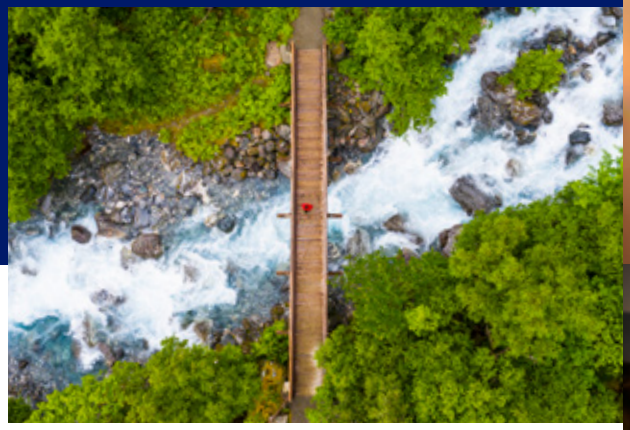
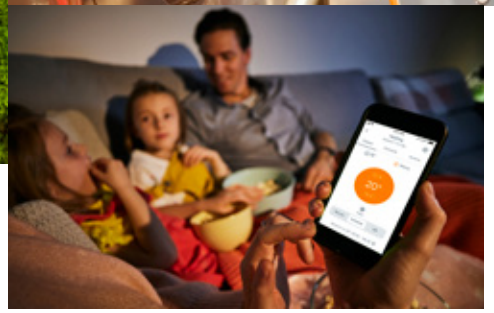
Our Climate Transition Plan 2021

Supporting every customer and our business to be net zero





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What's in the report?

What does net zero mean?

Put simply, net zero means achieving a balance between the human-related greenhouse gases put into the atmosphere and those taken out. To achieve this, everyone needs to reduce their greenhouse gas emissions as much as possible by changing the way they live, work and move.

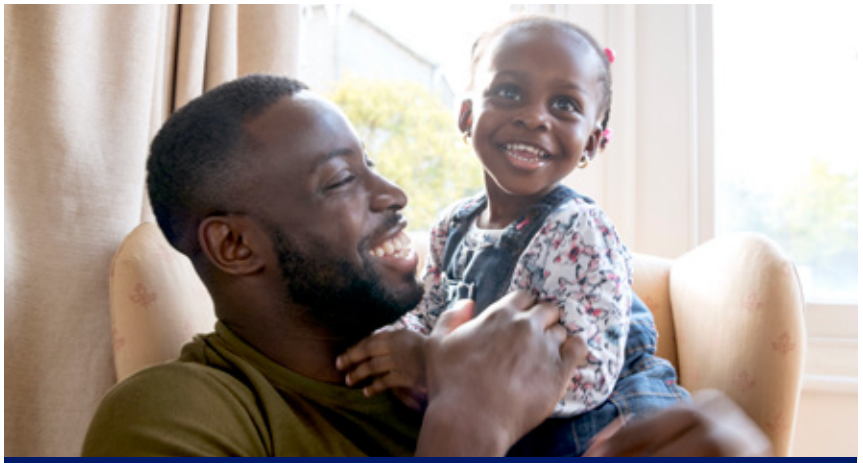
Although net zero is considered the benchmark goal for decarbonisation, it's often confused with other terms such as carbon neutral. The big difference with carbon neutral is that "offsets", where carbon emissions have been avoided rather than removed, can be used to meet targets. Net zero on the other hand requires any hard to avoid residual emissions to be removed from the atmosphere and permanently stored using methods such as carbon capture and storage, or nature-based solutions like tree planting.

It's now widely agreed that we need to achieve net zero by 2050 whilst staying within defined carbon budgets along the way, so that we have a reasonable chance of limiting global warming to 1.5°C and avoid the worst impacts of climate change.

Chief Executive introduction

There's no doubt that climate change is one of the greatest challenges facing the world. We've all seen the heavy toll global warming is having on people's lives as extreme weather, wildfires and floods hit the headlines, and we know it'll continue to affect future generations in an even bigger way if we don't do more to prevent it.

The next decade is critical; we've no choice but to accelerate action to limit global warming. And as we emerge from COVID-19, I believe we have a big opportunity as well as a responsibility to reshape our future to one that's fairer, inclusive and more sustainable. As the largest energy services and solutions company in the UK and Ireland, we campaigned for the UK government to introduce legally binding net zero targets and we remain fully committed to play a leading part in the collective efforts needed to achieve a low carbon future. We'll therefore continue to listen to the science and champion our customers' needs as we help to transform the way we all live, work and move through decarbonising power, heat and transport.



Our People & Planet targets:

Be a net zero business by 2045

40% carbon reduction by 2034

Help our customers be net zero by 2050

28% reduction in carbon intensity by 2030

Read more about our wider People & Planet Plan goals at centrica.com/peopleandplanet

That's why our strategy and purpose are now rooted in providing a one-stop-shop for energy services and solutions that'll help our customers live sustainably, simply and affordably. It's also why we've strengthened our goals to fight climate change via our People & Planet Plan to help our customers be net zero by 2050, whilst working to become a net zero business ourselves by 2045 which is five years ahead of the UK target.

"Just as we've done for the last 200 years, we'll continue to evolve our business and seize the opportunities the energy transition offers to ensure a fair and affordable transition for everyone."

Chris O'Shea,
Group Chief Executive

As a next step, we've created this Climate Transition Plan to explain how we intend to achieve our goals. Getting to net zero is complex and like everyone else, we don't have all the answers yet. But what I do know, is that our future as a business depends on delivering net zero and just as we've done for the last 200 years, we'll continue to evolve and seize the opportunities the energy transition offers to ensure a fair and affordable transition for everyone. And with the UK and Ireland showing leadership in decarbonisation, there's a big opportunity for us to share our expertise and help other countries do the same.

My experience tells me it won't be a smooth pathway; there will be bumps in the road and difficult decisions to face into. Delivering our net zero targets for example, depends heavily on the actions of others so we'll need to monitor progress and work to bring them on the journey with us. And some of the opportunities Centrica may have to help in the energy transition, such as providing flexible gas-fired generation to enable the scale up of renewables or investing in assets to store clean hydrogen for others, will actually add to our emissions. So whilst we may not always perfectly align with the optimal pathway, we ask for an honest appraisal of the necessary steps we're taking for the UK, to meet the ultimate outcome of net zero.

It's clear that the world is at a turning point and with COP26 on the horizon, I'm hopeful it'll inspire greater action from all nations, companies and individuals because we're all in this together, and we need everyone to do their bit.

Our net zero plan at a glance

Helping our customers live sustainably, simply and affordably

Be a net zero business by 2045
(40% carbon reduction by 2034)

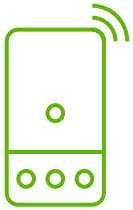
Build a zero emissions UK fleet by 2025
as we increasingly switch to electric vehicles (EVs)

Reduce property emissions
in the UK by **50%** by 2030 with efficient and low carbon solutions, alongside flexible working

Grow our low carbon asset portfolio
with up to **800MW** of solar and battery by 2025

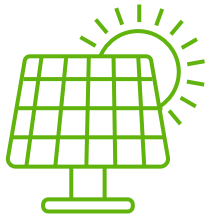
Move away from fossil fuels
by exiting oil and gas exploration and production, whilst exploring hydrogen storage as well as Carbon Capture and Storage

Help our customers be net zero by 2050
(28% reduction in carbon intensity by 2030)



Roll out energy efficiency and energy management solutions
with products like Mixergy, Panoramic Power and energy efficient boilers whilst planning for:

- → **>2.5m Hive heating** customers by 2025
- → **6m** more **smart meters** in homes by 2030



Deliver low carbon technologies
such as solar and Combined Heat and Power units (CHPs) alongside our ambition for:

- → **100,000 EV charge points** per year by 2025
- → **20,000 heat pumps** installed each year by 2025
- → Grow a **substantial** position in the UK **battery optimisation** market by 2025

Supply cleaner energy
from renewable assets, biomethane and hydrogen whilst aiming to:

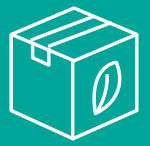
- → **Remain the UK's** biggest retailer of **zero carbon electricity**
- → **>25%** of our residential customers in Ireland on a **green tariff** by 2025
- → Up to **£100m** invested in **renewable assets** annually by 2025

Work towards a just transition for everyone

For customers
by championing a fair and affordable transition

For colleagues
as we grow a greener and more inclusive team

For communities
by backing sustainable initiatives



For suppliers
via collaboration for a low carbon supply chain

Underpinned by…

Strong Brands
like British Gas, Bord Gáis Energy, Centrica Business Solutions and Centrica Storage Limited

Expert colleagues
across our 20,000 strong workforce, including 9,000 engineers and a commitment to recruit 3,500 green apprentices by 2030, with the ambition for 50% to be female

Robust management
over governance, reporting and policy engagement

Our journey and view of the future

We've been at the forefront of supporting individuals, communities, and businesses with their energy needs for over 200 years. And during that time, we've been pivotal in delivering some of the major energy system transformations, including the transition of 14 million customers from town gas to natural gas during the 1960s and 1970s. Mitigating climate change now requires another fundamental shift in the energy system so we'll draw on our deep expertise in this area, to ensure we continue to play our part in shaping a net zero future.

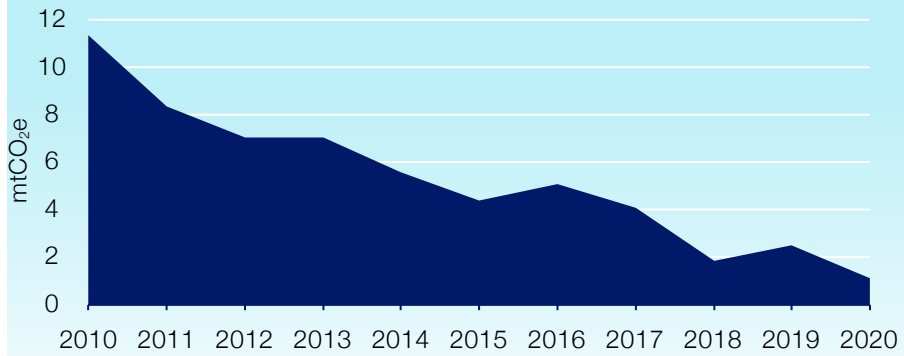
At the heart of achieving this is ensuring we bring our customers with us, because we can't transition to a low carbon world without them. In the UK we provide more energy to more customers than anyone else and have the largest workforce of highly skilled and trusted engineers, so we're well placed to inspire our customers to live more sustainably.

We'll do this by raising awareness of the necessity for change and the benefits this can bring through the development of low carbon services and solutions across power, heat and transport. At the same time, we'll work to provide customers with the low carbon energy system they need by investing in greener assets, whilst exploring opportunities to repurpose existing energy assets we've relied on for decades and give them a clean lease of life. And we'll continue to lead by example by driving emissions out of our business with operational efficiencies and completion of our strategic transformation.

In recent years our strategy to reposition our business and become more customer-focused has significantly reduced our involvement and investment in fossil fuels. We've closed or divested the majority of our carbon intensive energy assets and businesses, which in turn allowed us to redirect more investment into providing low carbon services and solutions for customers. Consequently, we don't consider ourselves to be an Electric Utility or an Oil & Gas company, but a leading energy services and solutions company focused on helping our customers live sustainably, simply, and affordably. To ensure we maintain momentum, we launched our People & Planet Plan in 2021 which accelerates action to be a net zero business by 2045 and to help our customers be net zero by 2050, whilst creating the diverse and inclusive team that'll help us get there.

>80% **Reduction in our gross scope 1 and 2 emissions over the last decade**

Centrica's greenhouse gas emissions



We've closed or divested all but one of our centralised power generation assets, and put our oil and gas exploration and production assets into a non-wholly operated joint venture which we intend to exit

CDP
DISCLOSURE INSIGHT ACTION

'A-grade' for action and disclosure on climate change

Consistent action like this together with a history of setting and achieving carbon reduction targets, has earned us a strong track record as a sustainable business. For example, we're really proud to have been recognised for our progress for over a decade in leading climate benchmarks like CDP, where we made it onto the coveted 'A-list' of companies taking action on climate change. We're also long-standing members of the United Nations' Global Compact and were early signatories of the Task Force on Climate related Financial Disclosures (TCFD).

In line with the recommendations of the TCFD and using a range of long term scenarios, we've been enhancing our analysis of the risks and opportunities decarbonisation presents to our business, along with the potential changes it'll have on demand for goods or services for our customers. We're increasingly building this into our strategic planning and are confident that we're well placed to respond to the risks and opportunities of a lower carbon future.

