



Towards a net zero energy future

Annual review 2019/20

Towards a net zero energy future

UK Power Networks has a clear public purpose, to safely and reliably deliver electricity to our customers in London, the south east and east of England. We strive to be the best performing distribution network operator (DNO), supported by our vision to be an employer of choice, a respected and trusted corporate citizen, and to do so in a sustainable, cost-efficient way. Our vision is informed by the world we live in and the regular and personal engagement we have with our stakeholders that, in turn, informs and shapes our strategy.

We have a critical role at the heart of the future energy landscape, enabling the transition to the net zero carbon economy and enabling all our stakeholders to benefit from better safety, reliability and cost efficiencies as we innovate and invest to deliver a sustainable energy future for all.

Basil Scarsella

Chief Executive Officer



How we're

...engaging stakeholders to shape our strategy

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...ensuring safe and reliable electricity supply

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...putting customers at the heart of everything we do

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...delivering on our sustainability strategy

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...enabling a net zero energy future

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"This year UK Power Networks has challenged itself to go further in ensuring its engagement work delivers tangible value for customers, especially the most vulnerable. They are providing a range of new services to support customers in vulnerable circumstances, including an app for field staff to refer customers that they identify as requiring extra support. It is clear that their approach is embedded across large areas of the business."

Jessica Harmer, Managing Associate, AccountAbility

...engaging

stakeholders

to shape our strategy

Stakeholders are crucial to how we run UK Power Networks. We listen carefully to their views and requirements and we are accountable to them. Every year we find new ways to hear and act on the productive flow of input from our stakeholders. Their views make a real difference to us: strategically, operationally and tactically. This year, for example, we have adapted our Corporate Vision on the strength of input from our stakeholders.



No. 1
Ranked No. 1 by Ofgem for stakeholder engagement



4.75m
stakeholders reached through over 500 engagements



545
Collaboration with over 545 partners who are integral to the development of our services



"A very reliable service, which if there are any problems will keep you fully informed at all times. They are hard working, resourceful and totally determined to keep the volts flowing; no matter what!"

Ajarn Charn, UK Power Networks customer



...ensuring

safe and reliable

electricity supply

Our customers have the right to expect us to provide them with a safe and reliable electricity supply. Electricity can be dangerous, so safety is our number one priority. Inevitably, the supply of electricity can be interrupted from time to time, but we work hard to make sure that such interruptions are as rare as possible and, when they do happen, we get the power back on as quickly as we can.



99.99%
network reliability



Safest DNO

Our safety record has been the best in the industry since 2013



680,000

We engaged with over 680,000 people about safety



"We performed a critical review to challenge UK Power Networks' overall vulnerable customer strategy. Through all levels of staff, UK Power Networks demonstrated genuine passion for their customers and their business and were highly receptive to the findings our review put forward to enhance their approach. It is our view that they are leaders in this sector."

Richard Brown, Principal Consultant, Huntswood



...putting

customers

at the heart of everything we do

At UK Power Networks we do our best to see the world through the eyes of our customers; our culture means that our customers' priorities dictate our own. We care deeply about what our customers think of us and we are always striving to improve, so this year we were delighted to meet the target we had set ourselves of achieving over 90% customer satisfaction.



91%

Best ever customer satisfaction score



5 stars

Trustpilot rating as 'Excellent'. The only energy network rated, with review volumes 20 times the industry average



25%

reduction in the number of customer complaints from last year



"Like our stakeholders, we take our environmental and sustainability responsibilities very seriously and want to ensure we are adopting absolute best practice in our future planning and target setting. We are working with acknowledged experts in the field, to take a scientific approach to set an ambitious target to achieve net zero as a company, and to help us develop a robust roadmap as to how we get there."

Mark Adolphus, Director of Health, Safety, Sustainability and Connections, UK Power Networks

...delivering on our

sustainability

strategy

The greatest contribution towards sustainability that UK Power Networks makes is our crucial role in supporting the UK's commitment to ending the country's impact on global warming by 2050. A huge focus of our innovation is on finding ways to reduce the environmental impact of the power we deliver. We have ambitious plans to reduce the environmental impact of our own operations that we will deliver through our Green Action Plan.

Read more about how we are **Delivering a sustainable future**
See page 22



Building a refugia – an area where local wildlife including small mammals, reptiles and amphibians can shelter or hibernate.



26%

reduction in our Business Carbon Footprint since the baseline year of 2014/15



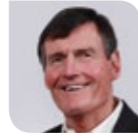
15,900

fewer tonnes of CO₂ produced since 2014/15, equivalent to more than 7,000 London – New York flights



1st DNO

to achieve the Carbon Trust Standard for Carbon



"UK Power Networks is integrating technology and industry innovation to transform the energy grid to meet the needs of current and future customers and stakeholders... Energy grids are transforming around the globe at an unprecedented pace in response to climate change and evolving customer preferences. As UK Power Networks has demonstrated, actively listening to, and engaging with customers is vital to realise the benefits of transformative energy solutions."

Tom Kuhn, President, Edison Electric Institute

...enabling a

net zero

energy future

The UK is the first major economy in the world to pass laws to end its contribution to global warming by 2050. This target requires the UK to bring all greenhouse gas emissions to net zero by 2050. We at UK Power Networks are playing a pivotal role in enabling this ambitious target.



1st

Ranked 1st in the UK and Europe and 2nd globally in the Smart Grid Index



3.6m

Forecast number of plug-in electric vehicles across UK Power Networks' area of operation by 2030



2019 Winner

of the Edison Electric Institute (EEL) International Edison Award for our leading role in enabling decarbonisation



Utility-scale storage

Local wind and solar farms

Connected living and working

Towards a net zero world

A decentralised model

The world of energy is changing. The UK's transition to a net zero economy is revolutionising the way we generate, distribute and consume electricity. The world of energy that families, communities and businesses will experience by 2030 will be very different from what exists now.

Distribution System Operator

National Grid

Other electricity DSOs

Gas DSOs

Connected living

Facilitating electric vehicle uptake



Electric vehicles (EVs) are the future of road transport in the UK; it is expected that there will be sixty times more EVs on our roads by 2030, so – naturally – the electricity infrastructure needs to scale up to meet this ever-growing demand. At UK Power Networks, building, operating and maintaining power networks is what we do, and we consider ourselves to be the most EV-ready network.

We know we can't do this in isolation, so we have developed constructive, collaborative relationships with other major players in this arena. Working with transport providers and manufacturers, we are enabling the electrification of transport across our operations and beyond.



Learn how we are facilitating the EV uptake.

Our heat readiness approach



Heating our homes, buildings and water, and cooking our food, accounts for around a third of all carbon emissions in the UK. That's why we have a strategy in place to help facilitate the deployment of low carbon heating systems. Most of us – nine out of ten – use natural gas to heat our homes, but this is not sustainable if we are to eliminate carbon emissions. Our strategy for decarbonising heat has three strands: to provide data and evidence to support government policy in this area, to provide excellent customer service to support customers installing low carbon heating in their homes and, crucially, to make sure that our network is ready for the new world of electric heating.



Heat is one of the biggest emitters of carbon in the UK. Learn about our new decarbonised heat strategy here, the first ever by a DNO.

We know that we need to evolve in order to provide the energy infrastructure that meets our customers' changing and future needs. UK Power Networks is well underway with plans to create a Distribution System Operator (DSO). That means we will develop from being a company that simply manages the network, into one that is proactive and enables a smart, flexible system.



Enabling net zero through new DSO capabilities

The journey towards an electricity supply that achieves net zero emissions requires a complete overhaul of everything we do and how we do it. UK Power Networks' creation of a Distribution System Operator (DSO) provides us with the platform and infrastructure to achieve this target. By utilising whole systems, we will deliver smart grids that are interconnected and complex. Technological, data and organisational innovations will help us to provide an increasingly intelligent network that has the tools and functionality to deliver net zero emissions electricity at the lowest possible cost.



UK Power Networks is central to enabling a net zero energy future. Learn how we are enabling net zero through new DSO capabilities.

Ensuring no one is left behind in the energy transition

We make great efforts to ensure that all our customers are able to take advantage of the benefits of a zero-emissions network. We want to make sure that no one is left behind on this journey, so we put considerable focus on customers who are in fuel poverty. In particular, we work with community energy groups to help them to support their members. This results in, for example, projects that enable communities to work together to develop renewable sources of energy that both support the net zero targets and cut costs for customers who need it most.



Learn how we are helping our customers access clean, local and affordable energy here.

National Grid

Other electricity DSOs

Gas DSOs

How the energy landscape will change in a net zero world:



Distributed generation

Generation that connects to the distribution network, closer to electricity consumers than to the transmission network, is commonly referred to as distributed generation. Since 2011 the distribution network capacity has increased annually, mainly as a result of increased embedded renewable generation being installed. In 2019 the UK distribution network capacity totalled 33 GW, the equivalent of ten Hinkley Point C power stations. Thirty two per cent of electricity generation is connected to the distribution network.



Access and visibility of data

We are building a modern, digitised energy system designed for a low carbon world. To meet the challenge, we are making our operational data open, available and transparent. Together, we can use data to unlock benefits for all. We launched our Open Data portal in 2020 which brings together our available data for the first time, covering three themes: facilitating net zero, improving the network and informing strategy. Ultimately, this will ensure that the digitised, decentralised and decarbonised energy system of the future is delivered at the lowest cost for customers.



Creating flexibility at home

A decentralised, digitised energy system creates new solutions to deal with age-old challenges like adding new capacity to the network at the lowest cost to customers. In 2020 we agreed a high-profile deal with Social Energy that will enable domestic customers who have solar panels teamed with a domestic battery to make money by helping to provide extra network capacity at peak times. When multiplied across many participating households, this can reduce demand on the local electricity network at peak times and save money by deferring the need to invest in new infrastructure.



Whole-system strategy

Electricity network operators will play an increasingly important role in delivering value for customers in the wider energy system to achieve decarbonisation at lowest cost. This will see the development of whole-system incentives and mechanisms within the regulatory framework. These will encourage smart operations at the distribution level to support other electricity DSOs, National Grid and other energy networks to realise wider system benefits for all customers.

Delivering on our vision in a changing world



This is its highest accolade and is achieved by only 2% of companies that it surveys. This year, after six years of being in the Sunday Times 25 Best Big Companies to Work For in the UK, we were again listed in the top ten, as we were last year.

The UK is the first major economy in the world to pass laws to end its contribution to global warming by 2050. This target requires the UK to bring all greenhouse gas emissions to net zero by 2050; the previous target was a reduction of at least 80% from 1990 levels. UK Power Networks is playing a pivotal role in enabling this ambitious target. To this end, this year we have refreshed our industry-leading EV strategy and applied what we have learnt from this process to roll out the first ever decarbonised heat strategy by a DNO. This has been well received by the market and you can read more about it in this Annual Review.

Our greatest contribution to reducing greenhouse gases is in facilitating others to reduce their carbon footprint, but we are also working hard to reduce our own. Last year we launched our Green Action Plan which focused on changing our business to reduce its impact on the environment. In 2019/20 we reduced our carbon footprint to its lowest ever level and, importantly, this reduction has been accredited by the Carbon Trust. This is a first for a DNO. We are going further by working with the Carbon Trust to develop science-based targets to support our own journey to net zero.

The last quarter of 2019/20 saw the early stages of the COVID-19 crisis. Thanks to a well-developed business resilience plan, we were able to maintain excellent performance during that time and we continue to do so. From the outset, our employees, both in the field and working remotely from home, ensured that the electricity kept flowing so our customers were able to work from home when circumstances allowed. Looking to the future, it seems likely that the economy is facing a significant downturn and inevitably this will affect all our customers. This reinforces the importance of a key pillar of our strategy: to keep costs as low as possible while delivering the great service our customers expect, especially for those in vulnerable circumstances.

Basil Scarsella
Chief Executive Officer

It remains our vision at UK Power Networks to be, consistently, the best performing Distribution Network Operator (DNO) in the UK within an agreed set of values and I am pleased to report that in 2019/20 we have again achieved that ambition.

We have delivered our best ever performance across many fronts. Customer Minutes Lost (CMLs), a vital measure of our network reliability, was our lowest ever; our safety record remains the best in the business, as it has been since 2013, and in customer service we achieved 91% customer satisfaction for the first time. We can only achieve this level of performance thanks to the dedication, talent and professionalism of our employees and contractors. Ensuring that we have access to a diverse workforce will be key to our continued success. I am proud that our work on diversity and inclusiveness has been recognised by Inclusive Companies, who ranked us as the fifth most inclusive company in the UK.

We do our utmost to make UK Power Networks a great place to work and it is rewarding to see this effort bearing fruit in our day to day work; it is also satisfying to see it reflected in the recognition we receive from third parties. This year, Investors in People awarded us its Platinum standard.

A culture of responsibility and performance

Our vision:

To be consistently the best-performing Distribution Network Operator in the UK within an agreed set of values: Integrity – Respect – Continuous improvement – Responsibility – Unity – Diversity and inclusiveness.

An employer of choice

- The safest – with an exemplary safety record
- An organisation that employees are proud to work for
- Embracing diversity
- An appropriately skilled workforce for both today and the long term

A respected and trusted corporate citizen

- The most reliable networks
- The most satisfied customers
- The most innovative
- The most socially and environmentally responsible
- Ensure we meet the needs of our customers in vulnerable circumstances, both now and in the future
- Enable the net zero transition for all
- The leading UK Distribution System Operator

Sustainably cost-efficient

- Be the lowest-cost electricity distributor for our customers
- Deliver on our commitments in a collaborative way
- Deliver profitable growth in our Services and Connections businesses

Our values:

We deliver high performance within an agreed set of values.

Integrity

We will do what we say and build trust and confidence by being honest to ourselves, our colleagues, our partners and our customers.

Continuous improvement

We are committed to learning, development, innovation and achievement.

Diversity and inclusiveness

We recognise and encourage the value that difference and constructive challenge can bring.

Respect

We treat our colleagues and our customers the way in which we would want to be treated.

Responsibility

We always act in an ethical, safe, socially and environmentally aware manner.

Unity

We are stronger together and this comes from a shared vision, a common purpose and supportive and collaborative working.



UK Power Networks in numbers

UK Power Networks is the UK's biggest electricity distributor delivering power to 8.3 million homes and businesses across London, the east and south east of England. We keep the lights on across 29,250 square kilometres, serving 19 million people from Cromer in the east to Brighton on the south coast.

76,515 GWh

Electricity distributed – 28% of Great Britain's total electricity distribution

9.49 GW

Distributed generation on our network

189,103 km

Total length of overhead (45,637 km) and underground (143,466 km) network

19m

people served – 29% of Great Britain's population

13,316 MW

Peak demand



Our three electricity distribution networks

Key focus areas

The nature of our business means we are responsible for keeping the lights on, safely and sustainably, and caring for our customers in the most vulnerable circumstances across our communities.



