



Placing customers and communities at the heart of Net Zero

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Our business, together with the wider energy system and society at large, will undergo significant changes over the next decade if we are to decarbonise the economy and achieve Net Zero carbon emissions by 2050.

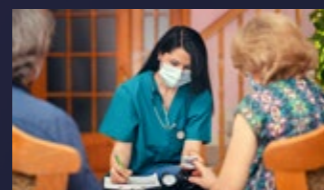
Decarbonisation is one of the greatest challenges facing society, so engaging with our customers, wider communities and stakeholders on our role could not be more important; in fact, we believe it is vital in order to build and maintain public support for Net Zero. We have undertaken our most in-depth and extensive customer research to date to ensure that we develop a long-term sustainable electricity network for all.

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Our strategic framework

At UK Power Networks we have reflected and thought carefully about what drives us as a company. We have clarity of purpose as an organisation, defined by our vision, as well as by what we do and why we do it. This clarity means that we are aligned throughout the business, all working together for a common purpose.



ABOUT US

Who we are and where we serve

We are the UK's biggest electricity distributor delivering power to over 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.

The nature of our business means we are responsible for keeping the lights on, safely and sustainably, and caring for our customers, especially those 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.



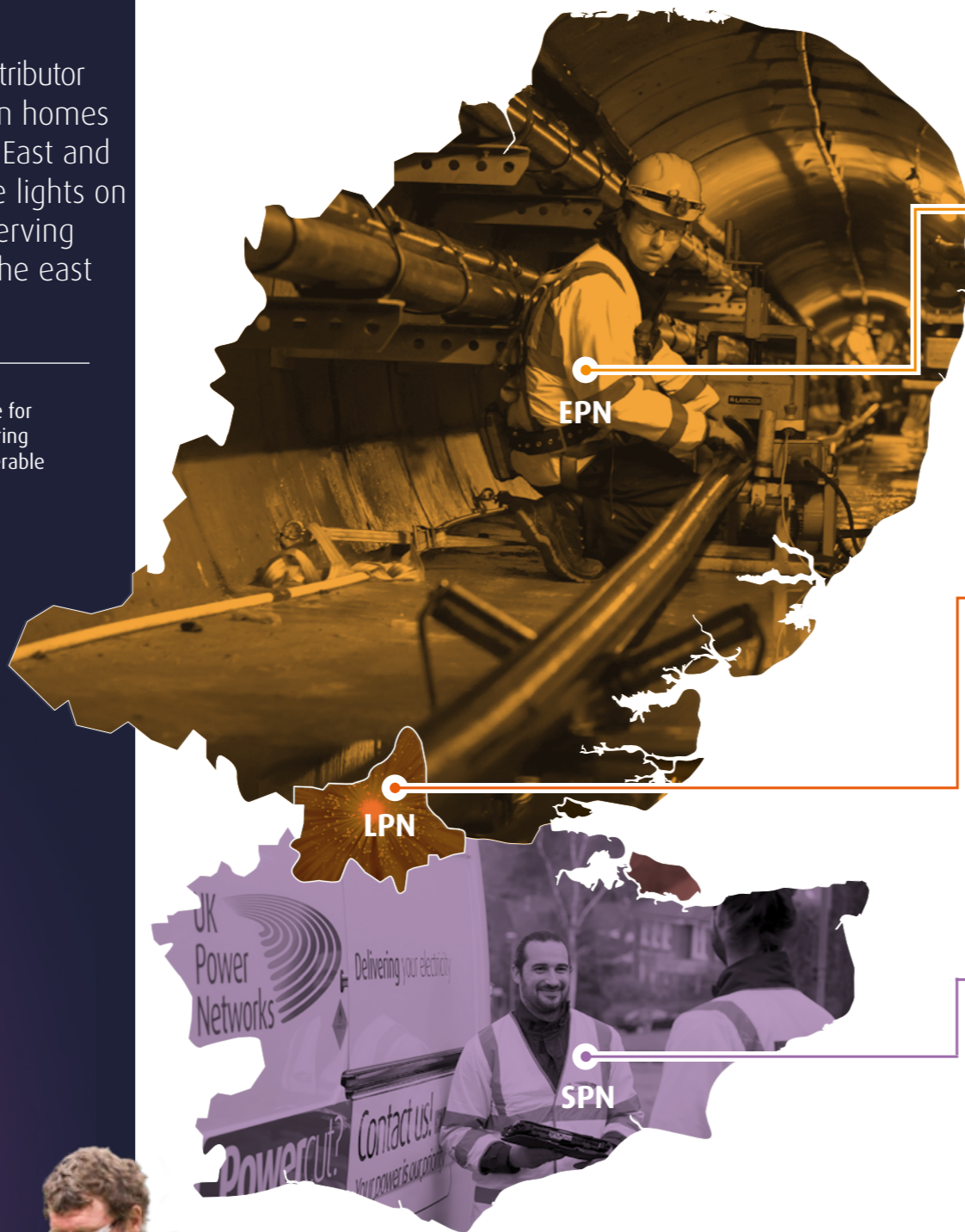
Take care of the environment by reducing the environmental impact of our operations and enabling the country's transition to Net Zero carbon emissions.



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 the East of England region which extends from the Wash in the east, to North London and the Thames estuary, 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.

UK Power Networks Services



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 sectors 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.

UK Power Networks in numbers

70,888 GWh

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

9.77 GW

Distributed generation on our network

189,503 km

Total length of overhead (45,578 km) and underground (143,925 km) network

19m

people served – 29% of Great Britain's population

14,169 MW

Peak demand

A MESSAGE FROM OUR CEO

Staying true to our values in difficult times

Despite COVID-19, 2020/21 was an exceptional year. As an essential service provider, UK Power Networks' employees worked continuously throughout the various lockdowns. We adapted our working practices quickly and effectively in order to meet the challenges posed by the global pandemic.



We not only kept the lights on; we also achieved our best ever performance across many fronts. In 2020/21, Customer Minutes Lost (CMLs) was the lowest ever, making our network more reliable than ever. We also delivered our best ever level of customer service, with a 93% satisfaction level as measured by Ofgem. Our stakeholder engagement was assessed by Ofgem's independent panel to be the best among the network operators.

Preparing for Net Zero

Distribution Network Operators (DNOs) such as UK Power Networks are playing a leading role in realising the government's ambition to reduce CO₂ emissions to Net Zero by 2050. To that end, UK Power Networks is leading the way in facilitating the decarbonisation of heating, the uptake of Electric Vehicles (EVs) and the building of a smart grid for all. We are also taking part in a whole-industry initiative to unlock £300 million of investment to kick start a 'Green Recovery' that will help build back Britain better and stronger. Furthermore, UK Power Networks has been named as the world's leading utility in Smart Grids 2020. Singapore-based SP Group, which produces the annual Smart Grid Index, placed UK Power Networks top of its study of 85 utilities across 37 countries.

We are also committed to achieving Net Zero in our own operations. In 2020/21 UK Power Networks was the first DNO in Great Britain to set science-based targets covering all the company's emissions, including every element of our supply chain, which are independently verified by the Science Based Targets initiative (SBTi). We can be confident that our measurements and our targets are robust and in line with the latest science as well as with the goals agreed in the Paris Agreement.

Safety is paramount

The safety of our employees, contractors and the general public is, as ever, our number one priority. This year we have seen a 17% reduction in injuries sustained by third parties (such as members of the public and construction workers) as a result of accidents involving our network. Regrettably, however, five of our employees and contractors sustained Lost Time Injuries (LTIs). In other words, they had to take time off work because of injuries at work. Last year there were two such incidents, and we are responding to this increase with the utmost gravity. We are refreshing our safety messages for all employees, working to eradicate complacency and reminding everyone who works at UK Power Networks that alongside dealing with the challenges of COVID-19, operational safety must be at the forefront of their minds.

A great place to work

We work hard to make UK Power Networks a great place to work and, as a result, we have a workforce that shares our vision to be the best performing DNO in the country. It is our seventh consecutive year on the list of UK's 25 Best Big Companies to Work For and once again we have moved up the rankings. We are now at number six on the main list, and number two in the list for utilities. We have been named as the third most inclusive employer in the country and you can read on page 14 about how we encourage diversity and inclusiveness throughout the company. This year we also launched our Leadership Academy to help us develop our leaders of the future.

It is the dedication, talent and professionalism of our people that delivers the world-beating performance on behalf of our customers. This has been a challenging year for us all and I am grateful to everyone working at UK Power Networks for all that they do. My heartfelt thanks to them: they make us the company we are.

Basil Scarsella
Chief Executive Officer

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.

Respect

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

Continuous improvement

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

Responsibility

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

Diversity and inclusiveness

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

Unity

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

How we make sustainability central to our strategy



See more about Sustainability on page 08

It is our aim to be the most socially and environmentally responsible Distribution Network Operator 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' (UN) Sustainable Development Goals which address the global challenges facing the world. We have prioritised 11 of the UN's goals that are particularly relevant to our business; these include affordable and clean

energy and industry, innovation and infrastructure. You can find out more about the business commitments we are using to measure the progress towards these goals and our performance in 2020/21 on pages 08-13.

COVID-19 RESPONSE

Supporting our stakeholders



Partners



Customers



Communities



Colleagues

COVID-19 presented the whole world with unprecedented challenges; at UK Power Networks we were determined to honour our purpose and vision in spite of the difficulties we faced. We continued to deliver electricity to our customers, safely and reliably, and we took care to protect our customers, colleagues, partners and the whole community throughout the pandemic.

Our relationships with partners were key to our response to COVID-19. For example, we worked closely with our partners to understand the impact of the pandemic on fuel-poor communities and customers on our Priority Services Register (such as those with disabilities) to ensure we continue to respond to their changing needs.

As part of our Scope Utilities Membership (SUM), a cross-utility group including Scope, SGN, Anglian Water and energy suppliers, we engaged with over 1,100 customers to understand the experience of people with disabilities dealing with utilities during the pandemic and how their experiences differed from those of people without disabilities.

We used this research to improve our services for customers who have a disability by, for example, making the online Priority Services Register form more accessible.

Taking care of customers is at the heart of what we do, so during the lockdowns we moved fast to protect and support our customers. The pandemic had a disproportionate effect on those already at a disadvantage, such as those with disabilities or in fuel poverty, so it was vital that we did all we could to mitigate those disadvantages.

In record time, we revised our protocols for customer visits, so our engineers had all the information they needed to ensure that their home visits were COVID-19-secure. We quickly realised that conventional masks led to communications difficulties, so we introduced transparent masks for our frontline employees. In the event of power cuts, we made good use of our customer data to ensure that those who needed it most, including our small business customers, were at the front of the queue for support such as generators and back-up Wi-Fi.

As a responsible corporate citizen, UK Power Networks has worked hard to earn its place at the heart of the communities it serves. The COVID-19 pandemic hit some of those communities hard and we did our best to support them and reduce the impact of the lockdown as much as possible.

In particular during the pandemic, we made special arrangements for hospitals, GP surgeries and care homes, for example, to ensure that they received priority service in the case of power cuts. Much of our interaction with interest groups in the community is through our stakeholder engagement programme. We quickly adapted the programme and conducted it virtually, enabling us to continue to hear and respond to our stakeholders' voices.

The health and safety of our employees and contractors is always high on our priorities and that extends to COVID-19 security. Our COVID-19-response with regard to our colleagues was swift and wide ranging.

Communication played a key role: our CEO provided frequent – at some points daily – messages letting employees know what was happening. Early on, we supplied the right Personal Protective Equipment (PPE), initiated rigorous customer-visit protocols and provided robust IT resources and support for working from home. We also made support available for employees home-schooling their children and provided online well-being resources for everyone. Training for employees continued during lockdown with over 1,100 COVID-19 secure courses.

SUSTAINABILITY

Our commitment to the UN's Sustainable Development Goals

UK Power Networks is committed to being sustainable in all aspects of its business. We are guided by the UN's Sustainable Development Goals (SDGs) and we aim to contribute substantially to delivering them. For example, we play a key role in supporting the development of sustainable cities and communities and reducing inequalities.

Our selected UN Sustainable Development Goals

UK Power Networks is committed to achieving a better and more sustainable future for all. We have aligned our activities to the United Nations' Sustainable Development Goals which address the global challenges facing the world.

Below are 11 of the UN's goals that are particularly relevant to our business. On the following pages you will see how we have addressed these goals in our operations and initiatives.



UN Sustainable Development Goal

Good health and well-being

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

Our business commitments

- Reduce the Lost Time Recordable Injuries (LTRI) rate (accident rate per 100,000 hours worked) 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 over the RIIO-ED1 period.
- Measure ourselves against other companies and seek inter and intra sector recognition/accreditation by participating in external benchmarking such as the UK's 25 Best Big Companies to Work For.

Our contribution and performance

- Our Lost Time Recordable Injury (LTRI) rate in 2020/21 was 0.02 and we have seen a 84% reduction in our LTRI rate since we started as an independent business in 2010.
- There have been four 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 2.45 million children, key industries and members of public in the RIIO-ED1 period to date.
- We ranked 6th in the UK's 25 Best Big Companies to Work For and number two in the list for utilities. We remain the only DNO to feature in this list.
- UK Power Networks has retained its Platinum accreditation with Investors in People (IiP). This is the highest level of accreditation that is held by fewer than 2% of IiP-certified companies and we achieved this for the first time in 2019/20.

Our focus areas

People See page 14

Safety See page 26

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

UN Sustainable Development Goal

Gender equality

Achieve gender equality and empower all women and girls

Our business commitments

- 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 ranked 6th in the UK's 25 Best Big Companies to Work For and number two in the list for utilities. We remain the only DNO to feature in this list.
- We are the first DNO to be awarded the National Equality Standard – the leading standard in the UK for best practice on equality, diversity and inclusiveness.
- In 2020, we ranked third in the Inclusive Top 50 UK Employers.
- Over the five years of reporting since the introduction of the Gender Pay Regulations in 2017, we have seen a 20% improvement in our Median Gender Pay Gap.

Our focus areas

People See page 14

Transparency See page 16

UN Sustainable Development Goal

Affordable and clean energy

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

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 RIIO-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.

Our contribution and performance

- Our unplanned Customer Interruptions and Customer Minutes Lost have reduced by 27% and 37% respectively since the base year of 2012/13. We are overall the most reliable network operator in RIIO-ED1 to date (2015/16 – 2020/21).
- In 2020/21, we ranked No.1 in Ofgem's Broad Measure of Satisfaction score with our best ever score of 93%. This is a 25% 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 calls, text messages, Twitter, Facebook, our online interactive map and web chat; and we were the first DNO to launch video chat and Facebook Messenger. In addition to inclusive service channels such as Sign Live for our deaf and hard of hearing customers we have also added WhatsApp and what3words to the available channels.
- UK Power Networks is helping to enable the decarbonisation of the UK economy. Our pioneering engagement with a wide range of consumers, distributed energy resources (DER) customers, flexibility providers and technology aggregators helped us to secure first place in Singapore Power's global Smart Grid Index, a measurement of smartness of power utilities around the world.
- We are the lowest cost DNO and over the last six years our charges have on average been 7% lower than the industry average and 21% lower than the most expensive in our peer group.

Our focus areas

Network reliability See page 28

Customer satisfaction See page 30

Value for money See page 32

Social responsibility See page 34

Stakeholder engagement See page 38

Innovation See page 40


Net Zero ready See page 42

SUSTAINABILITY CONTINUED

Our commitment to the UN's Sustainable Development Goals

UN Sustainable Development Goal

Decent work and economic growth



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

Our business commitments

- Measure ourselves against other companies and seek inter and intra sector recognition/accreditation by participating in external benchmarking such as achieving membership of the UK's 25 Best Big Companies to Work For.


Our contribution and performance

- We pay the London living wage and we paid £108 million of corporation taxes in 2020/21.
- We provide jobs for more than 6,000 employees and 2,000 contractors.
- On average, 88% of the cash we generate from operations is invested back into our networks.
- UK Power Networks has retained its Platinum accreditation with Investors in People (IiP). This is the highest level of accreditation that is held by fewer than 2% of IiP-certified companies and we achieved this for the first time in 2019/20.
- We ranked 6th in the UK's 25 Best Big Companies to Work For and number two in the list for utilities. We remain the only DNO to feature in this list.

