more system capacity for renewables, while making long-term commitments to new energy projects through power purchase agreements or other mechanisms that help project developers secure necessary financing.

Projected range of emissions from sold electricity to 2034



In addition to facilitating wider societal decarbonisation, we know there are also actions we can take with our customers directly. We have an extensive customer energy efficiency programme across both gas and electricity.

Electric and gas energy efficiency and demand response are foundational elements of the pathway to net-zero. By 2030, we'll need to double the rate of energy efficiency retrofits across our region, focusing additional efforts in locations where reducing peak energy consumption can reduce the need for new infrastructure.

Our New York efficiency programs are on track to nearly-double the level of gas and electric savings from 2020 to 2025, reaching more than 3.6 million dekatherms (Dth) of natural gas and 525 GWh of electric energy savings. At least 20% of all program spending will be dedicated to serving income-eligible customers, including no-cost home insulation, and we're also working toward delivering 35% of clean energy benefits to disadvantaged communities in NY. We have also launched a ground-breaking plan in our Downstate New York region to address rapidly growing customer heating demand through alternatives to new infrastructure, including intensive building weatherisation (such as insulation), demand response (reducing customers' peak period gas use), heat electrification, and other potential market solutions. In Massachusetts, our programs plan to deliver 1.6 million Dth of natural gas savings and 213 GWh of electric energy savings per year by 2024. At least 20% of all gas program spending and at least 10% of all electric spending will be dedicated to income-eligible customers. By 2024, the portfolio will deliver 455 $kTCO_2e$ of reductions.

Changing how we buy things

22% of Scope 3 emissions in FY22

Scope 3 emissions arising from the procurement of goods and services form 22% of our Scope 3 climate footprint, with the bulk of these emissions coming from areas within our supply chain involved in resource intensive activities associated with constructing new energy infrastructure. It's important to note that we don't carry out construction activities solely by ourselves, instead we work in collaboration with trusted partners. A smaller, but still significant portion of our goods and services emissions come from other purchasing activity associated with running a large organisation such as National Grid.

Sub targets:

- 75% of National Grid's top 250 suppliers (by category/spend) will have active carbon reduction targets by 2030.
- In our UK Electricity Transmission Business, we have a target to make 10% year on year reductions in construction emissions during our current price control period (RIIO-T2), achieving net-zero construction by 2026, with responsible offsetting supporting these emissions reductions.
- In collaboration with SSEN and SP Energy Networks, we have made a commitment to publish our capital carbon data and methodology in full, enabling a more consistent approach across the energy sector.

Reducing capital carbon in our construction activities

Capital carbon, also known as embodied or embedded carbon, describes the emissions associated with the creation of assets and is particularly relevant to organisations at the heart of the energy transition such as National Grid.

Transitioning towards a net-zero electricity system requires significant investment in infrastructure, to ensure our networks can support the increased demand we anticipate and facilitate the connection of new low carbon generation. The scale of this construction is significant: from connecting new nuclear power plants such as Hinkley Point C, which will provide low-carbon electricity for around 6 million homes, to the creation of the second phase of the London Power Tunnels, a 32km electricity superhighway deep below the UK capital. Our combined construction portfolio represents the largest contribution to our goods and services emissions.

To deliver these activities in the most sustainable way, we need to work with our suppliers to identify how we can collaboratively drive down carbon emissions throughout the entire lifecycle of our projects – from construction and development of new assets, through operation and maintenance across the asset lifecycle and then through the decommissioning process.

How are we doing this? Over the last six years we've undertaken a programme of work within our UK Electricity Transmission business to integrate carbon into decision making throughout our construction project life cycle. Doing this has already reduced the carbon intensity of our measured projects by 30% from 2015 to 2021, but we realise there's much further to go. In our new regulatory price control period (2021-2026) we'll continue to include carbon as a weighted element for our major construction tenders and work with our contractors to reduce capital carbon during design and build. We've also used the carbon data collected from over 300 schemes to identify our carbon hotspots for future projects. As concrete, steel and aluminium all have a high carbon cost for National Grid, working groups have been set up to look at how we can decarbonise the manufacturing of each of these materials and source them in the most sustainable way – we're working to pilot and scale some of these approaches over the next 5 years.

Earlier this year we set up a partnership with Scottish and Southern Electricity Networks and Scottish Power Energy Networks to make all of our UK carbon data and calculation methodology externally available through the Supply Chain Sustainability School, with the ambition of improving transparency and consistency in carbon reporting across the sector.

Our value chain (Scope 3) emissions continued

What we're doing:
We are working with our supply chain partners to influence the development of their climate change strategies and target setting. We track the number of our top 250 suppliers which have developed active carbon reduction targets and aim for at least 75% achievement. This is managed through our participation in the CDP Supply Chain programme.