A summary of the trends we've identified and analysed through our long-term climate scenario analysis:

A growing focus on the environment

- Our key markets in the UK, Europe and North America are leading on legislating for net zero, with decarbonisation policies set to ramp up over the coming decades
- Sustainability credentials will increasingly become a key consideration for consumers buying products, investors financing companies and employees choosing who they work for

Transition from fossil fuels

- As customer demand for natural gas declines, a market for clean hydrogen will emerge
- Fossil-based heating will decline in the UK, whilst the low carbon heating market will expand with electric, hydrogen and community-based solutions
- Electrification of transport will continue to grow

Growth in low carbon electricity

- Demand for electricity will rise as electrification of road transport and heating accelerates
- Low carbon electricity generation will become more cost competitive, with high carbon alternatives and grid-scale electricity continuing to decarbonise

Drive to decentralisation and optimisation

- Need for decentralised energy generation will continue, with falling costs driving growth in the distributed solar market alongside a growing role for optimisation
- Demand for and valuation of demand side management, battery storage and wider flexibility services will all increase

Rise in energy efficiency and energy management

- Deployment of energy efficiency measures will expand to secure near-term gains
- The role of digitisation and web-enabled platforms for energy management will grow

As part of our TCFD compliance programme, we'll disclose more about our analysis of the risks and opportunities related to these trends in our 2021 Annual Report and Accounts.

Our ongoing dialogue with key stakeholders confirms a growing desire to understand more about how companies are strategically responding to climate change, including how they'll mitigate climate impact whilst enhancing long-term commercial resilience.

As a result, the reporting of financial metrics aligned with sustainable frameworks or 'Taxonomies' is emerging as a way to assess progress alongside carbon emissions reporting. We're monitoring progress in this area and reviewing opportunities to enhance our own processes and disclosures. From work undertaken so far, the strategic choices and actions we outline in this Climate Transition Plan would see the portion of our capital expenditure invested in eligible green activities grow from less than 5% to over 50% by 2025. This is a strong signal of our commitment, and a clear indicator of our ongoing alignment towards a low carbon economy.

"An open and ongoing dialogue with investors and NGOs amongst others, is key. Not only does it improve understanding of the action we're taking to tackle climate change, but it can influence our journey and advance reporting practices."

Jim Rushen,
Group Head of Environment

Target delivery

Target overview

We've been setting and delivering carbon reduction targets for over a decade and recently launched our People & Planet Plan, with a commitment to be a net zero business by 2045 whilst helping our customers be net zero by 2050.

How have we approached our target setting?

We welcome the latest assessments from the Intergovernmental Panel on Climate Change (IPCC) on the implications of a warming planet, together with the scale and rate of emission reductions required to mitigate the effects. There's now a growing acceptance that in order to avoid the worst impacts of climate change, we must aim to meet the highest ambition of the Paris Agreement and limit global warming to 1.5°C, which requires emissions to be reduced at a significant rate and reach net zero by 2050 or sooner.

RACE TO ZERO — Committed to science-based action to tackle climate change

This has led to the increased adoption of science-based targets – those that deliver emissions reductions at the rate required to achieve net zero by 2050 and stay within certain carbon budgets along the way. We've therefore based our own goals on science corresponding to a well-below 2°C pathway initially and 1.5°C by mid-century, which has been shaped by our existing portfolio coupled with a deep understanding of our sector, customers, and markets. To ensure we remain in-line with best practice, we've joined the UN's Race to Zero campaign and committed to have our carbon targets validated by the Science Based Target initiative (SBTi).

Also in line with best practice, is that the vast majority of our targets will be delivered through carbon abatement rather than offsetting. We anticipate having hard to remove residual emissions during the 2040's, and intend to use our in-house carbon trading team to engage carbon removal projects like tree planting, to capture carbon and achieve net zero emissions in a credible way.

Our targets are additionally normalised for acquisitions and divestments using an operator boundary, which best reflects the activities within our control and our strategic objectives, using a 2019 baseline.

How do our targets breakdown?

Today, our entire value chain emissions (all scopes) represent around 28mtCO_2e per year. Having reduced the emissions from running our business by over 80% in the last decade, our scope 1 and 2 emissions of 1.5mtCO_2e, now represent only 6% of our emissions. The remaining 94% relate to our scope 3 emissions and is dominated by our customers' use of the gas and electricity we supply to them.

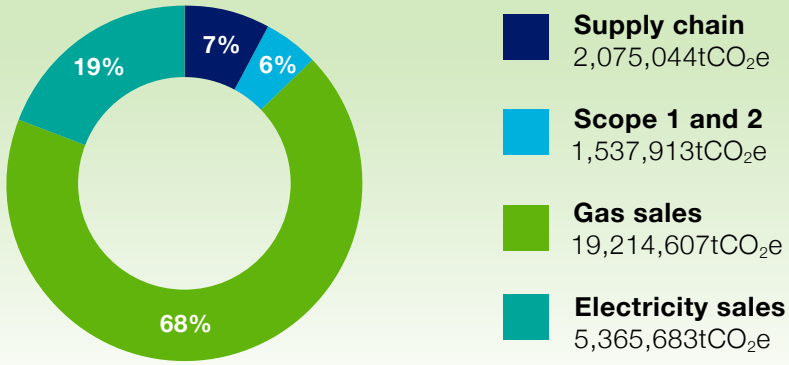
While the ultimate goal of net zero is critical, so is how we get there. As a result, we've set both long term goals and interim targets, to ensure we progress at sufficient pace.

We have most control over our own business emissions, and we've targeted to reduce them on an absolute basis, delivering a 40% reduction by 2034 and achieving net zero by 2045. We recognise that different sectors must decarbonise at different rates, for example, it's clear that the electricity sector must decarbonise rapidly to deliver net zero by 2050 and so we're aiming to achieve net or near-zero emissions from baseload electricity generation by the end of 2035. We know, however, that some of the unique opportunities Centrica may have in enabling the energy transition could actually increase our emissions. So we'll continue to monitor our progress, report transparently and engage stakeholders on the wider net benefit of our actions in helping society get to net zero.

We monitor and report our greenhouse gas emissions in line with best practice using the three standard emissions scopes:

1. **Scope 1** includes our direct company emissions such as those from using gas, petrol or diesel
2. **Scope 2** relates to indirect emissions from our electricity consumption
3. **Scope 3** covers emissions beyond our operations and across our wider value chain, including emissions from suppliers and customers

Breakdown of our emissions



Over 90% of our scope 3 emissions come from our customers' use of energy. These are emissions that we have some, but not full control over, as we can't for example control how our customers run their homes or businesses. We're also heavily dependent on government to set the right signals and incentives to drive customer behaviour through the policy framework. But through our investment in services and solutions alongside targeted engagement, we can help ensure that low carbon choices are available to enable the transition. To show our commitment, we've set a target to reduce the carbon intensity of the energy our customers use by 28% by 2030, as we work towards net zero customer emissions by 2050. We believe the carbon intensity of energy is the best way to track our progress in helping our customers decarbonise their energy use, whilst allowing for the natural growth or shrinkage of customer numbers which occurs over time[1].

And for the 7% of emissions that relate to our supply chain, we'll engage our supply chain to ensure suppliers and partners adopt practices that are aligned with our values, as we also continue to drive emission reduction in other less material areas of our business such as business travel, employee commuting and waste reduction.

Can we get to net zero sooner?

We'll continually review our targets and seek opportunities to accelerate delivery wherever possible. This is because we recognise that we don't have all the answers for getting to net zero as the next couple of decades will involve significant shifts in technology – the exact type, scale and timing of which, isn't fully known right now. And to seize these opportunities, we'll need decisive and timely action from others, such as governments to establish key policies and support mechanisms across critical areas like decarbonising heat and the hydrogen value chain. So we'll need to stay in step with technology, policy developments and cost curves, to adjust our plans and ensure we transition at a pace that allows for a fair and affordable future for customers and protects shareholder value, whilst never losing sight of what the science tells us is needed to avoid dangerous climate change.

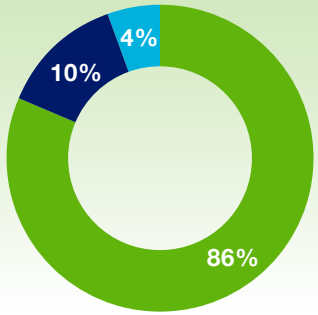
[1] In line with best practice, this target does not include avoided emissions resulting from the services and solution we provide to customers who are not also energy customers, as these emissions sit outside our official carbon footprint.

Being a net zero business by 2045

As we aim to inspire our customers to live more sustainably, it's important that we lead by example in reducing our own emissions. This ambition has led us to cut our carbon emissions from across our business by more than 80% over the last decade (scope 1 and 2 emissions).

This reduction has largely been achieved through our strategic decision to move away from centralised power generation alongside gas and oil exploration and production, to focus on providing services and solutions that help our customers live sustainably, simply and affordably. In addition to these upstream actions, significant progress has been made across our wider internal carbon footprint and by the end of 2019, we'd cut emissions from our property, fleet and travel by 39% against our 35% reduction target over the period 2015–25, having already achieved a 27% drop in emissions from our 20% reduction target during 2007–15.

Percentage of our scope 1 and 2 emissions



Gas production
154,349tCO_2e

Fleet and property
62,699tCO_2e

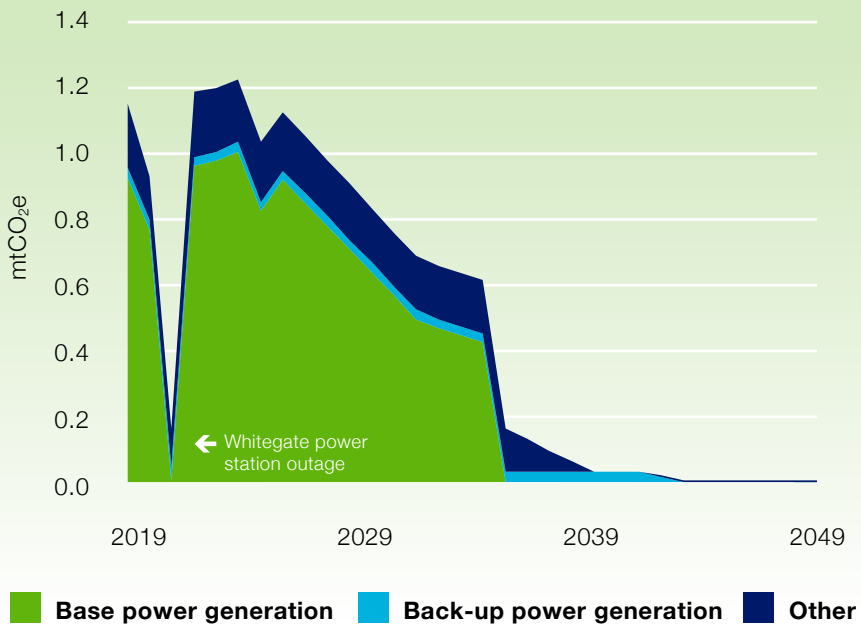
Power generation
1,320,865tCO_2e

>50% Reduction in our carbon intensity of revenue over the last five years; decoupling emissions from revenue

We're now progressing towards our new People & Planet Plan target to be a net zero business by 2045 at the latest, with an interim target of reducing our total carbon emissions by 40% by 2034 from 2019 levels. In 2020, we'd made good strides towards this goal by cutting our total carbon emissions by 18%. Whilst much of this reduction was a result of reduced activity during COVID-19 related lockdowns, we were still able to progress carbon saving initiatives during 2020, such as placing the UK's largest order of electric vans (see page 16).

Our scope 1 and 2 emissions

Past and predicted emissions reduction to 2045



We'll continually monitor progress against our targets and are currently reviewing our interim target as part of our commitment to SBTi validation

Leading the way to a low carbon fleet

As the biggest company in the UK, it's no surprise that we have the UK's third largest commercial fleet with 9,000 vans that are used by our engineers to keep customers' homes and businesses running smoothly. When we add our car fleet, we have around 10,500 vehicles to manage, so driving down emissions from travel is a big focus.

Van fleet

We set annual emission reduction targets for our fleet which over the last five years, has helped us cut emissions by over 40%. This has largely been achieved with rolling out more efficient vans, reducing van size and improving travelling distances with built-in satellite tracking, as well as more recently via electric vehicles (EVs).

We're at the forefront of transitioning our fleet to zero carbon. And having already made many efficiencies, our focus is now on moving the rest of our UK fleet to electric.

- **EVs** will help us cut fleet emissions by around 75% based on the current grid average for electricity, with savings growing as the grid decarbonises. The pace of switching to EVs is, however, limited by availability so we'll continue to gradually roll out the 3,000 Vauxhall Vivaro-e vans we ordered during 2020–21, which is the largest commercial EV order in the UK. Our fleet has already driven nearly 3 million electric miles, and we'll build on this by doubling the number of our EVs on the road to 1,000 by the end of 2021. We'll buy more EVs as soon as availability allows.
- **Green tariffs** and lower carbon electricity for our engineers to charge their EVs, will then enable us to reduce any remaining emissions from travel towards zero.

Zero emission fleet

We'll completely electrify our British Gas fleet by 2025, which is five years earlier than the UK's ban on internal combustion engines

Car fleet

Having reduced our car emissions by over 70% in the last five years, we'll reduce this further by incentivising more of our colleagues to choose EVs.