Maintain the safety and reliability of our electricity networks by doing no harm to people and places and making sure power cuts are as rare and short as possible.



Meet our customers' evolving needs by improving existing services and shaping new ones.



Take care of the environment by reducing the environmental impact of our operations and enabling our country's transition to net zero carbon emissions.



Go above and beyond for our communities by ensuring we remain legitimate and responsible in the eyes of our customers.



Support our customers in vulnerable circumstances and ensure they are not left behind during the complex energy transition.



Eastern Power Networks

We deliver power to North London and East Anglia, encompassing a diverse range of urban and rural areas as well as a huge coastline.

London Power Networks

We look after the electricity network for Inner London, with responsibility for delivering power to iconic buildings and businesses as well as high-profile international events throughout the year.



South Eastern Power Networks

We serve South London, Kent, East Sussex and parts of Surrey and West Sussex, covering a rich variety of customers and locations.



Through our unregulated business, UK Power Networks Services, we deliver and manage high-voltage electrical and multi-utility networks for owners of major infrastructure. This portfolio includes a range of high-profile clients from both the public and private sector including London's five main airports (Heathrow, Gatwick, Stansted, Luton and City), High Speed 1, Network Rail, London Underground, Southern Water, Aspire and Canary Wharf.

Delivering a sustainable future

As a key player in the UK's power infrastructure, UK Power Networks contributes towards a sustainable future in many ways. From promoting the health and well-being of our employees to addressing inequalities and climate change; from supporting the sustainable development of cities and communities to providing affordable, clean energy, we set ourselves ambitious targets and we are delivering on them.



UN Sustainable Development Goals

It is our aim to be the most socially and environmentally responsible Distribution Network Operator (DNO) in the UK and we are committed to achieving a better and more sustainable future for everyone.

We have aligned our activities to the United Nations' Sustainable Development Goals which address the global challenges facing the world. We have prioritised eleven of the UN's goals that are particularly relevant to our business; these include affordable and clean energy and industry, innovation and infrastructure. Below you will see the business commitments we are using to measure the progress towards these goals and our performance in 2019/20.

UN Sustainable Development Goals



Good health and well-being
Ensure healthy lives and promote well-being for all at all ages



Gender equality
Achieve gender equality and empower all women and girls

Our business commitments

- Reduce the Lost Time Recordable Injuries (LTRI) rate to less than 0.05.
 - At least one year within the RIIO-ED1¹ period (2015/16 – 2022/23) with no RIDDOR reportable public harm resulting from our activities.
 - Engage with two million children and members of the public on public safety.
 - Measure ourselves against other companies and seek inter and intra sector recognition/accreditation by participating in external benchmarking such as the Sunday Times 25 Best Big Companies to Work For.
-
- Measure ourselves against other companies and seek inter and intra sector recognition/accreditation by participating in external benchmarking such as achieving the National Equality Standard accreditation.

Our contribution and performance

- We have been the safest DNO since 2013. Our Lost Time Recordable Injury (LTRI) rate in 2019/20 was 0.01 and we have seen a 93% reduction in our LTRIs since we started as an independent business in 2010.
 - There have been three years in the RIIO-ED1 period to date in which we had no RIDDOR reportable injuries to members of the public relating to our activities.
 - We have promoted safety to over 680,000 children, key industries and members of public in 2019/20.
 - We ranked 10th in the Sunday Times 25 Best Big Companies to Work For (and we remain the only DNO to feature in this list).
 - UK Power Networks for the first time has achieved Investors in People (IiP) Platinum – the highest level of accreditation held by fewer than 2% of IiP-certified companies across 66 countries globally.
-
- We ranked 10th in the Sunday Times 25 Best Big Companies to Work For (and we remain the only DNO to feature in this list).
 - We are the first DNO to be awarded the National Equality Standard – the highest standard in the UK for best practice on equality, diversity and inclusion.
 - In 2019 we ranked 5th in the Inclusive Top 50 UK Employers.
 - In the three years since the introduction of the Gender Pay Regulations in 2017, we have seen a 14% improvement in our Median Gender Pay Gap.

Our focus areas

- People** See page 28
 - Safety** See page 34
-
- Transparency** See page 30
 - People** See page 28

1. RIIO-ED1 is the eight year regulatory price control period starting from April 2015 to March 2023.

Delivering a sustainable future continued

UN Sustainable Development Goals



Affordable and clean energy

Ensure access to affordable, reliable, sustainable and modern energy for all



Decent work and economic growth

Promote sustained, inclusive and sustainable economic growth, full productive employment and decent work for all



Industry, innovation and infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation



Reduced inequalities

Reduce inequalities within and among countries

Our business commitments

- Reduce unplanned Customer Interruptions by 10% and unplanned Customer Minutes Lost by 14% since the base year of 2012/13.
- Improve customer satisfaction scores to 82% over the RII0-ED1 period (2015/16 – 2022/23).
- Provide multiple ways for customers to stay regularly updated on the estimated time for supply restoration and on any changes to the estimated time. At a minimum this will include phone, SMS text, Twitter and online.

- Measure ourselves against other companies and seek inter and intra sector recognition/accreditation by participating in external benchmarking such as the Sunday Times 25 Best Big Companies to Work For.

- Reduce unplanned Customer Interruptions by 10% and unplanned Customer Minutes Lost by 14% since the base year of 2012/13.
- Innovation expenditure of 0.5% of allowed revenues and win largest market share of the NIC competition.

- Measure ourselves against other companies and seek inter and intra sector recognition/accreditation by participating in external benchmarking such as achieving the National Equality Standard.

Our contribution and performance

- Our unplanned Customer Interruptions have reduced by 28% and unplanned Customer Minutes Lost have reduced by 36% since the base year of 2012/13. We are overall the most reliable network operator in RII0-ED1 to date (2015/16 – 2019/20).
- In 2019/20, we have achieved our best ever customer satisfaction score of 91%. This is a 23% improvement in our satisfaction score since Ofgem began measuring it in this format in 2011/12.
- Our customers have multiple channels available to them to stay up to date on the status of power cuts. These channels include phone, text messages, Twitter, Facebook, our online interactive map and web chat; and we were the first to launch video chat and Facebook Messenger. We have also launched inclusive service channels such as Sign Live for our deaf and hard of hearing customers and our new fast track service which bypasses any call options, routing customers directly to our trained advisors.
- UK Power Networks is enabling the decarbonisation of the UK economy. We ranked 1st in Europe and the UK, and 2nd globally in the Singapore Power Group's Smart Grid Index.
- We are the lowest cost DNO and over the last five years our charges have on average been 10% lower than the industry average and 29% lower than the most expensive in our peer group.

- We pay the London living wage and we paid more than £130m of corporation taxes in 2019/20.
- We provide jobs for more than 6,000 employees and 2,000 contractors.
- On average, 87% of the cash we generate from operations is invested back into our networks.
- UK Power Networks has for the first time achieved Investors in People (IiP) Platinum – the highest level of accreditation held by fewer than 2% of IiP-certified companies across 66 countries globally.
- We ranked 10th in the Sunday Times 25 Best Big Companies to Work For (and we remain the only DNO to feature in this list).

- Our unplanned Customer Interruptions have reduced by 28% and unplanned Customer Minutes Lost have reduced by 36% since the base year of 2012/13. We are overall the most reliable network operator in RII0-ED1 to date (2015/16 – 2019/20).
- UK Power Networks is enabling the decarbonisation of the UK economy. We ranked 1st in Europe and the UK, and 2nd globally in the Singapore Power Group's Smart Grid Index.
- On average, 87% of the cash we generate from operations is invested back into our networks.
- In 2019 we spent £8.3 million (at 2019 prices) on innovation. Since 2015/16, we have delivered £232m in customer savings through deployment of innovative solutions.
- We are the first DNO or utility company to be formally assessed by the Cabinet Office for organisational resilience, scoring 4 out of 5.

- We are the first DNO to be awarded the National Equality Standard – the highest standard in the UK for best practice on equality, diversity and inclusion.
- In 2019 we ranked 5th in the Inclusive Top 50 UK Employers.
- We have introduced blind CVs to our early careers recruitment process, where identifying factors such as sex, age, name (which can indicate ethnicity) and school (which can suggest a particular faith) are removed from applicants' CVs before they reach assessment.
- In the three years since the introduction of the Gender Pay Regulations in 2017, we have seen a 14% improvement in our Median Gender Pay Gap.

Our focus areas

Network reliability See page 36

Customer satisfaction See page 38

Value for money See page 40

Social responsibility See page 42

Stakeholder engagement See page 46

Innovation See page 48

Net zero ready See page 50

Transparency See page 30

People See page 28

Transparency See page 30

Organisational resilience See page 32

Network reliability See page 36

Innovation See page 48

Transparency See page 30

People See page 28

Delivering a sustainable future continued

UN Sustainable Development Goals



Sustainable cities and communities

Make cities and human settlements inclusive, safe, resilient and sustainable



Responsible consumption and production

Ensure sustainable consumption and production patterns



Climate action

Take urgent action to combat climate change and its impacts



Life on land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss



Partnership for the Goals

Strengthen the means of implementation and revitalise the global partnership for sustainable development

Our business commitments

- At least one year within the RII0-ED1 period (2015/16 – 2022/23) with no RIDDOR reportable public harm resulting from our activities.
 - Engage with two million children and members of the public on public safety.
 - Work toward reducing nitrous oxide emissions from our fleet and our generators by 33% by December 2030.
-
- Reduce packaging and transportation across our supply chains. Adopt a circular or semi-circular approach to procurement.
 - Reduce 10 – 15% of our existing water usage at our top six largest sites by December 2021.
-
- Reduce CO₂ emissions, waste and water usage, to meet the Carbon Trust Standard Initiative by December 2021.
-
- Manage 90% diversion from landfill across all our offices and depots and achieve 80% recycling by December 2021 at our top six largest sites.
 - Increase biodiversity potential by 20 – 30% at 100 sites by December 2021.
-
- Maintain our community fund investing £300,000 per annum.
 - Create a group of UK Power Networks local community energy champions.
 - Organise and deliver school activity days to encourage safe, efficient use of energy.

Our contribution and performance

- There have been three years in the RII0-ED1 period to date in which we had no RIDDOR reportable injuries to members of the public relating to our activities.
 - We have promoted safety to over 680,000 children, key industries and members of public in 2019/20.
 - We have achieved a 54% reduction in overall injuries across all targeted high risk groups through our Be Bright Stay Safe campaign.
 - In addition to exploring alternative fuels and hybrids in our fleet and generators we funded Trees for Cities to plant 2,669 trees on our behalf. This offset 127 tonnes of nitrous oxide emissions, cultivating lasting change in neighbourhoods by creating healthier environments.
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- UK Power Networks was awarded Platinum accreditation in 2017 for its procurement function.
 - Last year we launched a recycling campaign, 'Talking rubbish'. Among many other things, we reduced the use of all single-use plastics from our business (a saving of 600,000 single use plastic bottles), and identified ways of reducing the transportation of products in our supply chain.
-
- Our Business Carbon Footprint in 2019/20 was 57,584 tCO₂e, a 26% reduction compared to 2014/15 levels, which is our baseline year. This is ahead of our target for the year of 69,607 tCO₂e.
 - We achieved the Carbon Trust Standard for Carbon two years early and have undertaken a detailed gap analysis with the Carbon Trust to put in place further actions necessary to achieving the waste and water standards. We became the first electricity network operator to achieve this standard.
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- In 2019/20, we diverted approximately 88% of our waste from landfill and we recycled 99.4% of our streetworks spoil.
 - Our Business Carbon Footprint in 2019/20 was 57,584 tCO₂e, a 26% reduction compared to 2014/15 levels, which is our baseline year. This is ahead of our target for the year of 69,607 tCO₂e.
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- We ensure that we have the right partners to serve specific vulnerability groups. We review our partnerships annually against our strategic plans, completing a gap analysis, e.g. we map partners against vulnerability groups to promote the Priority Services Register (PSR) and co-design services to meet specific needs. We build partnerships to serve specific vulnerability groups.
 - **a) Delivery Partners:** Partners delivering services to customers on our behalf. Examples: Community Energy South who deliver our fuel poverty programme and Haste who support our customers face-to-face in the community.
 - **b) Strategic Partners:** Partners helping us to scan the horizon and act as our challenge group on our vulnerability strategy and targets. Examples: Kidney Care UK and Alzheimer's Society who attend our quarterly partnership forum.
 - **c) Industry Partners:** Partners from the electricity, water, gas and telecoms industry working with us to share best practice and combine resources to deliver more for less across our shared regions. Examples: Thames Water and Virgin Media participating in our quarterly utility forum.
 - **d) Referral Partners:** Trusted partners in the local community who promote the PSR making people aware of the services we offer. Examples: Hospital discharge units, pulmonary rehabilitation groups, hospice from home nurses who actively refer eligible customers to the PSR.

Our focus areas

- Transparency** See page 30
 - Organisational resilience** See page 32
 - Safety** See page 34
 - Network reliability** See page 36
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- Environment** See page 44
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- Environment** See page 44
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 - Innovation** See page 48
 - Net zero ready** See page 50
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- Environment** See page 44
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- Value for money** See page 40
 - Social responsibility** See page 42

A diverse and talented team

It's the people that make the difference at UK Power Networks. We are proud of our reliable network, the value for money we provide, our safety record, our innovation and our customer service. None of that would happen without our remarkable people.

EMPower Community – Everyone Matters

EMPower is a grassroots community within UK Power Networks started and run by and for employees, with full support from the company. Designed to promote and celebrate diversity and inclusiveness, EMPower holds awareness-raising events and raises money for charity. It is also a forum for discussing and implementing ideas relating to issues of diversity and inclusiveness that are gathered from all parts of the company.



Having the right workforce is the key to our success and we work hard to recruit and retain the best and the brightest people. Our vision states that we want to be an employer of choice, and that means making UK Power Networks a great place to work and build a career. Our continuing presence in the top ten of the Sunday Times 25 Best Big Companies to Work For suggests we are succeeding.

In 2019/20 Investors in People (IIP) awarded UK Power Networks its highest standard: Platinum. This level of accreditation is held by just 2% of the 15,000 firms worldwide that have an IIP accreditation and indicates the highest performance levels through people management.

Diversity and inclusiveness

Diversity and inclusiveness is a major factor in what makes UK Power Networks a great place to work. It is also behind why our people are committed to providing excellent service for our customers. We make a point of seeking out and attracting a diverse workforce. Early on, we introduced blind CVs to our early careers recruitment process, where identifying factors such as sex, age, name (which can indicate ethnicity) and school (which can suggest a particular faith) are removed from applicants' CVs before they reach assessment. We have also looked to expand the range of sites where we post advertisements, and we have increased the role of our HR team in the interview process to support recruiters in understanding and applying our Diversity and Inclusiveness Strategy.