Our focus areas
People See page 14
Transparency See page 16

UN Sustainable Development Goal

Industry, innovation and infrastructure



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

Our business commitments

- 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.


Our contribution and performance

- Our unplanned Customer Interruptions and Customer Minutes Lost have reduced by 27% and 37% respectively since the base year of 2012/13. We are overall the most reliable network operator in RIIO-ED1 to date (2015/16 – 2020/21).
- UK Power Networks is helping to enable the decarbonisation of the UK economy. Our pioneering engagement with a wide range of consumers, distributed energy resources (DER) customers, flexibility providers and technology aggregators helped us to secure first place in Singapore Power's global Smart Grid Index, a measurement of smartness of power utilities around the world.
- On average, 88% of the cash we generate from operations is invested back into our networks.
- In 2020/21, we spent a total of £14.3 million on innovation. Since the beginning of the RIIO-ED1 to date, we have now adopted 50 innovative solutions into our everyday business as usual operations delivering total savings of £283.6 million in the process.
- In 2018/19, we became the first DNO or utility company to be formally assessed by the Cabinet Office for organisational resilience, scoring 4 out of 5.

Our focus areas
Transparency See page 16
Organisational resilience See page 18
Network reliability See page 28
Innovation See page 40

UN Sustainable Development Goal

Reduced inequalities



Reduce inequality within and among countries

Our business commitments

- 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

- In 2019 we were the first DNO to be awarded the National Equality Standard which is the leading standard in the UK for best practice on equality, diversity and inclusiveness.
- In 2020 we ranked third 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 address are removed from applicants' CVs before they reach assessment.
- Over the five years of reporting since the introduction of the Gender Pay Regulations in 2017, we have seen a 20% improvement in our Median Gender Pay Gap.
- In 2020 UK Power Networks strengthened its commitment to Social Mobility by partnering with Rt Hon Justine Greening and 'this is purpose' to produce a Levelling Up Goals (LUGs) Action Plan. The purpose was to review UK Power Networks against 14 goals agreed by government, and work in partnership to tackle inequality by creating better access and opportunity for all.

Our focus areas
People See page 14
Transparency See page 16

UN Sustainable Development Goal

Sustainable cities and communities



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

Our business commitments

- At least one year within the RIIO-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 over the RIIO-ED1 period.
- Work toward reducing nitrogen oxides (NOx) emissions from our fleet and generators by 33% by December 2030.

Our contribution and performance


- There have been four 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 half a million children, key industries and members of public in 2020/21.
- In the past four years, there have been no electric related injuries to high risk groups such as farmers, road haulage workers or recreational groups on any of our networks.
- In addition to exploring alternative fuels and hybrids in our fleet and generators we funded Trees for Cities to plant around 2,700 trees on our behalf. This offsets 127 tonnes of air pollutants/ NOx, cultivating lasting change in neighbourhoods by creating healthier environments.
- The Team Sport Award scheme is run by UK Power Networks to encourage staff to volunteer in the community and is aimed at promoting healthy living, teamwork and developing sports opportunities. During 2020, more than 60 local sports teams connected to staff benefitted from a share in £15,500.
- Under UK Power Networks' Donate a Day scheme, staff are given two days' paid leave each year to volunteer or fundraise in their local community.

Our focus areas
Transparency See page 16
Organisational resilience See page 18
Safety See page 26
Network reliability See page 28

SUSTAINABILITY CONTINUED

Our commitment to the UN's Sustainable Development Goals

UN Sustainable Development Goal

Responsible consumption and production 

Ensure sustainable consumption and production patterns

Our business commitments


- Reduce packaging and transportation across our supply chains. We are working toward a circular economy approach across our procurement.
- Reduce our water usage by 10 – 15% at our top six largest sites by December 2021.
- UK Power Networks commits to continue annually sourcing 100% renewable electricity for purchased electricity.

Our contribution and performance

- UK Power Networks was awarded Platinum accreditation in 2017 for its procurement function.
- UK Power Networks has achieved that status of 'Regulated by RICS': a first for any DNO. It demonstrates that to be registered as 'Regulated by the Royal Institution of Chartered Surveyors (RICS)' UK Power Networks has achieved the highest levels of technical competence and professionalism.
- Since January 2018, UK Power Networks has purchased all electricity on a 100% renewable tariff.

Our focus areas
Environment See page 36

UN Sustainable Development Goal

Climate action 

Take urgent action to combat climate change and its impacts

Our business commitments

- Reduce CO₂ emissions, waste and water usage, to meet the Carbon Trust Standard Initiative by December 2021.
- Reduce carbon emissions across Scopes 1, 2 and 3 by 25% by 2028/29 against a 2018/19 baseline in line with a Well Below 2 degree science-based target.

Our contribution and performance

- Our Business Carbon Footprint in 2020/21 was 53,405 tCO₂e, a 31% reduction compared to 2014/15 levels, which is our baseline year. This is ahead of our target for the year of 68,060 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 were the first DNO to achieve this standard.
- We were the first DNO in the country to have its carbon reduction plan and targets endorsed by the Science Based Targets initiative (SBTi) verification through setting science-based targets covering the entirety of our emissions. SBTi verification provides independent verification that our targets are robust and in line with the latest science and Paris Agreement goals.

Our focus areas
Environment See page 36
Stakeholder engagement See page 38
Innovation See page 40
Net Zero ready See page 42

UN Sustainable Development Goal

Life on land 

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

Our business commitments


- Divert 90% of waste 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.

Our contribution and performance

- In 2020/21, we diverted approximately 88% of our waste from landfill and we recycled 97% of our streetworks spoil.
- Our Business Carbon Footprint in 2020/21 was 53,405 tCO₂e, a 31% reduction compared to 2014/15 levels, which is our baseline year. This is ahead of our target for the year of 68,060 tCO₂e.
- We were the first DNO in the country to have its carbon reduction plan and targets endorsed by the Science Based Targets initiative (SBTi) verification through setting science-based targets covering the entirety of our emissions. SBTi accreditation provides independent verification that our targets are robust and in line with the latest science and Paris Agreement goals.

Our focus areas
Environment See page 36

UN Sustainable Development Goal

Partnerships for the Goals 

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

Our business commitments

- 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

- In 2020/21, we have provided nearly £350,000 for local community schemes and charities. We have done this through Matched Funding, Team Sport Awards, community funding and charity partnership donations.
- We have partnered with Community Energy South, London Sustainability Exchange, Rural Coffee Caravan, Repowering and Carers Trust to create a group of local energy champions. These energy champions advise customers face-to-face about energy savings, renewable energy and finding the right tariffs.
- We support young people's safety through our PowerUp website as well as partnering with the Scouts Association to sponsor the Local Knowledge Badge. The activities we undertake across our network area are designed to teach young people (aged 10 and 11 years) about the dangers of electricity and the network. In 2020/21 we engaged with over 363,000 young people, online and through digital activities through the Scouts about safety. Due to the pandemic, all face-to-face engagements with young people were cancelled, therefore we maximised our engagements through PowerUp and the Scout Association.

Our focus areas
Value for money See page 32
Social responsibility See page 34

OUR PEOPLE

Our people go above and beyond to serve our customers

In this extraordinary year, the people who work at UK Power Networks have shown their true colours. In spite of the many difficulties put in their way, they have kept the lights on and provided better-than-ever customer service across the business.

As a business we have worked hard to build an organisation where people want to work and, this year, we have seen the fruits of these efforts. Our people went above and beyond to make sure that in the midst of a global pandemic our customers and the communities we serve received the best care and attention and the most reliable electricity supply the company has ever provided.

A great place to work

Building a world-class workforce does not happen overnight and UK Power Networks has been investing for years to create a working environment that brings out the best in people. As well as doing all we can to attract and recruit the best people, we also make sure that we look after people throughout their career with us. We give them opportunities to grow with us, motivating and exciting them so they want to stay with us and be part of our success. Out of the 67 graduates we recruited in the last five years (2014-19), 49 are still with us (73% compared to an industry average of 66%) and 77% of our management posts are filled from within our own ranks. Eighty-two percent of people who went through our Future Leaders programme are still with us eight years on. What's more, a third of our Executive Management Team are people who joined the company at the start of their career and have made it to the top with us.

Looking after our people

There is no question that our people do a great job looking after our customers and we strive to return the favour by looking after our people. This came into very sharp focus in the year of COVID-19.

As an essential service, our people had to go out in the field to support our customers, so we made sure they were as safe as possible. As well as providing high-quality PPE, we also increased our fleet so employees could have a van to themselves; we provided meal allowances and introduced new protocols relating to working in customers' homes that allowed social distancing. Communication was vital and, through the height of the pandemic, our CEO Basil Scarsella hosted daily briefings so everyone knew what was happening and how we were managing through the pandemic. The company provided nearly 3,000 laptops along with a range of resources and online toolkits to help everyone adjust to working from home. Support, including financial support, was made available to parents who were home-schooling and for other carers.

A learning organisation

Learning and development are central to our approach to being an employer of choice. In spite of COVID-19, we not only kept our training programme going by managing it remotely, we increased the amount of training we delivered to our employees over the course of the year. We also kept all our apprentices fully engaged and on the payroll throughout.

In May 2020 we launched our Leadership Academy. This major new initiative is designed to train our managers to the same levels of rigour and professionalism that applies to our engineers, setting them on the path to becoming Chartered Managers.

Embracing diversity and inclusiveness

In order to recruit and retain the best people to work for UK Power Networks, we recognise and value diversity throughout the business. We are working hard to create an atmosphere in which everyone is welcomed and valued, regardless of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, or sexual orientation. In 2018, we were the first DNO to achieve the National Equality Standard (NES) and we have held it ever since. This was reaffirmed in 2020, following our three-yearly assessment. The NES is a high bar to clear and is reflected in our being placed third in the Inclusive Top 50 UK

Leadership Academy

Building on its successful craft Apprenticeship Schemes, UK Power Networks has launched a Leadership Academy designed to provide leadership training and professional qualifications for its 600 middle managers. Combining the expertise of professional training providers with the in-house skills and knowledge of UK Power Networks, the Academy offers two levels of study and qualifications: Level 3 is aimed at managers who are Team Leaders or Supervisors and Level 5 is for managers who are Departmental or Operations Managers.

In 2020, 100 managers from various parts of the business were enrolled in the Academy.



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

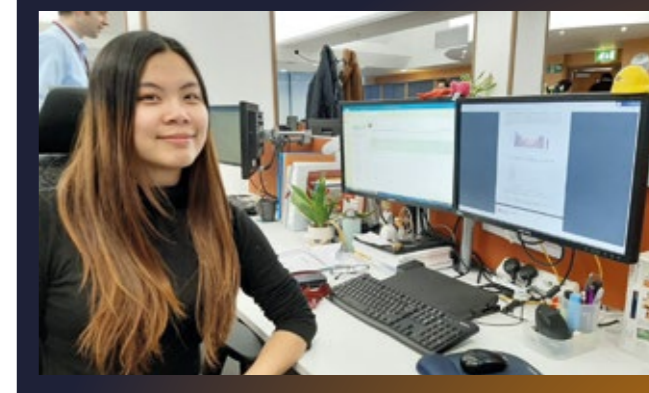


Employers in 2020, rising two places from our fifth position in 2019. UK Power Networks is the only DNO recognised in the list. Our increasing focus on diversity and inclusiveness (D&I) is beginning to pay dividends, although we acknowledge that there remains much more to do. In a traditionally male-dominated industry, our gender statistics are moving in the right direction. In 2020/21 women accounted for 21% of our employees compared to 19% in 2016/17.

EMPower, our employee-driven community where employees discuss issues relating to D&I, continues to be a force for change towards greater D&I at UK Power Networks. Awareness raising events called DiversiTea sessions, held over a virtual cup of tea, grew out of the EMPower community. The business introduced an inclusion survey that identified a number of sections of our workforce that showed lower than average satisfaction with the company. We asked inclusion experts Business in the Community (BITC) to conduct on our behalf a series of Listening Circles that would help the business understand – from an entirely objective point of view – the lived experience of working at UK Power Networks for people in a range of diverse groups, including training, performance management, progression and engagement. The results of the Listening Circles were presented to our directors, and have informed our diversity and inclusiveness strategy, and 2021 plans.

Young Energy Professional Award at the Energy Institute

Carol Choi – an Innovation Analyst at UK Power Networks – was awarded the Young Energy Professional of the Year Award by the Energy Institute for her work on kickstarting an open culture of industry sharing through data, unlocking new benefits for customers in the Net Zero transition.



Our accreditations

- INVESTORS IN PEOPLE**
We invest in people Platinum
UK Power Networks has retained its Platinum status with Investors in People Platinum – the highest level of accreditation held by less than 2% of IIP-certified companies across the 66 countries globally.
- SCIENCE BASED TARGETS**
Working with the Carbon Trust, we are the first DNO to achieve SBTi verification through setting science-based targets covering the entirety of our emissions.
- SPgroup**
UK Power Networks ranked first in SP Group's Smart Grid Index, a measurement of the smartness of power utilities around the world.
- NES NATIONAL EQUALITY STANDARD**
Leading standard in the UK of best practice on equality, diversity and inclusiveness. First DNO to be awarded the National Equality Standard.
- Inclusive Top 50 UK Employers**
We are placed third in the Inclusive Top 50 UK Employers. Only DNO to feature on the list.
- RICS**
UK Power Networks has achieved the status of 'Regulated by RICS' which is a first for any DNO.

Some of our awards

- THE UK'S 25 BEST BIG COMPANIES TO WORK FOR 2021**
UK Power Networks has achieved its highest ranking of sixth place in the UK's 25 Best Big Companies to Work For and we remain the only electricity distribution network operator to feature in this list. This year we have also secured a place on the new Utilities' sector Top 10 list, achieving second position.
- Charitytimes awards 2020: Corporate Social Responsibility project of the year**
Resulting from our industry-first Scope Utilities Membership co-founded with Scope, SGN, npower and Together Energy to change attitudes and deliver greater service for customers with disabilities.
- Utility Week Awards 2020: Disruptor of the year**
Won the Disruptor Award for our leading work with stakeholders in developing flexibility services.

TRANSPARENCY

An open and principled company

As a monopoly provider of an essential service, it is important to us to be transparent. It is right that our industry should be subject to intense scrutiny and we do all we can to make that scrutiny as easy as possible for anyone who seeks to understand us.

We want all our stakeholders, and particularly our customers, to be able to examine all aspects of our performance. That is why we set out in fine detail for all to see the statistics relating to our business, such as safety, reliability and customer satisfaction, as well as financial and environmental performance. This Annual Review and other reports such as those for RII0-ED1 are examples of how we do our best to make it easy for all our stakeholders to take a close look at how we are performing.

Incentivising our employees

UK Power Networks has an employee bonus scheme – the Company Incentive Plan – through which we manage the delivery of our business vision. We incentivise our employees in line with the key elements of that vision, so everyone is working towards common goals that the company has agreed with its stakeholders. Employees are rewarded for achievements in the areas of safety, network reliability, customer service and cost saving.