- **EV-only salary sacrifice scheme** was introduced in late 2021 to help colleagues lease an EV at a competitive cost. We think this will be popular with colleagues and will not only reduce our emissions from commuting or business travel, but it'll also cut colleagues' personal travel emissions and help make EVs the new normal. As an extra benefit to maximise colleague take up, we'll install EV chargers at their homes at no upfront cost.
- **Our business car policy** will be upgraded in 2022 to only allow EVs. This will ensure that all our business cars are electric by 2025.
- **Onsite EV charge points** make it easy for colleagues to conveniently recharge their batteries, which is why we have over 140 installed across our sites. We'll expand charge point availability in line with EV take-up.

EV 100 by THE CLIMATE GROUP

Joined EV100 in 2019, to bring forward-looking companies together and accelerate the transition to EVs

Case study

Getting the most out of my electric vehicle (EV)

Simon talks about his EV experience.

Like 70% of my fellow engineers, I don't have a drive so I knew charging wasn't going to be straight forward. But that didn't put me off signing up to have one of the new Vauxhall Vivaro-e-vans.

To make sure the van has enough energy to cover my patch in South Wales, I charge at a car park that's a three-minute walk from home where I've got an annual permit. If I'm working out of hours covering emergencies, the van needs to be ready so I use a 45-minute rapid charger to top it up. Otherwise, I normally use the slower charger overnight a couple of times a week which gives me enough for 150–190 miles. I've also become a regular grazer, topping up wherever charging is available, including at the supermarket when I grab lunch. The Vauxhall app makes this all easy, allowing me to remotely monitor and take the van off charge when I've sufficient range.

While it can sometimes be tricky, I genuinely thought it'd be harder to make the switch.

3,000 Vauxhall Vivaro-e vans ordered, the largest commercial EV order in the UK

"The van is like a minor celebrity with customers and members of the public always interested to know what's it like to drive an EV. I feel really proud driving it, knowing I'm doing my bit for the planet."

Simon Baker,
British Gas Smart Engineer

Progressing efficient property management

More than 80% of our property's energy use is in the UK where over the last five years, we've reduced energy consumption by 49% and emissions by 69%[2]. We'll build on these gains and continue to use the same low carbon solutions we offer our customers, to make our own properties net zero. At the same time, we're significantly reducing the number of sites we once had as part of our strategic transformation to simplify our business and focus on the customer, which will also reduce emissions.

Property emissions

Whilst reductions in property emissions have been achieved with the installation of low carbon and energy efficiency technologies like solar, biomass, battery storage, LED lighting, improved building management controls and Combined Heat and Power units (CHPs), further reductions in our much smaller property portfolio is becoming challenging as we've already implemented many of the existing proven technologies available. Going forwards, we'll maintain focus on driving efficiencies and good energy management, adopting new technology as it appears, and seizing the opportunity to change the way we work.

69% **Reduction in carbon emissions across our UK property portfolio over the last five years**

[2] Market Based Scope 2 emissions.

We anticipate that we can reduce our current UK property emissions by a further 50% by 2030. This can be delivered in the following ways:

- **Our 'Flexible First' approach** launched as COVID-19 restrictions started to lift, and lets colleagues combine the flexibility and convenience of working at home alongside time in the office to connect and collaborate. So rather than having to work in the office every day, this new way of working helps colleagues better balance work with personal commitments whilst reducing our carbon footprint. Potentially, this also means that we'll need to occupy only a third of the properties for the same number of people. This flexibility has only become possible by staying up-to-date with the latest IT solutions, with most colleagues being able to work anywhere using a laptop, virtual meeting software and cloud-based data storage. We know this approach will increase the footprint of colleagues' home emissions, but these are more than countered by reduced commuting emissions. For example, when colleagues worked from home during 2020, our combined working from home and commuting emissions reduced by 35% compared to 2019.

"As a working mum, it's great to have the flexibility and equipment I need to choose where I work. So as well as continuing to deliver the best outcomes for customers, it's great to travel less for work and lower my footprint."

Ferdousara Haque,
Customer Service Agent

- **Green tariffs** are already employed at the majority of our properties and we'll continue to use them to drive down emissions. At most of the properties we occupy, we're responsible for the utility bills so we can use our own tariffs. In the UK for example, we use our British Gas green tariff whilst in Ireland, we intend to transfer to Bord Gáis' green tariff once it's been rolled out to business customers later in 2022. Where we aren't responsible for the utility bills, we'll work with our landlords to move to lower carbon tariffs where possible.

- **Energy management and onsite generation** is already installed across our property portfolio and will continue to bank carbon savings as we adopt additional building improvements. These include building management systems, more efficient equipment and low carbon onsite generation, as well as incorporating technological advances as and when they become available, such as the rising sophistication in building management systems and the decreasing building cooling demand for IT systems as we increasingly move to cloud-based processing. We'll have some harder to reach residual emissions particularly from gas heating, so we'll explore emerging technology options over the coming decade to determine the best way to remove these emissions which may include hydrogen, electrification and carbon neutralisation.
- **An engaged workforce** is an important part of how we'll reduce our footprint. Colleagues in our Green Team have played an active role in reducing our footprint by galvanising more sustainable behaviours and initiatives onsite – from promoting new ideas to save energy, to improving recycling rates with awareness campaigns. As we adapt to a more flexible way of working, we'll review how Green Teams and wider internal communications can continue to contribute to the reduction of property emissions, whilst supporting colleagues to be more sustainable at home.

Reducing emissions at upstream assets

Our assets involved in the generation and production of energy have historically dominated our scope 1 and 2 emissions. But in 2015, we altered our strategy to focus more on providing low carbon services and solutions for our customers, which has led to a significant reduction in our ownership of upstream assets.

As part of our strategic transformation, since 2015 we've:

1. **Closed or sold eight of our gas-fired centralised power assets in the UK** having already divested three power stations in North America, leaving just one in Ireland.

2. **Built two 50MW gas-fired fast response 'peaking' plants** adjacent to our old power stations, one of which we sold in 2021. Peaking plants can be efficiently turned on to meet peaks in demand and allow for an increasing baseload demand from intermittent renewable generation.

3. **Transformed the site of our old Roosecote gas-fired power station into a 49MW battery storage facility** which is one of Europe's largest, and is capable of coming online in less than a second to meet fluctuations in frequency and demand. It can supply stored low carbon energy for up to 50,000 homes.

4. **Significantly reduced the scale of our oil and gas exploration and production (E&P) activities** with the divestment of all of our non-European assets in 2017, before placing our remaining European E&P assets into a joint venture called Spirit Energy in 2017. We've subsequently announced our intention to fully exit oil and gas production. Given we don't wholly operate Spirit Energy, they are developing their own climate transition plan with associated targets (see page 26).

5. **Took the difficult decision to divest our wind power assets** as part of our move towards becoming a more customer-focused company. However, we're still supporting the build out of renewable assets through the signing of long-term Power Purchase Agreements (PPAs), which is an area we're ramping up (see page 46).

In the development of our climate targets, we've modelled different future scenarios in asset portfolio and operational profiles, to understand how best we can reduce our upstream emissions in line with science. Our way forward primarily includes the below areas:

- **Large scale centralised gas-fired power generation** is an activity we've been moving away from in recent years. We still, however, have our Whitegate power station in Ireland which remains crucial for supplying our customers with the electricity they need in what is a highly illiquid wholesale market. Although it's a modern and efficient power station, it accounts for 80% of our scope 1 and 2 emissions so what we do with Whitegate, is key to achieving our targets.

  We anticipate declining generation and emissions as Whitegate approaches its expected operational end of life by the mid-2030s. However, as Ireland moves towards and beyond its target for 70% renewable electricity generation by 2030, we see a need for reliable and responsive low carbon thermal generation out to 2050, which will balance the intermittency of renewables and ensure security of supply. We believe Whitegate is well placed to meet this need and are exploring repowering options, including clean hydrogen and carbon capture and storage (CCS). Similar to the UK, it's likely that this will require a dedicated regulatory mechanism to underpin the estimated €500–700 million investment requirement.

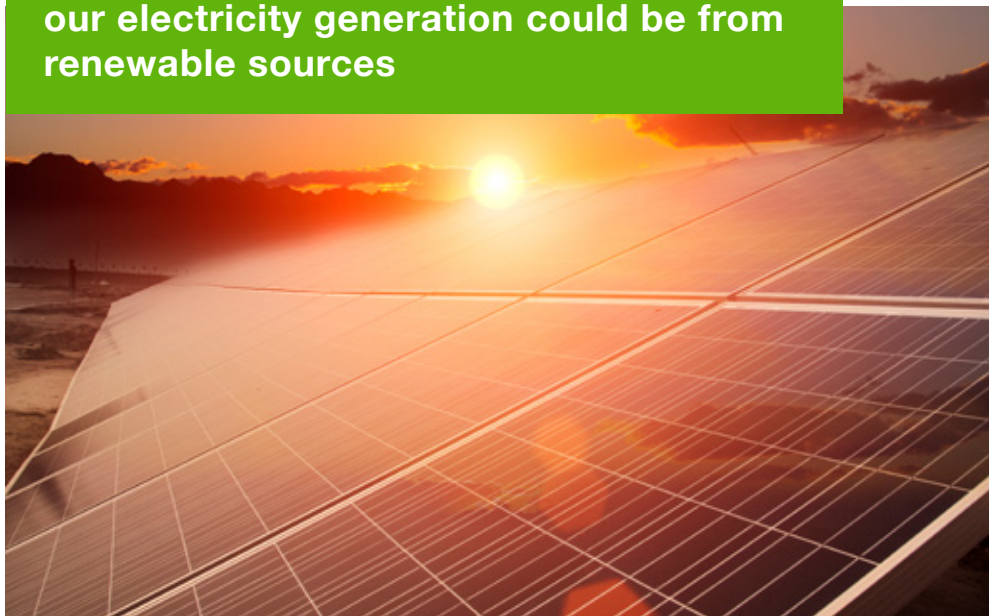
  Meanwhile, our small 50MW gas-fired 'peaking' plant at Brigg in the East of England, is already helping the electricity grid decarbonise. As more intermittent renewable generation comes online and new forms of electrical demand such as EV's are deployed, fast response plants like this will be vital in helping balance demand with supply. We expect it to play this role until the mid-2040's.

- **Electricity generation from grid-scale solar** is an area where we see great potential. Accordingly, as we reduce our electricity generation from unabated natural gas, we're looking at options to grow our grid-scale solar activities in the UK, Europe and North America. This could help secure a low carbon portfolio for customers of around 500MW by 2025.
- **Our wholly operated upstream upstream gas facilities** comprise of the Rough gas field and Easington processing terminal. Totalling 10% of our emissions, they currently form the second largest area of our footprint but have potential to play a pivotal role in the infrastructure needed for a low carbon energy system.

  Following the closure of Rough as a storage facility in 2017, we're now producing the remaining gas which is planned to result in an end to Rough production and emissions in 2023. Emissions overall from the facilities are, however, expected to remain broadly the same as Easington takes on a new contract to process gas from the third-party Tolmount field. So in the short term, we're undertaking feasibility studies to reduce emissions from gas processing. This includes reducing venting and flaring which will form the first steps towards our plans for net zero gas processing. In the mid-term, we're in discussions as part of the Hydrogen to Humber (H2H) project, to fuel switch from natural gas to hydrogen at Easington. Then in the long term, we see significant opportunities to convert our assets to play a leading role in the journey to net zero – from Rough being converted to storing hydrogen (see overleaf), to Easington acting as a potential compression facility for carbon capture and storage as part of the Zero Carbon Humber project. The project aims to create the world's first net zero industrial cluster by 2040 and is anticipated to capture and store around 10% of the UK's carbon dioxide emissions a year.

These net zero opportunities bring with them a risk that our own operational emissions might rise in the near term, but we believe the wider benefits to our customers and communities over the longer-term, far outweigh this risk. We'll work hard to find opportunities to minimise any increase in operational emissions using innovation and technological best practice whilst reporting our progress in a transparent way.

By 2030, we estimate that over half of our electricity generation could be from renewable sources



Case study

Rough's capacity is 3,000x the size of Wembley Stadium

Reinventing Rough for a low carbon world

Rough used to be an icon of the fossil fuel industry, and could now be part of the solution to the climate crisis.

20 miles off the east coast of Yorkshire is our Rough platform and reservoir which was once the UK's largest facility for storing natural gas and could become a first of its kind for storing hydrogen.

When used, the only emission from hydrogen is water and it can offer a smooth transition from natural gas as it can use the same infrastructure. But for it to be at the heart of the net zero energy system, it needs to be produced at scale, so storage facilities are likely to be required which will also guard against fluctuations in seasonal production and demand. This is particularly the case for green hydrogen generated by renewable energy sources because of its intermittency.

With Rough expected to be able to store enough hydrogen to meet all of the UK's predicted storage demand up to 2040 and half by 2050 as use of hydrogen expands, this unique facility could be central to hydrogen's viability.

We're engaging with the UK government on potential funding mechanisms for hydrogen infrastructure and will await further detail before considering our options for converting the platform.