Schools outreach

We are looking to raise our profile as an employer among schools in our operating areas, particularly those in lower income areas. We see enormous potential in these schools and are keen to support them as part of the communities we serve. We have run school workshops about careers in industries such as ours that draw on science, technology, engineering and maths (STEM) and have hosted groups of pupils, some of them quite young, to visit our workplaces to get a feel for working at such companies.

Recruiting more women

Ours is traditionally a male-dominated industry, so we are addressing this imbalance in a number of ways. Following a successful pilot last year, all our job advertisements and descriptions are gender neutral and we are beginning to see a steady increase in applications from women, particularly in previously male-dominated field roles. We support the Women's Utility Network in their work to attract more women to the sector.

Targeting former armed forces personnel

Former armed forces personnel is another sector of our community that we are cultivating with great success as potential recruits. The qualities of discipline, problem solving and attention to detail at which the forces excel are just the traits we are looking for at UK Power Networks. We already employ a number of former military personnel, and working closely with the Ministry of Defence's Career Transition Partnership, we run workshops designed to attract such recruits to work for us. Not only do we want to benefit from their skills and experience; we believe we are building a good understanding of some of the particular needs of people leaving the forces and entering 'civvy street'.

External recognition

Diversity and inclusiveness has been a key priority for UK Power Networks, so it is rewarding to receive recognition from independent sources of the progress we have made in this area. At the 2019 Utility Week Awards, we received the Diversity Award for encouraging a diverse workforce. We also retained our accreditation from the National Equality Standard (NES), the UK's highest standard of recognition for best practice on equality, diversity and inclusiveness.

Apprenticeships

We are always planning ahead, and the UK Power Networks Apprenticeship Scheme continues to provide us with an excellent supply of strong candidates to provide great service for our customers and build their careers with us for years to come.

Young Professional Award

One of our colleagues, Luca Grella, won the Young Professional Award at the Renewable Energy Association Awards. He has developed a software tool that will save almost 500,000 tonnes of CO₂ emissions by 2050 and is developing a revolutionary way of moving spare capacity around the network to power electric vehicles.



On this page you will see how we have performed against the following Sustainable Development Goals:



Our accreditations



UK Power Networks for the first time has achieved Investors in People Platinum – the highest level of accreditation held by fewer than 2% of IIP-certified companies across 66 countries globally



First DNO to achieve the Carbon Trust Standard for Carbon



Ranked 2nd in Singapore Power Group's Smart Grid Index, a measurement of how smart power utilities are around the world



Highest standard in the UK for best practice on equality, diversity and inclusion. First DNO to be awarded the National Equality Standard



Ranked 5th in the Inclusive Top 50 UK Employers

Some of our awards



UK Power Networks ranked 10th in the Sunday Times 25 Best Big Companies to Work For. We remain the only electricity distribution network operator to feature in this list



Won the 2019 EEd International Edison Award, the electricity industry's most prestigious international recognition, for our part in enabling Britain's net zero transition



UK Power Networks clinched a top honour, being named 'Network of the Year' at the Network Awards 2020



UK Power Networks picked up the 'Transport Technology Award' at the Business Green Technology Awards for its project 'Shift' – a nationally-significant EV smart charging trial that could revolutionise the EV industry



Won the Digital Transformation Award for our Workforce Planning Solution

Won the Staff Development award for our WorkingWell campaign, focusing on Your Energy, Mental Health and Support Networks

Won the Diversity Award, for encouraging a diverse workforce including our work on the EMPower community, a platform for all employees to raise suggestions and issues around Diversity and inclusiveness

Committed to operating ethically and transparently

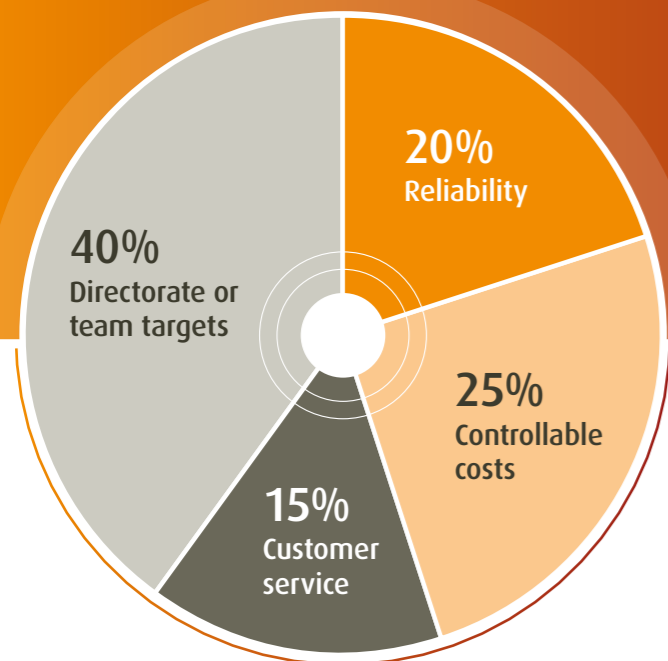
At UK Power Networks we are committed to transparency. We are in the privileged position of being a monopoly provider of an essential service and we take seriously the responsibility this brings with it. We welcome the increased scrutiny that our business inevitably attracts from customers, other stakeholders and the industry at large. This Annual Review is an example of how we do our best to make it easy for all our stakeholders to examine closely how we are performing, to see the statistics behind our performance and, of course, how we are delivering for our customers. We also publish detailed reports on our RIIO-ED1 commitments, and financial and environmental performance.

Incentivising our employees

We incentivise our employees in line with the company's overall delivery of our business vision. We manage this through our employee bonus scheme – the Company Incentive Plan. Employees are rewarded for achievements in the areas of safety, network reliability, customer service and cost saving. Since we started as a business in 2010, the key focus of UK Power Networks has been to deliver what our customers want at the lowest possible cost. During those ten years, we have made significant progress in safety, the reliability of our networks and customer service; and we have been the lowest cost electricity DNO. With respect to the latter two, the company is financially incentivised to beat the targets set by our regulator, Ofgem, and we are penalised if we fail to meet them. In 2019/20 we earned £71.8m from these incentive schemes. We have all the relevant information verified by external assessors before we submit our performance figures to Ofgem, so our customers can see evidence that these rewards are warranted.

Main Company Incentive Plan for all employees

Linking performance with delivery for customers



Safety

If safety target is not achieved then bonus is reduced by 25%

90%

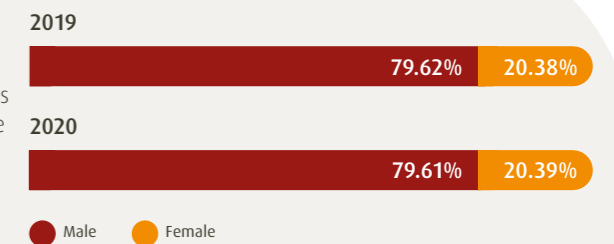
90% of UKPN employees are covered by Trade Union Collective Agreements

On this page you will see how we have performed against the following Sustainable Development Goals:



UK Power Networks continues to be a male-dominated business, as is the case across the utilities industry. We are working hard to redress the balance and are beginning to see some progress in the composition of our workforce (see right). Our industry, along with engineering in general, has deep roots in being traditionally male-dominated, and such traditions take time to change. Education has a crucial role to play in making those changes. UK Power Networks is involved with schools and further education with a view to challenging stereotypes and encouraging greater take-up among women and girls of the relevant STEM subjects (science, technology, engineering and maths).

Gender mix (Company level)

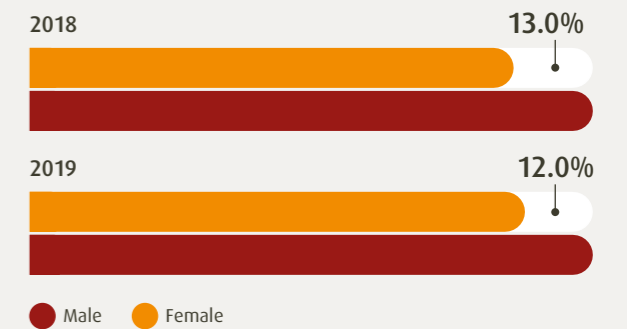


We are pleased that UK Power Networks' gender pay gap has seen another improvement in our Median Gender Pay Gap over the past 12 months, and we are committed to reducing it further.

In the three years since the introduction of the Gender Pay Regulations in 2017, we have seen a 14% improvement in our Median Gender Pay Gap.

Although our gender pay gap is higher than we would like, it is similar to the engineering industries that traditionally employed men in higher paid engineering roles. We are pleased to say that our rate of progress is better than the industry as a whole.

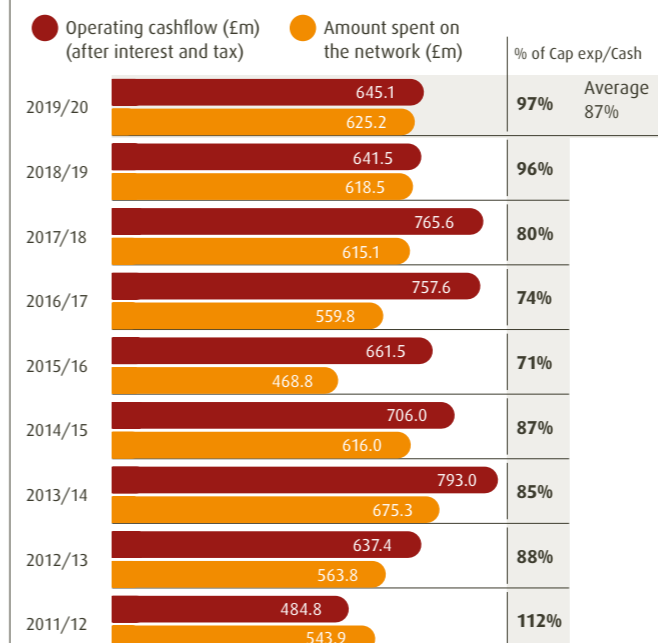
Gender pay gap



At April 2019 our Median Gender Pay Gap* is 12.0%. This is an improvement of 1.0% over our result for 2018.

* The Median Gender Pay Gap is the Office of National Statistics preferred measure for the gender pay gap.

Investment in the network



As we are a capital-intensive business, comparing our profit margins to service or retail companies can be misleading. Annual profit margins do not take into account long-term investment in new and existing assets. We believe that comparing how a business is investing the cash it generates is a better measure.

Over the past eight years we have, on average, invested 87% of the cash that we generate from operations back into our infrastructure assets to benefit the 19 million people connected to our networks.

Average

87%

of the cash generated from operations is invested in the network

A resilient and sustainable business model

The COVID-19 pandemic began to make its presence felt on the international stage at the end of 2019. As an organisation, we started to track its progress and began daily monitoring at the end of January 2020.

This epidemic has provided us all with a powerful reminder of the importance of preparing for events beyond our control. The Organisational resilience work that UK Power Networks had carried out in previous years provided a strong foundation on which to organise our response to the Coronavirus pandemic as we prepared for its potential arrival in the UK.

Our immediate focus was to develop a five-phase action plan that would mirror the government's phases as the epidemic spread throughout the UK. Utilising our well-established strategy and governance structure, we were able to initiate processes that put the initial phases of the plan into action. A key indicator for us to track was the number of employees affected, directly and indirectly, by this virus. Prior to the lockdown on 23 March 2020, we had developed a report that gave us a twice-daily snapshot of the levels of employee absenteeism related to Coronavirus.

First in UK

UK Power Networks is the first Distribution Network Operator to achieve Level 4 out of 5 from the Cabinet Office Emergency Planning College assessment for Organisational Resilience based on BS 65000:2014 Guidance on Organisational Resilience.

This informed our business continuity planning but also allowed us to respond quickly to any early indicators of potential problems. In addition, we set up a managers' toolkit to ensure our managers were equipped with the information and knowledge they needed to support their teams.

Our CEO gave daily online staff briefings and hosted regular live Q&A sessions that were open to the entire company. These sessions were viewed more than 50,000 times. Our IT team activated plans that would enable more than 98% of our office-based staff to work effectively from home during the lockdown, with the exception of specialised roles which were set up to work safely at a location that complied with all COVID-19 related guidelines. Our overall response and business continuity plans ensured we were able to prioritise our efforts on 'keeping the lights on' for all our customers, while maintaining the safety of our network.

COVID-19 notwithstanding, UK Power Networks continued to do everything it could to ensure its organisational resilience. As a provider of vital infrastructure, we must be able to withstand a range of potential disasters, whatever the cause; this may be our traditional risks of extreme weather, or terrorism, IT or other equipment failure or, indeed, a pandemic.

We continue to scan the horizon for threats and have a team dedicated to doing so, ensuring the business is as prepared as it can be for whatever comes our way. Cyber threats remain among the highest risks to our business and never more so than during an event such as the COVID-19 pandemic, when people are – unsurprisingly – distracted by the pressures that such circumstances bring. In the very early days of the pandemic, in recognition of this fact, we increased the number and type of cyber phishing tests deployed among our employees.

Employees who failed these tests received a phone call to discuss the danger of and heightened risk of cyber-attacks during this time. We perform a continuous programme of cyber security testing, including monthly phishing testing of our employees, with specific focus on the attack methods being used to target the organisation's increased reliance on home working during the global pandemic.

Industry collaboration

Last year, we joined fellow DNOs, National Grid and other leading industry players in a three-day, national off-site exercise run by the National Cyber Centre. The event was designed to envisage a catastrophic cyber-attack on the UK's power infrastructure, to identify the vulnerabilities in the system and examine the ways in which the various players would engage with each other to respond to it. This involved a series of intensive simulations where the participants operated, as they would in reality, from their respective control rooms and worked together to respond to the unfolding events. At UK Power Networks we demonstrated our commitment to the process by ensuring a member of our executive team participated in the exercise; the lessons learnt by all participants included reinforcement of the value of openness and collaboration to the success of such an undertaking.

Our business continuity plans and overall response to the pandemic ensured we were able to prioritise our efforts on 'keeping the lights on' for all our customers, while maintaining the safety of our network.

On this page you will see how we have performed against the following Sustainable Development Goals:



Risk Forums

Our Risk Forums developed throughout the year. We held an additional session to shine a light on those high impact low probability (HILP) events that have the potential to cripple our business.

In other words, we examined closely those events that are highly unlikely to occur but devastating in their effect if they do. These sorts of events could occur in any one of our risk areas so in future we will allocate a portion of each of our forums to these types of risks and our discussion will be informed by the important work we did at this year's forum.

 Business Risk	 Health and Safety
 Physical Risk	 IT Risk
 Business Continuity	 Emergency Planning



Industry-leading safety performance



54% **680,000**

reduction in overall injuries across all targeted high risk groups through our Be Bright Stay Safe campaign

We have promoted safety to over 680,000 children, key industries and members of public

Electricity can be dangerous and that is always at the forefront of our minds at UK Power Networks. Our number one priority is to make sure that no one is injured because of our actions, equipment or processes.