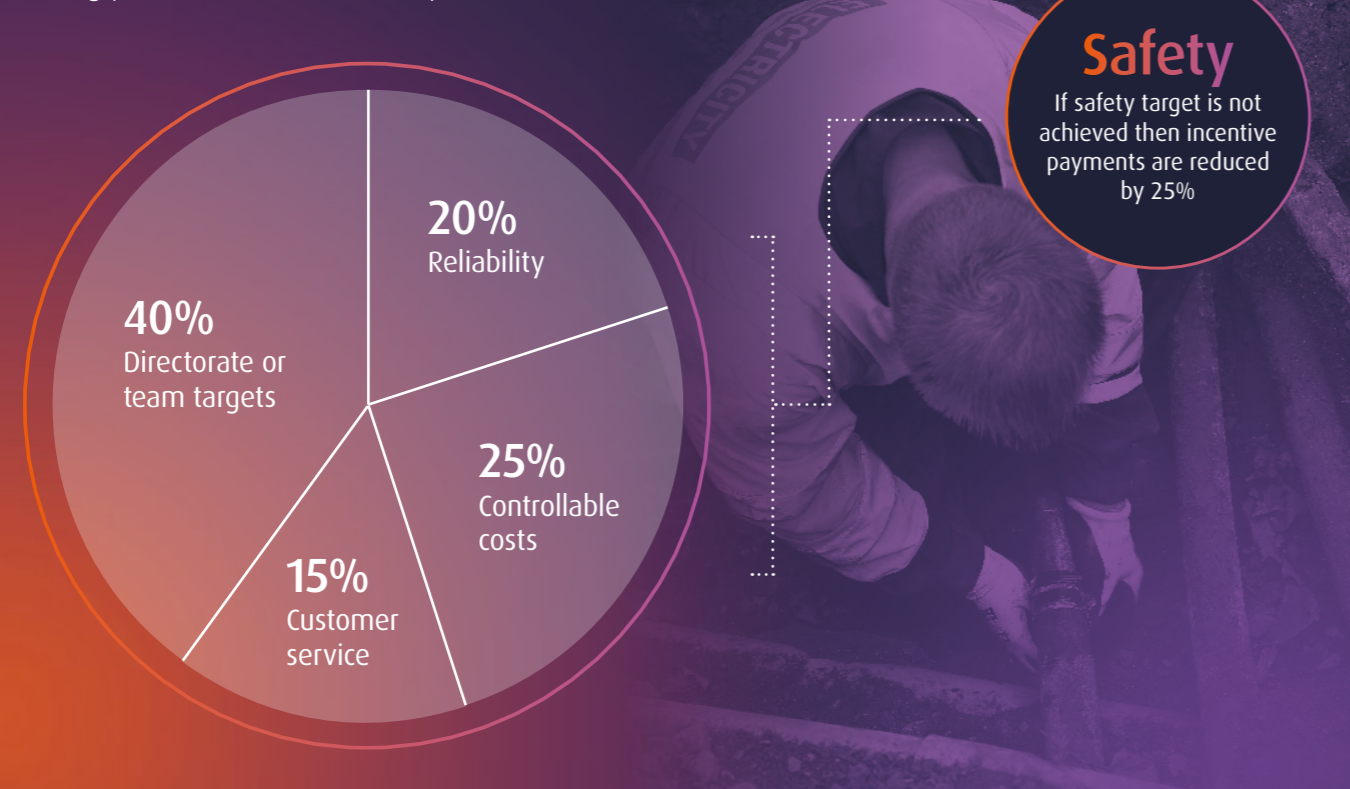
Our focus as a business remains the same as it was in 2010, when we started as an independent business: to deliver what our customers want at the lowest possible cost. During those years, we have made great strides in terms of safety, the reliability of our networks and customer service. We are proud to say that we have achieved all this at the same time as being the lowest cost DNO in Great Britain. Our regulator, Ofgem, sets targets for both reliability and customer service. We are financially incentivised to beat those targets and penalised if we fail to meet them. In 2020/21 we earned £73.7 million from these incentive schemes. External assessors verify all the relevant information before we submit our performance figures to Ofgem, so our customers can see evidence that these rewards are warranted.

90%

of UK Power Networks employees are covered by the Trade Union Collective Agreements

Main Company Incentive Plan for all employees

Linking performance with delivery for customers

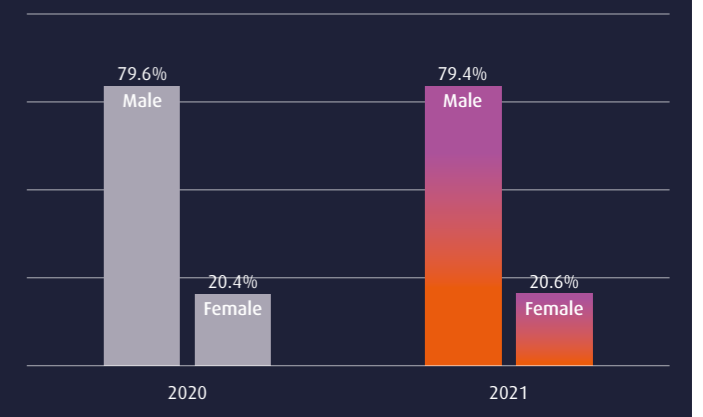


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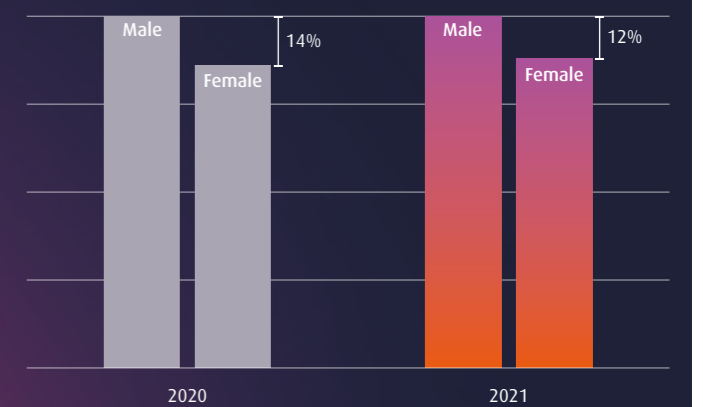
Gender Mix

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 Pay Gap

Building on recent history, the past 12 months has shown further improvement in the gender pay gap at UK Power Networks as measured by the Median Gender Pay Gap. We are determined to reduce it further and over the five years of reporting since the introduction of the Gender Pay Regulations in 2017, we have seen a 20% improvement in our Median Gender Pay Gap. Although our gender pay gap is higher than we would like, it is in line with other engineering industries that have 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.

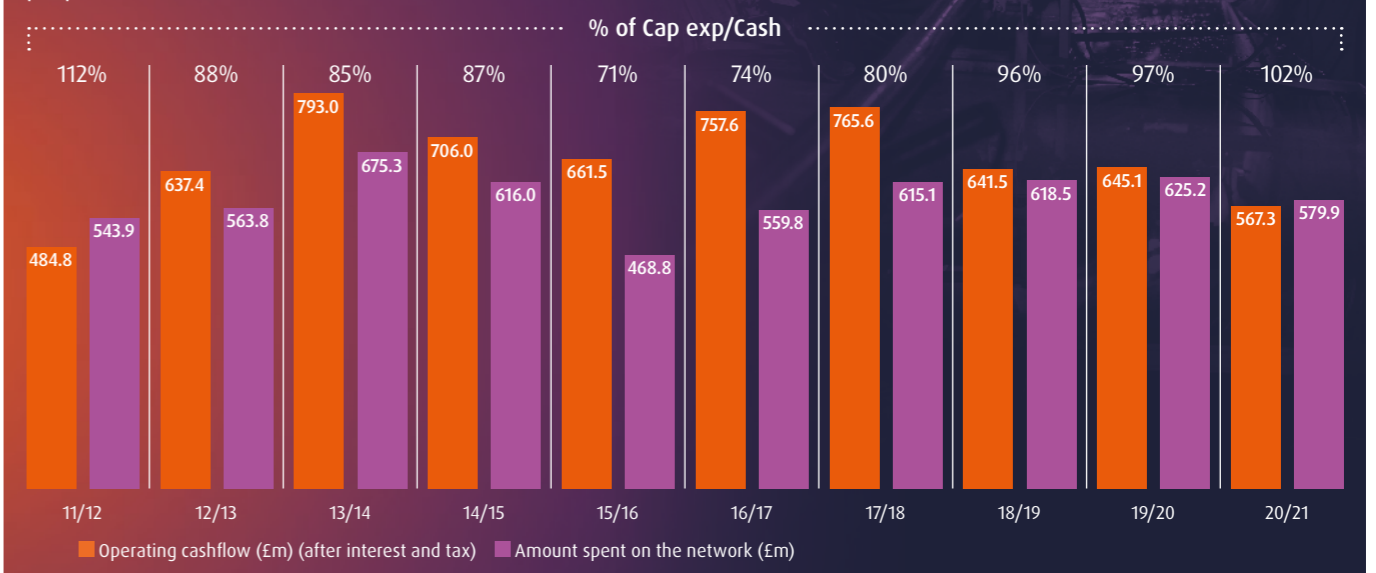


Investment in the Network

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 ten years we have, on average, invested 88% of the cash that we generate from operations back into our infrastructure assets to benefit the 19 million people connected to our networks.

88%

On average 88% of the cash generated from operations is invested in the network



ORGANISATIONAL RESILIENCE

Being prepared helps us respond and adapt to threats

As a provider of an essential service, UK Power Networks has shown leadership in preparing for a range of catastrophes that could threaten our operation.

The global COVID-19 pandemic is not the only event of the last year that has highlighted how essential such planning is. The cyber-attack on the Colonial Pipeline in the US and the worldwide disruption of world trade when a giant container ship blocked the Suez Canal both served as powerful reminders of the need to test an organisation's resilience to potential risks.

At UK Power Networks we have teams of experts scanning the horizon to identify potential threats to our business, to anticipate the risks that they pose. These teams have access to myriad international and local data sources that allow them to monitor and assess risks. Potential risks are wide ranging and include cyber threats, terrorism and climate change. This provides invaluable insights that help everyone in the business to build a picture of the threats and their potential impact so we can prepare to respond should we face similar circumstances.

Putting resilience to the test

It was the advent of the COVID-19 global pandemic that put this planning to its greatest test. In the final quarter of the previous regulatory year (January to March 2020) the situation in the UK had gone from awareness of the first case of COVID-19 to a national lockdown in which everyone was instructed to stay at home and all non-essential businesses had to close immediately. UK Power Networks provides an essential service and indeed a reliable supply of electricity became increasingly vital as customers worked from home and carried out home-schooling. Furthermore, UK Power Networks was supporting critical services such as the NHS and care homes, including the establishment of the Nightingale hospitals that required power infrastructure.



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



UK Power Networks' response to COVID-19 and the national lockdown

UK Power Networks kept all of its offices open during the pandemic, making them COVID-19 secure and available to staff at all times. However, staff were allowed to work from home if they were able to, but operational offices such as the Control Centre and Service Delivery Centre were open, with reduced numbers of employees having access to them. This meant that over 3,000 employees had the capacity to work from home. As an essential service, however, it was of paramount importance that our operational functions continued 24 hours a day to safeguard electricity supplies and respond effectively to our customers' needs. We responded to faults quickly and carried out safety-related work whilst maintaining our customer service levels.

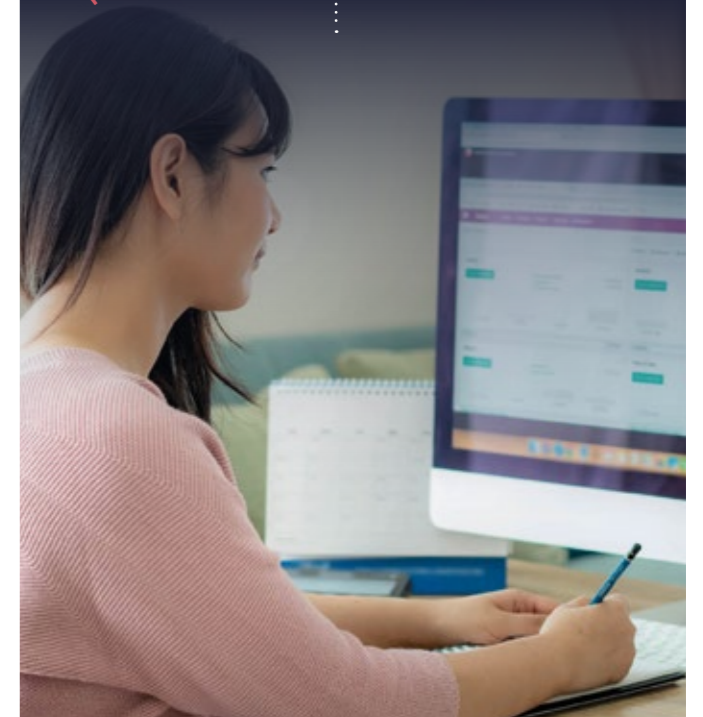
In early January 2020 we were aware of the emerging COVID-19 risk. This triggered the immediate review of our pandemic response plans. We initiated precautionary measures around sickness monitoring and hygiene, along with IT preparation for increased remote working capacity. We also developed and reviewed our detailed response plan should the pandemic become established in the UK. On the day the national lockdown was announced, the Incident Leadership Team, including members of the Senior Management team, was officially convened. Meetings took place daily and, in due course, Trade Union representatives were invited to attend. This move helped with wider acceptance of decisions made and speedy delivery of the plans, which is vital in times of crisis. Our response included the following measures:

- Developed an organisation-wide three-phase plan (Prepare/Respond/Recover) aligned to the UK Government's plan, including the triggers for activation of each phase.
- Ensured over 3,000 employees had IT to enable them to work from home. We doubled our bandwidth capacity and set up remote IT support for all employees.
- Developed a suite of COVID-19 safety and working guidelines for staff and contractors.
- Following the relaxing of some COVID-19 restrictions on 10 May 2020, we immediately prioritised the recovery of 4,500 customer-driven jobs in backlog through a special task force. By the end of July, the team had met the commitment to Ofgem to complete these works, allowing business as usual standards of performance to resume.
- We limited the duration of the planned interruptions to customers to four to six hours where possible. We also increased the use of temporary generation and the provision of insulin/medical cooling packs for medically-dependent vulnerable customers. We introduced the provision of battery powered wireless W-Fi routers for home workers.

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 closely examined 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.



THE TRANSITION TO A NET ZERO WORLD

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Understanding the changing landscape



840 MW

34 new solar generation sites with capacity of 840 MW of clean energy



1.6m

individual forecasts contained in the DFES

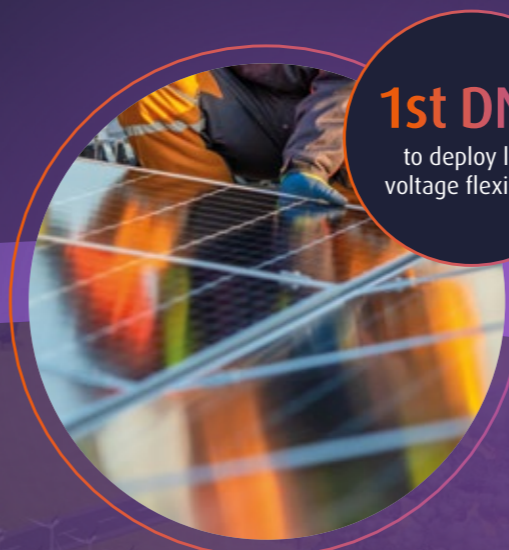
Access and visibility of data

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. This year, we asked local authorities what we could do better and as a result of our research, we made the information in the Distribution Future Energy Scenarios (DFES) much easier for them to use. For example, we explored ways to present information graphically, so users were able to visualise what the data is telling them.

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 amount of distributed generation has increased annually, mainly as a result of increased embedded renewable generation being installed. To further facilitate the connection of distributed generation, UK Power Networks has rolled out new flexible connections solutions. This resulted in 34 new solar generation sites planning to connect to our network, which once fully operational will generate 840 MW of energy which is enough to power more than 400,000 homes. This 840 MW is two and a half times the amount of new solar generation capacity accepted by UK Power Networks during the same period of 2020.

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.



1st DNO

to deploy low voltage flexibility

Creating flexibility at home

A decentralised, digitised energy system requires new solutions to deal with the existing challenge of adding new capacity to the network at the lowest cost to customers. We are looking at flexibility to see if it is the answer to increasing capacity cost-effectively. Flexibility is important because it lowers costs for distribution networks and creates more opportunities for what are known as distributed energy resources such as solar. Our April 2020 'Flex Tender' included 15 locations on the low voltage network: a world first. This meant, for the first time, that domestic customers with EVs, heat pumps or solar panels twinned with domestic batteries could earn financial incentives by entering the flexibility market.



£400m

Forecast customer savings generated from our Power Potential project by 2050

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 Distribution System Operators (DSOs), National Grid and other energy networks to realise wider system benefits for all customers.

THE TRANSITION TO A NET ZERO WORLD



How we are adapting to meet the challenge

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. 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.