1m homes

Number of households that could be fuelled by Rough over the course of a year

Case study

Spirit Energy

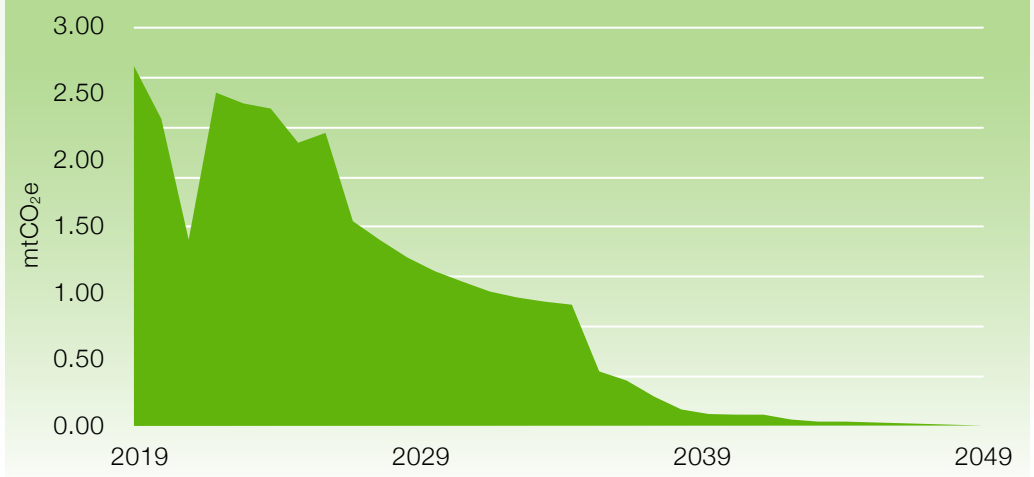
Oil and gas exploration and production arent core to our business. So we'll continue to pursue options to exit our involvement, in a way that minimises emissions and maximises the value of assets, whilst de-risking liabilities.

In the interest of being fully transparent, we've included an overview of our emissions profile and forecast with Spirit Energy, our 69% owned exploration and production joint venture.

Whilst future production and emission levels are influenced by many factors which may change over time and are therefore subject to significant uncertainty, directionally our partners are aligned with our climate goals.

Centrica and Spirit Energy combined Scope 1 and 2 emissions

Past and predicted emissions reduction to 2045



Helping our customers be net zero by 2050

With nearly 90% of our carbon emissions coming from our customers, the biggest thing we can do to tackle climate change is to help them use energy more sustainably. That's why we've refocused our efforts towards providing services and solutions that'll help our customers live sustainably, simply and affordably.

To reflect this ambition, we've set a target to help customers reduce their emissions in line with Paris and be net zero by 2050. We don't have full control over the choices our customers make about their energy and therefore their emissions, so we'll need to help them get to net zero by providing choice and inspiring them to take up services and solutions that'll help reduce their carbon footprint. And we'll need to engage government to advocate for the right signals and incentives to make this possible.

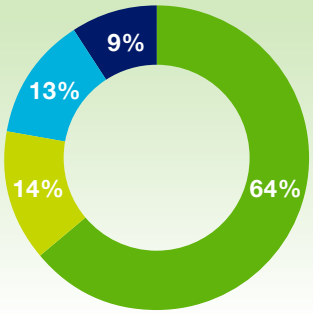
To measure progress towards our 2050 net zero goal, we've set an interim target of delivering a 28% reduction in the carbon intensity of customer energy use by 2030 from 2019 levels.

In doing so, this will help drive early progress and provide a strong foundation for seeing if we can reach net zero sooner. By the end of 2020, we'd made a solid start having reduced the carbon intensity of our customers' energy use by 18%. Given our lack of direct control over these emissions, we'll need to keep our future progress and dependencies under close review.

How we'll help homes and businesses transition to net zero:

1. **Expand energy efficiency and home energy management** tools like the Hive smart thermostat and app to help customers use less energy
2. **Generate and store renewable energy** with solar and battery technology, optimised through our intelligent digital platforms
3. **Support fuel switching** such as moving from petrol and diesel cars to electric vehicles, or from gas boilers to electric heat pumps and clean hydrogen gas boilers
4. **Use cleaner energy** including via our zerocarbon electricity supply, green tariffs and time of use solutions

Our customer emissions from energy use[3]



- **Business electricity** 2,257,622tCO_2e
- **Residential electricity** 3,108,060tCO_2e
- **Business gas** 3,513,45tCO_2e
- **Residential gas** 15,701,156tCO_2e

>£1bn

Investment since 2015 to develop an increasing range of low carbon solutions

4.4mtCO_2e

Amount saved through our services and solutions in 2020, equating to 4.9% of our average customers' annual footprint

[3] 2019 baseline data due to 2020 being atypical due to COVID-19.

Helping homes decarbonise

Decarbonising 28 million homes in the UK and 1.7 million in the Republic of Ireland will be a big challenge, and it'll require urgency as well as collaboration to achieve it. Although both the UK and Ireland have made good progress in decarbonising energy in the last decade, it's mainly been achieved without the need to engage consumers as their electricity supply has smoothly switched from coal to gas, and increasingly to renewables. The next phase of energy transition will be harder, and we'll need customers to be active and willing participants for it to be successful.

And that's where we can play a big role because we can focus on building trust with our British Gas and Bord Gáis Energy customers, whilst harnessing a range of technologies across the following areas to make zero carbon living simple and affordable for everyone.

Making energy more efficient and optimising use

Energy efficiency

Much of the UK housing stock is old and poorly insulated which has led to 68% having an Energy Performance Certificate (EPC) rating of D or below[4], and an estimated £65 billion is needed to help every property reach a C or above rating[5]. Energy efficiency can be part of the solution by keeping homes warm whilst cutting up to 40% of emissions needed to get to net zero[6]. It's also often one of the most cost-effective ways to deliver savings.

As a major provider of energy efficiency solutions, we can play a meaningful role in making homes more efficient. In particular, we believe the following can have a big impact:

- **Cavity wall and loft Insulation** can help homes cut their energy consumption by an average of 13%. And with savings like this, we want to grow our capability to deliver insulation services and enable even more of our customers to benefit from these savings.
- **Efficient boilers** can reduce household emissions by 6%. Their installation will therefore remain a core part of our product suite to drive emission reductions over the near-term, as the UK works towards delivering viable clean alternatives to gas central heating.
- **Servicing** energy solutions in the home is vital to keep appliances like boilers, heat pumps and electric vehicle chargers, working effectively and efficiently to maximise carbon reductions. Being a principle service provider in the UK, we already help 3.6 million customers a year, and we hope to grow this by a million more customers by 2025.

>1m Energy efficiency measures we've installed since 2013

[4] Energy Efficiency Infrastructure Group, The Net Zero Litmus Test – Making energy efficiency a public and private infrastructure investment priority, 2019.
[5] Business Energy and Industrial Strategy (BEIS) Committee, Energy efficiency: building towards net zero: Government Response to the Committee's Twenty-First Report of Session 2017–19, 2019.
[6] International Energy Agency, How energy efficiency will power net zero climate goals, 2021.

Digital solutions

Digital solutions provide greater insight into energy usage and crucially gives customers the information they need to grow greener behaviours. In doing so, digital solutions can potentially improve the efficiency of up to 25% of global electricity use[7].

We're investing in digital solutions that make our customers' lives simpler and smarter. We're also proud to be leading the UK's smart meter roll out and by the end of 2020, we'd installed nearly 8 million smart meters in homes across the country. The digital solutions we're focused on include those set out below:

- **Smart meters** are already reducing our duel fuel customers' energy consumption by around 4%. Together with the energy efficiency advice received from our British Gas Smart Energy Experts during installation alongside insights from the energy monitor and app, these savings are expected to rise to 5% or more.

6m Number of additional smart meters we plan to deliver to homes by 2030

- **Connected hot water tanks** like Mixergy use novel technology, to only heat the water needed which saves up to 21% of gas used and lowers carbon emissions as a result. This is a new technology, so we'll be looking to increase awareness and offer customers the opportunity to secure savings going forward.

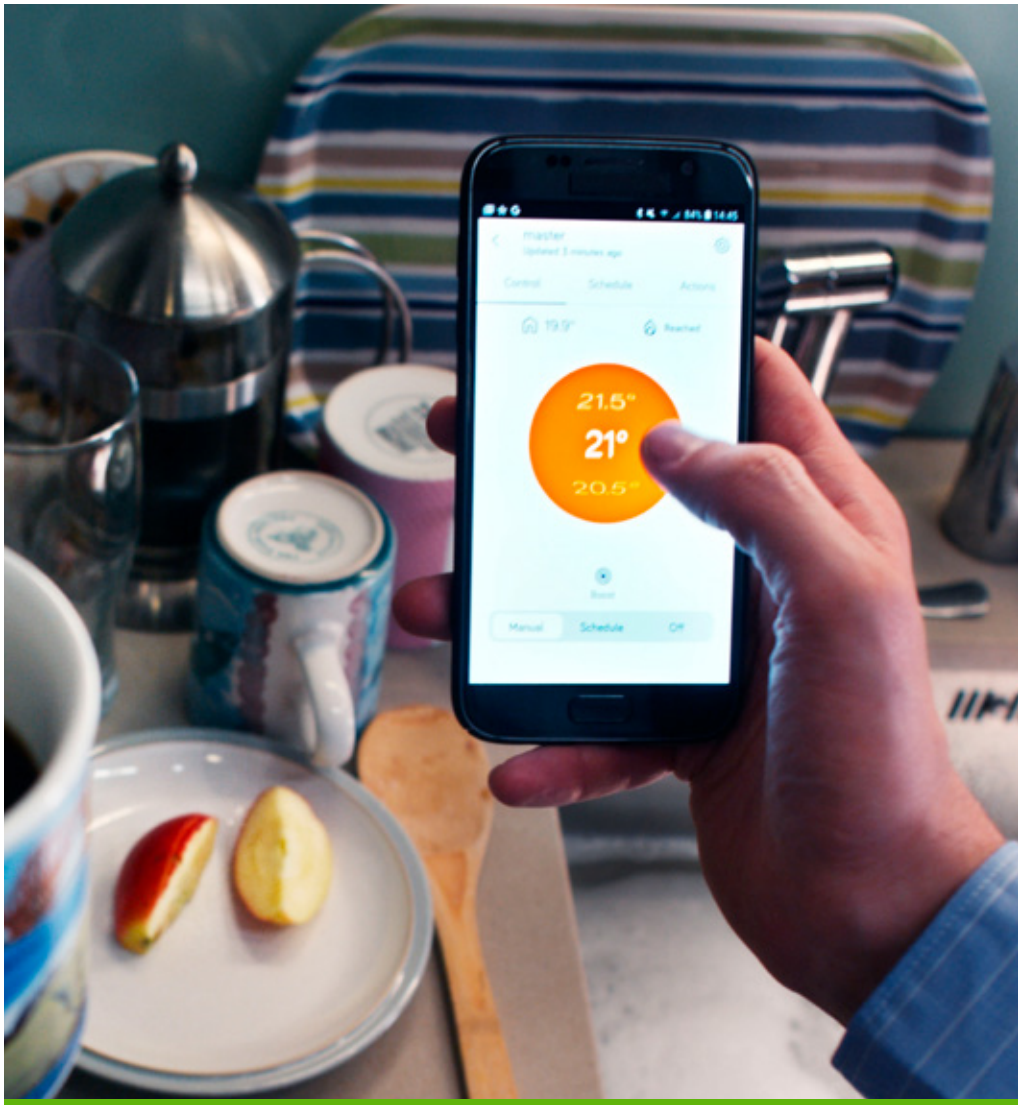
[7]International Energy Agency, How energy efficiency will power net zero climate goals, 2021.

Home energy management

Home energy management tools offer customers a way to revolutionise their relationship with energy by giving them insights into their usage, as well as the tools to manage it simply and conveniently.

Having grown our suite of Hive products over the last eight years, we're the UK's leader in smart energy controls with about 50% of the market. In particular, our:

- **Hive Active Heating and Radiator Valves** can make a meaningful difference by enabling customers to never have to heat an empty home or room with just a touch of the Hive app, cutting carbon emissions by up to 20%. In 2020 we extended this offering with Hive Heating Plus which uses smart meter data to provide personalised hints and tips to further improve energy management. And by 2025, we hope to have helped over 2.5 million to benefit from our Hive heating solutions, up from 1.4 million today.
- **Hive EV Charging** is a recent example of how we can integrate new low carbon technologies into homes and allow customers to manage them via the app. We plan to continue to develop the app and integrate other technologies over time, such as heat pumps, batteries, and smart hot water tanks, improving visibility and control over the entire home.



2.5m Our aim is to nearly double the number of customers who have used Hive heating solutions by 2025

Energy optimisation

As more renewables come online, it'll become increasingly important to balance demand with supply on the grid because there will be less fossil fuels providing a stable baseload. So, we need to optimise when we use energy to create a more flexible system that reduces pressure on the grid, maximises the use of renewable electricity and lowers energy bills.