We work tirelessly to keep our people, our customers and the public at large safe and to maintain our standing as the safest Distribution Network Operator (DNO) in the country.

Embedding Stay Safe

Last year we re-launched our major safety campaign, Stay Safe, which is designed to keep our employees safe at work. How each of us behaves can affect our safety at work and at home. Stay Safe aims to raise awareness and influence our employees' behaviour, taking into account the wide range of attitudes and beliefs that people bring to work with them. This is a major project involving significant training for each employee. By 2020/21 we will have reached every one of our 6,000 employees and the programme will be thoroughly embedded in our way of working. We believe that all accidents are preventable and this principle underpins the Stay Safe approach to safety at work.

Post-holiday focus

It is a well-established phenomenon that accidents are more likely to happen immediately after time away. In the past, it was certainly our experience that the accident rate crept up in the new year when people return to work after Christmas. For the last four years, we have implemented highly focused safety campaigns to reverse this trend. Their aim is to remind people to focus on the potential risks involved in what they are doing and how they can minimise those risks by altering their behaviour. We ran these campaigns again in 2019/20, featuring checklists and reminders as well as encouraging people to talk about risks with colleagues and supervisors. These campaigns have resulted in a 54% reduction in all employee and contractor injuries.

Keeping contractors safe

Contractors are a vital part of our workforce and we provide a wealth of information to their organisations to enable them to brief front-line staff about staying safe when they are working at UK Power Networks. In 2019/20, we did not have a single contractor Lost Time Incident.

Holistic approach

We want our employees to be as fit and healthy as they can be. We see everyone who works for UK Power Networks as a multi-faceted individual and we do our best to approach their health and well-being with this in mind. 'Working Well' is the campaign that helps us to do this. It gives us the framework to address the intersections of safer working practices and better health – both physical and mental.

In 2019 UK Power Networks won the Utility Week Staff development award in recognition of the hundreds of mental health first aiders we have trained to support colleagues.

Third party safety

As well as keeping the people who work for us safe, we also want to be sure that anyone coming into contact with our operations comes to no harm. Industries such as agriculture, construction and haulage are at particular risk. It is our priority to ensure all our equipment is safe and we provide guidance and training to help people working in those industries to work safely around our network.

The farming community

We work closely with the agricultural community and this year in addition to our annual agricultural safety programme, we supported a subset of the farming industry: crop sprayer operators. The equipment that these workers use means they are at particular risk of hitting our overhead network. Working with Procarn, supporting the National Register of Sprayer Operators (NRoSO), we delivered a section of the accredited NRoSO training course that alerts this group to the dangers of overhead lines for people operating spray equipment.

This is just one aspect of our work to help farmers to be safer around electricity; in the last two years we have seen a 13% decrease in incidents involving farm workers hitting overhead power lines and in 2019/20 there were no injuries* to farm workers in our area at all.

*An injury is defined as physical damage that requires the attention of a medical professional.

"The NFU has been working closely with what3words and our members are rapidly adopting this app to report incidents or provide an address for remote locations such as pylons and poles, field entrances or remote buildings. More farmers are using contractors to carry out work on their farms and we recommend that those who have overhead lines, poles and pylons, provide a detailed map with these marked with a w3w address to contractors.

Should anything untoward occur, the contractor can immediately dial 105 and give the what3words address of the incident to UK Power Networks."

Rosalind David, County Adviser for the NFU

Keeping the public safe

Keeping the public safe is just as important as the safety of our employees. Our groundbreaking partnership with the Scouts has enabled us to convey safety information and important messages about safe behaviour around electricity to over 100,000 young people and their families.

Injuries to members of the public in our regions are down by 54% over the last three years and in that time there have been no injuries in the agricultural sector or resulting from recreational activities such as kite flying and fishing.

On this page you will see how we have performed against the following Sustainable Development Goals:



what3words

Thanks to our close relationship with the National Farmers Union (NFU), we were the first DNO to integrate and use the what3words location system.

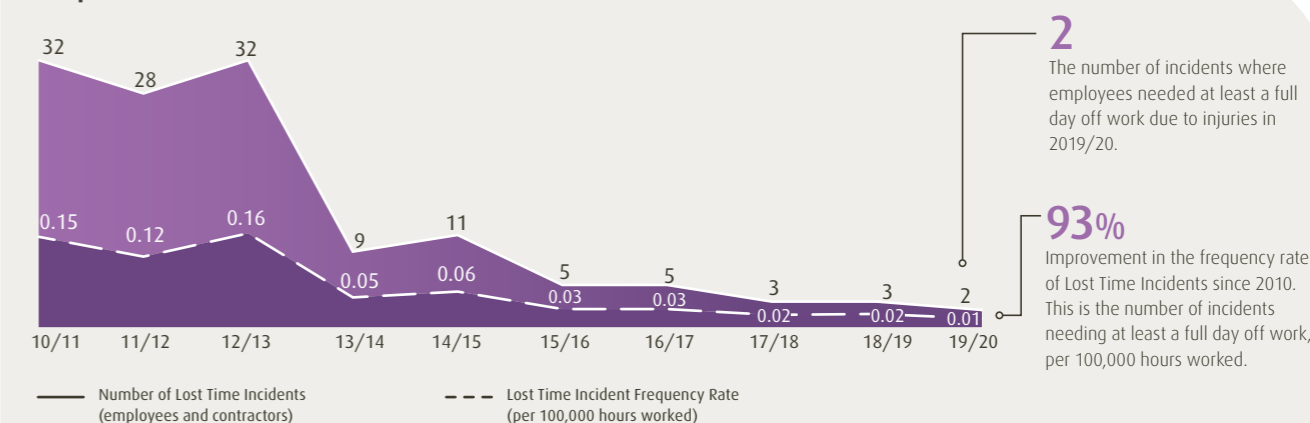
The app-based software is increasingly being used by the emergency services to locate people calling for assistance. It is a geo-coding system that has mapped the whole world into three-square-metre packages that can each be identified by a unique three-word label.

For UK Power Networks, it helps us to locate faults on our network and respond more quickly and accurately. For example, a farmer who wants to report damage to the network can call our service desk and provide the what3words reference, so we can pinpoint where the fault is. Similarly, a customer contacting us during a storm can report a damaged power line using what3words. what3words has reduced the time it takes us to locate faults from two or three minutes to 30-40 seconds. In the past, we used postcodes to locate people who get in touch, but this system is significantly more accurate.

UK Power Networks' safety record in the last three regulatory years:

- No recreational group injuries
- No injuries to farmers
- Builders' injuries have decreased by 42%
- Construction workers' injuries have decreased by 69%
- Home owners' injuries have decreased by 70%
- Electricians' injuries have decreased by 64%
- Local authority contractors' injuries have decreased by 60%

Our performance in numbers



Achieving record reliability



99.99% <30min

Network reliability

On average in 2019/20, a UK Power Networks customer was without power for less than half an hour, compared to over an hour in 2010

Keeping the lights on is the most fundamental purpose of UK Power Networks, so the reliability of our networks is highly prized.

As a rule, our customers are barely aware of the service we provide; they take it for granted that the lights will come on and the kettle will work. Electricity is a necessity of modern life, and it is our responsibility to make its supply as reliable as possible, and to restore it without delay when it fails.

We know how important network reliability is to our customers and are pleased to note that UK Power Networks remains the most reliable of the Distribution Network Operators (DNOs) in the UK over the last five years.

The human element

This year, we paid particular attention to the human element in maintaining a reliable network. We had created a new function the year before, to focus on the quality of supply that we provide. This function was designed to take a company-wide view of how the network runs, and ensure that the various elements of our operations are seamlessly connected, learning from each other and working together as efficiently as possible. We also worked hard to make sure that the various operational units worked together as one team. On page 39 you can read about how the service delivery people out in the field and those at the customer service centre are increasingly collaborating in order to achieve common goals.

In 2019/20 we continued to evolve our approach to tracking performance and addressing areas for improvement, embedding it in our working practices. We have a laser-like focus on the reliability of our networks, and we take every possible opportunity to improve our performance. As in other parts of the business, such as Customer Service, we have worked hard to build a culture of team work, so everyone involved is working together towards the common goal of a more reliable network.

This highly disciplined way of working is already bearing fruit, as we see the number of Customer Minutes Lost (CMLs) continue to fall, year on year. It has undoubtedly played an important role in making 2019/20 our best year ever in terms of CMLs. On average in 2019/20, a UK Power Networks customer was without power for less than half an hour, compared to over an hour in 2010.

Our London network remains the **most reliable** electricity distribution network in Great Britain

Ever-improving infrastructure

Alongside the cultural changes we have made to our approach to network reliability, we have continued to upgrade our infrastructure to make the network increasingly robust. In 2019/20 we implemented an extensive programme of improvements to our equipment right across the area in which we operate, replacing it as necessary and installing innovative, cutting edge models wherever possible. Most importantly, we ensure that whatever we install should be able to be controlled to the greatest possible extent from a central point, rather than needing the onsite presence of an engineer to operate it.

“The Mission Directed Work approach encourages us – management and engineers – to get to the root of the obstacles we face as a team. It allows us to discuss our challenges openly and frankly, and gives us a fresh perspective on problems, particularly those that can seem entrenched.”

Daniel Roberts, Operations Manager, UK Power Networks

We have added remote control automation to more than 1,300 high voltage substations across our three distribution networks and further low voltage reclosers to more than 400 substations mainly covering the London network.

On this page you will see how we have performed against the following Sustainable Development Goals:



Mission Directed Work Teams

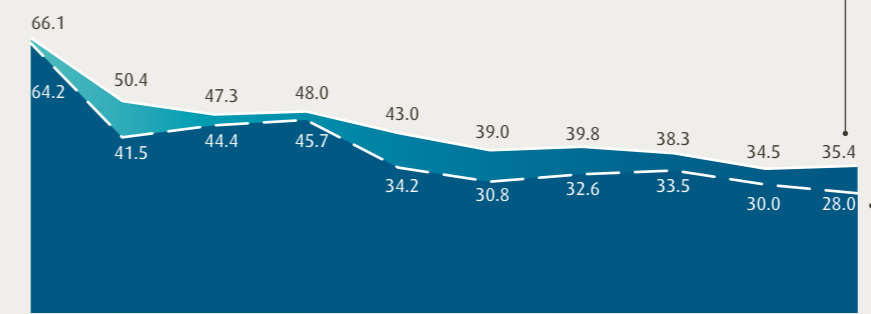
Last year we introduced a new approach to organising our operational teams called the Mission Directed Work Teams (MDWT). This method helps us take an increasingly rigorous approach to gathering and analysing data about our supply performance at a location level. Information about faults and how we dealt with them – good and bad – is scrutinised. The weekly performance calls help us focus on the restoration of supplies after network automation has taken place and the learnings are replicated across our networks. We can see the success in our South Eastern Power Network in particular, where the average time to restore power improved by 13% in 2019/20.



Our performance in numbers

Customer Interruptions (CI) are the number of customers interrupted per 100 customers on our network.

Customer Minutes Lost (CML) is the average length of time customers are without power, for power cuts lasting three minutes or longer.



35.4 CI

Our power cut performance improvement means customers now see an interruption on average once in nearly three years compared to an average of once every 18 months in 2010/11.

28.0 CML

A customer connected to our network will be off supply on average for less than half an hour per year. This is a 56% improvement over 2010/11, when the average duration was 64 minutes.

1. 2019/20 figures presented are provisional based on our regulatory submission at the date the accounts are signed.
2. Figures are a weighted average of the three licence areas and exclude exceptional events.

Providing excellence for our customers



91%

Our best ever customer satisfaction score

25%

reduction in customer complaints from last year

Every day we do our best to see the world through the eyes of our customers. The people we serve are entitled to expect us to provide a smooth-running service that simply works, delivering power to their homes and businesses, when and where they need it.

Our customers generally become aware of us only when something goes wrong, or when there is a change to their requirements. When that happens, we do everything we can to ensure that the service we provide is exactly what our customers want and need.

We pay close attention to the industry's Broad Measure of Customer Satisfaction. This lets us know what our customers think about our service. We have one of the best records in the country for customer service, but we are always trying to do better. In 2019/20 we set ourselves the ambitious target of breaking the 90% barrier and this year we have achieved that target.

The role of data

In addition to our customer satisfaction scores, we have many other sources of customer feedback data such as pulse surveys, Trustpilot reviews and complaints. We use this data to learn as much as we can about what satisfies our customers and, increasingly, what delights them about the service we provide. That, of course, is different for everyone, but when we looked closely at the data, we saw some clear patterns in what did and didn't result in satisfied customers. The way we use data is critical to improving our understanding of what leads to customer satisfaction. We have been using more sophisticated ways to analyse the information that we collect from our operations. We are now able to look at what we know about our customers and the services they use from many perspectives, such as network performance, geography, the particular customer journey, circumstances or demographics.

Our data is granular, with targets and customer service performance measured at a team level. This helps us to pinpoint any service issues quickly, and work with teams to develop targeted improvement plans. Data also enables better information for customers, in real time, while we are providing a service, and for post service support and care. Looking from these different angles helps us understand in some detail the differing priorities and pressure points our customers experience, and enables us to identify possible concerns and resolve them proactively for our customers.

For example, there is a general maintenance service that we provide both for our commercial and domestic customers. We noticed that while our domestic customers scored us highly in terms of satisfaction for this service, our commercial customers were not so happy. We drilled down into the detail of what was behind these scores. It became clear that for commercial customers, their circumstances meant there was a communication breakdown between the initial site visit to assess their needs and the appointment to carry out the work. This was particularly prevalent in a certain location of our business operations.

In light of this insight, we changed our processes for this segment of our customers and now, for commercial customers, we also send the engineers who will carry out the work on the initial site visit. That way, we are able to design and deliver a solution quickly, and it will be right the first time. We quickly saw an improvement in our satisfaction scores among this subset of our customers, from 81% in 2019 to 92%.

Tailored communications

Similarly, we have carried out detailed analysis of customers' preferences about how they would like us to communicate with them during a power cut. Some want to be told at the beginning when they can expect to be reconnected and don't want to hear from us again as long as it all happens as we have told them it will.

Others prefer regular reassurance that we are on track, even if nothing has changed since they were initially

90%

Connections customer satisfaction

notified. We now tailor our communications in line with these preferences, and we believe this has contributed to the improvement in our customers' satisfaction.

Team work

Another factor in our breakthrough to achieve over 90% customer satisfaction score is the focus we have given to building a culture of collaboration and cooperation between the different parts of our business. We have helped everyone who works at UK Power Networks to understand how the role they play contributes to the company providing excellent service to our customers. With even more training and communications, our people recognise how they fit in to the overall service culture and the ways that they can improve our customers' experience.