We address these emissions in a multifaceted approach. We engage our suppliers to understand their issues, data needs, and to help shape their climate strategies. We provide technical expertise where needed to enable our suppliers to manage their carbon footprint as well as to set carbon reduction targets. Internally, we provide expertise to procurement teams at the early stages of the tender process and will input language into contracts to support carbon reductions as applicable. We also provide a questionnaire in the early stages of the Request For Proposal (RFP) process to narrow the field of suppliers when there is ample choice. We currently utilise the CDP Supply Chain Initiative as our management and support tool for engagement with suppliers.

Our Global Procurement function has positioned Responsible Business and Sustainability as one of its three strategic priorities alongside value creation and supply chain resilience. In early 2021 we began work to enhance our procurement sustainability strategy, and this identified 'path to net zero' and 'community impact' as key areas of focus. We aim to use our position of influence to drive positive impact in the supply chain through proactive engagement with suppliers, to better inform the procurement process for sustainable alternatives, and provide enhanced visibility into human rights and diversity in the supply chain.

We recognise that working collaboratively will accelerate change. In the UK we are partner members of the Supply Chain Sustainability School which provides a free learning environment, upskilling those working within the built environment sector.

In 2022 we began work to establish our first procurement sustainability charter which will enhance engagement with suppliers, better inform the procurement process for sustainable alternatives, and provide enhanced visibility into human rights and diversity in the supply chain. We recently joined the Electric Utility Sustainable Supply Chain Alliance to enable a greater reach into our supply chain and engagement. Our asset recovery business unit has also been engaged to support the procurement process. This business area warehouses and refurbishes field equipment so that it may be re-used in the future. We will be requiring our operational teams to utilise in-house resources prior to purchasing new equipment for field replacements. We also expect the materials we buy to feature more recycled content as well as to have more circularity toward reusability and recyclability.

We've been included in the CDP Supplier Engagement Leaderboard since 2017 demonstrating our continual efforts to drive change throughout our value chain.

CDP
DRIVING SUSTAINABLE ECONOMIES

Transportation:

<1% of total Scope 1,2 & 3 emissions in FY22

The Transportation component of our carbon footprint includes business travel (Scope 3), commuting (Scope 3), and our own operational fleet vehicles (Scope 1)

Sub targets:

- Move to 100% electric fleet by 2030 for our light-duty vehicles.
- We will reduce our annual air miles travelled by at least 50% from a 2019 baseline on an enduring basis.

What we're doing:
Operational fleet emissions make up approximately 1% of our Scope 1 emissions. These vehicles are light-duty and typically use gasoline or diesel fuels. Our goal is to transition all light-duty vehicles to electric vehicles by 2030. Currently we have achieved 4% of this goal, with 127 electric vehicles across our UK and US fleet. In June 2021, we joined EV100, a global initiative launched by the Climate Group that brings together companies committed to the transition to electric vehicles. The initiative provides an opportunity for global leaders to share ideas, demonstrate the growing case for going electric, and engage with governments and stakeholders on how we can collaboratively remove remaining barriers. Our commitment as part of this initiative is to integrate EVs into our fleet and support EV uptake within our workforce by providing charging facilities at our premises. In the US, our fleet sustainability team has also made progress on the replacement of our medium and heavy-duty vehicles with zero-carbon alternatives by pilot testing an electric backhoe, alongside partnering with manufacturers to test and adopt various other electric vans and trucks to add to our fleet.

Business travel and employee commuting make up less than 1% of our total Scope 3 footprint. While these sources of emissions are a small portion of our overall footprint, they are material in how we visibly demonstrate our commitments to zero emissions.

The COVID-19 pandemic has fundamentally changed the way we work. As we move to 'hybrid working' employee commuting has reduced as many of our UK and US workforce continue to mix home and office working. This hybrid model allows some employees to only commute to an office 2-3 times a week. In the US, we also provide an incentive for employees to purchase an electric vehicle, currently valued at $5,000 per employee. This program commenced in 2017 and to date 646 employees have taken advantage of it.

Governance and disclosure

Responsible advocacy for the energy transition

We are committed to maintaining a high standard of corporate political engagement worldwide and ensuring that our advocacy is fully aligned to our responsible business and climate transition strategy.

We have a clear policy of prohibiting political contributions; including by another entity on our behalf and publish our Corporate Policy on Political Contributions here. In addition to our annual sustainability reporting (see table below), we also publish details of key group engagement activities on climate-related issues with supply chain partners, customers, trade associations and policy makers, through our annual CDP disclosure.

In FY22 we have continued to advocate for more ambitious action towards a clean, fair and affordable energy future. Our Responsible Business Report contains a detailed overview of many of these activities, with highlights including:

Our role as a principal partner at COP26: We have partnered with the UK Government for the two years of the UK COP Presidency to support the global effort to tackle climate change. Being a COP26 Principal Partner enables us to call for more ambitious action towards a clean, fair and affordable energy future and to demonstrate the actions businesses like ours are taking. Throughout 2021, in the run-up to COP26, we ran our biggest ever campaign externally and for our colleagues, to help people learn more about the clean energy transition and how they can get involved. At the COP26 summit itself we hosted 30 events across Glasgow. In addition to these, colleagues spoke at or actively participated in over 130 more events and dozens of meetings to discuss how we can work with others to accelerate the energy transition.