Whilst we've traditionally focused on providing energy optimisation solutions for large scale energy users, we're now offering it to residential customers too. We see the following areas as an opportunity to reduce emissions:

- **Time of use tariffs** are a great way to shift energy consumption to periods of low demand or when there's lots of renewable power. Customers using our electric vehicle (EV) time of use tariff for example, are being rewarded by paying less for 100% renewable energy by charging at night when demand is low. Similar tariffs will be evolved going forwards.
- **Battery storage** can help create communities of virtual power plants by using artificial intelligence to store renewable energy when it's not needed and sell it when demand has peaked. Having successfully trialled battery storage with over 200 homes and businesses (see page 41), we've now partnered to install 100 batteries in UK homes integrated with our patented FlexPond™ software platform and will look to grow our presence from there.

There's huge potential to manage an entire ecosystem of low carbon solutions by using batteries – from heating and EVs to solar

Switching to low carbon fuels

One of the UK's biggest challenges of getting to net zero is decarbonising heat. And with 85% of homes run on gas[8], it's no surprise that heating generates over 20% of the UK's carbon emissions[9]. There's no single solution for decarbonising homes so a number of pathways involving different mixes of low carbon heating technology will need to be developed to encourage fuel switching. On top of this, transport is responsible for nearly 30% of emissions[10], so we'll all need to increasingly adopt green travel solutions.

[8] Committee on Climate Change, Heat in UK Buildings Today, 2017.
[9] BEIS, Next Generation of heat networks to power the UK's green revolution, 2021.
[10] BEIS, 2019 UK Greenhouse Gas Emissions – Final Figures, 2021.

We're currently the UK's largest installer and servicer of gas boilers. With around 7,500 engineers and world-class training academies, we're well-placed to transition our capabilities and lead the roll out of new technologies for customers. What's key is that as we do this, the needs of the customer are fully understood and used to shape the choice of solution, limit potential disruption and cost, as well as enhance experience. A range of products will be needed such as:

- **Heat pumps** are the best immediate option for millions of homes that are either off-grid or well insulated. However, some homes on the gas grid might not be suitable for heat pumps due to limited thermal efficiency or space, so we're actively developing our thinking in this area to provide viable solutions for different types of customers. For example, hybrid heat pumps may be the best immediate option for up to a third of all homes and could cut carbon emissions by up to 60%. These savings are expected to rise as the grid decarbonises and optimisation improves, with the potential to become zero carbon as we move towards hydrogen or full electrification. Although it's difficult to predict how quickly the UK heat pump market will grow, we're already ramping up capability and aim to deliver up to 20,000 heat pumps a year by 2025. We'll continue to review this ambition in line with market growth to maintain our market leading position in home heating.

20,000 Our aim is to deliver up to 20,000 heat pumps a year by 2025

- **Hydrogen** is expected to have a significant role in the road to net zero and provide a really effective way of decarbonising heat in the longer term. This is because hydrogen offers a smooth and affordable transition for the majority of homes as it should be able to utilise much of the UK's existing gas infrastructure, whilst costs relating to production and storage can be phased over time. Although hydrogen at scale isn't likely for another decade, we fully support the mandating of hydrogen-ready boilers by 2026 and have promised to supply these boilers as soon as the technology is available. In readiness, all of the boilers we install today are already 20% hydrogen blend ready. We're also collaborating with partners to trial hydrogen heating at scale at our Centre for Technology & Innovation in Leicester, as well as via field trials at neighbourhood and town conversion projects.

- **Electric vehicles (EVs)** are vital for reaching net zero. So, we're helping customers and communities make the switch by providing a one-stop shop which includes infrastructure, smart controls via the Hive app, and dedicated time of use tariffs using renewable electricity (see page 32). Whilst the emissions associated with diesel and petrol aren't factored into our scope 3 targets as we don't sell these fuels, there's a big opportunity for us to deepen our relationship with EV customers by expanding use of Hive and increasing clean electricity sales, which will help lower the carbon intensity of our overall energy sales.

  Towards this, we've installed over 19,000 charge points since 2013, created partnerships with Ford and Vauxhall amongst others to deliver charge points and tariffs at scale, and we're developing technology for consumers to be rewarded for using their EV battery to store and trade energy to better balance the grid. The EV market is still developing and we're keeping our plans under review. However, favourable market conditions could see us install up to 100,000 EV charge points a year by 2025.

100,000 EV charge points points we plan to install each year by 2025

Case study

Social housing heat pump project shows signs of success

With East Devon District Council, we're delivering an ambitious heat pump project to reduce energy bills and carbon emissions from heating across social housing.

Nearly 90 hard-to-heat social housing homes have now received an air source heat pump, alongside solar panels, new radiators, upgraded insulation and smart heating technology, to bring them up to a minimum ECP rating of B or C.

The project which is being delivered as part of the national Green Homes Grant Scheme, with significant additional investment from East Devon Council, has received tenant feedback that suggests the project has exceeded expectations in making homes warmer for less, whilst reducing environmental impact.

With the majority of UK homes using a gas boiler for heating and hot water, we need to accelerate the deployment of lower carbon heating projects like this and help millions of homes start the shift away from fossil fuels.

We've subsequently launched a low carbon heating scheme with Sanctuary Housing. The project will provide heat pumps to 600 of its social housing properties across the North, North West, Midlands, East and South West.

1,800

Total heat pumps we've delivered across social housing

"This scheme has real potential to change tenants' lives for the better, by making their home heating systems more effective and more affordable – while reducing global warming and improving air quality."

Sophie Davies,
Housing Business and Customer Improvement Manager at East Devon District Council

Growing access to clean energy

A major part of decarbonisation is to reduce the carbon content of energy itself. Great strides have been made in decarbonising electricity in the UK and Ireland with the move in baseload generation from coal to gas and increasingly to renewables, but a greater shift is needed across both electricity and gas to get us to net zero.

We're the biggest supplier of electricity and gas to UK homes and the second largest in Ireland. Our aim is to grow our market share over the next five years and provide a cleaner fuel mix together with different types of tariffs that meet our customers different needs. There are some key offerings to support this:

- **Electricity tariffs** are becoming increasingly low carbon and we think the UK electricity grid could be virtually carbon free by around 2035. In the current market we've been successful in ensuring that 100% of the electricity we sell in the UK is zero carbon, with a mix of renewable and nuclear energy. The impact of this is significant and currently saves five million residential customers approximately 4mtCO_2e annually. The electricity market and our ability to access clean energy is rapidly evolving, and we'll aim to maintain our strong position in this space.

Zero carbon

Our aim is to remain the biggest retailer of zero carbon electricity in the UK

- **Green tariffs** are becoming increasingly popular and we've introduced a range of them. This includes our British Gas' Green Future renewable energy tariff which is one of the greenest on the market for green gas and renewable electricity. And to make electric vehicles (EVs) even greener, we've introduced a green tariff especially for EVs that encourages customers to charge at night for less when the grid isn't under pressure, and we'll then match 100% of the electricity used by buying the same amount from renewable sources. In Ireland, we've recently launched our green tariff backed by renewable Power Purchase Agreements, and we want to significantly grow the number of residential customers on it to over 25% of our customer base by 2025. This will help us reduce the overall carbon intensity of our Irish power supply by around 40% by 2025.

  We know, however, that green tariffs are complicated, and customers want peace of mind that they're making a positive contribution to tackle climate change. So we'll continue to work on ensuring these tariffs can be offered at an acceptable cost and that our customer communications are clear. We'll also collaborate with the UK government in its review of the green certification regime, to represent the interests of our customers whilst ensuring a well-functioning market that supports renewable generation.

Uswitch Green Tariff Gold Standard

Awarded to our Green Future tariff – one of only two companies to have received it as part of the independently verified accreditation scheme for renewable tariffs

- **Renewable assets** are core to the transition. We'll therefore consider investments in solar and wind to improve access to renewable energy and meet the growing demand for green energy. We're currently developing plans to engage partners to finance the development of new assets, as well as secure the energy offtake through PPAs (see page 46).
- **Biomethane** will grow in demand and although decarbonisation of natural gas as a fuel is still in its infancy, progress is underway. Today, we offer a zero carbon gas tariff through our Green Futures tariff whereby 10% of consumption is matched with biomethane, and the rest is offset with high quality carbon reduction projects in UK woodlands and the Amazon. Having built a biomethane supply portfolio of over 1TWh in Europe, we have plans to further grow our own business in this area.
- **Hydrogen** will increasingly be used as a low carbon alternative to natural gas (see page 34). And as members of the UK Hydrogen Taskforce as well as working with partners in trialling the blending of hydrogen in the UK grid, we'll help advance understanding and explore opportunities in this space.

Helping businesses be net zero

Organisations like businesses and hospitals can consume a lot of energy, so naturally they can make a big difference in the fight against climate change. Despite the COVID-19 pandemic tightening the finances of many businesses, we see sustainability continue to be a top priority, with many businesses looking at energy as a way to control costs and future proof their company. What we've found, however, is that many companies don't always know how to achieve a more sustainable energy strategy.

This is where Centrica Business Solutions comes in. It was formed in 2015 to overcome this exact issue, and partner with organisations to supply energy and deliver integrated energy solutions that help them realise their carbon and cost saving ambitions whilst growing their resilience. We also serve business customers with energy through our British Gas and Bord Gáis businesses.

Through our Powering Britain report series to raise awareness of the potential of distributed energy solutions, we identified that key sectors like Industry, Healthcare, and Hospitality and Leisure, could save millions of pounds and significantly reduce their carbon footprint:

£980m 137mtCO_2e

Cumulative savings across Industry, Healthcare and Hospitality and Leisure sectors during 2018-30

Whilst there's no silver bullet for getting to net zero, we know that we'll need to offer businesses a mix of technologies to build on the progress they've already made in cutting emissions and support them on their mission to net zero. Some of these technologies are available today, and others aren't yet fully developed or understood. So, we'll analyse, finance, install, operate and optimise new and existing solutions, to ensure we can balance our customers' commercial success with environmental responsibility, and ultimately get to net zero together.

International decarbonisation

With the UK recognised as a world leader for tackling climate change, Britain has a big opportunity to share its expertise and help other countries achieve binding net zero targets. In pursuit of this, we'll continue to grow our influence abroad to empower large scale energy users and the wider energy system, to decarbonise.

>30 countries

We're helping customers save emissions in over 30 countries, with the majority in the UK, Europe and North America

Providing energy management and efficiency services

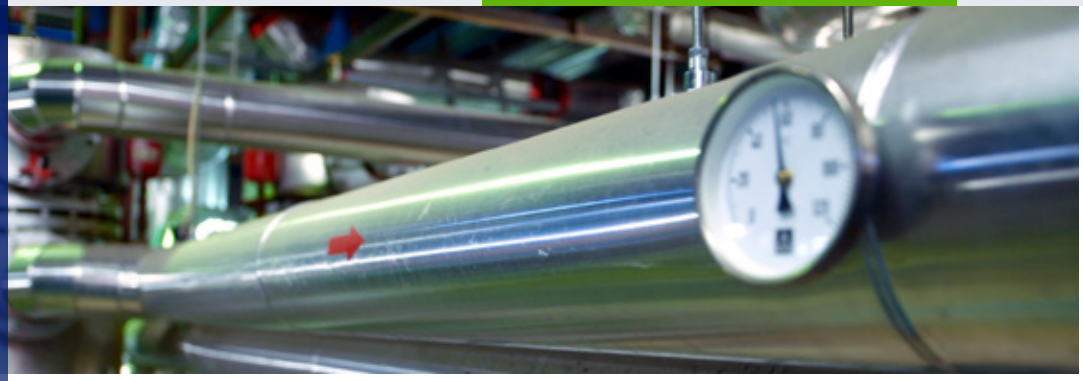
Greater visibility over energy use is essential because the more that's known about it, the more that can be done to reduce it. And by delivering the right energy solutions to proactively manage and reduce consumption alongside the right efficiency services, meaningful reductions can be achieved in a cost-effective way.

We provide energy solutions that can help large customers decarbonise and reduce their costs by focusing on a range of energy management and efficiency solutions. These include our:

- **Net zero energy pathway service** launched in 2021 to help customers shape an energy strategy that's tailored to them and enables them to balance short and longer-term plans to achieve their decarbonisation goals. To do this, we provide net zero consulting to create a science-based carbon reduction plan based on a detailed audit across the customers' estate to define areas of improvement. This typically involves cutting emissions with energy efficiency measures, converting to renewable or low carbon energy assets and supply, as well as completing the plan with the removal of residual emissions by the target date.
- **Panoramic Power** is an industry-leading energy management software solution that brings together energy insights from across the customers' entire estate to pinpoint areas of inefficiency and in doing so, reduce emissions by up to 10%. It does this by using sensors to accurately monitor energy usage across equipment and devices before transmitting real-time data to our PowerRadar analytics platform, which analyses usage and provides the intelligence to target action. The sensors are currently installed at over 10,000 sites worldwide, and we'll continue to grow their take-up in the years ahead.
- **Energy efficiency services** can eliminate the 30% of energy wasted on average in commercial buildings. We provide a turn-key solution, lowering costs whilst saving carbon through building automation, mechanical systems and commercial lighting. For example, LED lighting is a great example of a cost-effective energy efficiency solution that can help customers reduce their energy consumption by up to 55%. This is because LED lighting is up to 90% more efficient than traditional lighting and will therefore remain a staple part of our offering.