"UKPN has demonstrated that the customer is at the heart of their organisation. At a time of even greater uncertainty, a sustained approach to delivering an exceptional customer experience has never been more important."

Jo Causon, CEO, Institute of Customer Service

Our customer service teams have always worked in a culture of empowerment, with people knowing that they can use their initiative to solve whatever problems they come across. This culture now pervades our entire workforce and our internal polling bears out what is evident to all of us who work here: that everyone at UK Power Networks is working together to meet and surpass our customers' needs. For example, when a field engineer is working on a planned power cut and something goes awry, at the same time as pursuing the technical solution on the ground, the engineer will also call up the service delivery centre to make the people aware of the delay and ask what each of them can do to let affected customers know and provide the support they need.

On this page you will see how we have performed against the following Sustainable Development Goals:



Artificial intelligence in customer service

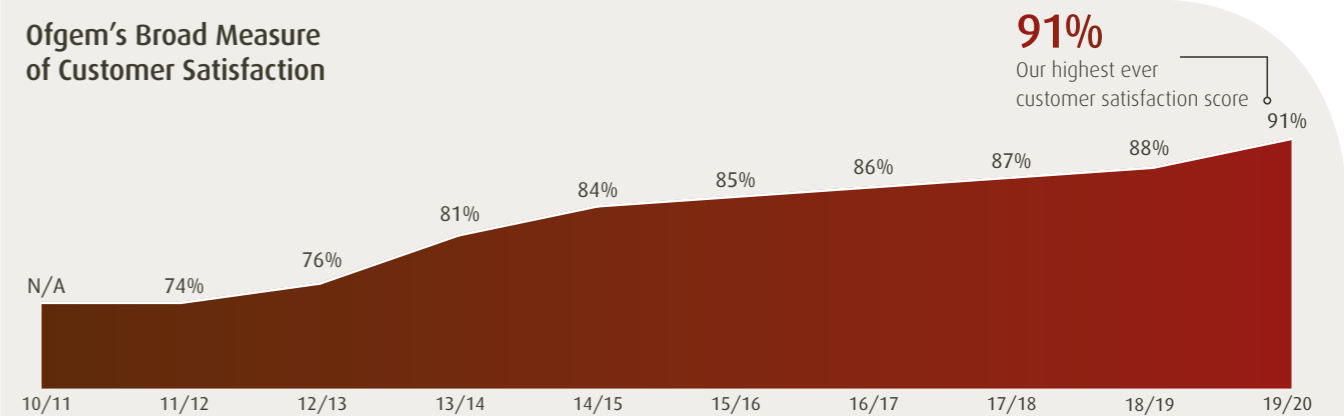
We are always on the lookout for innovative thinking that we can bring in from outside the sector.

Our newly formed analytics team took machine learning experience gleaned from technology disruptors, like Netflix and Amazon, to develop an advanced machine learning tool for customer connections. Taking three years of customer feedback combined with our own internal performance data we created a predictive algorithm to flag up potential dissatisfaction in each individual customer's journey. We demonstrated that the algorithm could achieve 91% accuracy and the artificial intelligence continues to learn and improve as more data is added to it. Our customer service teams use this tool, which displays daily prioritised recommendations to support early interventions and anticipate problems before they arise. This has helped our customer-facing teams to understand individual customers' particular needs and so provide them with a more tailored service.

Ever-improving services

We have continued to provide more and better services to our customers in 2019/20. This is partly thanks to the insights we have gained from the data we collect and also by continually pushing the boundaries when it comes to technology. New technology, such as the completely revamped My Customer app has enabled us to continue to expand and improve the ways in which we communicate with our customers as well as supporting how we operate when we are out and about fixing problems in the field.

Ofgem's Broad Measure of Customer Satisfaction



Figures for 2010/11 are not available as Ofgem began measuring customer satisfaction in this format in 2011/12.

91%

Our highest ever customer satisfaction score

Delivering value to our customers



£6.21

Our domestic customers pay us an average monthly charge of £6.21 (21p per day or £74.55 a year) for a reliable electricity supply

At UK Power Networks we are acutely aware of the need to invest wisely and always in the interests of our customers. As the monopoly provider of an essential service, we take seriously our responsibility to deliver value for money for all our customers.

Building and maintaining an electricity network requires continual investment. We are always looking for new ways of working that are better, faster, more convenient and – crucially – cheaper for our customers.

We have adopted many of the innovations introduced in recent years because they allow us to improve the service we provide without having to build additional infrastructure. We pursue these creative solutions because they save our customers money.

Customers for whom fuel bills are a disproportionately large element of their living costs – those in fuel poverty – are a particular focus for us. Over the last five years our charges have on average been 10% lower than the industry average and 29% lower than the most expensive DNO. Keeping our charges as low as possible is important to us because we know how much difference this makes to everyone, particularly the people in fuel poverty.

Fuel poverty

Being the lowest-cost electricity distributor is a key element of our vision to be sustainably cost-efficient. As well as running our business – and our networks – in the most cost-effective way possible, we also direct considerable effort towards supporting our fuel poor customers to be cost-effective themselves, helping them to save money wherever possible. In 2019/20 we expanded our fuel poverty programme, increasing the number of initiatives from five to 35. We brought together experts from our area to form the Fuel Poverty Forum; this group advises us on how to shape the way we deliver our service to support people in fuel poverty. We also increased our focus on training frontline support workers in the health and well-being services, so they are better equipped to identify and support such people.

We re-purposed our £300,000 Power Partners scheme during COVID-19 disruption, in recognition of the financial hardship and unemployment on the horizon, to support organisations which find new ways to help people in fuel poverty. We led a collaboration of eight utility firms to donate £500,000 to 21 Community Foundations that needed fast funds to continue operating during lockdown.

UK Power Networks operates in some of Britain's poorest areas; Newham, in London, for example, with 19.1% of its residents in fuel poverty, has the highest proportion of people in this category in England, and we also serve Waltham Forest (14.6%) and Tower Hamlets (11.2%). In all, we have over three quarters of a million fuel poor households in our region, and we are in contact with them all. This year, as part of our being the lowest cost DNO, we provided energy efficiency advice and personalised support to over 845,000 customers and we have saved fuel poor households over £48.7 million.

Targeting the private rental market

The Partners Forum, including representatives from local authorities, Future Climate and the National Energy Action (NEA), recommended that we look closely at the complex issues that arise in the private rental market, in which a higher proportion of people face fuel poverty. In response, working with Home Energy Efficiency Training (HEET), we delivered eight focus groups for private landlords and two for private tenants, helping both groups improve energy efficiency in their properties.

Stakeholder Engagement Initiative of the Year

We won the 'Stakeholder Engagement Initiative of the Year' title at the Network Awards for our 'lifting families out of fuel poverty' project

More than 40 households benefited from mould treatments and ventilation support, making their properties safer; and we produced 50 technical reports for tenants and landlords detailing energy efficiency improvements. We also produced 'fuel handbooks' for tenants and landlords that include information about the help that is available if your home is hard to heat.

"Cold homes are a bigger killer in the UK than road accidents, alcohol or drug abuse according to the NEA. Partnering with UKPN has enabled us to provide warmer homes for customers who are in need."

Tom Ruxton, Home Energy Efficiency Training coordinator

Financial help for electricity supply adaptations

Stakeholders at our Critical Friends Panels and Partners Forum encouraged us to consider how we could support fuel poor customers who require changes to their electricity supply to adapt to their changing needs, in order to remain in their own homes. We took a leaf from the book of the charity, Gas Safe, which provides grants of up to £500 to customers who need interventions such as safety checks following the replacement of a boiler. We launched a social fund designed to reduce financial barriers for customers who are eligible to be on our Priority Services Register and are unable to afford changes that their home requires. This might be a way to improve accessibility for the customer, or upgrading their fuse so they or their carer can use an electric vehicle. Twenty-two households received financial support amounting to more than £10,000 in the first six months of the fund being launched.

On this page you will see how we have performed against the following Sustainable Development Goals:



Working with young people

UK Power Networks wants to tackle fuel poverty early on, so we show the young people in our areas of operation how to be energy efficient from a young age.

We designed a set of activities to engage the most at risk young people in our area, with a particular emphasis this year on young people leaving care.

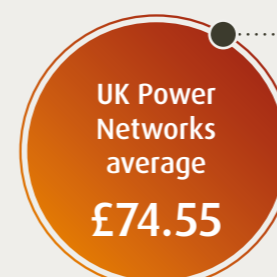
- Working with RePowering London in deprived schools in south London, we delivered a theatre project that provided energy efficiency advice.
- With our partner MyBnk, using Japanese manga-inspired cartoon energy heroes, we helped Key Stage 2 primary school children in disadvantaged areas to understand how to save energy. To support families during COVID-19, in early March 2020 we adapted Money Buzz from classrooms to home schooling.
- As part of our partnership with the Scouts, we introduced an Energy Ambassador programme and a Power Cut 'Grab Bag' initiative. These help young people understand and share with their families what they learn about energy efficiency and how to prepare for a power cut.
- Building on the success of MoneyHouse, we worked in collaboration with Brighton & Hove Council, SGN and Southern Water to help care leavers understand how to manage their utilities efficiently.

Average annual domestic charge (2015/16–2019/20)

Domestic unrestricted customers based on average annual consumption of 2,900 kWh

10%

Lower annual domestic charges than the industry average



Supporting our communities



1.9m

customers on the Priority Services Register (22.8% of total households in our region registered on our PSR)

93%

satisfaction score among customers on the Priority Services Register (98% during Storm Ciara and Storm Dennis)

Four key focus areas of our Customer Vulnerability Strategy

1. Maximising our partnerships and training our staff
2. Managing and developing our Priority Services Register (PSR)
3. Tackling fuel poverty
4. Providing inclusive services to ensure no one is left behind in a changing world

It is a prominent feature of UK Power Networks' vision to be a respected and trusted corporate citizen.

This includes our ambition to be the most socially and environmentally responsible DNO and relates in particular to how we meet the needs of our customers in vulnerable circumstances, both now and in the future. Social responsibility is in our DNA; as the provider of an essential service, we understand the importance of taking care of those customers who need extra help, for whatever reason.

The COVID-19 challenge

The COVID-19 pandemic has not stopped us from delivering our additional services for our customers in vulnerable circumstances. We are adapting our service and finding new ways to operate in order to accommodate the extra pressures that the Coronavirus has brought with it. We continue to support the people who need our help most, especially during a power cut. The pandemic took hold towards the end of the year we are reviewing. Just before the lockdown was implemented, we identified 110,000 customers on our Priority Services Register who were in particular need of our help. We sent everyone in this group a text message to let them know the best way to access support regarding their power supply while they were in lockdown.

Links between fuel poverty and ill-health

Fuel poverty and poor mental and physical health are inextricably linked; for example, living in a cold, damp home can cause stress and can exacerbate circulatory and respiratory illnesses. People living in fuel poverty are a key focus for us. This year we have learnt more about them, which helps us better understand how we can remove barriers that may prevent us engaging effectively with them.

Fuel poverty – the particular challenges facing asylum seekers and refugees

Thanks to engagement with our stakeholders, we learnt that many people coming to Britain as asylum seekers or refugees can face higher energy costs as they adapt to a new energy system.

UK Power Networks developed an initiative with National Energy Action (NEA), a charity working to eradicate fuel poverty, and the Refugee Council, to help people in these difficult circumstances. The programme included Energy Champions to show people how to set up their heating systems and understand their utility accounts and the tariffs available, as well as Welcome Packs containing radiator foil, shower timers, LED light bulbs and other resources. In 2019/20 more than 25 refugees and asylum seekers trained with UK Power Networks as Energy Champions, and now they can share their new knowledge with their communities and help others in similar circumstances.

£49.4m

Direct financial benefit to customers in vulnerable circumstances

Greater emphasis on face-to-face support

We know that when things are tough for our customers, they value a personal approach. More and more in 2019/20 we are designing our support to be delivered face to face whenever possible, because that is what makes our customers feel cared for and looked after. Clearly this is more challenging in a COVID-19 era, but with training and appropriate procedures, we have met the challenge and found ways to deliver a personal service while maintaining a safe distance. In practice, this means that our operational employees who go into customers' homes are now more empowered to take action on behalf of our customers when they see the need, rather than having to refer back to the customer service team as they did in the past.

For example, if an engineer visiting someone's home to fix a fault sees that a customer would benefit from a locking gas cooker valve, or advice from an energy efficiency adviser, they can arrange that directly. Similarly, they can order a takeaway meal for a customer who has not been able to cook lunch because of a power cut. In 2019/20 we completely redesigned the app that gives our employees access to a whole range of support services. Now called My Customer, the app provides our front-line service employees with a comprehensive translation service, the ability to refer customers to a range of support services and many practical functions too, such as ordering a hot meal.

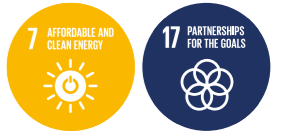
"Since the project has been completed, we have been able to access more of our building knowing that all members can use spaces that were previously cold, draughty, dark and underused. The community room can now naturally link to our sun room with the knowledge that we have warmer and brighter spaces for those suffering from Dementia, and our Dementia group has risen from 25 to 40 members per week."

Spencer Goddard, CEO, Tenterden Social Hub

There in a crisis

We pay close attention to our customer satisfaction levels and are able to look below the headlines of those numbers to see how our customers in vulnerable circumstances feel about our service. The numbers tell us that those customers value us even more highly than customers in general and, when the going gets tough, they appreciate us more than ever. This year our general score for customer satisfaction broke through 90%. Customers in vulnerable circumstances, however, scored us even more highly at 93%; and during Storms Ciara and Dennis that rose to 98%.

On this page you will see how we have performed against the following Sustainable Development Goals:



Helping community facilities become more energy efficient

In July 2019, the UK's energy networks backed calls from the government's Department for Business, Energy and Industrial Strategy (BEIS) Select Committee to make energy efficiency a national infrastructure priority, matched with stronger action.

At UK Power Networks we knew we had a role to play: village halls and charity premises are the heart of many of the communities we serve. Local residents rely on meeting up and taking part in activities at them, and this can be crucial to their welfare. But these halls are often poorly insulated and inefficiently heated and lit.

To help rectify this, we delivered a programme of nine energy efficiency initiatives that can be replicated across the communities in which we operate.



Delivering a sustainable energy future for all



Image credit: Andrew Neal

26%

reduction in our Business Carbon Footprint since our baseline year of 2014/15

1st DNO

to achieve the Carbon Trust Standard for Carbon

Protecting the environment continues to be central to our corporate vision, which includes our aim to be the most socially and environmentally responsible DNO.

Our greatest contribution to protecting the environment lies in how we facilitate our customers' journey towards a decarbonised world and you can read about that in detail on page 50.