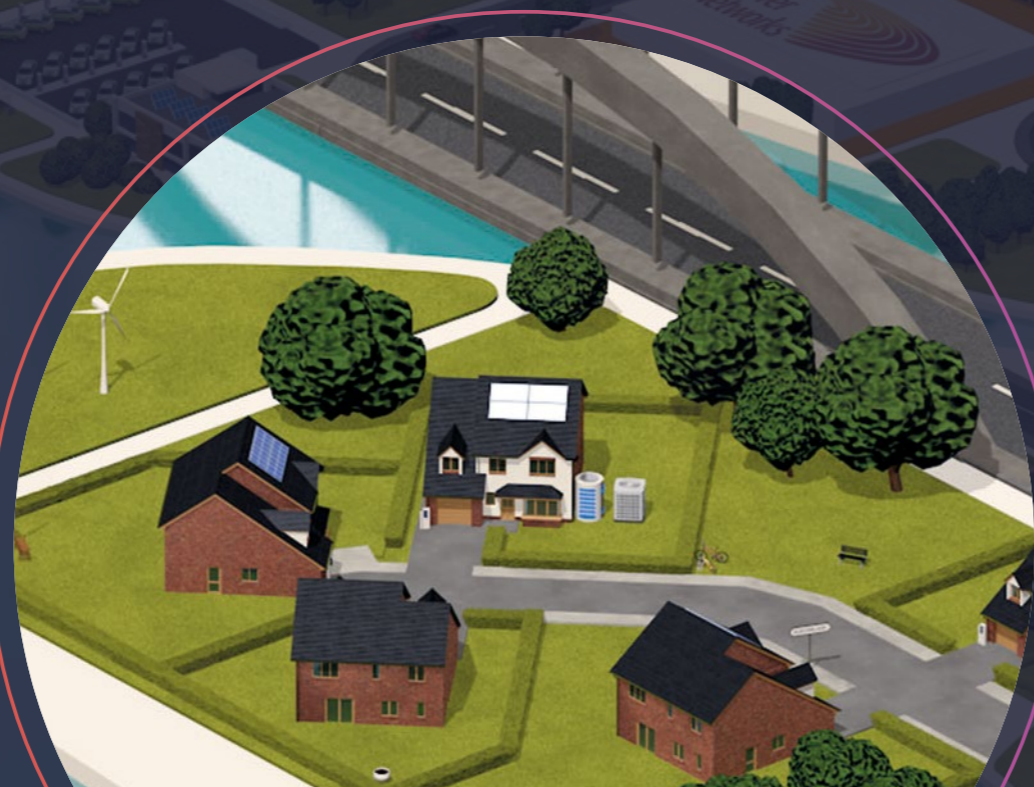


Heat Street Project

The Heat Street project was developed using zoning assessment techniques and sophisticated data analysis to help local authorities and community energy groups with their decarbonisation action plans. Hammersmith and Fulham Council, for example, used this data to identify and target the most appropriate areas for the provisional roll-out of its Green Homes Grant. We are already seeing the results in accelerated decision-making among other local authorities across our regions, and we see value in government considering this approach for a national policy.

85%

More than 85% of domestic properties in the UK are supplied by natural gas for heating and cooking



Low Voltage flexibility

With a predicted 4.5 million EVs connecting to our network by 2030, we are exploring creative technologies such as smart cable chargers and digital apps that manage vehicle chargers so EVs can operate as mini power stations. Our February 2021 Flex tender awarded contracts worth £30 million to companies in the energy, tech and car sectors, most of which will provide new capacity from EV batteries and smart charging. We believe that these 'virtual power stations' will balance demand at peak times and reduce customers' bills by deferring the need to invest in new infrastructure.

£30 million

Awarded contracts worth £30 million to 17 companies

Enabling Motability

Through a project called Enable, we're working with Motability to make sure that the needs of drivers with disabilities are understood and met to help them make the switch to EVs. We are looking at how to overcome particular challenges that people with disabilities face, such as the need to park near home or their destination. We are working with local authorities and infrastructure providers to make sure that people with disabilities have no unnecessary obstacles to switching to EVs.

1.35 million

drivers with disabilities in our area of operation



Working with others to deliver Net Zero

To deliver Net Zero by 2050 will require collaboration across the UK to ensure that we are co-designing an energy system that delivers benefits for every customer. We are working with our colleagues at National Grid Electricity System Operator (ESO), the electricity system operator, to create a more efficient electricity network which will lower costs for all.

We have a regional development plan with National Grid ESO and, thanks to it, we have unlocked 1.7GW of network capacity without building any new infrastructure. This is roughly one and a half times the size of the UK's largest existing nuclear power plant and paves the way for a host of renewable generators.

1.7 GW

Our regional development plan has unlocked 1.7 GW of network capacity without building any new infrastructure



THE TRANSITION TO A NET ZERO WORLD

- 1
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- 3

Addressing customers' concerns



As the energy landscape changes, customers have many questions about what those changes mean for them. Thanks to our extensive stakeholder engagement programme and our well-developed customer communications channels, we are keenly aware of our customers' concerns about the future and we do our best to answer their questions as clearly as possible.

“What do I need to know about installing a heat pump?”

What's at the root of the question?

Customers are beginning to understand that gas heating is the biggest single contributor to greenhouse gases in the UK. They also recognise that, if we are to meet the Net Zero ambition by 2050, the changes required are fundamental, will cause them major disruption and be expensive. The decarbonisation of heat means installing a whole new heating system or – at the very least – upgrading their current arrangements.

UK Power Networks' response

Our heat strategy is designed to educate and inform all manner of customers about the decarbonisation of heat. We are also giving great service to customers who wish to connect to low carbon heating solutions. At the same time, we are making sure that the network is ready for these new technology solutions.

We identified off-gas-grid customers and new-builds as the most likely early adopters of low carbon heating and have collaborated with organisations such as Citizen Advice to develop our heat packs, which contains a simple guide to low carbon heating for domestic customers, local authorities and developers.

“What can be done to meet the growing demand for EV charge points?”

What's at the root of the question?

The massive increase in EV ownership expected by 2030 will put enormous pressure on the provision of charge points across the UK, with over 380,000 Vehicle-to-Grid (V2G) charge points predicted for the UK Power Networks area alone. How will this demand be met?

UK Power Networks' response

We have streamlined the process for installing EV charge points, integrating the fuse upgrade process and simplifying the application method. Now, we can assess applications for connections in minutes and we proactively schedule a fuse upgrade when it is required. We worked with other DNOs to make sure the streamlined process can be applied throughout the country. We also supported EV buyers with a platform, shared with Scottish & Southern Electricity Networks, that provides early guidance on whether a fuse upgrade is needed.



“How can I take advantage of the market flexibility opportunities?”

What's at the root of the question?

In this emerging market, our Distributed Energy Resources (DER) prosumers – who are the customers who generate and sell renewable energy – help us to maintain the balance of supply and demand for power on our networks. The better their access is to data about how the network is running, the more they can help the stability of our networks, to our mutual benefit.

UK Power Networks' response

We developed a dynamic, interactive dashboard of detailed real-time network information, covering frequency, voltage, volumes of active and reactive power as well as the mix of generation connected to the network. We made this information available at Grid Supply Point level, to help DER operators with planning and operations. We plan to go even deeper into our network in the future, providing ever more detailed data, so customers can locate the most affordable points at which to connect to our network.



“As a local authority, how can UK Power Networks support me in delivering my climate ambition?”

What's at the root of the question?

Over half our customers are not able to install their own EV chargers because they don't have off-street parking. There is also a lack of public charging and this is one of the main barriers to customers switching to an EV, so local authorities are looking for help in planning street community EV charging in order to overcome this.

UK Power Networks' response

Partnering with local authorities, we developed a new approach to planning public, on-street EV charge points where they are most needed but, traditionally, it has been uneconomic to locate them. Key to this has been the use of innovative financing approaches, including the use of the industry's Green Recovery mechanism, to help build the required charging infrastructure in the most efficient manner.



OPERATIONAL PERFORMANCE: SAFETY

Keeping safety front and centre

Electricity can be dangerous, so at UK Power Networks safety is always our number one priority for our employees and contractors as well as members of the public. This year has been harder than ever, as COVID-19 added to our health and safety challenges, both for our employees and our customers.

You can read on pages 6-7 how we responded quickly to protect our people and our customers in the face of the pandemic.

Zero

In the past four years there have been no electricity-related injuries to farmers, road haulage workers or recreational groups on any of our networks

0.5 million

This year we have promoted safety to over half a million children, key industries and members of the public

In spite of these additional demands, we continued to work to eradicate complacency in the business. As the government's Health and Safety Executive (HSE) puts it, complacency is a 'silent killer'. We have worked hard to embed in our workforce an awareness of complacency and its role as a key behavioural risk.

We have always been proud of our safety record at UK Power Networks. This year, however, five of our employees and contractors sustained Lost Time Injuries (LTIs), which are injuries that resulted in their needing to take time off work. In the previous year there were two such incidents. The distractions of COVID-19 are no excuse for any slip in safety standards and we are taking this increase in LTIs extremely seriously. We have redoubled our efforts to make sure that everyone working for UK Power Networks including our contractors is alert to the potential danger of working with electricity.

Beware complacency

In the course of the year, we have run a series of campaigns aimed at highlighting the potential for many aspects of our work to engender complacency. It is human nature; our employees undertake routine tasks many times in their working life, some of them over and over again. This is where complacency can creep into the work. A person may forget a check or a step in the procedure, and there will be no consequence. So, they may forget it again, and this time it will seem less of an issue because, again, no harm is done. And that is how unsafe habits form and complacency sets in.

Our campaigns, aimed at our employees and contractors, stress the importance of maintaining awareness as they go about their work and guarding against the natural tendency to relax when everything is familiar. The added challenges of supervising work in a socially-distanced, COVID-19 world, along with the other distractions the pandemic caused, made this message vital.

Mental health and well-being of employees

Our immediate response to the health impact of COVID-19 on our employees was, of course, around PPE, social distancing and other ways to protect against infection. We moved quickly to extend our support to our employees' mental health and well-being. In the People section of this Annual Review, you will see more about how we helped our employees to take care of their mental health. As well as resources relating to such subjects as mindfulness, healthy eating and exercise, we also provided advice and resources to help people deal with bereavement and domestic abuse, both of which – regrettably – became increasingly relevant during the pandemic.

Keeping the public safe

As well as working hard to protect our employees and contractors, we also do all we can to ensure the safety of members of the public. During lockdown our usual face-to-face events were no longer an option. We responded positively by keeping in touch with many groups online, such as the online forums we attended with British Sugar and virtual presentations we provided for the National Farmers Union as well as safety stand-down days we conducted with construction company, Volker Fitzpatrick. Our work has enabled us to reach over half a million members of the public with important safety information during this regulatory year.

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



Our vital safety messages and campaign around electricity to various sections of the public continue to reduce injuries to members of the public. In the past four years there have been no injuries to farmers, road haulage workers or recreational groups on any of our networks. There have also been no electricity network-related injuries to plumbers and injuries in the construction industries have reduced by 50%, as have injuries resulting from contact with underground cables.

One of our most successful public safety partnerships is with the Scouts. We remained highly active in our partnership, although we changed our approach in light of the pandemic. We successfully moved to an online presence with them, which we called The Great Indoors, hosting a great range of games and other resources designed to help them learn more about safety around electricity particularly in relation to recreational activities and activities that could be complete at home or in a virtual setting. In this way, Scouts were able to continue to work towards their local knowledge safety badge sponsored by UK Power Networks. This enabled us to successfully engage with over 130,000 young people despite no face-to-face contact.

In association with the Energy Network Association (ENA), UK Power Networks and other member companies once again launched an awareness film aimed at construction workers and builders. The hard hitting film was recorded in UK Power Networks area and was well-received with over 5,000 video views.

Targeting DIYers

Lockdown meant that more people were turning their hands to DIY projects at home. Nationally there was a 20% increase in damage to hidden cables and pipes. That's why UK Power Networks, in association with the ENA and other member companies, promoted a safety campaign, via all social media channels, aimed at homeowners and builders to remind them of the importance of locating cables in domestic properties. Star of TV's *Ground Force* Tommy Walsh spearheaded the campaign.

Working with the fire and rescue and police services to agree protocols

In 2019, there was an incident where, although no-one was hurt, it alerted us to an area of potential danger. An accident on a motorway brought to our attention the need for better protocols and understanding on the part of the emergency services in relation to how we deal with the electricity network infrastructure. We realised that more work could be done with the fire and rescue services and the police in our area of operation to highlight the dangers of dealing with electrical cables and other infrastructure when they are responding to fires, accidents and other hazardous situations. In close consultation with them, we are the first network operator to have drawn up a Memorandum of Understanding (MoU) that sets out clearly the particular dangers and responsibilities, along with the correct and agreed protocols to follow with regard to electrical cables and equipment in the event of a fire and other emergencies.

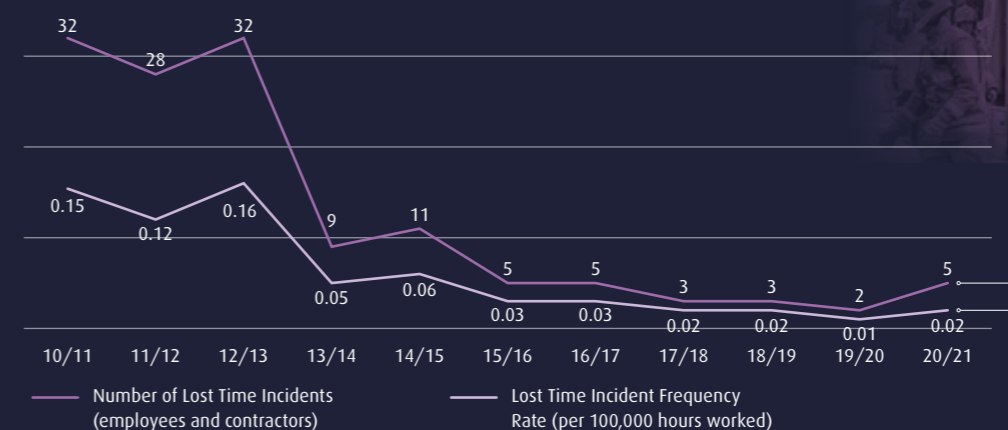
We have signed MoUs with nine of the 12 fire services in our area of operation and are in talks with the police services to reach agreements with them.



The safety of our firefighters at incidents is paramount, and therefore working closely with UK Power Networks and having the Memorandum of Understanding in place, provides reassurance that during incidents involving electricity, our crews will be able to carry out their roles in a safe manner."

Andy Batchelor,
Kent Fire and Rescue Service Station Manager

Our performance in numbers



5
The number of incidents where employees needed at least a full day off work due to injuries in 2020/21

84%
Improvement in the frequency rate of Lost Time Incidents since 2010. This is the number of incidents needing at least a full day off work, per 100,000 hours worked



OPERATIONAL PERFORMANCE: NETWORK RELIABILITY

An ever-more reliable network

It is core to our purpose to keep the lights on for our customers. They should be able to take it for granted. Inevitably, power will sometimes be interrupted, but we work hard to ensure that happens rarely and, when it does, it is short-lived.

99.99%

Network reliability

26 minutes

On average in 2020/21, a UK Power Networks customer was without power for less than half an hour, compared to over an hour in 2010

There may be a planned interruption so we can undertake vital maintenance on the network, or it may be a result of external forces such as the weather. When the power supply is interrupted, we strive to make the impact of that interruption on our customers as insignificant as possible.

Our best year ever for Customer Minutes Lost

At its simplest, we measure the reliability of our network in two ways: the number of Customer Minutes Lost and the absolute number of interruptions to customers' electricity supplies. Of course, we can't control the weather and if we have severe, frequent storms, for example, there are bound to be some interruptions to the power supply. We work hard, however, to ensure that in the first place, the network is as robust as it can be and, if it should fail, that we can repair it quickly.

Due to the challenges presented by COVID-19, the year under review was one of the toughest that UK Power Networks has faced. In spite of the difficulties, we have achieved our best ever record of 26 minutes in terms of Customer Minutes Lost. We are pursuing a long-term strategy of increased automation and investment in innovations and network improvement; this strategy is bearing fruit as we see the time that customers are without power declining year after year.

Adapting quickly to lockdown

We have ever more detailed information about our network and our customers and we take that into account when we are planning maintenance work. During the first lockdown for the COVID-19 pandemic in 2020, when many people were getting used to working from home and home-schooling their children, we initially suspended all planned maintenance because we understood the impact a power cut would have on such households. We quickly established protocols that allowed us to resume work and we managed to clear a backlog of thousands of jobs in under five weeks.