>90,000

Number of assets worldwide connected to PowerRadar, helping customers detect and target energy and carbon savings



Optimising energy use

As we progress towards net zero, more renewables will come online which means the variability of supply will increase as the sun doesn't always shine and the wind doesn't always blow. At the same time, new technologies like electric vehicles and electrified heating systems will become commonplace and increase fluctuations in demand. So as the need to balance demand with supply becomes ever more important, optimisation services will become a key part of the mix to accelerate the energy transition by creating a more flexible and sustainable energy system.

We successfully concluded the UK's biggest local energy market trial in Cornwall last year which now provides a blueprint for a more flexible energy system. The £17 million trial used energy flexibility trading software to automatically balance power from low carbon technology like solar and batteries installed across 200 homes and businesses, which reduced greenhouse gas emissions by nearly 10,000 tonnes a year whilst lowering energy bills and avoiding the need to upgrade energy infrastructure. Using this insight, we now believe:

- **Virtual power plants** should be created at scale. Using our integrated demand side management system FlexPond™, we're already helping over 150 large scale energy users and thousands of homes in the UK, Europe, North America and Japan, become virtual power plants. This involves harnessing distributed assets like solar, battery storage and Combined Heat and Power (CHP) units, to help manage their energy more sustainably whilst balancing demand on the grid. So whether its reducing energy consumption when demand is high, shifting it to periods when the grid is over-supplied so prices are cheaper and the grid cleaner, or storing and supplying energy back into the grid to meet energy spikes, FlexPond™ allows us to aggregate a portfolio of flexible demand to act as a low to zero carbon alternative to turning on gas-fired centralised power generation to meet fluctuations in demand. Demand side management services are therefore a key enabler in accelerating the decarbonisation of the grid, which also indirectly helps us provide cleaner energy to our customers and reduce our scope 3 emissions whilst enabling customers to maximise their self-generated energy to lower emissions and costs. We've got 1GW of flexible capacity available to grid operators and expect substantive growth in the years ahead as global energy markets continue to evolve.

310MWh Renewable power traded via our local energy trial in Cornwall

Delivering low carbon technology

Low carbon technologies have a central role in the road to net zero. They not only reduce our reliance on fossil fuels and deliver a cleaner energy mix, but they provide the foundations for energy optimisation too. In doing so, low carbon technology helps businesses meet their environmental and financial objectives.

We've been helping businesses realise their carbon reduction ambitions for years and we'll continue to do that by investing in low carbon assets and offering fuel switching technologies. Our aspiration is to build a low carbon portfolio of up to 800MW of solar and battery storage which we hope to do by 2025. This will be focused on investment in large scale solar and battery storage that's connected directly to the grid and will provide more low carbon energy to our customers. We see the following technologies playing a key role in the energy transition:

- **Solar** can radically improve a businesses' carbon footprint because it typically replaces around 50% of their grid consumption with renewable energy. Businesses can then use their own generated solar in real-time, store it for later use to lower energy costs during peak demand, or feed it back into the grid to create an additional revenue stream. We see significant opportunities for onsite solar and aim to materially grow our market share in the UK and US over the next five years. We'll also seek opportunities for investment in both Centrica owned and joint venture large scale, grid-connected solar assets. We know this is of interest to our larger customers, who value our financed projects which help to reduce their upfront costs whilst delivering on their sustainability targets through Corporate Power Purchase Agreements (CPPAs).

800MW Our 2025 ambition for a low carbon asset portfolio

- **Combined Heat & Power (CHP)** units are a highly efficient solution that captures the heat created through the electricity generation process, to produce onsite heat and power. And by reaching efficiencies of more than 80%, CHPs help many of our energy intensive customers meet their near-term carbon targets as they also improve resilience and cost. This high efficiency means CHPs will be one of the most enduring technologies using unabated fossil fuels and features in many net zero scenarios well into the 2040s. We've installed over 3,000 CHPs worldwide, are the UK's leading supplier and operator of CHP units, and for the near term their efficiency will ensure they remain a core component of our strategy primarily in the UK, Europe and Mexico. It is, however, likely that we'll need to phase out unabated CHPs well before 2050 and we've consequently started to offer a biogas option and are working with manufacturers in trialling hydrogen fuelled CHPs as a net zero solution for the future.
- **Heat pumps** are an effective way for organisations to significantly lower their carbon emissions by up to 80%. Recognising that conventional heating systems fuelled by natural gas, are increasingly less aligned with a low carbon future, we now offer a variety of heat pump types including air, ground, water and waste-sourced, to best suit the specific financial and environmental requirements of our business customers. We predict demand for heat pumps will rise in the years ahead.
- **Hydrogen** can complement electrification and optimisation and we believe it'll be critical to delivering net zero by addressing hard to decarbonise areas such as heating, heavy transport, energy intensive industrial processes and providing long-term energy storage. Many large organisations are thinking strategically about how hydrogen can fit into their decarbonisation plans and whilst for most it's unlikely to play a role in the near-term due to the expense and lack of infrastructure, we are supporting them to make hydrogen part of their long-term energy pathway planning.
- **Battery storage** is an area where we'll grow our investment to maximise renewables coming online and support grid stability. This follows our development of the 49MW battery at Roosecote in Cumbria which is one of Europe's largest battery storage facilities. Our aim is to grow a substantial position in the UK battery optimisation market by 2025.
- **Electric vehicles (EVs)** are becoming a top priority for many businesses and public sector organisations. Having installed over 19,000 EV charge points to date, we're using our expertise to offer end-to-end solutions that encourage organisations to make the transition to EVs faster, simpler and more cost-effective. For example, we're co-creating solutions developed in our own fleet to accelerate our customers' switch by partnering with manufacturers and dealerships to deliver onsite charging infrastructure, management software and energy solutions that help meet the various charging scenarios for fleet, employees, visitors and customers.

Case study

World's first floating solar water basin cover

We've bought together the benefits of our solar PV solution with floating basin covers, to create a revolutionary solar PV-enabled floating water basin cover in the Netherlands.

Every greenhouse in the Netherlands is required to have an artificial freshwater basin for watering their operations. And covering it not only provides essential protection from water evaporation, but it also prevents water pollution and algae growth. To address this and seize the opportunities of transitioning to net zero, we collaborated with Dutch partners Albers Alligator, to create a state-of-the art solar PV-enabled floating water basin cover.

Greenhouse customers, Kwekerij de Noordhoek, were the first to benefit from this innovation which uses 1,031 mono-crystalline bifacial solar PV modules, installed on top of Albers Alligator's specially designed floating water basin cover.

Kwekerij de Noordhoek can now harvest their renewable energy to power their operations, thereby lowering their energy costs and carbon emissions. They also generate a new revenue stream by selling their green electricity to the national grid to access Netherland's Sustainable Energy Transition Subsidy for the next 15 years. Meanwhile our energy insights tool, PowerRadar, monitors effectiveness to maximise yield.

428kWp

Capable of generating enough green electricity to power 100 households on average

"It's an ideal solution for our sector. We wanted to become more sustainable, which is important to us as organic growers. We already generated energy for our greenhouse through solar panels on our barn. But, the space on there is limited. The great thing about the solution of Centrica Business Solutions and Albers Alligator is that our water reservoir is now also completely utilized for generating energy."

Kees Verhage,
Owner of Kwekerij de Noordhoek, together with his brother Henk

Supplying clean energy

At the heart of a net zero future is the ability to provide customers with clean energy. Reducing the carbon content of the energy we supply by supporting the expansion and take-up of clean energy, is therefore core to achieving our net zero target.

£100m Potential annual investment in large scale solar assets by 2025

We're a major supplier of electricity and gas to UK businesses and we're aiming to grow our market share over the next five years whilst growing a cleaner supply. This will be achieved through the following areas:

- **Zero carbon electricity** is currently provided to all of our business customers in the UK as standard. Last year, this saved our business customers 1.4mtCO_2e which is equivalent to taking almost one million cars off the road. The electricity market and our ability to access clean energy are evolving rapidly but we'll aim to maintain a strong position in this space as the market evolves.
- **Green tariffs** for businesses are becoming increasingly popular and helped save over 700,000tCO_2e in 2020. We're the largest of just three energy suppliers who have received Carbon Trust certification which allows customers to confidently report zero carbon emissions for their electricity used. We've also grown our sales of renewable gas as part of our green tariffs and expect this to continue.
- **Grid-scale assets** grow the amount of low carbon energy available to our customers which is why we're developing plans to invest up to £100 million annually by 2025 in large solar assets across the UK, Europe and North America. We're seeking opportunities to increase our share of the UK market over the next five years and offer customers a guaranteed green energy supply via PPAs.

Enabling the wider energy system to decarbonise

As well as providing low carbon services and solutions for our customers, we also need to enable the wider energy system to decarbonise. We believe this will continue to be led by power in the near term where demand for green electricity will outstrip supply in some markets, and drive growth in the voluntary green certificate and offset market. At the same time, natural gas will remain an important transition fuel, with hydrogen gradually becoming a viable low carbon energy source that can be traded and transported in a similar way to natural gas.

20% Our share of the Corporate Power Purchase Agreement market in Europe

Using these insights, Centrica Energy Trading, part of our Energy Marketing & Trading business, provides in-house expertise that helps us deliver on net zero goals in a credible and competitive way. We are a market leader in procuring, trading and optimising energy supply with a growing portfolio of renewable assets under management in the UK and Europe, as well as having an extended network of asset developers and independent power producers within wind, solar and hydro energy across the continent. To decarbonise the wider energy system, we intend to play a meaningful role in the areas set out below:

- **Power Purchase Agreements (PPAs) and route to market services** crucially provide renewable generators with access to markets for the power they generate, whilst helping them secure the necessary project funding. We intend to expand our route to market services, including aiming to contract 4GW of new renewable PPA's in the UK and across Europe by 2025. This will increase our supply of green power to British Gas and Bord Gáis Energy customers, alongside offtake contracts for our Corporate PPA clients.

- **Offsetting products** such as voluntary carbon credits allow businesses to support carbon emission reduction projects outside of their supply chain. Organisations can use them to compensate for emissions released as they reduce their own emissions in line with science, and to neutralise their hard to remove residual emissions. Carbon credits can therefore play an important part in limiting climate change whilst also contributing to sustainable development goals such as improved biodiversity and access to clean water. We're now actively growing our capabilities in supplying high quality voluntary carbon credits that are tailored to the needs of our customers.
- **Gas trading** will remain a key part of our international business, with natural gas continuing to play a central role as a transition fuel and substituting for more carbon intensive energy sources like coal. We fully expect demand for natural gas to decline over time and a market for clean hydrogen to emerge. In turn, we intend to adapt our marketing and trading capabilities to enable that transition to occur.

11GW Renewable assets under management across 10 countries in Europe – enough capacity to power around 7.5 million UK homes

Collaborating with suppliers

Part of future proofing our business against climate change is to ensure we have a reliable and responsible supply chain for customers. That's why we look to partner with suppliers who understand the physical and transitional risks alongside the opportunities presented by climate change, and are implementing measures to address them.

We currently estimate that the emissions associated with the services and solutions we buy (scope 3, category 1), total around 2mtCO_2e. This is the second largest area of scope 3 emissions behind those of our customers, which we can influence by continuing to evolve our Responsible Sourcing Strategy and using our purchasing power to raise standards.

8% Proportion of our scope 3 emissions from our supply chain

Working with an industry leading sustainability accreditation platform, we've undertaken an independent benchmarking exercise to rate the maturity of our Responsible Sourcing Strategy. The findings identify that we've strong foundations already in place with initiatives aligned to our People & Planet Plan – from being members of the Sustainable Sourcing Council that enables us to draw on and share best practice with peers, to evaluating existing and new strategic suppliers on their social, ethical and environmental credentials.

But we know there's more we can do. And we now want to set clearer sustainability expectations and targets with suppliers. The benefits of which will not only help foster a closer relationship with suppliers that enable cost efficiencies and improved responsiveness, but enhance sustainability capability and drive up standards to maximise the positive contribution we can make in society together, which includes mitigating climate change.

A core deliverable of our Responsible Sourcing Strategy is to identify the suppliers that materially contribute to our carbon footprint, and target action where it'll have the greatest impact. By partnering with our suppliers throughout the supplier lifecycle, we'll grow our understanding of higher emitting sectors, learn more about their sustainability commitments with a particular focus on their decarbonisation transition strategy, as well as collaborate to define data requirements that'll enable us to track and reduce emissions from the services and solutions we buy. This will help ensure that we're doing business with companies that share our respect for the planet.

In turn, we see a growing number of suppliers increasingly ask us about our own climate credentials and transition plan, which we're openly engaging them on. For example, the UK government has published a procurement policy that requires suppliers to provide a carbon reduction plan that sets out their commitment to deliver net zero by 2050, in order to bid on large government contracts. We support the policy and are now implementing a similar one for our own suppliers.