As well as having a positive effect on the environment in which we operate, we also work hard to reduce our own carbon footprint.

The hallmark of 2019/20 from an environmental perspective is that it has been a year in which we have built a strong foundation in order to make a long-term, meaningful difference in the years to come. We have learnt valuable lessons about managing our waste and have continued our drive to follow the principles of the waste hierarchy. This means we aim to reduce the volume of waste we produce in the first place, while maximising recycling and recovery options. This year we are making strategic decisions about the integrity of our targets and measures to ensure that we are delivering the best result for the environment in line with the principles of the circular economy.

Reducing carbon

Reducing our own carbon footprint is a cause close to everyone's hearts at UK Power Networks. This year has been a landmark year, as we became the first electricity network operator to achieve the coveted Carbon Trust Standard for Carbon. This is the world's leading independent certification of an organisation's achievements in managing and reducing its greenhouse gas emissions and is awarded to organisations that achieve year-on-year reductions. We began measuring the reduction in these emissions in 2014/15 and, since then, have brought them down by over 26%.

Green Action Plan

We launched our Green Action Plan (GAP) in March 2019 and its first year of operation identified short term targets by 2021. The focus now is on long-term planning and building a sustainable framework for the years to come. The UK Power Networks GAP has a broad remit. It is looking to reduce waste, energy and water usage, protect the natural landscape, encourage biodiversity, minimise noise and air pollution and use environmentally friendly materials whenever possible.

"We are delighted to certify the real reductions that UKPN has achieved over the past two years and look forward to continuing to work with the company to benchmark its progress as it implements its Green Action Plan."

John Newton, Associate Director, The Carbon Trust

Biodiversity

As part of our GAP initiative, we have set stretching targets to improve the biodiversity potential of 100 of our sites. UK Power Networks is in a unique position in that many of our substations are based in fenced-off pockets of land that have been relatively underdeveloped for 60 or 70 years and so include valuable and sometimes scarce habitats where a variety of species can live. In 2019/20 we selected 100 sites, mainly primary substations, to be surveyed and have their current biodiversity potential assessed (using the DEFRA Biodiversity calculator). Ecologists from the Wildlife Trusts and Ecological Consultant RSK ADAS have been surveying the sites and recommending targeted improvements for each to enhance its biodiversity potential. Engaging employees is key to the long-term success of this initiative and volunteer work parties have already installed bat boxes and bird boxes, planted hedges and wildflowers and built refugia to provide shelter for insects, reptiles and small mammals. Refugia are areas where local wildlife including small mammals, reptiles and amphibians can shelter or hibernate. Through this initiative we aim to increase the biodiversity potential of each site by 20 – 30% and turn the selected substations into thriving habitats for wildlife including vital pollinators like bumblebees.

The COVID-19 effect

As with so much this year, the COVID-19 pandemic has had a range of effects on our environmental initiatives. On the one hand, our offices have been used less during the lockdown, so our energy usage has been much lower than usual. On the other hand, our plans to introduce push button taps in office kitchens in order to reduce water waste have been put on hold because they will increase touch points that we need to reduce. Also on the downside, while in the past employees would share vans when travelling to a job, social distancing has meant that everyone now has to travel separately. This of course is likely to mean more vans and greater fuel consumption for our field visits. These unusual patterns will inevitably produce some anomalies in our data but we hope that, in the long run, they will result in small glitches and the overall trends will resume.

On this page you will see how we have performed against the following Sustainable Development Goals:



Science-based targets and the Carbon Trust

We are working closely with the Carbon Trust to understand all the carbon that is embedded in our business so we can work to reduce it and play our part in helping to reduce global warming to as close to 1.5°C as is possible.

With the support of the Carbon Trust, we are formalising the concept of science-based targets as a key element in our approach to carbon reduction. A science-based target is one that is in line with what the latest science says is necessary to meet the Paris Agreement; that is to limit global warming to well below 2°C and pursue further efforts to reach a reduction of 1.5°C. Our work with the Carbon Trust has also enabled us to develop a 'carbon budget' that will stand us in good stead to plan for our next regulatory period that starts in 2023.



Green Action Plan targets

Carbon Trust Standard – accreditation

Reduction in CO₂ emissions, waste and water usage, to meet the Carbon Trust Standard Initiative by December 2021. (Carbon element achieved in December 2019.)

Water

10 – 15% reduction on existing water usage by December 2021 at our top six largest sites (Fore Hamlet, Bury, Newington, Bidder Street, Maidstone and Energy House). (Feeds into Carbon Trust Standard accreditation.)

Waste

Manage 90% diversion from landfill across all our offices and depots and achieve 80% recycling by December 2021 at our top six largest sites.

Energy

Reduce building energy use by 10% by December 2021 at our top six largest sites. (Feeds into Carbon Trust Standard accreditation.)

Biodiversity

Increase in biodiversity potential by 20 – 30% at 100 sites by December 2021.

Pollution – Fleet

Work towards reducing nitrous oxide emissions from our fleet by 33% by December 2030.

Pollution – Generators

Work towards reducing nitrous oxide emissions from generators by 33% by December 2030.

Noise

Work with local authority planning departments, to mitigate risk of noise from our network on planned developments.

Procurement

Reduce packaging and transportation across our supply chains. Adopt a circular or semi-circular approach to procurement.

Responding to our stakeholders' needs



Understanding our stakeholders' priorities, concerns and requirements is vital to how we run our business. Engaging with stakeholders underpins everything that we do; it shapes our strategic direction and it informs the business decisions that we make.

Our stakeholders challenge our plans and help us to review, improve or rethink our approach. We engage with a diverse range of stakeholders, from domestic and commercial customers to fuel poverty specialists and leaders in low carbon technology.

Identifying the appropriate stakeholders for each engagement is key to ensuring that groups at risk of being under-represented in discussions are proactively included and engaged.

This year we secured first place in Ofgem's annual stakeholder engagement and consumer vulnerability incentive scheme. The scheme measures how effectively regulated companies engage with stakeholders to shape the services they provide.

Stakeholders influence the evolution of UK Power Networks' vision

Our stakeholders influence our business in many ways. As well as helping to shape our service offerings, they also guide us at a strategic level. This year we have modified our corporate vision to reflect input from our stakeholders: they suggested that we should be more explicit on the

4.75m

Highest ever reach through over 500 engagements, reaching 4.75m stakeholders

545

Collaboration with over 545 partners who are integral to the development of our services

Focus areas	Meeting our customers' evolving needs	Tackling the net zero challenge	Ensuring no one is left behind	Helping customers in vulnerable circumstances
Example of what we did	We implemented Primary Outage Restoration Tool (PORT Lite) across 548 grid and primary substations covering rural networks. This tool enhances digital reliability checks, enabling faster supply restoration using adjacent networks, delivering a more reliable service for these rural customers.	We are the first and only DNO to provide flexibility services at the low voltage (LV) level, creating the opportunity for everyone, including domestic customers, to get involved in flexibility.	Collaborated with South East Water, SGN and National Grid to share best practice to equip those working in care organisations to manage and support their patients during a power cut.	Used advanced data analytics to mine our data and needs codes to identify fuel poor customers, then formed partnerships with community-based groups to identify, refer and support fuel poor customers.
Outcome	Over 315,000 Customer Interruptions prevented in the last year – aided by our advanced network monitoring tools including ALVIN Reclosers and PORT Lite.	Supercharging a market – we are supercharging a market that has gone from nothing to a total of 300MW of flexibility power of more than half a million pounds in just two years, and grown 200% in 2019 alone. More than 2m customers across 766,744 homes and businesses have lower bills as a result of our 300MW of flexibility products.	Over 8,514 care organisations equipped with practical knowledge to support their patients during a power cut.	845,638 customers supported who are, or face the risk of being, in fuel poverty (more customers supported than any other year). 761,965 eligible customers signposted to their water company PSR and social tariff scheme.

subject of trust, given the current public discourse about trust in the sector. In response we not only amended one of the pillars of our vision, to be a 'respected and trusted corporate citizen' but we also decided to commission independent accreditation from Business in the Community to provide evidence to this effect, and we embedded Trustpilot as an additional customer feedback mechanism. In addition, stakeholders told us that our active role in reducing carbon emissions was not sufficiently reflected in our previous articulation of enabling the low carbon transition for all, so we changed that to enabling the net zero energy transition for all. Stakeholders also wanted to see our commitment to collaboration more explicitly reflected in our vision. (See page 19 for our recently updated Corporate Vision).

"The challenge of net zero will only be delivered through collaboration. Sharing and opening up data is crucial to our common mission. No one can do this alone, so it is great to see UKPN launching their Open Data platform, and we look forward to more data being available in the future!"

Laura Sandys CBE, Chair of the Energy Data Taskforce

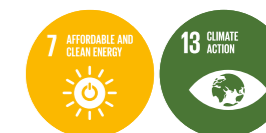
Input to strategy

In 2019/20 engagement has been critical to informing our strategy to support the UK's commitment to reach net zero carbon emissions by 2050. Acting on stakeholder feedback, we changed one of our four overarching stakeholder priorities from caring about the environment to tackling the net zero challenge to reflect our active role in enabling net zero. Feedback from a wide range of stakeholders, via for example our CEO Panel and Critical Friend Panels, has helped shape our net zero strategy, and we have drawn on best practices from other industries to do so. Stakeholders have also been crucial in the evolution of our electric vehicle strategy and with the development of our heat strategy that has been taking shape this year.

Engagement with political stakeholders

MPs and councillors are important stakeholders as they advocate for their constituents and many take a close interest in the challenges faced by them. This year we continued to build relationships with a number of MPs: two in particular wanted to learn more about our Apprentice Scheme. Jo Churchill, MP for Bury St Edmunds, visited our warehouse there and our apprentices gave her a tour of the facility and told her about UK Power Networks and their experiences as apprentices. In April 2019 the Rt Hon Robert Halfon, MP for Harlow, visited our substation and office in the town. Mr Halfon is also Chair of the Education Select Committee that includes scrutiny of apprenticeships and so was particularly interested to hear from our apprentices about their careers so far with UK Power Networks. In February 2020 Ruth Cadbury MP – who is a Labour MP on the Transport Select Committee – visited us at the Waterloo Bus Garage and saw for herself the groundbreaking work we have done there to electrify London's buses.

On this page you will see how we have performed against the following Sustainable Development Goals:



Open Data portal

UK Power Networks is the first DNO to publish an Open Data crowdsourcing portal that gives open access to our operational data along three themes: enabling net zero, network data and strategy and innovation.

We did this in response to our stakeholders' input to our Data Strategy, when they urged us to take note of the government's Energy Data Taskforce report. This report, published in June 2019, sets out recommendations for how industry and the public sector can work together to facilitate greater competition, innovation and markets in the energy sector by improving data availability and transparency. It provides a suite of recommendations on how to enable more effective data sharing and use.

By opening up our data we hope to revolutionise the data sharing culture of the energy industry. Data sharing is the key to unlocking the myriad benefits that will enable the transition to a net zero carbon economy. Professionals from many industries will be able to use our portal as a springboard for innovation, helping to develop tools that deliver efficiency, carbon and cost savings to benefit their consumers.



Delivering benefits through innovative solutions



£232m

of customer savings as a result of innovation over the last five years (2015/16 to 2019/20)

We consulted extensively with our stakeholders to help us formulate our new strategy and we have also revised its three innovation pillars:



Efficient and Effective, delivering value to customers and the business through innovation by improving network performance and reliability at the lowest possible cost



Net Zero Ready, an enabler of the net zero carbon transition, connecting electric transport, heat, generation and storage at the lowest cost, as well as ensuring sustainability of our operations to tackle the net zero challenge



Future Ready, a future ready distribution system providing new services, to meet our customers' evolving needs, at the same time ensuring no one is left behind as a result of the energy system transition

Innovation provides us with the flexibility to respond better, faster or more cost-efficiently to the changing requirements of our customers. Our innovation team works closely with colleagues across the business to create and embed innovative solutions delivering real benefits for our customers. We now have a total of 40 innovative solutions embedded as business as usual, saving a total of £232m over the last five years. LoadShare and Powerful CB are two projects carried out in 2019/20 that exemplify the principle of combining groundbreaking technology with real life benefits for customers.

LoadShare

LoadShare is a project that releases additional capacity on the network. It solved a critical pinch point on a power line near the Essex/Suffolk border, by allowing more electricity generated from renewable sources to feed into the system. The devices were installed on steel overhead pylon lines near Lawford running between large electrical substations.

As one of the three lines is shorter than the other two, it attracted more 'load' while the other two lines have ample spare capacity. Now UK Power Networks can balance the power flowing across the three, with the use of power technology devices attached to the overhead lines and installed in the electricity substations. Thanks to this innovation, deployed in combination with business-as-usual interventions, we have been able to avoid spending time and money building new electrical cabling and substations.

Innovation is at the heart of UK Power Networks. Our openness to new and better ways of working is the driving force behind our success in continuing to deliver outstanding service for our customers year after year in a landscape that is changing at dizzying speed.

The commitment to net zero emissions by 2050 means that we must continually seek and find ever more innovative solutions to meet and balance the world's twin demands for more power and lower carbon emissions.

We published our first Innovation Strategy in 2015 and updated it in 2017 to reflect feedback from our stakeholders. The opportunities and challenges facing electricity distribution in 2019/20 led us to refresh that strategy once again, so we are well placed to meet them. Our updated strategy sets out why we innovate, how our stakeholders inform our strategy, how we develop and deliver our innovation programme, the challenges we face and areas of focus for the future.

Powerful CB

In February 2020 UK Power Networks installed the world-first Power Electronic Fault Limiting Circuit Breaker device – Powerful CB – at a substation in Tower Hamlets in London. The technology can detect and protect against a fault on the electricity network in just four-thousandths of a second: 20 times faster than any existing circuit breakers.

Powerful CB makes it easier and cheaper for low carbon energy technologies such as wind, solar and Combined Heat and Power (CHP) units to connect to the network. The super-fast circuit breaker works 250 times faster than a person can blink to protect the network from any issues created by faults. As a result, more CHP and other low carbon generation can be safely connected at lower cost, and the benefits passed on to customers.

Powerful CB devices are reusable, unlike fuses which perform a similar function. If a fault does occur, our engineers can operate the devices remotely, meaning that the lights can be turned back on more quickly, without needing to visit the site. Device trials will continue until 2021 to gather data on Powerful CB devices' performance in different configurations.

“UKPN have been highly supportive and attentive in listening to the technical challenges that BP face in the roll-out of high-powered charging at fuel forecourts. They have been proactive in suggesting ways forward and very supportive in the general connection application process.”

Matthew Hobbs, BP Advanced Mobility Unit

Market-leading commercial frameworks

Our groundbreaking approach to energy flexibility, where we balance power supply and demand depending on what is happening on our network, has opened up access to renewable energy for most of our customers. By managing the output of Distributed Energy Resources, instead of building new substations and laying more cables in the traditional way, we expect to save customers substantial sums of money over the years.