Working remotely whenever we can

If there is a problem on the network such as a device tripping, the network control system can tell us how many people's supply has been interrupted and where they are. We can usually restore it remotely and have everyone back on power in under three minutes. Our Innovation team is finding more and more ways to restore the network remotely whenever possible, and this is one of the ways that we are able to speed up repairs.

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



New Fault Passage Indicators

In some cases, however, there is no option but for an engineer to go to the site of a problem to fix it. We continue to improve our ability to identify where faults are on the network. This year we introduced a new way of detecting much more accurately where on a length of network a fault is located. This Fault Passage Indicator means that our engineers can find and fix faults much more quickly. It is a further contributor to this year's best ever performance for Customer Minutes Lost (see graph below).

We have also made changes to the communications system that drives how we monitor and control the network; we have upgraded the way the system conveys information from a standard mobile phone signal, which can be unreliable, to a modern modem signal that is far more dependable and robust. This, again, speeds up repairs as we can be sure of knowing about faults more quickly.

Towards Net Zero

In making the network increasingly reliable, we are also contributing to the reduction in CO₂. That's because many of the innovations we deploy across the network mean fewer engineers driving around the country to fix faults. Low Voltage (LV) Reclosers are a good example of such innovations. These clever devices act as automatic circuit breakers that can restore supplies for some types of faults, without engineers having to visit a substation. Automatic operation of the LV reclosers and restoration of supplies is typically within one minute, so that's fewer customer minutes lost and less CO₂ emitted. In the year under review 2020/21, we estimate that our vehicles have emitted three tonnes less CO₂ due to the use of the LV reclosers.

Jumper cutters

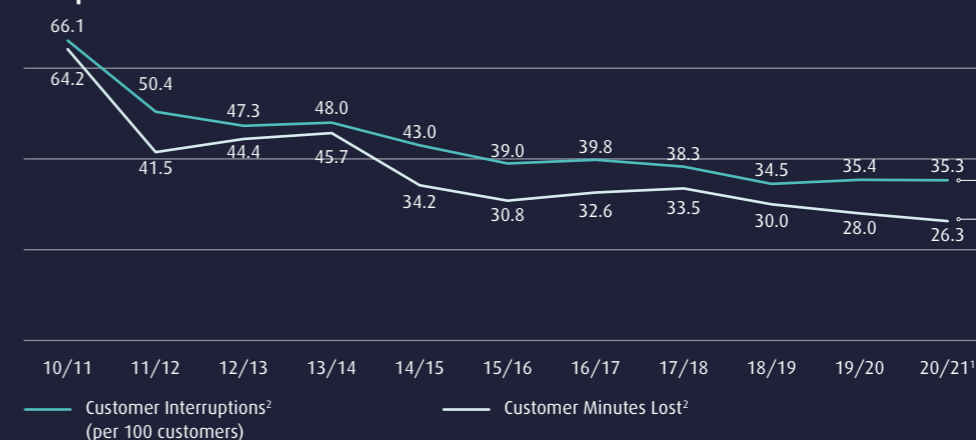
This year we have introduced a new piece of equipment that eliminates the need for a linesman to physically climb the pole to fix a fault on the line, once we have identified where the fault is. Previously, this was a time-consuming process and, in bad weather, could be dangerous. The device is simple in its concept, but has proved a significant time saver when restoring supplies. It is effectively a battery-powered set of wire cutters that is operated from a remote control unit held by the engineer. The tool, called a jumper cutter, is fixed to the end of a set of rods, which allows the engineer to reach the wire at the pole top and make the cut. Once the cut is made the power to the undamaged overhead line can be switched back on quickly and safely.



Jumper cutters have made a huge difference to how we deal with damaged bits of the network, such as a faulty cable section or a snapped pole. We can now work with our feet on the ground to isolate the fault, so it is a much quicker and safer task and we are getting power back for customers much sooner."

Srinivas Dokku,
Lead Field Engineer

Our performance in numbers



35.3 CI

Our power cut performance has improved by 47% since 2010/11, which means customers now see an interruption on average just under every three years, compared to an average of once every 18 months in 2010/11.

26.3 CML

A customer connected to our network will be off supply for just over 26 minutes per year. This is a 59% improvement over 2010/11, when the average duration was 64 minutes.

1. 2020/21 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.

OPERATIONAL PERFORMANCE: CUSTOMER SATISFACTION

Customers are at the heart of our service

The COVID-19 global pandemic has presented companies with enormous challenges in the past year, particularly with regard to their ability to maintain the level of service they provide for their customers. In recent years, UK Power Networks has built a service culture to support customers.

Ranked No. 1

Awarded the best performer in Ofgem Broad Measure of Customer Satisfaction with our best ever customer satisfaction score of 93%

Under 3 seconds

Average time to answer calls during lockdown

5 stars

Trustpilot rating as 'Excellent'. We have over 15 times more reviews than all other DNOs combined

It has become second nature to our employees to see things from our customers' point of view and we have built up detailed information about our customers' requirements and preferences.

We have a clear picture of who our customers are and what service they need from us. This groundwork meant that we were well positioned to adapt our service and so take better care of our customers through the COVID-19 lockdowns.

Our people quickly adjusted to a new way of working. We managed our customer call centre with people working from home and were able to maintain our high standards for answering customer calls, with callers waiting an average of three seconds for someone to pick up their call, compared to an average call waiting time in the utility industry of more than 45 minutes. It is a point of principle for us not to make excuses and we never used the excuse of the pandemic to justify a drop in service levels. On the contrary, we stepped our service up a level and in 2020/21 our Customer Satisfaction rating climbed to its highest ever, reaching 93%.

Adaptable and agile

As soon as the first lockdown began, we reviewed all our operations in the field so we could adapt our activity in response to the new ways that customers were reacting to the lockdown. With many people working from home and home-schooling their children, a reliable source of electricity was more important than ever, so we immediately suspended all non-urgent planned maintenance work. Where such work was essential, we set a limit of no more than 30 customers at a time being without electricity and no customer would be without power for more than six hours. We also provided extra services to make it easier to manage the lack of power. For example, whenever possible we provided access to mobile generators and Wi-Fi access devices and had our support vehicles out in force, which also provided hot food to customers without power.

Keeping everyone safe

With good reason, customers were extremely wary of having UK Power Networks employees in their homes during lockdown. We wanted to make sure our employees were protected as well as our customers. In record time, we adapted our processes to give everyone confidence in how we conducted home visits. We introduced a strict protocol involving a combination of questionnaires over the phone, text messages in advance of the visit and a call from the engineer en route to the job to confirm everything was in order. In other times such a change may have taken weeks to effect, but in COVID-19 we had to act without delay. Everyone concerned recognised the need for speed and the new protocol was adopted quickly and smoothly.

Engage, engage, engage

As ever, we put ourselves in the shoes of our customers. We made sure we had local knowledge across our customer base relating to what was happening on the ground to ensure our planned operations had minimal impact for our customers. For example, we made sure we were aware of where test and vaccine centres were located, and when local schools were reopening or closing.

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



Approach to data

Our ability to respond nimbly to unprecedented situations is attributable in part at least to how we manage data. In recent years, we have refined our approach to capturing and interpreting information about the homes and businesses that we supply with power. We have developed a deep understanding of our customers: their circumstances, how they use electricity and the communities in which they live and work. We have also mapped and analysed our network in great detail so we can identify the types of customers served by fairly small sections of the network. This means that if we need to turn off a section of the network, we know a lot about the customers who will be affected: how vulnerable those customers are, whether they include commercial premises, and whether they have needs for, for example, EV charging or heat pumps.

We also keep a close eye on customer satisfaction data. We monitor data, and are therefore able to spot trends that tell us that there may be a problem brewing. When our sensitive barometers pick up a potential dip in performance, we send in additional support to help the teams on the ground to understand what the problem is and fix it before it takes hold.

How we approach a fuse upgrade is an example of our more sophisticated approach to data. When we respond to a request for a fuse upgrade, we now have a full understanding of the reason behind the request; a customer doing a house extension and getting new appliances has very different requirements from one who is installing a charging point for an electric vehicle. We have ready access to that information in the future, so that if the customer with an EV charge point is affected by a power cut, we know that when they contact us and we understand the implications that has.

Unlocking smart meter remote technology

When a customer reports a power cut, we ask them to test their own internal trip switches to confirm the fault is on our network, not with their equipment. This is difficult for those with sight loss, dementia, or learning difficulties. UK Power Networks is the first UK DNO to integrate smart meter capabilities across customer contact channels. This allows us to confirm, without needing to visit the customer's home, whether a power cut is network-related or not. This saves the customer time and inconvenience as well as the difficulty of navigating their homes in the dark to check their meter.

Extra help for Small and Medium Business Enterprises (SMEs)

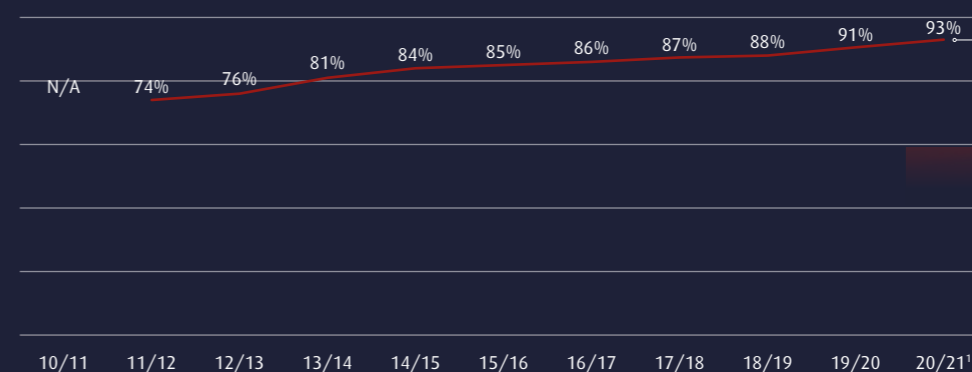
We recognised that small businesses can sometimes need as much support as domestic customers. We are the first DNO to have designed a customer-driven definition of SME vulnerability informed by research and engagement with 282 SMEs. Building on our experience with the Priority Services Register, we invited small, potentially vulnerable business customers to join our Extra Care Register (ECR). We offered them practical support such as mobile generation and battery powered Wi-Fi routers with mobile data and we began providing SMEs on the ECR with power cut notifications, a service previously supplied only to domestic customers. We also launched a research project among hard-to-reach SMEs to understand the challenges they face in transitioning to EVs and developed an action plan for a range of SME segments.



Small businesses are committed to sustainability, and a gradual, affordable move to Electric Vehicles will be an important step along this journey. It is very welcome that UK Power Networks wishes to gain a detailed understanding of their needs and the support which will be necessary both to help as many as possible transition to Electric Vehicles in the future where the available technology allows, and to make sure the infrastructure they will need alongside that will be provided."

Mike Cherry,
National Chairman of the Federation of Small Businesses (FSB)

Ofgem's Broad Measure of Customer Satisfaction



93%

Our highest ever customer satisfaction score

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



OPERATIONAL PERFORMANCE: VALUE FOR MONEY

Making every penny count

Being sustainably cost-efficient for our customers is one of the three pillars of UK Power Networks' corporate vision.

We never forget that, as a regulated business supplying an essential service, we are responsible for ensuring that we provide that service in a way that delivers the best value for our customers' money.

£6.74

Our domestic customers pay us an average monthly charge of £6.74 (23p per day) for a reliable electricity supply

Lowest cost DNO

We are the lowest cost DNO across ED1 to date (2015/16 – 2020/21). This means our customers pay 7% less than the industry average

Over the six years of this regulatory period starting in April 2015, UK Power Networks is proud to be the lowest cost electricity DNO in Great Britain over that timeframe. Much of our innovation that you can read about in this Annual Review supports the transition to a Net Zero economy and, often, these bring with them lower bills.

Saving our customers money

UK Power Networks is committed to delivering value for customers. Over the last six years, our charges have, on average, been 7% lower than the industry average and are ranked the most efficient of all the DNOs. We are rigorous in ensuring that every pound we invest in our operations is both necessary and delivers tangible benefits for customers. An example of this is our strategic capital programme delivery alliance. Working with our four delivery partners, we have shared best practices to improve efficiency and hence deliver our major infrastructure programme at the lowest cost. We also have an exacting process to decide which new ideas will be implemented by determining the benefits they will bring to customers.

We are proud that we remain the lowest cost DNO and that our efforts over the six years (2015/16 – 2020/21) have saved our customers £344 million. This is by far the highest in the industry.

Addressing fuel poverty among our customers

As well as ensuring that our customers pay as little as possible in the electricity bills for the service we provide, we also have a well-developed strategy to address fuel poverty among our customers. We work hard to find ways to help people for whom electricity constitutes an unduly large proportion of their spending. We work closely with local trusted organisations embedded in our communities to provide in-depth personalised support to our customers in fuel poverty. This year we provided fuel poverty advice to over 840,000 customers and delivered in-depth support to almost 14,000 households, adopting new ways to deliver tailored support to those disproportionately affected by the pandemic.

Using Artificial Intelligence (AI) to help customers avoid fuel poverty

This year, COVID-19 and the associated lockdowns have meant more people than ever are heading towards fuel poverty. We developed innovative ways of identifying and helping our customers who are on the verge of fuel poverty. Through targeted local partnerships we made particular efforts to contact residents who can be hard to reach.

We formed a new partnership with two exciting organisations, the Energy Systems Catapult and UrbanTide, to co-design a solution that identifies those in or entering fuel poverty. It maximises AI and machine learning opportunities from smart meter meta-data and other indicators to deliver proactive and preventative support.

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



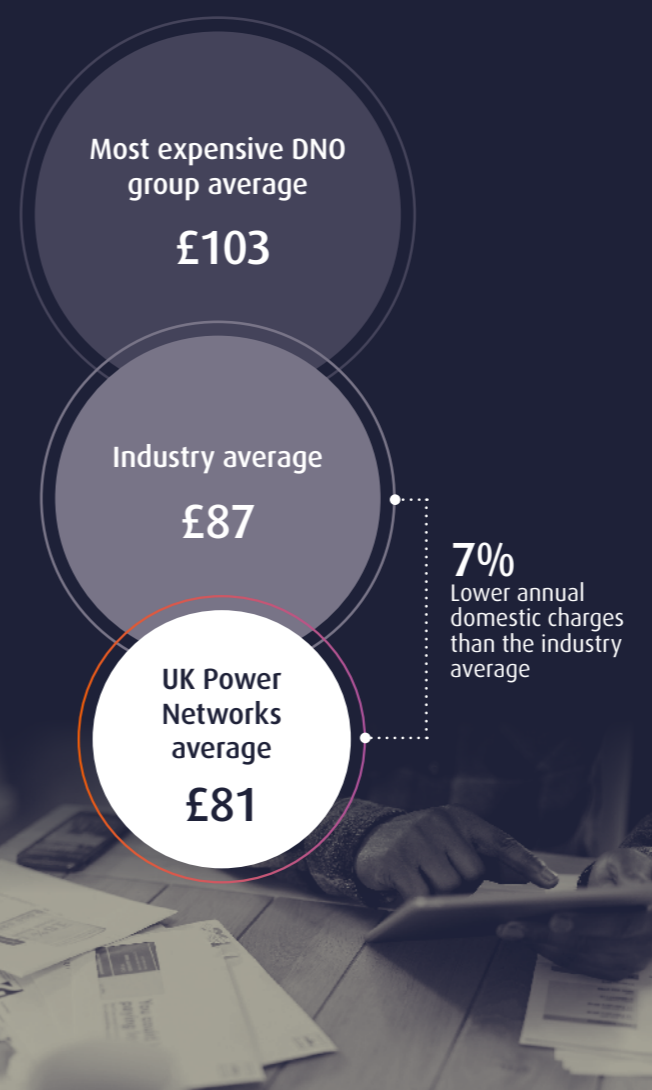
Increasing energy efficiency to deliver greater value for money

In 2020/21 we launched a long-term programme that swaps electrical transformers (equipment that reduces the voltage of the electricity) for more energy-efficient models that reduce the voltage required to deliver power safely from the National Grid to our customers. These high-efficiency state-of-the-art amorphous steel core transformers reduce by 80% the amount of energy that is otherwise lost when electricity is transported. They not only deliver better value for money; they will also provide significant carbon savings. We have already installed more than 50 of these green transformers and, over time, we plan to replace about 15,000 transformers at our substations. This will save more than 8,500 MWh per year – enough to power approximately 2,700 homes – and result in a carbon saving of almost 2,200 tonnes annually.