On top of this, we take a complete lifecycle view of the services and solutions we create for customers as standard. We therefore remain fully committed to undertaking sustainability and environmental impact assessments on these new services and solutions, in addition to managing the wider risks related to safety, performance and compliance. This enables us to strive for durable and efficient designs that support reuse or recycling and drive this approach through our supply chain.

We'll report openly on our progress in implementing our Responsible Sourcing Strategy in future reports.

A just transition

A just transition

Any major change undoubtedly has an impact on those who live through it. Transitioning to net zero is no different and so for it to be a success, we can't just focus on carbon emissions. The energy transition must be delivered in a way that considers the impact it'll have on people's lives to ensure a fair and affordable transition for everyone.

This is what's often termed as the 'just transition' which requires decision makers to consider the social impact the transition might have on different sets of people – from customers, through to suppliers.

Governments, regulators and energy companies amongst others, must therefore prioritise people alongside planet, and think carefully about the affect different decisions have on people and work to deliver a smooth transition that doesn't leave anyone behind.

As part of our approach to identifying and managing these risks as we transition to net zero, we've established two key principles that'll guide our actions:

- **To minimise harm and maximise benefits for people**
- **To ensure no groups are 'left behind' as we transition**

This is really important to us, so we'll maintain an open dialogue with relevant stakeholders to ensure we live up to it.

BUSINESS IN THE COMMUNITY

"It's fantastic to see Centrica's Climate Transition Plan embed fairness and help ensure that vulnerable and disadvantaged communities not only don't lose out, but can access opportunities to build better lives, including through new jobs to deliver net zero. I am also hugely encouraged to see many examples of innovation that can be scaled up to transform the energy system and support customers with their own journey."

Gudrun Cartwright,
Climate Action Director

Customers

The next few decades will require unprecedented changes in how we all use energy at home, work and everything in-between. With our focus on helping customers live sustainably, simply and affordably, we want to be there for our customers and ensure they can navigate the changing world of energy and lower their footprint in a way that doesn't negatively impact themselves, their home or their lifestyle.

Working to keep costs down

Although numerous scenarios exist on the cost implications of net zero, we believe it's more than likely that energy costs will rise for all customers in the decades ahead. This is because the transition is probably going to increase the cost of many goods as they adjust to new ways of production and distribution, whilst new low carbon energy technologies and associated infrastructure requires significant investment. The financial and social implication of inaction will, however, be far greater. Consequently, the energy transition is a necessary cost that'll need to be borne by everyone in one way or another.

"As the largest energy company in the UK and Ireland, I want Centrica to step up and be the voice our customers trust to champion their needs during the energy transition, with the ultimate aim of helping everyone live sustainably, simply and affordably."

Scott Wheway,
Chairman

We therefore commit to:

- Work with government and other stakeholders to influence a progressive approach to decarbonisation that incentivises progress whilst ensuring robust safeguards, given we'll need to deliver within the parameters set by government and regulators
- Plan for how increased costs might affect households and business so we can provide services and solutions that live up to our purpose of helping customers live sustainably, simply and affordably
- Ensure that those who struggle most with their energy bills remain protected

£217m The amount we spent helping vulnerable customers through mandatory and voluntary contributions in 2020

With millions of people in fuel poverty and as Britain's largest energy supplier, providing extra support to those in need of assistance has always been at the heart of what we do, and that won't change as we transition to a low carbon world.

We're signatories of Energy UK's Commitment on Vulnerability and work with customers and expert bodies, to identify the best ways to help people – from supporting customers via the Priority Services Register and offering payment plans, to providing rebates through the Warm Home Discount and energy efficiency products via the Energy Company Obligation. We also refer customers and non-customers alike to receive specialist debt advice and grants through the British Gas Energy Trust (see page 62). This approach has enabled us to provide vital support to thousands of customers each year, and provides peace of mind that we'll never knowingly disconnect the supply of a vulnerable customer and prioritise repairs for them.

Moving forward, we support enhanced protections for vulnerable customers. This includes backing the introduction of an industry-wide 'social tariff' in the form of a deeper Warm Home Discount. This extra support would reduce energy bills for those who need it most, and help offset the cost to them of meeting net zero.

Getting customers more involved

The changes that homes and business are set to face will have an impact beyond wallets. What, when and how people consume energy will change. But change is rarely easy – for example, we know that some consumers can find the disruption associated with insulation off-putting, many like the convenience of their combustion engine cars over electric vehicles (EVs), and we've seen lower than expected demand for free smart meters during their roll out despite the technology being proven to provide greater control over energy and accurate bills.

We'll need to anticipate challenges like these and learn from experience, to help customers become active and willing participants in the journey to net zero. Part of this involves ensuring that we fully understand the needs of our customers as well as the capabilities of new technology, to offer the right product, for the right customer, at the right time which will aid adoption and limit disruption. We have examples of this today, such as our work to develop a suite of EV charging solutions to meet a variety of customer needs, alongside efforts to explore how best to deploy low carbon technology like heat pumps, hybrid heating technologies and hydrogen.

51%[11] **Proportion of people who don't recognise that heating is one of the main sources of carbon emissions, and will therefore require new technologies to cut emissions**

Underpinning all of this, is the recognition that most people don't know what the energy transition means, so we need to be more open about why the transition is needed together with the level of change that's coming and what they can, and will eventually need to do. Towards this, we undertake research with customers to understand their views and the role we can play to raise awareness. Using these insights, we then engage customers and the wider public as demonstrated by our recent British Gas campaign to highlight the energy technology needed for creating net zero homes, alongside our Centrica Business Solutions campaign called 'Why wait to pursue net zero?', which encourages businesses to get going on realising the benefits of their net zero journey.

[11] BEIS, Electrification of Heat Programme, 2021.

Colleagues

A fundamental shift in skills and training is needed to get to net zero. We'll need to overcome some of the challenges change will bring, but we're excited to play a lead role in the growth of green collar workers whilst continuing to embrace a diverse mix of people and skills needed for a greener future.

To put the scale of change in perspective, the UK needs about 2,000 households and 500 businesses to become net zero every day between now and 2050, which means we need to start right away. So as our services and solutions increasingly transition to low carbon alternatives, the necessary skills to deliver them need to change as will their scale.

We've a wealth of experience developing the skills we need to succeed and believe the energy transition offers a big opportunity for current and future colleagues to grow brilliant green careers. And as the specific types of skills needed for net zero become clearer, we'll naturally maintain an open dialogue with colleagues, trade unions and equivalent worker bodies, to optimise opportunities.

Growing a greener and more inclusive team

Using our extensive heritage of delivering world-class training and engineers, we'll evolve our programme of training to make sure that we've a sufficiently skilled workforce whilst ensuring the UK has the scale and pace needed to get to net zero. A key part of how we'll achieve this is through our dedicated network of British Gas Academies mainly focused in Dartford, Hamilton and Leicester, which has the collective capacity to train 300 people a day.

6,400 Engineers trained since 2003

We'll also recruit 3,500 British Gas apprentices by the end of 2030. Once qualified, the apprentices will become Smart Energy Experts, able to install smart meters and provide energy efficiency advice with opportunities to cross-skill in areas such as fitting EV charge points, or installing heat pumps.

As we grow these skills, we must seize the moment to tap into new talent and create a more inclusive future. This is because we recognise that to deliver net zero, we need to attract the best talent and recruit from a diverse range of backgrounds that reflect and understand our customers. In doing so, we'll have the diversity of thought to create and roll out low carbon services and solutions that give customers what they want and need. Towards this, we've set the ambition that 50% of our new apprentices will be women. Given that engineering is traditionally male oriented, this is a big shift from where we are today whereby women make up just 8% of our field operations team and 4% of our engineers. Following a targeted recruitment campaign aimed at women seeking a career change during COVID-19, we've already had a significant increase in applications from women and are on track against this goal. We've also set goals for wider roles across Centrica to reflect the full diversity of the communities we serve by 2030 via our People & Planet Plan, which means having a team that's 47% female, 14% ethnic minority, 15% disability, 3% LGBTQ+ and 3% ex-service personnel, in line with Census data for working populations.

Case study

A smart career choice

Racheal shares her journey about becoming a Smart Energy Expert.

I used to work in retail but when I stumbled across an advert encouraging women to become a British Gas apprentice, it felt like a personal invitation and I was determined to get the job!

I've had all the training I need to hit the ground running and the support from my mentor has been amazing. On the job, I love chatting with customers and helping them manage their energy more sustainably. What inspires me the most at British Gas, is the prospect to progress within the company and the never-ending opportunities for cross-skilling that will become available as more and more green technologies are needed.

If you're thinking of doing an apprenticeship, my advice would be to trust in yourself and go for it!

"I'm looking forward to becoming the best I can be and the opportunities for progression that may follow, such as cross-skilling in new areas like heat pump and electric vehicle charge point training."

Racheal Olorode,
Smart Energy Expert Apprentice

3,500

Apprentices to be hired by 2030, with the ambition for 50% to be women

Transitioning current jobs

Whatever path our business needs to take to deliver net zero, we want to bring our colleagues with us and create a net zero world together.

We've many colleagues with expert knowledge and skills who will be vital for developing and rolling out new and emerging technologies for residential and business customers. For example, our highly trained heating engineers, electricians and project engineers amongst others, possess a myriad of skills that can be utilised and cross-skilled, to ensure they remain relevant in the changing energy landscape. This includes rolling out new EV charging solutions and heat pumps, hydrogen, demand side response and more.

GMB UNION

"Becoming carbon neutral is essential for the planet and Centrica's plan provides a way forward to ensure that this is carried out in a managed and sustainable way. As a union, we will work with the company to make sure that our members voices are heard and that the workforce is right at the centre of this process."

UNISON

"Getting to net zero will be challenging but it is essential we do not fail and having employers like Centrica being clear on how it moves forward is really important. As a trade union we will continue to engage with the business as these plans develop ensuring our members views are represented and taken account of."

Alongside this, we understand our responsibility to manage the impact change might have on colleagues. We'll therefore always engage colleagues and relevant third-party groups like trade unions and trade bodies, to discuss potential changes and work constructively towards the best outcome. For example at the Centrica Joint Council, a body for Centrica and union leaders to collaborate on key issues, we've already agreed on the need to maintain an open dialogue during the energy transition and are excited about the opportunities this will bring for the 'Engineer of the Future'. We've a great team with expertise that's highly valued in the market so we'll do everything we can to cross-skill colleagues and address any skills gaps internally. And as our success as a business grows, we're confident that we'll be able to create even more opportunities to have a fulfilling and rewarding career at Centrica.

Communities

Community action and engagement is essential for ensuring a successful transition. That's why we'll actively support communities through the transition to back well-paid and high value jobs alongside funding and advice, to build stronger and more resilient communities.

Supporting host communities

Many households and communities currently depend on carbon intensive industries – whether that's the jobs they offer, or the products they provide. However, our shift away from carbon intensive activities like centralised power generation and upstream oil and gas production over the years, has meant that we're much less directly involved in managing the risks that many of these host communities could face during the transition. Instead, we're hoping we can provide communities like these with new opportunities by supporting the development of technologies and infrastructure needed for the low carbon energy system.

[12] Vivid Economics, Capturing Carbon at Drax: Delivering Jobs, Clean growth and Levelling up the Humber, 2020.

This can be demonstrated by our intention to transform our Rough storage facility to store hydrogen which is expected to generate 3,000 to 4,000 jobs during construction alone, or via the UK's wider development of carbon capture and hydrogen which we support and is projected to deliver more than 205,000 jobs in places like the Humber, Teeside and South Wales[12].

We're also working to tackle some of the inequality communities may experience during the transition. For example, we're designing propositions for public charging solutions so that communities without driveways aren't left behind as transport electrifies.

Championing community causes

One of the biggest ways we can directly make a difference, is by supporting community action on climate change to ensure a fair and affordable transition.

We'll primarily do this through Energy for Tomorrow, our not-for-profit social impact fund. The fund provides grants alongside expert advice, to communities and start-ups that accelerate the energy transition whilst delivering positive social and environmental impact. And since 2010, Energy for Tomorrow has supported over 20 community projects including the Cold Homes Energy Efficiency Survey Experts (C.H.E.E.S.E), to expand thermal imaging surveys that reduce energy loss from homes at low cost. Flutter Shutter's innovative thermal plantation shutter which is designed primarily to help social housing homes save energy and stay warmer, also receives funding to support their continued development.

And as part of our People & Planet Plan commitment to give 100,000 days to build inclusive communities by 2030, colleagues from across the business are volunteering their time to support these causes and more.

270 **Schools we installed solar panels at during 2011–16, and now generates a feed-in-tariff to fund Energy for Tomorrow**

Case study

Engaging communities on the just transition

We're funding a Local Just Transition Challenge to give communities a voice for how they can get to net zero.

It's important that every community benefits from net zero but making sure that happens, is easier said than done. This is particularly the case for communities like those in the Humber region which have long been at the heart of the UK's energy industry, have much of the UK's hard to abate industries, and will face significant change in the years ahead if they're to seize the opportunities presented by the energy transition.