The 2019/20 flexibility tender was the largest in the UK and represented the first low voltage flexibility agreements for an energy network in the world, with 55 high voltage zones and 60 low voltage zones serving 10% of UK Power Networks' customers.

Infrastructure that supports achieving net zero carbon transition

In 2019/20 we launched a long-term programme to replace existing transformers at our substations with more energy-efficient models. These green transformers help to reduce by 80% the energy that would otherwise be lost while it is being transported. They will be used in most new construction projects and where existing equipment needs to be replaced, and will make a significant contribution towards decarbonising energy.

On this page you will see how we have performed against the following Sustainable Development Goals:



High powered hubs

Over 3,000 petrol and diesel forecourts in our area will have an important role to play in providing high-powered EV charging infrastructure.

Rapid charging hubs require as much electricity capacity as a city skyscraper, yet in a much smaller footprint.

Building on the approach we used with bus operators, we set up tailored surgeries with the major petrol forecourt operators. The surgeries help operators assess the most cost-effective solutions to transition their premises into electric vehicle hubs. We found a way to reduce the space requirements for forecourts by 50%, so even small sites could install EV charging infrastructure. We used what we learned with UPS on smart charging and applied it to petrol forecourts. Working with BP, we developed a new initiative combining Active Network Management (ANM) with behind-the-meter technology and battery storage to optimise chargers on a site.



Embracing the future energy environment



1st **753,800 MWh**
 Ranked 1st in the UK and Europe and 2nd globally in the Smart Grid Index
 Renewable generation enabled through Active Network Management

In 2019 the UK set a legally binding target to achieve net zero carbon emissions by 2050. The government sees this as a necessary and fundamental measure to end the country's contribution to global warming and fight climate change.

The transition to a net zero future is revolutionising the way we produce, distribute and consume electricity. The carbon intensity of electricity has reduced dramatically in the last decade, with renewable generation rising to 32% of the UK's mix in 2019.

More and more renewable energy sources are connecting to our networks and consumers are beginning to engage proactively in the energy market, generating, storing and trading their own electricity.

In addition to this, domestic customers and commercial businesses are beginning to choose EVs over traditional internal combustion engine vehicles. This is reflected in the more than 300,000 EVs registered in the UK, of which 88,909 are estimated to be in UK Power Networks' licence areas. The electrification of transport is expected to accelerate over the coming years; in just 12 months (from April 2019 to March 2020) we have seen a 40% increase in EV growth in our area of operation.

If society continues to be engaged in this way, we estimate that by 2030 up to 3.6 million EVs could be on the roads across the area that we cover. These changes are driven by increased awareness of global issues such as climate change and air quality challenges, government decarbonisation policies and wider environmental targets, along with advances in energy generation and battery technologies and the decreasing costs that are making them more accessible and widespread.

EV Strategy

UK Power Networks was an early mover in its development of an EV strategy and this has helped to drive the accelerating uptake of EVs across the country. It blazed a trail for electric buses and delivery fleets in London. In 2019/20, in order to reflect how fast the world is changing with regard to EVs, we refreshed our EV Strategy and we consulted our stakeholders on it to make sure we continue to focus on the right areas.

Our EV strategy remains simple: keep the lights on, while enabling decarbonisation of transport and improving air quality by preparing the network for changes in how customers use their electricity supply as they convert to EVs.

Our EV strategy has three principal objectives:

- Inform investment and industry-leading policies and standards**
feeding in to policy development and ensuring technical standards are up to date
- Deliver great customer experience**
focusing on the customer experience and educating the market on the role of the network infrastructure to enable their connections
- Develop a network that is prepared for EV uptake, through the use of smart solutions and strategic investment**
using our smart solutions and spending our customers' money wisely in order to have our network technically ready for EVs

UK Power Networks has an important role to play in enabling the transition to a net zero energy system and the electrification of transport and heat, ultimately reducing carbon emissions and improving the air quality for the communities we serve. The tightening of the previous 80% carbon emissions reduction target means that the size of the challenge has increased and the decarbonisation of our society will have to accelerate to meet the net zero target by 2050.

Net Zero Forum

UK Power Networks held its first Net Zero Forum in March 2020, attended by staff from local authorities, charities, the government's Department for Business, Energy & Industrial Strategy, utility companies and academics.

As well as sharing insights on the world's largest EV fleet and how UK Power Networks is exploring the potential of EV smart solutions such as smart charging and facilitating vehicle to grid (V2G) charging, the Forum provided a platform for the launch of our strategy for the decarbonising of heat.

"Decarbonising heat is essential if we are to reach net zero carbon emissions... the scale of the challenge means that no single organisation or sector has all the answers, which is why the consultation on the document is so important."

Dr Joanne Wade OBE, Deputy Director of the ADE Panel debate

The Forum, which included subject matter experts such as Repowering London and Citizens Advice, also explored strategies to ensure that no one would be left behind in the net zero carbon revolution, as the energy system evolves to support a net zero future. It also raised money through its entrance fee for National Energy Action (NEA), a charity working to end fuel poverty.

As well as facilitating the connection of low carbon technologies, we are also striving to reduce our own carbon footprint. You can read more on page 44 about this work, which has contributed to our achieving the Carbon Trust Standard for Carbon.

Active Network Management

In our bid to support a net zero carbon economy, in May 2019 we announced our plan to create the world's most advanced electricity network control system, called Active Network Management (ANM). This groundbreaking system will enable over 500MW of Distributed Energy Resources (DER), mostly from renewable sources such as wind and solar, to connect to the network, more cheaply and quickly.

On this page you will see how we have performed against the following Sustainable Development Goals:



Decarbonisation of heat

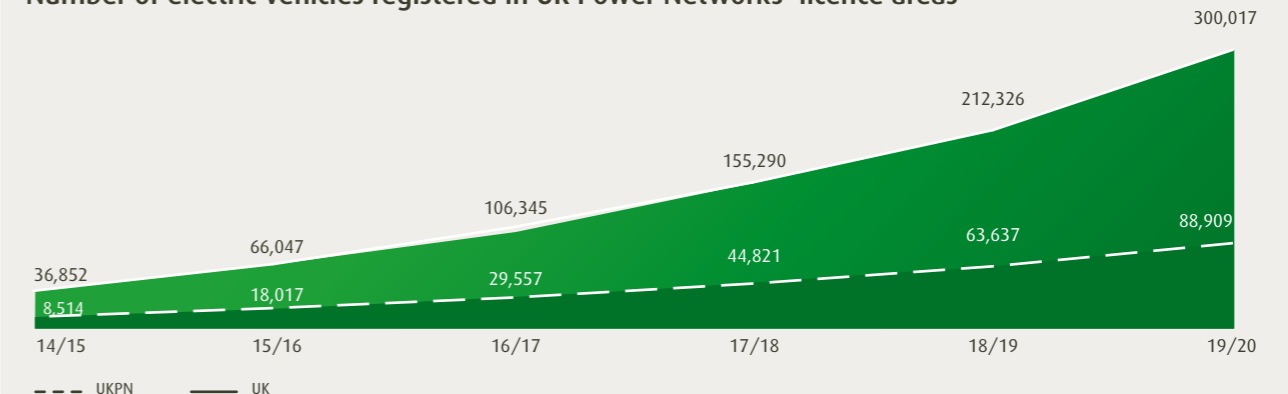
Building on our solid experience of facilitating electrification of transport, we are now setting out the actions we need to take to support decarbonisation of heat.

The government has written into law that the country will have net zero carbon emissions by 2050, and the decarbonisation of heat is a key factor in that reduction. Gas heats 88% of British homes, and heating is the biggest single contributor to greenhouse gases in the UK. Finding innovative, workable ways to reduce that will be vital to meeting the net zero challenge.

Through collaboration and consultation, UK Power Networks has produced a detailed strategy for the decarbonisation of heat. We want to inform government policy through evidence and data and prepare our network so customers are able to connect low carbon heating solutions as they become available. Through this process, we aim to take a practical approach and keep an open mind about which solutions to investigate and try.

ANM gives the most complete view possible of everything that is happening on the network at any given moment and, based on that, will autonomously make complex decisions to optimise the flow of available power. We believe this is the most advanced network control centre system in the world. After running successful trials of the system in 2019/20, we have now begun to roll it out across all our areas of operation, two years ahead of schedule.

Number of electric vehicles registered in UK Power Networks' licence areas



Delivering energy infrastructure solutions

UK Power Networks Services is the commercial arm of UK Power Networks. It manages private energy networks and delivers major national power infrastructure projects. We work for clients on a competitive, commercial basis and are distinct from the Ofgem regulated business of UK Power Networks.

Much of the UK's critical infrastructure relies on the services and solutions that we deliver. Rail networks, airports, utilities and defence as well as complex property developments all depend on the skills and experience that we offer. We help our clients to increase the productivity of their assets, decarbonise their infrastructure and increase the value of their power distribution networks.

Power infrastructure for railways

Power infrastructure for the rail network is a key component of UK Power Networks Services' portfolio. In January 2020 Network Rail's electrification of the railway route between Cardiff Central and London Paddington was successfully completed. UK Power Networks Services began working on this project in 2014, and it has resulted in thousands of extra seats, more regular services and faster journeys for passengers as they travel on GWR's Intercity Express trains.

North of England expansion

In recent years we have extended past our traditional base in the south east of England, building a strong body of experience in the north of England. Following a successful and technically complex project at Manchester Airport last year, we are now working with Transport for Greater Manchester, helping to renew and upgrade the energy infrastructure for the Metro Tram system in support of their green transport strategy. We are also collaborating with Manchester Metropolitan University to pioneer new ways to improve energy efficiency in businesses and organisations across the country. A further build on our successful work at Manchester Airport is the project we started early in 2020 to help London City Airport in its bid to become carbon net zero by 2050.

Zero LTIs

UK Power Network Services has achieved more than four years without a Lost Time Injury (LTI)



Electrification of the Great Western Railway route between Cardiff Central and London Paddington

The electrification of the railway line from Cardiff to London was achieved to an extremely tight timetable: just five years from the signing of contracts to completion.

This required exceptional management, given the complications that can arise when collaborating with multiple project partners. UK Power Networks Services, working in partnership with ABB, with support from Siemens, was responsible for the detailed design, procurement, construction and installation, system integration, testing and commissioning and handover of multiple elements of the projects. This included 27 trackside substations, 111 track sectioning cabinets providing supply and control to more than 500 motorised switches, 90 kilometres of high voltage cabling and 250 kilometres of low voltage cabling as well as the associated computer and communication control systems.

This project used two groundbreaking initiatives: the Rationalised Autotransformer System and polyfibre-reinforced concrete. The first is a state-of-the-art advanced protection system, and the second used polyfibre in place of traditional steel reinforcement for construction of load bearing concrete structures.



Our clients

Our portfolio includes a range of high-profile organisations from both the public and private sectors, including five of London's airports, High Speed 1, Network Rail, London Underground, Southern Water, Aspire (Ministry of Defence) and Canary Wharf.



Accreditations

Our accreditations reflect our world-class engineering capability, safety and quality record, and enable our work with the UK's leading companies.



Awards & recognition

UK Power Networks Services has been awarded a place on Network Rail's £650m National Design Services Framework and will work in collaboration with the railway infrastructure company to deliver its ambition of a safe, reliable, efficient and growing railway for customers.

UK Power Networks Services is one of the first companies of its kind in the UK to achieve certification in recognition of its industry-leading Building Information Modelling (BIM) credentials. BIM is an internationally recognised standard practice for construction project management and collaboration. The process helps create a digital replica of the physical asset that is being constructed and is quickly becoming a standard requirement for national infrastructure and high-speed rail projects.

A year of strong performance

The tables below summarise the key financial information for our three networks regulated by Ofgem.

Eastern Power Networks plc, serving North London and East Anglia										
£m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20*
Turnover	425.1	480.4	542.4	551.4	608.7	607.4	636.1	642.6	625.4	652.1
EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation)	239.5	295.1	350.1	356.9	411.6	416.8	449.3	448.0	447.3	468.2
Tax charge/(credit)	(12.0)	(10.1)	(9.6)	13.1	30.4	28.9	21.4	46.8	38.7	75.6
Profit after tax	33.1	108.3	146.4	221.5	115.3	178.8	128.4	185.3	162.3	207.1
Operating cashflow post capex, interest and tax	(256.5)	(21.9)	32.6	4.9	16.2	19.3	59.5	60.2	23.0	7.3
Capital expenditure	255.6	245.3	238.1	307.1	288.1	182.9	234.9	249.2	255.5	265.2
Net debt	1,284.1	1,424.5	1,403.0	1,438.1	1,588.5	1,593.5	1,629.8	1,706.2	1,804.3	1,880.0
Regulated asset value (RAV)*	1,966.3	2,084.8	2,196.2	2,332.2	2,413.5	2,436.1	2,540.5	2,630.4	2,705.4	2,779.1
Net debt to RAV ratio	65%	68%	64%	62%	66%	65%	64%	65%	67%	68%
Incentive revenue (2012/13 prices)	(1.9)	18.9	17.5	14.9	28.4	24.8	24.6	20.6	26.2	25.3

London Power Networks plc, serving Inner London										
£m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20*
Turnover	362.0	394.2	446.1	481.5	497.0	462.0	502.3	501.5	491.9	517.4
EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation)	224.8	264.6	305.9	349.9	356.2	317.7	347.4	367.4	361.5	389.4
Tax charge/(credit)	5.9	10.5	12.2	24.0	51.2	23.6	31.8	46.1	50.4	66.2
Profit after tax	69.9	147.7	191.2	234.1	193.6	161.0	167.4	183.6	165.9	178.6
Operating cashflow post capex, interest and tax	(253.8)	(3.7)	56.9	63.9	49.6	127.5	65.1	48.6	9.0	6.9
Capital expenditure	139.2	141.6	173.1	192.2	186.6	138.3	155.7	186.9	174.8	178.3
Net debt	908.7	1,012.2	943.9	970.0	989.1	967.9	1,046.6	1,067.9	1,098.1	1,155.7
Regulated asset value (RAV)*	1,330.0	1,367.5	1,420.5	1,468.3	1,484.7	1,509.7	1,581.7	1,648.2	1,700.0	1,749.0
Net debt to RAV ratio	68%	74%	66%	66%	67%	64%	66%	65%	65%	66%
Incentive revenue (2012/13 prices)	3.0	7.3	5.8	8.7	12.7	15.7	16.2	17.2	17.7	16.5