The new models will be used for the majority of new construction projects, and where existing equipment needs to be replaced.

Annual domestic charges (2015/16 – 2020/21)

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



Innovative approaches to tackling fuel poverty

We created a cross-utility partnership with Scope, SGN and Anglian Water providing accessible support for people with disabilities. This cross utility partnership not only helped to reduce electricity, gas and water costs altogether but also to apply for grants, smart meters and PSR together with other non-energy services providing a one-stop-shop advice for hard-to-reach groups. Customers with disabilities have been hit hard by the pandemic reporting about increased usage and costs and 34% worried about it. Therefore we invested to expand the range of Scope's Disability Energy Support single port of call service to overcome barriers.



UK Power Networks is helping to break down the barriers faced by customers with disabilities, by making the customer experience more accessible and inclusive. UKPN's, SGN's and Anglian Water's cross-utility partnership to fund additional services for Scope's energy helpline will enable customers with disabilities to get the holistic support they need in one place for the first time."

Paul Fuller,
Executive Director of Partnerships at Scope



OPERATIONAL PERFORMANCE: SOCIAL RESPONSIBILITY

Championing the communities we serve

Our ambition – at the heart of our vision of being a respected and trusted corporate citizen – is to be the most socially responsible network delivering inclusive services today and in the future.

The service we provide is vital. Our customers, especially those whose circumstances mean they are vulnerable in some way, rely on it. We also strive to tackle key social energy issues where we can make a real difference.

1.97m
customers on the Priority Services Register (24% of all households in our region)

94%
satisfaction score among customers on the Priority Services Register

1st DNO
to adopt the 'Safe Spaces' initiative on our website to support victims of domestic abuse

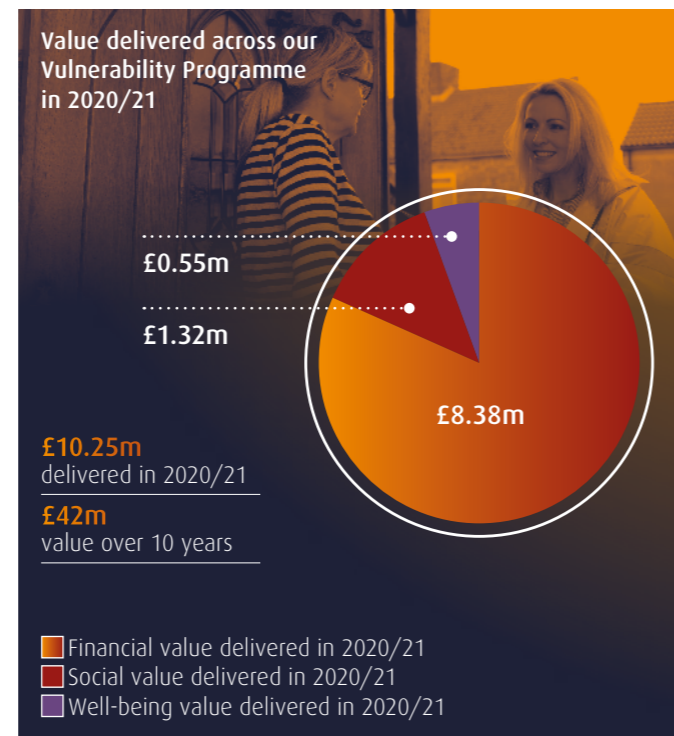
A sharper focus on dealing with vulnerability

COVID-19 and the ongoing changes associated with the transition to a Net Zero economy mean that more people are at risk of being left behind. We used data, research and engagement to enhance the understanding of our customers' changing needs and to adapt our services to support more people: from our customers that are eligible for PSR or at risk of fuel poverty, to those who may be at risk of being excluded from energy services today or from accessing the benefits of the Net Zero transition tomorrow. This sharper focus on vulnerability is made possible by the strong partnerships we have cultivated over the years along with tailored training we provide to both our staff and partners.

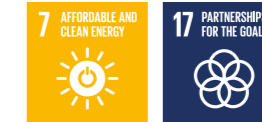
Improving the way we measure our impact

We have enhanced our approach to quantifying the social value we deliver. Where assumptions are sufficiently firm, we now quantify the potential benefits associated with three types of outcomes: financial, social and well-being. As a performance-based business, we measure these effects to help us make informed choices and develop a programme that increases our social impact even more. With limited resources, it is important that we target actions that deliver the greatest benefit. In order to ensure that we measure this increased benefit consistently, this year we teamed up with other DNOs to deliver a common social valuation tool to provide greater transparency and comparability. We have also gone further by implementing a holistic end-to-end approach using our value measurement framework based on the common social valuation tool to forecast, re-validate and measure the impact of our actions.

We now use measurement tools more consistently through the lifecycle of initiatives, we have extended our timeframes to model costs and benefits up to ten years and we have developed sophisticated new ways to measure value. The independent specialist consultancy, SIA Partners, has verified that our decision-making process is transparent and confirmed that our values and approach are robust.



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



COVID-19 and its effect on vulnerability

The COVID-19 pandemic brought into even sharper focus how important it is for us to take special care of our customers in vulnerable circumstances. As well as the clear imperative to protect the physical and mental well-being of our customers, we also paid careful attention to the issue of fuel poverty among our customers. The COVID-19 pandemic exacerbated the difficulties faced by those in fuel poverty and led to a rapid rise in the numbers of people falling into this category. As a socially responsible company, we quickly created a £500,000 cross-utility fund to help over 100 community charities providing crisis support, with more than 20,000 people more people supported by our funding throughout 2020. We also redirected 70% of our Power Partners fuel poverty delivery programme to areas where the issue became ever-more urgent in the context of the COVID-19 pandemic. We provided extra support to a number of groups of customers: those at risk of domestic abuse, BAME communities disproportionately affected by the pandemic, those suffering from mental health challenges, fuel-poor customers at risk of being excluded from 'digital-only' support, and those with transitory vulnerability such as the many people returning home from hospital following treatment for COVID-19.

Supporting those at risk of domestic abuse

With one in five offences registered as domestic abuse during the first lockdown and the national domestic abuse hotline recording a 65% increase in calls from April to July 2020, it was clear to us that domestic abuse had become a more acute problem: 'an epidemic within a pandemic' as our stakeholders put it.

UK Power Networks joined forces with Against Violence & Abuse (AVA) to train our frontline staff to identify and refer victims of domestic abuse to national abuse helplines and local support services in their county or local areas. We also adopted the 'Safe Spaces' initiative on our website, adding a digital button that, when clicked, provides easy-to-understand, discreet and localised advice for victims of domestic abuse. Clicking on the button leaves no trace on any search history on the user's equipment and can be quickly and easily exited.

Boosting PSR registrations in London

Throughout UK Power Networks, we are making great strides in the way we analyse and use data, and this plays an important part in influencing our social responsibility programme. In recent years we have significantly increased the number of people registered on the Priority Services Register (with the number of households on our PSR having almost quadrupled over the last six years), so we are able to support more of the people who need it most. When we examined the PSR data to understand the drivers behind low take-up in under-represented areas, this showed us that people in London were not registered in the numbers that other data would lead us to expect. Using in-depth customer research, engagement and data analytics, we drew up a tailored, targeted action plan to increase the number of Londoners on the PSR. In addition to input from local trusted organisations with whom we are already working to support PSR registrations, we used a range of innovative partnerships and communications channels to promote our PSR in and around London. The channels included local radio, social media and social influencers. Our targeted actions to promote the PSR in under-represented areas resulted in an increase of 18% in PSR registrations in London over last year, with half of all eligible households now registered on our PSR in the capital. We will continue to expand our PSR reach and impact to support those hard-to-reach and seldom heard.

Extra help for deaf people and those with hearing impairment

The Royal Association for Deaf People helped us understand the profound impact that people wearing opaque masks had on those who are deaf or who live with hearing loss. UK Power Networks was the first utility in the UK to deploy transparent masks for frontline customer service colleagues (see left). We concluded that standard transparent visors didn't provide adequate protection against the spread of the virus. Looking further afield, we learnt that West Midlands Police were blazing a trail with bespoke see-through masks. Thanks to feedback on their prototype, we deployed a new bespoke transparent face covering that provides greater protection as well as making it easier for hard of hearing customers to understand our frontline employees. We quickly learned that, because they allowed customers to see friendly faces, transparent masks also brought additional benefits to customers with dementia or autism.



As a deaf stakeholder, I am delighted to see UK Power Networks use see-through masks to facilitate communication which could not have happened otherwise. These help in what is an incredibly lonely and isolating time for deaf and hard of hearing customers."

Clr Gary Harding,
Gravesham Borough Council



OPERATIONAL PERFORMANCE: ENVIRONMENT

Making our own operations as green as possible

Taking care of the environment is a key element of UK Power Networks' vision to be a responsible corporate citizen.

Developing and facilitating increasingly carbon-efficient and ultimately zero-carbon ways of distributing electricity are at the heart of our mission for the foreseeable future.

1st DNO

to achieve Science Based Target initiative (SBTi) verification through setting science-based targets covering the entirety of our emissions

1st DNO

to achieve the Carbon Trust Standard

31%

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

The projects you can read about in this Annual Review demonstrate the relentless focus that UK Power Networks has on supporting the UK's transition to a Net Zero economy.

Alongside these ambitious developments, we also do all we can to manage our own business in the most environmentally-friendly way possible. That means finding ways, large and small, throughout the business where we can reduce our carbon footprint, reduce waste and support biodiversity.

Science-based targets

Last year we reported our intention to set science-based carbon reduction targets. UK Power Networks became the first DNO in the country to have its carbon reduction plan and targets verified by the Science Based Target initiative (SBTi). SBTi accreditation provides independent verification that our targets are robust and in line with the latest science and Paris Agreement goals. We have an important role to play in enabling the UK's transition to a Net Zero energy system. Our customers, stakeholders and regulator have been clear: the environment is a priority for them, and we listen to that. Our ambition is to go further and faster, so we have set challenging, but achievable, targets to reduce UK Power Networks' total carbon footprint by 25% by 2028 from a 2018/19 baseline covering all emissions: scopes 1, 2 and 3.

Key SBTi highlights:

25% reduction by 2028
SBTi accredited 'well below 2°C (WB2D)' target for our total carbon footprint including network losses and supply chain emissions, equating to a 25% reduction by 2028.

42% reduction by 2028
Internal stretch target of 1.5°C for emissions directly within our control, equating to a 42% reduction by 2028.

Target for emissions directly under our control
Net Zero target for emissions directly under our control by 2028.

31% reduction CO₂ emissions since 2014/15
Reduced our CO₂ emissions by 31% since 2014/15, surpassing our stakeholders' initial target of 2% each year.

Greening our entire supply chain

Working with the Carbon Trust, we have mapped the carbon footprint of all our emissions, including our supply chain, and modelled the actions we will take to reduce emissions and set challenging targets across all our activities. We have already reduced our carbon emissions by 31% since 2014/15 and are investing £120 million over the next seven years to achieve our ambitious environmental and carbon plans. We have also been working with charities such as Trees for Cities who aim to plant trees in urban areas in partnership with the local communities. This helps revitalise

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



forgotten spaces and deprived neighbourhoods, improving biodiversity and helping to alleviate air pollution impacts. In this year we planted around 2,700 trees to help offset approximately 127 tonnes of air pollutants. The key commitments to deliver before 2028, in our Environmental Action Plan, are:

- Use only electricity from renewable sources in our buildings.
- Increase use of sustainable materials like low carbon concrete, and use less of it.
- Replace all our suitable vans and cars with EVs (around two thirds of the fleet), targeting areas with poor air quality.
- By the end of 2028, recycle 80% of our office, depot and network waste, re-use 99.5% of our street works waste and be a zero waste landfill company for recoverable wastes.
- Introduce lower carbon fuels and hybrid generators into our mobile generator fleet.
- Enhance wildlife habitats at 100 substation sites, by planting new hedgerows, providing ponds and introducing wildflower meadows.
- Make our offices more energy-efficient by upgrading building plant and controls, installing LED lights, smart metering, solar panels, and low carbon heating.
- Work in partnership with our suppliers to help reduce their carbon emissions.

Restoring a pond for Great Crested Newts

We continue to take every opportunity to increase biodiversity across our operations, planting hedgerows, providing nesting and roosting opportunities for birds and bats, and conducting wildflower seed trials. During the year, UK Power Networks worked with Suffolk Wildlife Trust to restore a pond in the grounds of an electricity substation at Ilkeshall and provide breeding opportunities for Great Crested Newts. The pond had become clogged with reeds so there was no open water remaining. Suffolk Wildlife Trust ecologists surveyed the site last year and in February an excavator removed the reeds and reprofiled its bed. Local engineers ensured that overhead electricity lines near the pond were made safe before work started. Great Crested Newts have been recorded in and around buildings on the site over the years, so once the pond has refilled naturally and the broadleaf plants required by newts for egg-laying have re-emerged, we hope the newts will use it for breeding.

The project is part of our Green Action Plan to enhance biodiversity at more than 100 of our sites, providing habitat for wildlife including vital pollinators like bumble bees and threatened species like hedgehogs.



Green office Borehamwood

In December 2020 UK Power Networks opened a new office in Borehamwood in Hertfordshire. It is our greenest office yet, with a solar array system on the roof and ten 7.2 kW fast EV charging points. It has been built to use the latest energy-efficient technology, and has an energy performance certificate (EPC) rating of A. We estimate that these measures will save around 20 tonnes of carbon per year. In addition, the office has been fitted out with excellent quality, second-hand furniture that is as good as new, but with a much lower carbon footprint.



We are glad to have the first tenant at Panattoni Park Borehamwood to have already taken occupation and started to fit out, so it is great to see the site start to take shape and UK Power Networks be a part of it.

The unit benefits from a number of sustainability enhancements, including 7.2 kW fast charging points in the car park, a solar array system on the roof, along with internal and external LED lighting. Inside, the 19,000 square foot warehouse benefits from 10% roof lighting throughout, so there is plenty of natural light within the space. It's great to see companies leading on the sustainable agenda."

Tony Watkins,
Development director at Panattoni



OPERATIONAL PERFORMANCE: STAKEHOLDER ENGAGEMENT

Deeper, richer engagement in COVID-19 times

Customers and stakeholders are at the heart of our business: listening to their feedback and understanding how we can work and collaborate together to tackle topics such as Net Zero, is what drives our employees.

This year we held over 1,312 engagements reaching over 23,676 stakeholders through 19 mechanisms, leading to 358 outcomes for stakeholders, our highest number ever.

1,312
engagements

This year, we held over 1,312 engagements reaching over 23,676 stakeholders

223 partners

More than 223 active partners, who are integral to the development of our services



Traditionally, much of our engagement has been face-to-face so of course this year things have been very different. We have learned a great deal thanks to the social distancing challenges of COVID-19 which, despite the difficulties of hosting face-to-face meetings, led to us engaging with over 23,676 stakeholders over the past year.

Digital engagement in the time of COVID-19

In recent years our stakeholder engagement has become increasingly targeted. By bringing similar specialist stakeholders together we have been able to achieve a deeper and richer understanding of various topics. Since this year we were conducting much of our engagement digitally, we were able to conduct a good proportion of it one-to-one and that has meant that the contributions had real depth. We held some group events, which we conducted as webinars and here too we found ways to make sure that people were fully engaged and contributing. Through collaborative digital engagement, we were easily able to bring stakeholders together across all our network area. For example, we regularly and intensely worked with a select online focus group of local authorities to develop our Distribution Future Energy Scenarios (DFES) interactive data map, ensuring the tool was as helpful as possible for all 116 local authorities in our network area to plan their Net Zero transition.

We did, however, retain highly localised and COVID-19 secure face-to-face engagement to meet the needs of certain communities in vulnerable circumstances that are often hard to reach or with limited digital access.