In the belief that local economies will decarbonise with better outcomes if they're shaped by local communities, Energy for Tomorrow has part-funded Forum for the Future and partners, to run the Local Just Transition Challenge in Selby during 2021–22. This will be the first of two Challenges and through conversation and practical action, they'll engage thousands of local community members to understand how they feel about the transition and importantly how communities, businesses, public authorities and investors, can work together to shape and achieve a fair and equitable transition.

"The Challenge will importantly create a blueprint for engaging communities on getting to net zero and establish a network to share its learning. For us at Centrica, it'll also provide invaluable insight that'll empower us to better support our customers and communities during the transition."

Sarah Wright,
Programme Manager for Energy for Tomorrow

£600,000

Energy for Tomorrow's annual fund for helping communities accelerate their path to net zero

Explore more at
- centrica.com/energyfortomorrow
- ourzeroselby.org.uk

Giving a helping hand to those who need it most

As society looks to transition to net zero, the British Gas Energy Trust which helps anyone in need of assistance with energy advice and grants, remains more important than ever in shielding hard-pressed households from rising energy costs whilst enabling access to low carbon technologies.

The Trust is well set up to provide holistic support to individuals and families directly, as well as via funding of over 45 front-line organisations like the Citizens Advice Bureau and Money Matters, to ensure a deeper level of support is targeted at communities of heightened need.

£130m Our investment in mandatory and voluntary contributions to the British Gas Energy Trust since 2004

500,000 Number of people helped with energy advice and grants via the Trust over the last 14 years

The British Gas Energy Trust is one of the largest sources of financial help for vulnerable households outside of government funding

Supply chain

As the energy consumption and technological needs of our customers evolve, so too will our product development and supplier base. We want to bring our supply chain with us and transition to a greener future in a sustainable and ethical way.

Seizing opportunities and minimising harm

New technologies provide us with the ability to realise net zero, but we know they may also take us into sectors where the supply chain carries social and environmental risk. For example, the supply chain for batteries and solar have been identified as being higher risk but they remain key technologies for enabling the UK as well as our business and customers, to achieve net zero. In line with our Responsible Sourcing Strategy which defines clear and measurable sustainability expectations for how we do business today and the steps we need to take to transition for a better tomorrow, it remains a top priority for us to work with suppliers to mitigate risk and ensure their human rights principles are aligned with the United Nations Global Compact (UNGC) and International Labour Organisation (ILO).

Towards this, we have a robust supplier selection process which aims to positively select and maintain supplier partnerships with those who foster a strong sustainability culture, create economic opportunities in their communities and combat social injustice. We also collaborate to improve supply chain transparency which involves undertaking due diligence to understand gaps in social and environmental practices and use this insight to co-create action plans that help raise standards in their business whilst supporting suppliers further down the chain.

Case study

Collaborating to tackle risk

Tackling social and environmental risk in our supply chain for solar, isn't something we can do on our own. Raising standards requires a joined-up approach across sectors. So in 2021, we took a number of steps to proactively increase our action on this issue, such as joining the Solar Energy UK Policy Task Group which is working to establish a collaborative approach for supply chain transparency and high social standards. To date, we've also engaged with Solar Energy Industry Association (SEIA) and Solar Power Europe, to ensure that as our Responsible Sourcing Strategy evolves, we're able to adopt a best practice approach to engaging our solar suppliers.

We also support supply chain initiatives that empower suppliers in their transition to a low carbon economy. This includes guiding smaller businesses who sometimes require assistance in growing their responsible business practices, to develop key policies that align with the high standards we expect across our People & Planet Plan and our code of conduct. And it includes our decision to pay small suppliers within 30 days, slashing our standard payment terms in half.

Governance & Policy

Governance and performance management

Governance

Our view is that climate change is best addressed as a collective effort across company Boards rather than delegated to an individual. That's why our Climate Transition Plan is subject to robust governance by our Board which has Group-wide oversight over our strategy, controls and performance, with our Group Chief Executive Chris O'Shea, taking lead responsibility for setting Group objectives and strategy for Board approval. In 2020, Chris therefore oversaw the development of our updated climate change goals to ensure full alignment with company strategy, and that issues associated with climate change such as the just transition, are represented consistently at the highest level at the Board and its Committees. He also chairs the Centrica Leadership Team (CLT), which has delegated authority to set objectives, targets and policies for managing issues linked to climate change, including the design and performance against our climate change targets.

All of this is augmented through oversight from the Board sub-committee, the Safety, Environment and Sustainability Committee (SESC).

The SESC has an independent Non-Executive Director Chair and is consequently well-placed to oversee the adequacy and effectiveness of controls and risk management systems relating to climate change. In 2020, the Committee reviewed and later approved our enhanced science-based climate change goals as part of our People & Planet Plan. A report by the Chair is additionally provided to the Board following each meeting to ensure a continuous flow of information.

Through our Board skills matrix, we ensure we have sufficient capabilities across the Board with a wide range of skills relevant to climate change such as energy, regulations, geopolitics and technology. In 2021, we developed our capabilities further. This included the Board having a deep-dive session using internal and external experts focused on climate change and the energy transition. Best practice in climate governance for Boards was also reviewed, covering topics such as climate risk and opportunities, strategic planning, Board capability and emerging issues, from which we've identified some areas for continual improvement. We're also actively assessing the inclusion of climate related metrics in remuneration arrangements for our Executive Team, which is currently under consultation as part of a review of our three-year Remuneration Policy due in 2022.

Reporting and disclosure

We're fully committed to transparently measure and report our impact and performance in line with international standards and adopting best practice as it evolves. In support of this, we've been tracking and publicly reporting our environmental performance for well over a decade in line with The Greenhouse Gas Protocol developed by the WRI and WBCSD[13], and have continually improved the quality of the data and widened the scope over time. Additionally, robust systems and procedures for ensuring the integrity of our reporting have been developed and includes having our scope 1 and 2 emissions externally assured every year since 2012.

CDP DISCLOSURE I NSIGHT ACTION

Ranked as a world leader for action and disclosure on climate change by CDP, earning a place on the coveted 'A List' of companies for two consecutive years

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Early signatories, ensuring continuous improvement on reporting and management of climate change

We principally report progress against our climate change targets in our Annual Report and Accounts, alongside wider People and Planet metrics. As part of this, we report against the Task Force on Climate related Financial Disclosures (TCFD) which we were an early signatory of, and have since been improving our internal processes to more fully align with the recommendations, such as enhancing our assessment of climate related risks and opportunities aided by long-term scenario analysis. And we're aiming for full TCFD compliance in 2022.

Our Annual Report is supplemented by further disclosures to give different types of stakeholders the information they need. This includes our online data centre which provides over 40 wider environmental metrics to give a fuller view of our performance, as well as our transparent response on climate change to CDP which we've done for the last 15 years to provide greater detail behind our targets.

We now see the publication of this Climate Transition Plan as the natural next step in communicating the actions we intend to take to achieve net zero.

Going forwards, we will:

- Report progress against out climate targets and transition plan in our annual reporting
- Conduct a full review of our Plan every three years and submit for shareholder advisory vote at the AGM

[13] World Resources Institute and World Business Council for Sustainable Development.

Policy engagement

We operate in highly regulated markets and our activities, including investments, consumer protection and employee relations, are often heavily influenced by their respective regulatory frameworks. We therefore want and need governments, regulators and policymakers to work with us to deliver the necessary changes that'll be needed to achieve our climate change goals, and specifically help us get our customers to net zero in a way that's affordable and fair.

To ensure the regulatory environment facilitates this, we engage responsibly with key decision makers in line with the principles set out in **Our Approach to Political Involvement** and **Our Code**, on issues we believe are critical for shaping the energy landscape our customers need.

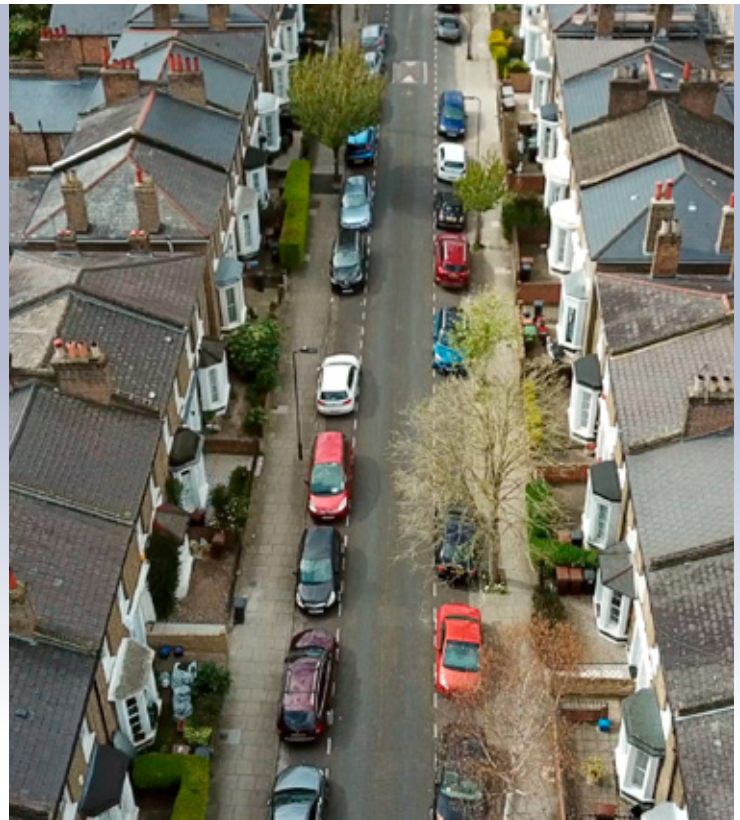
In the UK for example, we've previously openly advocated in support of binding 2050 net zero legislation, to bring forward the ban on internal combustion engine vehicles and the introduction of the Future Homes Standard. And more recently, we've advocated for the shifting of policy costs from electricity bills to general taxation in order to incentivise low carbon electric heating in a more affordable way for consumers.

We ensure our engagements on policy across the business are consistent with our overall approach to climate change. We do this via our dedicated policy groups to develop detailed policy positions, which are presented to the Centrica Leadership Team for review and approval. The outcome of this is then communicated across the businesses to ensure a consistent and established policy position on climate change across our global geographies.

Whilst we've followed these processes and principles for many years, we've not publicly outlined our commitment on climate change. So going forwards, we will:

- Conduct all direct advocacy with governments, regulators and policymakers in line with our climate goals and those of the Paris Agreement, to enable a just transition and achieve net zero by 2050
- Assess indirect advocacy through the positions and activities of trade associations we're members of, against our climate goals and those of the Paris Agreement, to deliver a just transition and get to net zero by 2050

We'll also enhance current annual disclosures to transparently set out our material activities relating to both direct and indirect climate-related advocacy. As part of this, we'll analyse alignment with our climate goals and those of the Paris Agreement, and highlight any actions we took where misalignment was identified.



Our policy positions:

Some of the key policies we're advocating for in the UK include:

- **Moving policy costs from electricity bills** to general taxation, alongside establishing an effective carbon pricing environment to drive the adoption of low carbon heating
- **Introducing a retrofit fund** for all to encourage hybrid heat pump adoption
- **Focusing on energy efficiency and retrofitting** of homes, making it a national infrastructure and health priority
- **Launching a dedicated knowledge hub** for local authorities to enable community level action

Learn more about these and our wider policy advocacy in our upcoming Low Carbon Homes Report due later in 2021.

Glossary

CDP
Carbon Disclosure Project, a leading environmental NGO representing around a third of the world's invested capital

CHP
Combined Heat and Power unit which captures and utilises the heat created during the electricity generation process

EV
Electric vehicle, including pure battery and plug in hybrid

Grid-scale
Large scale energy generation or storage facility that is directly connected to the national grid

Just transition
Ensuring the benefits of the transition to a green economy are shared fairly, with no one left behind

Market-based
Calculation method using a supplier specific fuel mix to quantify the emissions from the electricity a customer has purchased

Net zero
When there's no human-related greenhouse gas emissions (GHG) emitted or, when any GHG emissions emitted are balanced by GHGs removed from the atmosphere via offsetting

Offsetting
Compensating for CO_2 or other GHG emissions by funding an equivalent removal or saving elsewhere, such as planting a tree

Onsite
Energy generation or storage asset installed at the customers' property for their own use

Paris / Paris Accord
International treaty on climate change to limit global temperature increase to well below 2°C and pursue 1.5°C

Residual emissions
Emissions that remain after an organisation has implemented all feasible opportunities for reducing emissions

Scope 1
Direct GHG emissions from sources that are controlled or owned by an organisation, such as property, assets and fleet

Scope 2
Indirect GHG emissions from the consumption of purchased electricity, steam, heat, or cooling across properties and assets

Scope 3
Indirect GHG emissions from across an organisations' value chain, including employee travel, customers' use of products and supply chain goods purchased

tCO_2e
Tonnes of carbon dioxide equivalent – one tonne is equivalent to approximately one third of a homes' annual emissions or driving over 3,500 miles in an average car

Wholly operated
Relates to activities where Centrica has full operational control as defined by the GHG Protocol

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