International engagement and knowledge sharing: Through initiatives such as the Green Grids Initiative, One Sun One World One Grid, we're working globally with governments, NGOs and peers to deliver zero carbon energy for communities, helping to underpin and accelerate decarbonisation across the world, ensuring no one is left behind in the transition.

By co-ordinating and mobilising investment and technical assistance in green grids globally, the initiative is designed to accelerate the scale-up of renewable energy. It will also support new ways of exchanging knowledge and experience, such as through peer-to-peer networks, accelerating Research, Development & Demonstration cooperation.

Governance

The Board of Directors is responsible for setting and leading the company's climate-related strategy and goals. The Board in turn delegates some elements of their responsibility to their various sub-committees as described below. Our Board members bring a variety of skills and experience to the Board, including expertise in Environment, Social and Governance (ESG) matters, including climate change.

There have been a number of developments throughout the year that have increased focus on climate related matters at a Board level, throughout the organisation and also externally. In May 2021 Paula Rosput Reynolds became Chair of the Board and with this change, a renewed focus was given to the existing Board Committees to ensure the remit of the Committees remained appropriate and well placed to progress the Boards agenda going forward. Three of the Board Committees refreshed their remit and focus, including the previous Safety, Environment & Health Committee which became the Safety & Sustainability Committee with its remit extended to increase focus on climate related issues including responding to the recommendations of the Taskforce for Climate Related Financial Discloure (TCFD). Within the business there has been a continuing move towards a clearer ownership of climate issues, with a Chief Sustainability Officer appointed in September 2021 providing a single point of accountability across the Group for our overarching sustainability strategy to help deliver the energy transition and ensure we drive our own emissions down to net-zero by 2050. The Chief Sustainability Officer attends all Safety & Sustainability Committee meetings and provides regular updates at and below Board level. The remit of the board and its committees under our corporate governance framework is set out on in our Annual Report and Accounts on page 191. Terms of reference for the board and its committees are available here.

Executive Remuneration

Our management are incentivised through our target setting and remuneration policies to deliver the actions necessary to achieve our net-zero objectives.

Our 2022 remuneration policy expands the focus of ESG and incorporates further measures aligned to targets set out in our Responsible Business Charter. This introduces elements to the Long-Term Performance Plan (LTPP) aligned to:

- Quantitative reductions in National Grid's Scope 1 emissions; and
- The enablement of the net zero transition

These measures have a combined weighting of 20% of the overall LTPP and are set out in more detail in our Annual Report and Accounts on pages 130 and 131.

Governance and disclosure continued

Green Finance

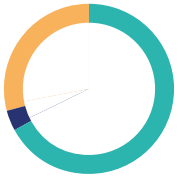
Over the past year, we have invested £6.7 billion (continuing operations) in the journey to net zero, 73% in green investment, and we expect to spend £30-£35 billion over the five year period from 2021/22 to 2025/26. We continually review our financial metrics and targets to ensure that the data we are measuring is meaningful, aligns with our strategy, and is providing the information the business and our stakeholders need to effectively monitor our performance and demonstrate our progress. With reference to the principles of the EU taxonomy, we have disclosed the proportion of our IFRS revenue, operating expenditures and capital expenditures that align with the climate change mitigation and adaptation objectives of the EU's taxonomy. Given the climate change mitigation's alignment to the principles of the Paris Agreement, the disclosures provide a transparent view of the Group's compatibility with the net zero goals of the economies we serve during the year ended 31 March 2022. A summary of our assessment is shown below, please see our Responsible Business Report page 53-54 for the complete disclosure.

Group aligned turnover

67%

(£12.4 bn)

67% 4% 29%

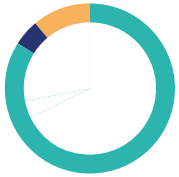


Group aligned opex

84%

(£5.3 bn)

84% 5% 11%

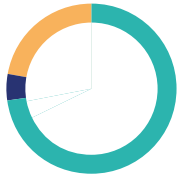


Group aligned capex[1]

73%

(£4.5 bn)

73% 5% 22%



Taxonomy aligned activities | Taxonomy eligible but not aligned activities | Taxonomy non-eligible activities

1 We have reported the Group aligned capex excluding business combinations. The figure including business combinations is reported in the EU Taxonomy, GRI and SASB: Disclosure Document.

Our responsible business reporting

This Climate Transition Plan sets out the actions we're taking now and in the future to ensure we remain on track to meet our science backed GHG reduction targets. It sits alongside a suite of other publications that together make up our group responsible business reporting.

Annual Report and Accounts

Task Force for Climate-related Financial Disclosure (TCFD)	TCFD report on pages 70-83 of Annual Report and Accounts

Responsible Business Report

Finance Taxonomy	EU Taxonomy information on pages 53-54 of Responsible Business Report
Fair Transition	Information on our approach to a Fair Transition can be found on page 60 of our Responsible Business Report
ESG data book	A detailed breakdown of our ESG data. Aimed at investors and analysts.