Facilitating the Net Zero economy and response to COVID-19

The two key themes running through our engagement this year were facilitating the Net Zero economy and how to respond to the COVID-19 pandemic. Throughout this Annual Review you can read about the many remarkable initiatives that we have realised thanks, initially, to the engagement of our stakeholders. For example, the real-world experiment in low carbon heating in an off-gas-grid village in Sussex was achieved with multiple layers of engagement with a variety of stakeholders (see page 43). Similarly, we listened to the interests of people who are deaf or hard of hearing and we engaged with organisations far removed from the world of electricity distribution in order to arrive at the bespoke, transparent face coverings that our frontline customer service employees now wear when supporting customers with power cuts (see page 35).

Engaging with the community around major project under London's Leicester Square

In November 2020, UK Power Networks embarked on a major two-year project to upgrade a substation hidden beneath the hustle and bustle of London's Leicester Square. The existing infrastructure has been in place for three decades and is now scheduled for an upgrade that will equip it for many more years of cleaner, greener service. As part of our engagement with the local community, UK Power Networks is working with a not-for-profit organisation called Energy Garden to provide a training programme for unemployed disadvantaged young people. The programme helps prepare the young people for the world of work and covers sustainable energy, social enterprise, community development, and practical learning in the urban environment. UK Power Networks will provide the participants with behind-the-scenes insights into energy issues such as the UK's transition to a Net Zero economy, helping them understand the world of low carbon power and the green economy.

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



CEO Panel

The CEO Panel continues to be a valuable source of input, albeit this year it was held online. This strategic discussion covered subjects such as the composition of our social contract, the ways in which UK Power Networks can facilitate the Net Zero economy and our approach to the up-coming new regulatory period, (2023/24–2027/28) known as R110-ED2. The panel was also consulted on the company vision and discussed the pros and cons of refreshing it in light of the urgency of the commitment to a Net Zero economy.

Engaging with local authorities

Local authorities are well-established as an important stakeholder group for UK Power Networks and many have declared a climate emergency, so our ambition to facilitate the Net Zero economy is of crucial interest to them. This year we engaged extensively with them, individually and in groups, as they developed their energy plans. The Charge Collective project that you can read about below came about as a result of detailed engagement with local authorities on the challenges they face when deciding where to site on-street EV charging points.

Charge Collective

Charge Collective is a pilot project in which UK Power Networks is working with local councils in Cambridge, Norwich and London. Its objective is to work in collaboration with those councils to identify EV charge point blackspots in their areas. The project also takes into account the wider benefits of EVs to society, such as better air quality.

As part of the project, we will hold a competition that encourages investors to bid at the lowest cost to deliver the charge points to fill the gaps we identify as priorities. The aim is to ensure that residents have the confidence to switch to EVs, regardless of where they live or what parking space they have.



We're determined to reach our carbon net zero target by 2030 and the council wants to play its part in accelerating the move to electric vehicles. The new approach and collaborative working with UK Power Networks is helping us to do this."

Clr Martin Wilby,
Norfolk County Council
Cabinet Member for Highways, Infrastructure and Transport

Employees building strong collaborative relationships with stakeholders

Engagement is everyone's responsibility at UK Power Networks, and each employee takes pride in building genuine and trusting relationships with their stakeholder groups. This ultimately leads to stronger collaboration and co-design to deliver impactful outcomes.

Our employees

What our stakeholders say

I've thoroughly enjoyed working with a number of local authorities to unlock the viability of installing charge points, so that they support their residents and businesses in areas where charge points are sorely needed."

Shira Lappin,
Innovation
Technology Lead



Through working with Shira we are developing approaches to overcome barriers to chargepoint accessibility and testing them in the real world through deploying charge points in our area. The approaches we are shaping will ultimately support residents with decarbonisation in places that might otherwise have been left behind."

Emily Bolton,
Cambridgeshire
County Council



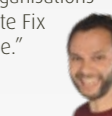
I want our data to be as useful and accessible as it can be to help the UK reach Net Zero. It was fascinating to work with a range of stakeholders to understand what we could do to genuinely make our data comprehensible and easy to navigate."

Harshil Sumaria,
Power Systems
and Data Analyst



It was a pleasure to co-develop the DSO Dashboard with Harshil and UK Power Networks. Opening up data in this way and finding out what users of that data want will make a big difference in the push to Net Zero, and enable organisations such as Open Climate Fix to make a difference."

Jack Kelly,
Open Climate Fix



Never before has working with partners been so crucial to support customers during this pandemic. I love engaging with our partners to find and deliver urgent solutions which have the most impactful outcomes for our customers in the greatest need."

Cody Prior,
Partnerships
Manager



Thanks to our strong working relationship with Cody, we were able to immediately repurpose our Power Partners programme to redirect support to help 211 local families in food poverty, which made a world of difference to them when they were adjusting to the start of the pandemic."

Kate Meakin,
Energinise Sussex Coast



The decarbonisation of heat is an exciting and rapidly evolving policy area that requires me to engage with a range of diverse stakeholders to understand consumer needs, now and in the future."

Zain Habib, Heat
Decarbonisation
Programme
Manager



Working with Zain and UK Power Networks over the 'Communiheat' programme in Barcombe has been really exciting. It's fantastic to see them taking a leadership role bringing all of the parties together to help address the complex issue that is heat decarbonisation."

Ollie Pendered,
Community Energy
South



OPERATIONAL PERFORMANCE: INNOVATION

Innovation keeps us ahead of the game

Innovation is the lifeblood of progress at UK Power Networks; it is in our DNA to keep striving to find better, greener, faster, cheaper ways of getting power to our customers.

The challenge of a Net Zero economy by 2050 is a key driver of this innovation and many of the exciting projects we have underway support that ambition.

£283.6m

of customer savings due to innovation over the last six years (2015/16 – 2020/21)

50 innovative solutions

Since the beginning of R110-ED1 to date (2015/16 – 2020/21), we have adopted 50 innovative solutions into our everyday business as usual operations

Constellation: smart substations

In 2020, Ofgem approved a world-first innovation project called Constellation relating to smart substations at UK Power Networks. The project is designed to free up capacity on our distribution network and so facilitate the rise in renewable energy generation. It enables local substations to analyse millions of datapoints on how the network is running, so that the network can reconfigure itself safely and enable higher volumes of electricity to flow. These smart electricity substations communicate with each other using the 5G network. If the project proves a success and is rolled out nationwide, we expect to release 1.4GW of capacity (enough to power more than 700,000 homes) and save consumers more than £750 million by 2050. It is also forecast to save more than 17.8 tonnes of harmful CO₂ emissions by 2050.

Smart Connect

UK Power Networks expects up to 700,000 electric heat pumps and 4.5 million EVs to be connected to its networks by 2030. That means we need to make sure we can provide our customers with the connection to the network that they need and that the process is smooth, seamless and largely automated. Smart Connect is a new service that makes life easier for specialist installers of low carbon technologies, and helps domestic customers ensure their electricity supply is ready to connect them. If a customer's electricity supply needs to be upgraded to manage the additional power required, the new portal automatically refers customers to our customer services team. In most cases, Smart Connect gives technology companies an instant decision on whether they can connect domestic electric vehicle charge points, heat pumps, battery storage or solar PV, to the local electricity network. Lead times to effect these decisions have been cut from two weeks to a matter of minutes.

Envision: all eyes on the network

As more renewable energy sources connect to the network and more people switch to EVs and heat pumps, having accurate data about exactly what is happening on our network at all times means we can target investment in infrastructure when and where it is needed. The sort of data we need can include anything from how power is flowing through the network to where demand for electricity is high and at what times of the day.

Envision is an exciting innovation project that is developing a software-based machine-learning tool that will generate more and better information about our Low Voltage (LV) network. It will do so more quickly and cheaply than traditional methods of physical monitoring. The project is a key step to opening up the flexibility market and building a smart grid that enables cleaner, greener energy resources to connect more quickly and at lower cost.

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



Phase Switch System to reduce the strain on the network

In light of the decarbonisation of the economy, we can be confident that demand for electricity will increase in the next few decades. This in turn will put additional demands on the network. Domestic load tends to be connected to low voltage distribution networks and is often unbalanced, presenting different challenges at different times of day. Reinforcing the network, however, can be a costly and disruptive option, so UK Power Networks is undertaking a project called Phase Switch System. This technology switches loads between parts of a cable, balancing them to reduce peak demand on the network so we don't need to build new physical infrastructure. It does this without causing any noticeable interruption to the supply of electricity.

High Voltage Feeder Monitoring to pre-empt faults

We're always looking for new ways to anticipate and fix faults on the network. The HV Feeder Monitoring project that we started in 2020 is investigating a clever device called a Distribution Fault Anticipation (DFA) device that does just that. It is an online monitoring device used to monitor data coming from the substation. The DFA applies sophisticated high-precision waveform analysis to the data (real-time current and voltage) that it captures. It compares the detected activity to an internal library of known activity characteristics and determines whether the data is normal or abnormal. If it is abnormal, it matches the activity with the most likely fault type and reports its findings to our engineers, so we can fix the problem before it causes any inconvenience to our customers.

Active Response

Just one rapid EV charger can use as much electricity capacity as a block of flats, so we are using AI to find ways to manage the network in order to meet this demand. By doing so, we will support and enable the UK's move to Net Zero carbon emissions by 2050. A trial we conducted in 2020 shows that more than 500 EV chargers could be connected around a single electricity substation, using state-of-the-art technology rather than building new cables and substations.

The trial used an AI computer simulation to test Active Response software on a London substation to automatically move electrical capacity around the network to safely accommodate more low carbon technologies like EVs or heat pumps. This is a key part of our work to develop a Smart Grid.

The simulation was based on a substation in Tooting in South London. Active Response processed vast amounts of data and used switches to automatically reconfigure power flows around the network. This distributed electrical load efficiently across the available infrastructure. One of the simulations tested a 'peak demand' scenario in the evening when people are at home cooking, using electric heating and charging electric cars. The system identified a way to unlock 1,000 kW of capacity – equivalent to 142 fast chargers – and there was scope for more from other cables.

We believe this software solution could release capacity for 568 additional EV chargers in Tooting alone. There are 195 similar primary substations like this across London and 1,313 across the South East and East of England.

Understanding how EV owners shift tariffs for cheaper charging

In the first quarter of 2021, we conducted a trial, called Shift, to find out how customers responded to different tariffs for smart charging their EVs. In what was the UK's largest trial of smart charging incentives, we found that the majority of EV drivers on the trial shifted charging to off-peak, reducing demand on the network at the busiest times.

The project demonstrated that smart charging needs to be accessible, simple and trusted if it is to generate widespread participation. It also confirmed for us that, to be successful, smart charging products must be designed around real-world customer behaviour and preferences. Under the trial, customers opted to enrol in smart charging products that incentivised smart charging at off-peak times. A customer survey revealed that more than 80% of customers on Octopus Go Faster, the tariff designed for the Shift trial, also used the reduced tariff rates to run other devices in their homes.

The study also found that as the volume of EVs smart charging grows in a local area, pricing and incentives will need to change to reflect local demand. As a result, networks will need to monitor local network usage and create incentives that encourage the kind of smart charging behaviour that delivers the most value to the network and its whole customer base.



UK Power Networks' market-led approach is innovative and supports widespread adoption of smart charging, which is a win for customers by reducing energy costs, a win for the network by reducing congestion, and a win for society by supporting a zero-carbon grid."

Nick Woolley,
CEO and co-founder of ev.energy



OPERATIONAL PERFORMANCE: NET ZERO READY

Blazing the trail towards Net Zero

UK Power Networks has been working to reduce carbon emissions for a number of years.

Since 2019, when the government announced its legally binding ambition to achieve a Net Zero economy by 2050, reduction and elimination of carbon emissions has become even more urgent.

Secured
1st place

UK Power Networks ranked first in SP Group's Smart Grid Index, a measurement of the smartness of power utilities around the world

123 MWh flexible power

Awarded the biggest ever flexibility tender, awarding contracts for 123 MWh worth £14 million

Supporting the reduction of carbon emissions is now a driving force behind everything we do to improve our operations and bring innovations to reality for the good of our customers.


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. Decarbonisation is changing the lives of people and their communities, from the way they fuel their vehicles to how they heat their homes and make better decisions about their energy use.


Decarbonisation of heat

As the UK's single largest source of greenhouse gas emissions, the heat sector must decarbonise if the country is to achieve Net Zero by 2050. Decarbonising heat will directly affect consumers more than any other decarbonisation efforts to date: consumers rely on heat for their comfort, and changes to install new heating systems or to upgrade energy efficiency mean disruption inside their homes. It is vital that consumers really understand the need to change, and any impact it may have on their lives and their finances.

Our DNO-first heat strategy that we developed in 2019/20 in close consultation with our stakeholders focuses on three key elements:

-  **Inform**
Inform heat decarbonisation policy through provision of data and evidence

-  **Deliver**
Deliver great service to customers wishing to connect low carbon heating solutions

-  **Prepare**
Prepare the network for decarbonised heat

Hybrid heating

Decarbonised heating is a new and disruptive technology that some customers can find difficult to understand and is expensive to install. With partners in the utility industry, UK Power Networks is investigating alternative approaches that customers will find easier to accept and install, and which may serve as a bridge between the old and new ways of heating our homes and buildings. Our research showed our first step should be to increase customers' understanding of the new technologies, so we expanded the guidance we provided for customers (see Heat Packs on page 43). Next, we collaborated with Wales & West Utilities and other manufacturers to combine a gas boiler with a heat-pump in a first-of-its-kind hybrid unit and have begun to install these in customers' homes. This will allow us to model the impact that hybrid units would have on the network.



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



Heat Street gathers energy efficiency data

Heat Street is a ground-breaking, data-driven research project that helps us understand at a detailed level the options for and likely effects of the decarbonisation of heat. Importantly, it also tells us how and where we can best support it. The project considered a broad range of low carbon, energy-efficient heating alternatives, including electric heat pumps, hydrogen, biogas, electric resistive heating, hybrids of different technologies and district heating. It will inform the strategy for local approaches to decarbonising heating across our regions.

Heat Packs

To help all our customers understand what's involved in switching to low carbon heating, we have produced Heat Packs that offer tailored information and guidance on low carbon heating and the Net Zero economy in general. We produced three versions of the guides, tailored to the needs and interests of three stakeholder groups: domestic consumers, local authorities, and property and business.

Flexibility in the Low Voltage network

In 2020, we held our biggest ever flexibility tender which awarded contracts for 123 MWh of flexible power worth £14 million. This included the world's first ever agreements to provide flexibility on a LV network. We followed this up with our February 2021 flex tender worth £30 million new energy capacity contracts to 17 companies. This is a great example of UK Power Networks' commitment to encouraging new markets for low carbon distributed energy resources (DER) such as batteries and demand side response. This flexibility is a crucial element of a decarbonised smart electricity network because it enables us to connect more renewable energy. To ensure this approach delivers value for money for our customers, we work with Piclo independent market place to help us unlock flexibility by matching our requirements with flexibility providers and increasing competition through online auctions.

Electric Vehicles

Transport is one of the largest contributors to the climate crisis, accounting for 28% of all greenhouse gas emissions in the UK. EVs are set to be crucial to the achievement of the UK's Net Zero ambition. EV uptake is accelerating, with 4.5 million EVs forecast to connect to our network by 2030. We are supporting the fast, affordable and inclusive roll-out of EV infrastructure as part of a smart, flexible energy system. This year we have made great progress on a number of projects designed to encourage the uptake of EVs among our customers such as the Shift project (see case study on page 41) and the White Van Plan.

White Van Plan

A research project with Small and Medium Enterprise (SME) and the Federation of Small Businesses to understand the needs of the small business owner and the possible barriers to their embracing EVs for business. With 58% of new cars registered to companies, and nearly six million SMEs across the UK, this sector plays a huge part in achieving the UK's Net Zero economy by 2050.

White Van Plan aims to make it as easy as possible for SMEs to convert to EV charging by creating a detailed picture of SMEs' transport use in the region, giving useful information and tailored support. The research will also investigate new smart charging-based solutions, to free up spare network capacity and save money for customers and SMEs alike.

Communiheat – a real-life experiment in Sussex village Barcombe provides invaluable data for decarbonising heat

UK Power Networks worked with partners in Barcombe, an off-gas-grid village in East Sussex, to develop a blueprint for decarbonising the village's domestic heating that could be replicated by other off-gas-grid communities. With our partners, we engaged with over 600 individual households and businesses in the village and the wider community. We wanted to understand their needs and challenges and, through this engagement, we identified improvements we could make to the customer journey. We were also able to evaluate the benefits of a locally coordinated transition.