South Eastern Power Networks plc, serving South London, Kent, East Sussex and parts of Surrey and West Sussex										
£m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20*
Turnover	269.9	306.6	356.5	394.8	404.8	388.7	449.0	421.3	405.2	427.5
EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation)	173.3	200.4	250.4	288.0	298.6	279.0	330.1	305.2	293.8	315.0
Tax charge/(credit)	(4.9)	1.2	7.9	19.5	39.4	20.3	33.4	35.9	34.1	50.7
Profit after tax	29.6	91.8	123.7	179.8	151.6	126.9	173.6	139.8	126.2	127.9
Operating cashflow post capex, interest and tax	(274.9)	(33.5)	(15.9)	48.9	24.2	45.9	73.2	41.7	(9.0)	5.7
Capital expenditure	180.9	173.9	167.3	189.6	154.6	114.6	152.7	160.3	174.9	166.7
Net debt	832.2	911.5	942.8	956.0	1,023.6	980.9	1,025.1	1,095.5	1,146.5	1,225.5
Regulated asset value (RAV)*	1,220.5	1,313.4	1,398.5	1,484.5	1,514.1	1,541.8	1,630.2	1,703.2	1,762.8	1,818.2
Net debt to RAV ratio	68%	69%	67%	64%	68%	64%	63%	64%	65%	67%
Incentive revenue (2012/13 prices)	7.4	21.3	17.2	13.8	22.2	14.8	14.8	12.7	13.1	13.4

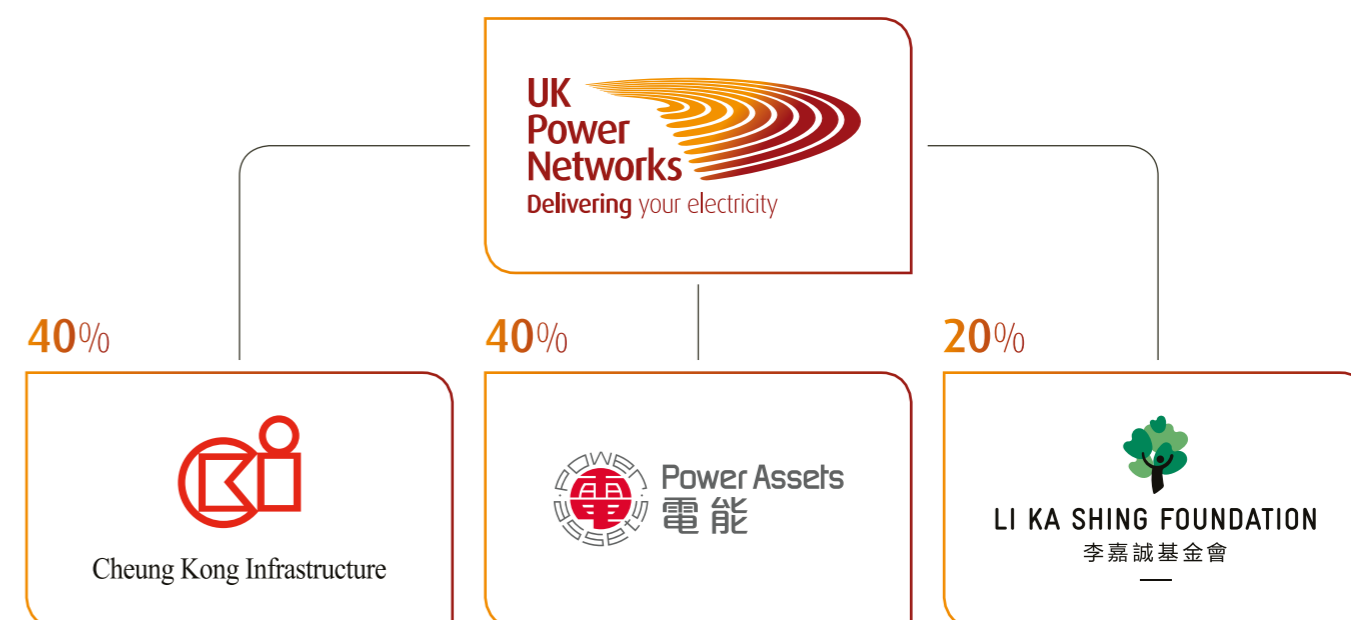
* 2019/20 RAV presented is provisional at the date the accounts are signed. Discussion with Ofgem may result in RAV being increased or decreased. The prior year comparatives have been restated to reflect the latest agreed position.

A structure for long-term stability

UK Power Networks is part of the Cheung Kong Group (CKG).

Operating in more than 52 countries, CKG has a proven track record in managing high-quality utility companies for the long term. It successfully operates electricity and gas distribution businesses serving communities in Hong Kong, Great Britain, Australia and New Zealand.

Our shareholding structure:



CK Infrastructure Holdings Limited is the largest publicly listed infrastructure company in Hong Kong with diversified investments in energy infrastructure, transportation infrastructure, water infrastructure, waste management, waste-to-energy management and infrastructure-related business. Operating in Hong Kong, Mainland China, the United Kingdom, Australia, New Zealand, the Netherlands, Portugal and Canada, it is a leading player in the global infrastructure arena.

Power Assets Holdings Limited is a global investor in energy and utility-related businesses with investments in electricity generation, transmission and distribution; renewable energy; energy from waste; gas distribution; and oil transmission.

The Li Ka Shing Foundation, established by Sir Li Ka Shing in 1980, has supported numerous charitable activities with significant grants, sponsorships and commitments.

Board of Directors

The Board of Directors of UK Power Networks is responsible for agreeing strategy, overseeing performance and discharging certain legal responsibilities. The Board delegates day-to-day responsibility for running the group to the UK Power Networks Executive Management Team, with specialist tasks passed to various Board committees.



Kam Hing Lam

Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

Mr Kam has been the Group Managing Director of CK Infrastructure Holdings Limited since its incorporation in May 1996. He is an Advisor of the 12th Beijing Municipal Committee of the Chinese People's Political Consultative Conference of the People's Republic of China. He holds a Bachelor of Science degree in Engineering and a Master's degree in Business Administration.



Andrew John Hunter

Director and Chairman – UK Power Networks Holdings Limited and UK Power Networks' wholly owned subsidiaries

Mr Hunter has been an Executive Director of CK Infrastructure Holdings Limited (CKI) since December 2006 and Deputy Managing Director of CKI since May 2010. He holds a Master of Arts degree and a Master's degree in Business Administration. A member of the Institute of Chartered Accountants of Scotland and of the Hong Kong Institute of Certified Public Accountants, he has over 34 years of experience in accounting and financial management.



Hok Shan Chong

Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

Mr Chong is the Chairman and Director of numerous enterprises. He is also a Director of many philanthropic associations, such as the Li Ka Shing Foundation, and a Director of a variety of public committees and commercial associations of Hong Kong. He received a Bachelor of Science degree from McGill University and a Master's degree in Business Administration from Columbia University.



Ivan Chan

Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

Chief Planning and Investment Officer, Mr Chan has been with CK Infrastructure Holdings Limited since September 1999. He is also the Chief Financial Officer of Power Assets Holdings Limited. He has over 30 years of experience in investment, banking and finance. He holds a Bachelor's degree in Science, a Bachelor's degree in Chinese Law and a Master's degree in Business Administration.



Neil McGee

Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

Mr McGee is an Executive Director of Power Assets Holdings Limited and the Managing Director of Hutchison Whampoa Europe S.A.R.L. He holds a Bachelor of Arts degree and a Bachelor of Law degree.



Duncan Macrae

Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

Mr Macrae is the Head of International Business. He joined CK Infrastructure Holdings Limited in February 2011 and has over 23 years of experience in the infrastructure investment field. He holds Bachelor's and Master's degrees in Philosophy, Politics and Economics and is a member of the Institute of Directors in the United Kingdom.



Dominic Chan

Director – UK Power Networks Holdings Limited and UK Power Networks' wholly owned subsidiaries

Mr Chan is an Executive Director and the Chief Financial Officer of CK Infrastructure Holdings Limited. He is also an Executive Director of Power Assets Holdings Limited. He is a Fellow of the Hong Kong Institute of Certified Public Accountants, and of the Association of Chartered Certified Accountants and he is a member of the Institute of Certified Management Accountants (Australia).



Charles Tsai

Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

Mr Tsai joined the group in 1987 and was appointed to the Board and Chief Executive Office in January 2014. He is the Chief Executive Officer of Power Assets Investments Limited, a wholly owned subsidiary of the company. He is also a Director or Alternate Director of most of the subsidiaries and certain joint ventures of the company. He holds a Bachelor of Applied Science Degree in Mechanical Engineering, and is a Registered Professional Engineer and a Chartered Engineer.



Chi Tin Wan

Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

Mr Wan has worked for the Power Assets Group since 1978 and was Group Managing Director of Power Assets Holdings Limited from January 2013 to January 2014. He is an Executive Director of Power Assets Holdings Limited and Chief Executive Officer of HK Electric Investments. He holds a Bachelor of Science degree in Electrical Engineering and is also a Chartered Engineer.

He is an Honorary Fellow of the Energy Institute in the United Kingdom, a Fellow of the Institution of Engineering and Technology, a Fellow of the Hong Kong Institution of Engineers and a member of the Engineers Registration Board of Hong Kong.



Christopher Clarke

Sufficiently Independent Director of London Power Networks plc, Eastern Power Networks plc and South Eastern Power Networks plc

Mr Clarke was admitted as a Solicitor of the Supreme Court of England and Wales in 1974. He spent over 30 years practising in Asia and specialised in corporate and regulatory work. He previously served as an Independent Non-Executive Director of two companies listed on the Hong Kong Stock Exchange and is currently a Director of Myanmar Strategic Holdings Limited and a council member of the Royal Society for Asian Affairs.



Paul Jeffery

Sufficiently Independent Director of London Power Networks plc, Eastern Power Networks plc and South Eastern Power Networks plc

Mr Jeffery was previously a Managing Director and Head of the European Power Utility & Infrastructure Investment Banking team at Barclays. He is also a Non-Executive Director of Southern Gas Networks Limited, Scotland Gas Networks Limited and Saeta Yield S.A.



Basil Scarsella

Director – UK Power Networks Holdings Limited and UK Power Networks' wholly owned subsidiaries. Chief Executive Officer UK Power Networks group of companies

Mr Scarsella has been Chief Executive Officer of UK Power Networks Holdings Limited since its establishment in late 2010. He has a degree in Economics and is a Certified Practising Accountant. He is a Life Member of Football Australia and received the Australian Sports Medal in 2000. In 2003 he became a Member of the Order of Australia (AM) for his services to sport.

Executive Management Team

Our Executive Management Team has collective responsibility for running our business and executing our strategy.



Barry Hatton
Director of Asset Management

Barry is responsible for the development and deployment of network and asset strategies for optimising investment and performance. He has over 30 years' experience in the operations and management of electricity distribution networks. Barry is a Chartered Electrical Engineer and a Fellow of the Institution of Engineering and Technology and has a Master's degree in Technology Management.



Patrick Clarke
Director of Network Operations

Patrick has day-to-day responsibility for managing the distribution of electricity to over eight million homes and businesses across London, the south east and east of England. He joined the industry in 1978 and has risen from an apprentice to an executive director over that period. He holds an Honorary Doctorate in Engineering, an OBE, an MBA and an MA.



Mark Adolphus
Director of Health, Safety, Sustainability and Connections

Mark is responsible for UK Power Networks' Health, Safety, Sustainability and Connections business. He joined London Electricity in 1992 as an engineering graduate trainee and has enjoyed a diverse career across a number of operational, engineering and commercial roles. Mark is a Chartered Electrical Engineer and holds a Master's degree in engineering business management from Warwick Business School and a degree in Electrical Engineering from the University of Leicester.



Nirmal Kotecha
Director of Capital Programme and Procurement

Nirmal is responsible for UK Power Networks' Capital Programme and Procurement function. Prior to joining in 2011, he was a main Board Director at the Highways Agency for three years with responsibility for delivering the Agency's £9 billion Roads programme. He is an accredited OGC High Risk Project Reviewer and a Fellow of both the Institution of Civil Engineers and the Chartered Institute of Purchasing and Supply.



Suleman Alli
Director of Strategy and Customer Services

Suleman is responsible for Customer Service, Strategy, Regulation and Information Systems at UK Power Networks. He joined in 2015, having previously led the utility network operation practice in the UK for Accenture. Suleman has 15 years' utilities experience, delivering business transformation, company restructures and operational performance improvement across gas, electricity and water sectors. He holds a BSc (Hons) from the London School of Economics and Political Science.



Andrew Pace
Director of HR, Legal and Company Secretary

Andrew joined UK Power Networks in January 2018 and is responsible for HR, Legal and the Company Secretary function. He has over 25 years' HR leadership experience, predominantly in the construction and infrastructure sectors. Andrew held various HR leadership roles with John Laing, Rio Tinto and Balfour Beatty. Prior to joining UK Power Networks, Andrew was Executive Director, construction and infrastructure at Morgan Sindall.



Jenny Harrison
Director of Finance

Jenny joined UK Power Networks in 2017. Prior to joining the company, she was Director of External Reporting at BT Group. Jenny spent almost 20 years in various 'Big Four' accounting firms, specialising in audit assurance as well as sustainability advice. Jenny is a member of the ICAEW and has a BA in Classics from Oxford University. She is a trustee of a Leeds University-based sustainability charity, United Bank of Carbon.



Ian Smyth
Director of UK Power Networks Services

Ian joined UK Power Networks in August 2016 to lead the commercial division, UK Power Networks Services. Prior to joining UK Power Networks Services, Ian was a Managing Director at Navigant, a Partner with LCP and a Consultant with Ernst & Young. Ian has a BA (Hons) and an MSc in Philosophy, Psychology, Statistics and Artificial Intelligence.

Key contacts

General enquiries

0800 029 4285

Emergencies or power cuts (24 hours a day)

Free power cut helpline 3-digit number:

105 or 0800 31 63 105

Please note this number is free to call from mobile phones

Text message updates during a power cut

To keep updated if you have a power cut in your area text **'Power'** followed by your postcode, e.g. Power IP3 6QX to 80876

Text Relay

We offer a 24-hour Text Relay service for customers who are deaf, hard of hearing or have any other communication difficulties.

For more information, visit:

www.ukpowernetworks.co.uk

Connection services

0800 029 4280

Our unregulated business

services@ukpowernetworks.co.uk

Media enquiries

0330 159 1712



A full list of our contact details can be found at:

www.ukpowernetworks.co.uk



Visit our Annual Review website:

annualreview2020.ukpowernetworks.co.uk



Heaven 42 is FSC certified, is elemental chlorine free and fully recyclable and biodegradable giving it excellent environmental credentials.

Printed by Pureprint Group using its pureprint environmental print technology, a guaranteed, low carbon, low-waste independently audited process that reduces environmental impact. Pureprint Group is ISO 9001, ISO 14001, EMAS and FSC certified and holds the Queen's Award for Enterprise: Sustainable Development.

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of the companies in the UK Power Networks group of companies.