We installed energy monitors in 50 homes to assess how transition to electrified heating, along with other low carbon technologies such as EVs and solar panels, would affect the customers' experience as well as the effect it would have on the network. The findings from this research, based on real data and inputs from the village of Barcombe, can now be used to benefit over 340,000 off-gas-grid customers as well as those in similar circumstances throughout the country.



Decarbonising heating systems is crucial to tackling the UK's greenhouse gas emissions and I'm delighted that Barcombe is leading the way to demonstrate how to make the decarbonisation of heat a reality. It is fantastic to see UK Power Networks passionately collaborating with a range of stakeholders, to ensure they support rural constituents like mine to decarbonise as quickly and efficiently as possible."

Maria Caulfield,
MP for Lewes constituency

UK POWER NETWORKS SERVICES

Vital infrastructure for commercial clients

UK Power Networks Services is the commercial arm of UK Power Networks. We manage private energy networks and deliver major national power infrastructure projects.

In contrast to the Ofgem-regulated business carried out by UK Power Networks, we work for clients on a competitive, commercial basis.

Zero LTIs

UK Power Networks Services has achieved more than five years without a single Lost Time Injury (LTI) – including staff and contractors working for us



This year we added a new string to our bow, becoming an Independent Connection Provider (ICP), which means we can now offer a full range of connections services to clients such as property developers, fleet and public transport providers and builders of major public infrastructure.

Supporting customers through COVID-19

Right at the start of the pandemic, our people helped prepare Headley Court, a former military medical centre in Surrey, to accommodate NHS patients from other medical facilities in order that acute hospitals in central London could deal with the influx of COVID-19 patients. Our role was to upgrade the centre's high voltage electrical infrastructure so that it was fit for purpose, which we did to a very tight timescale. We also supported our rail and aviation clients who were responsible for providing essential travel for key workers and importing freight and medical supplies into the UK.

We also worked with Heathrow Airport on a COVID-19-related project to investigate how the airport could manage remote access to allow managers to control and monitor the airport's electrical infrastructure in the midst of social distancing. The additional challenge that airports faced in these circumstances was the requirement for the strictest security around their systems. We devised and tested a way for the airport to manage its electricity network in a COVID-19-safe way and this also brought the airport other benefits such as a reduction in energy losses along with reduced carbon footprint, as people did not need to drive to the airport to manage it.

Modelling infrastructure to support decarbonisation

The Port of Tyne and Bristol Airport both commissioned us to carry out similar analysis and modelling projects in 2020/21 to help them on their journey towards Net Zero carbon emissions at their operations. For both of these infrastructure projects, we analysed and modelled the various factors in decarbonising through electrification. For the Port of Tyne this included modelling the infrastructure to support electric cranes as well as various types of EVs; for the airport it involved EV charge points and support for electric buses and other vehicles used around the airport along with the requirements for ground-fixed electric charging for aircraft. For both projects we also looked into the integration of sustainable renewable electricity generation with the whole enterprise. This will help Bristol Airport on their journey to Net Zero by 2050 and enable Port of Tyne to develop a decarbonisation map to reduce net greenhouse gas emissions to zero by 2030.

Zero carbon emission buses and cleaner air in London's East End

In 2020 we worked with bus operator Stagecoach to design and install new charging infrastructure at East London's West Ham bus garage. This new equipment set up was to support the garage's new fleet of zero-emission buses, running from London's Canning Town to Mile End. The buses are able to charge overnight, when electricity is cheaper. As the bus route serves a number of schools in East London, this project means improved air quality for school children in the area.



“We're very proud of our strong track record of delivering sustainable public transport. Over the past decade, we've invested more than £1 billion in 7,000 new, greener vehicles across the country – more than any other operator in the UK – and this latest investment in London will help to ensure that we are continuing to lead the way in delivering cleaner air.”

Paul Lynch,
Regional Director for Stagecoach London

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.



OUR FINANCIAL PERFORMANCE

Another strong year

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 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21* |
| Turnover | 480.4 | 542.4 | 551.4 | 608.7 | 607.4 | 636.1 | 642.6 | 625.4 | 652.1 | 670.0 |
| EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) | 295.1 | 350.1 | 356.9 | 411.6 | 416.8 | 449.3 | 448.0 | 447.3 | 468.2 | 470.6 |
| Tax charge/(credit) | (10.1) | (9.6) | 13.1 | 30.4 | 28.9 | 21.4 | 46.8 | 38.7 | 75.6 | 37.1 |
| Profit after tax | 108.3 | 146.4 | 221.5 | 115.3 | 178.8 | 128.4 | 185.3 | 162.3 | 207.1 | 164.0 |
| Operating cashflow post capex, interest and tax | (21.9) | 32.6 | 4.9 | 16.2 | 19.3 | 59.5 | 60.2 | 23.0 | 7.3 | (80.5) |
| Capital expenditure | 245.3 | 238.1 | 307.1 | 288.1 | 182.9 | 234.9 | 249.2 | 255.5 | 265.2 | 251.1 |
| Net debt | 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 | 1,868.7 |
| Regulated asset value (RAV)* | 2,084.8 | 2,196.2 | 2,332.2 | 2,413.5 | 2,436.1 | 2,540.5 | 2,630.4 | 2,705.4 | 2,773.5 | 2,841.5 |
| Net debt to RAV ratio | 68% | 64% | 62% | 66% | 65% | 64% | 65% | 67% | 68% | 66% |
| Incentive revenue (2012/13 prices) | 18.9 | 17.5 | 14.9 | 28.4 | 24.8 | 24.6 | 20.6 | 26.2 | 27.2 | 25.9 |

| London Power Networks plc, serving Inner London | | | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| £m | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21* |
| Turnover | 394.2 | 446.1 | 481.5 | 497.0 | 462.0 | 502.3 | 501.5 | 491.9 | 517.4 | 519.3 |
| EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) | 264.6 | 305.9 | 349.9 | 356.2 | 317.7 | 347.4 | 367.4 | 361.5 | 389.4 | 392.0 |
| Tax charge/(credit) | 10.5 | 12.2 | 24.0 | 51.2 | 23.6 | 31.8 | 46.1 | 50.4 | 66.2 | 45.3 |
| Profit after tax | 147.7 | 191.2 | 234.1 | 193.6 | 161.0 | 167.4 | 183.6 | 165.9 | 178.6 | 195.7 |
| Operating cashflow post capex, interest and tax | (3.7) | 56.9 | 63.9 | 49.6 | 127.5 | 65.1 | 48.6 | 9.0 | 6.9 | 27.6 |
| Capital expenditure | 141.6 | 173.1 | 192.2 | 186.6 | 138.3 | 155.7 | 186.9 | 174.8 | 178.3 | 173.3 |
| Net debt | 1,012.2 | 943.9 | 970.0 | 989.1 | 967.9 | 1,046.6 | 1,067.9 | 1,098.1 | 1,155.7 | 1,184.3 |
| Regulated asset value (RAV)* | 1,367.5 | 1,420.5 | 1,468.3 | 1,484.7 | 1,509.7 | 1,581.7 | 1,648.2 | 1,700.0 | 1,746.3 | 1,780.8 |
| Net debt to RAV ratio | 74% | 66% | 66% | 67% | 64% | 66% | 65% | 65% | 66% | 67% |
| Incentive revenue (2012/13 prices) | 7.3 | 5.8 | 8.7 | 12.7 | 15.7 | 16.2 | 17.2 | 17.7 | 17.7 | 16.9 |

| South Eastern Power Networks plc, serving South London, Kent, East Sussex and parts of Surrey and West Sussex | | | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| £m | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21* |
| Turnover | 306.6 | 356.5 | 394.8 | 404.8 | 388.7 | 449.0 | 421.3 | 405.2 | 427.5 | 455.5 |
| EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) | 200.4 | 250.4 | 288.0 | 298.6 | 279.0 | 330.1 | 305.2 | 293.8 | 315.0 | 333.3 |
| Tax charge/(credit) | 1.2 | 7.9 | 19.5 | 39.4 | 20.3 | 33.4 | 35.9 | 34.1 | 50.7 | 37.1 |
| Profit after tax | 91.8 | 123.7 | 179.8 | 151.6 | 126.9 | 173.6 | 139.8 | 126.2 | 127.9 | 157.3 |
| Operating cashflow post capex, interest and tax | (33.5) | (15.9) | 48.9 | 24.2 | 45.9 | 73.2 | 41.7 | (9.0) | 5.7 | 40.3 |
| Capital expenditure | 173.9 | 167.3 | 189.6 | 154.6 | 114.6 | 152.7 | 160.3 | 174.9 | 166.7 | 151.7 |
| Net debt | 911.5 | 942.8 | 956.0 | 1,023.6 | 980.9 | 1,025.1 | 1,095.5 | 1,146.5 | 1,225.5 | 1,218.0 |
| Regulated asset value (RAV)* | 1,313.4 | 1,398.5 | 1,484.5 | 1,514.1 | 1,541.8 | 1,630.2 | 1,703.2 | 1,762.8 | 1,814.5 | 1,852.8 |
| Net debt to RAV ratio | 69% | 67% | 64% | 68% | 64% | 63% | 64% | 65% | 68% | 66% |
| Incentive revenue (2012/13 prices) | 21.3 | 17.2 | 13.8 | 22.2 | 14.8 | 14.8 | 12.7 | 13.1 | 14.8 | 13.7 |

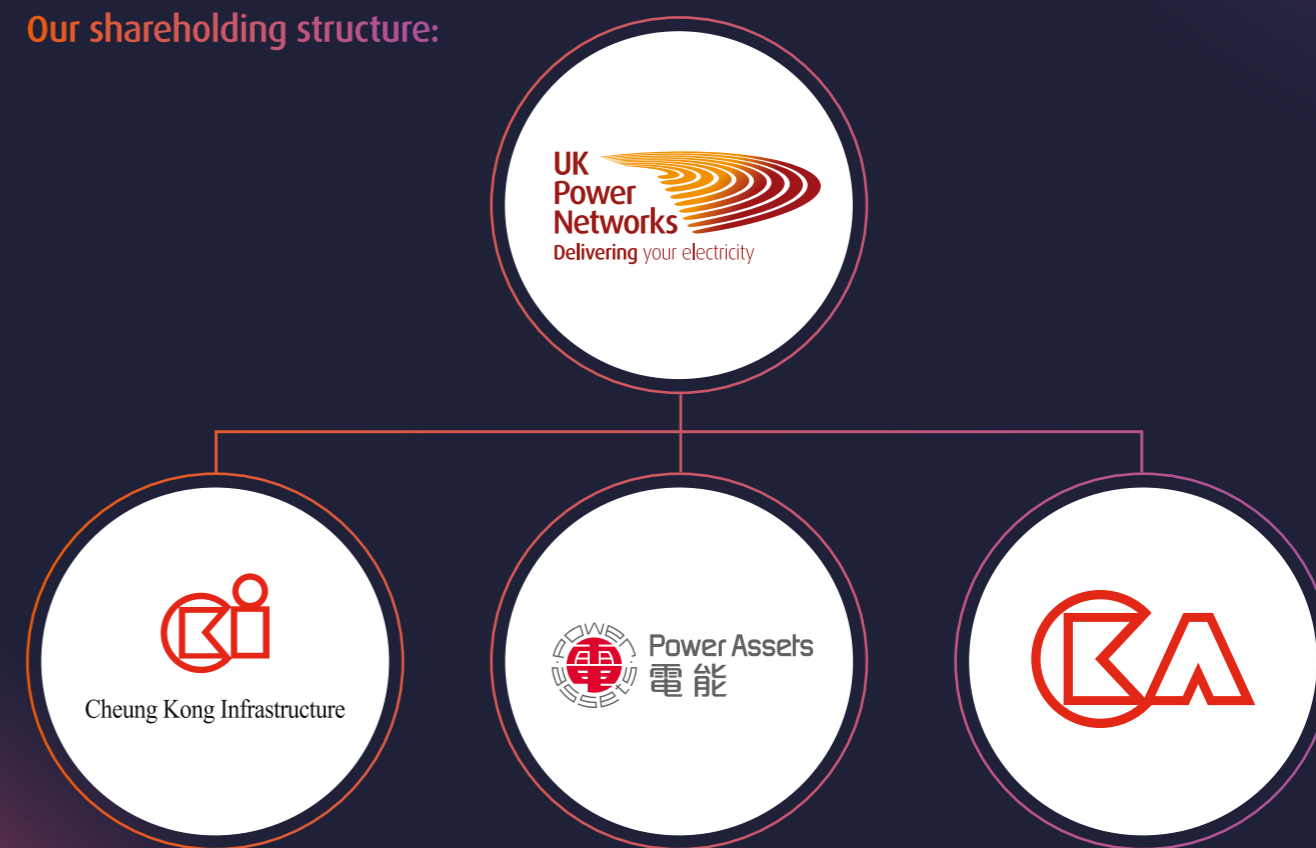
* 2020/21 RAV presented is provisional at the date the accounts are signed. Discussion with Ofgem may result in RAV being increased or decreased. The prior year comparatives have been restated to reflect the latest agreed position.

OUR OWNERSHIP

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:



40%

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.

40%

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.

20%

CK Asset Holdings Limited is a leading multinational corporation in Hong Kong with activities encompassing property development and investment, hotel and serviced suite operation, property and project management, aircraft leasing, pub operation and investment in infrastructure and utility asset operation.

BOARD OF DIRECTORS

A stewardship for the future

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.



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).



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.



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.



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.



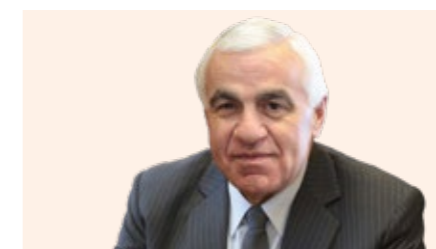
Ivan Chan
Director – UK Power Networks Holdings Limited and certain of UK Power Networks' wholly owned subsidiaries

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.



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

A highly experienced team with a proven track record

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 40 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.



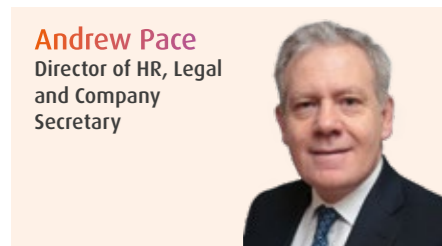
Patrick Clarke
Director of Network Operations

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.



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.



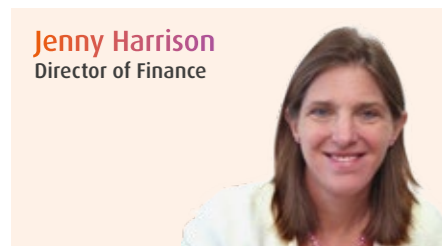
Suleman Alli
Director of Strategy and Customer Services

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.



Nirmal Kotecha
Director of Capital Programme and Procurement

Nirmal leads UK Power Networks' Capital Programme and Procurement function. Prior to joining in 2011, he was a main Board Director at the Highways Agency. Between 1999 - 2008, Nirmal headed up Anglian Water Services' supply chain function. Nirmal is currently also the chair of the Management Board of the Infrastructure Client Group which he represents on the Construction Leadership Council. Nirmal is a Fellow of the Chartered Institute of Purchasing and Supply and an Honorary Fellow of the Institution of Civil Engineers.



Jenny Harrison
Director of Finance

Jenny joined UK Power Networks in 2017. Prior to this, 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 and assurance. 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

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www.ukpowernetworks.co.uk

Connection services

0800 029 4280

Our unregulated business

services@ukpowernetworks.co.uk

Media enquiries

0330 159 1712



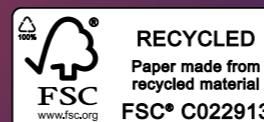
A full list of our contact details can be found at:

www.ukpowernetworks.co.uk



Visit our Annual Review website:

annualreview2021.ukpowernetworks.co.uk



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UK Power Networks Holdings Limited

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www.ukpowernetworks.co.uk

UK Power Networks Holdings Limited is the holding company
of the companies in the UK Power Networks group of companies.