



Delivering strong performance

For customers, communities and employees

Annual Review 2023/24

As the UK's biggest electricity distributor, we are focused on **delivering strong performance** and guarding against complacency, to ensure that the electricity infrastructure is in place to serve our customers safely, reliably, efficiently and sustainably.



In this report

01 Delivering strong performance

- 01 Highlights of the year
- 02 Who we are
- 04 The future energy landscape
- 08 A message from our CEO
- 10 Business model
- 12 Stakeholder engagement
- 14 Energy sector review
- 16 Our strategic framework
- 18 Progress against our strategy

20 A responsible business

- 20 Our approach to responsible business
- 22 Environment and climate change
- 26 Our people
- 28 Social responsibility
- 30 Our contribution to UN Sustainable Development Goals

32 Operational performance

- 32 Health and safety
- 34 Network reliability
- 36 Customer satisfaction
- 38 Value for money
- 40 Innovation and the path to Net Zero

42 Governance and financial performance

- 42 Transparency
- 44 Organisational resilience
- 46 UK Power Networks Services
- 48 Our financial performance
- 49 Our ownership
- 50 Board of Directors
- 52 Executive Management Team

Highlights of the year

As a leading infrastructure provider, we own and maintain electricity cables and lines across London, the East and South East of England and make sure power flows reliably, safely and securely to more than 19 million people living across our region. To continue to maintain our industry-leading position, it is essential we adapt to changing energy demands, exceed customer expectations, meet regulatory requirements and support the Net Zero transition.

Ensuring safety

0.08

Total Recordable Injury Rate¹ (TRIR). We have seen an 84% reduction in our TRIR since we started as an independent business in 2010/11

How we do this
Operational performance: Health and safety [→ p.32](#)

Maintaining reliability

99.99%

Network reliability

No.1

Our London network, LPN, remains the No.1 network in the UK for reliability, with the lowest Customer Interruptions and Customer Minutes Lost

How we do this
Operational performance: Network reliability [→ p.34](#)

Keeping customers satisfied

No.1

Awarded the best Distribution Network Operator (DNO) in Ofgem's Broad Measure of Customer Satisfaction

94%

Our best ever Customer Satisfaction Score of 94%

How we do this
Operational performance: Customer satisfaction [→ p.36](#)

Delivering value for money

Lowest cost

DNO in 2023/24. This means our customers paid us an average monthly charge of £7.35 (25p per day) which is 22% less than the industry average

How we do this
Operational performance: Value for money [→ p.38](#)

Innovation and the path towards Net Zero

No.1

UK Power Networks judged as the leading Distribution System Operator (DSO) by topping both Ofgem's DSO Stakeholder satisfaction and DSO Panel scores

How we do this
Operational performance: Innovation and the path to Net Zero [→ p.40](#)

¹ TRIR includes all workplace injuries that result in an individual being absent from work, receiving professional medical treatment.

Meeting the needs

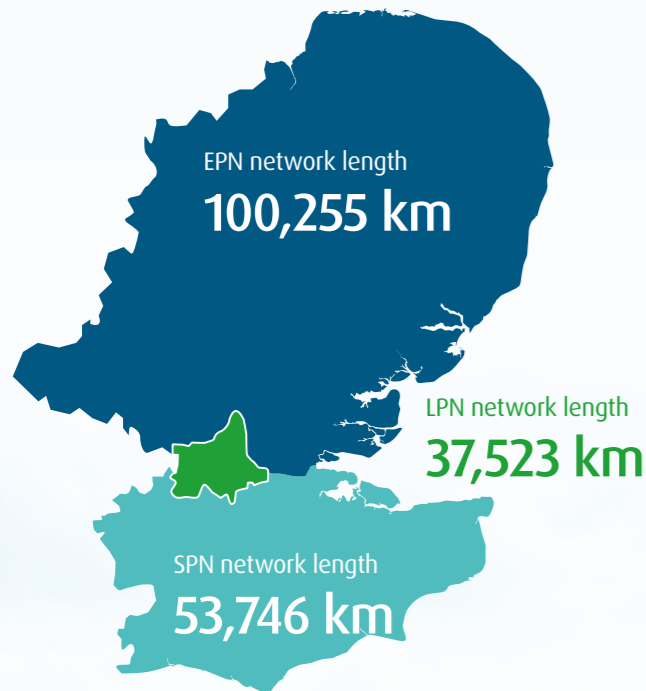
of our 8.5 million customers

We are the UK's biggest electricity distributor, ensuring that the electricity infrastructure is in place to serve our customers safely, reliably, efficiently and sustainably.

We operate in London, the East and South East of England, serving 19 million people in an area of over 29,000 square kilometres. We are facilitating the Net Zero transition by helping to make sure our network is ready for the increase in electric vehicles (EVs) and other low-carbon technologies.

We aim to meet our customers' evolving needs by improving our services, particularly supporting those in vulnerable circumstances. These are our priorities and we go above and beyond to achieve them on behalf of the communities we serve.

Our network areas



Eastern Power Networks (EPN)

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 (LPN)

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

South Eastern Power Networks (SPN)

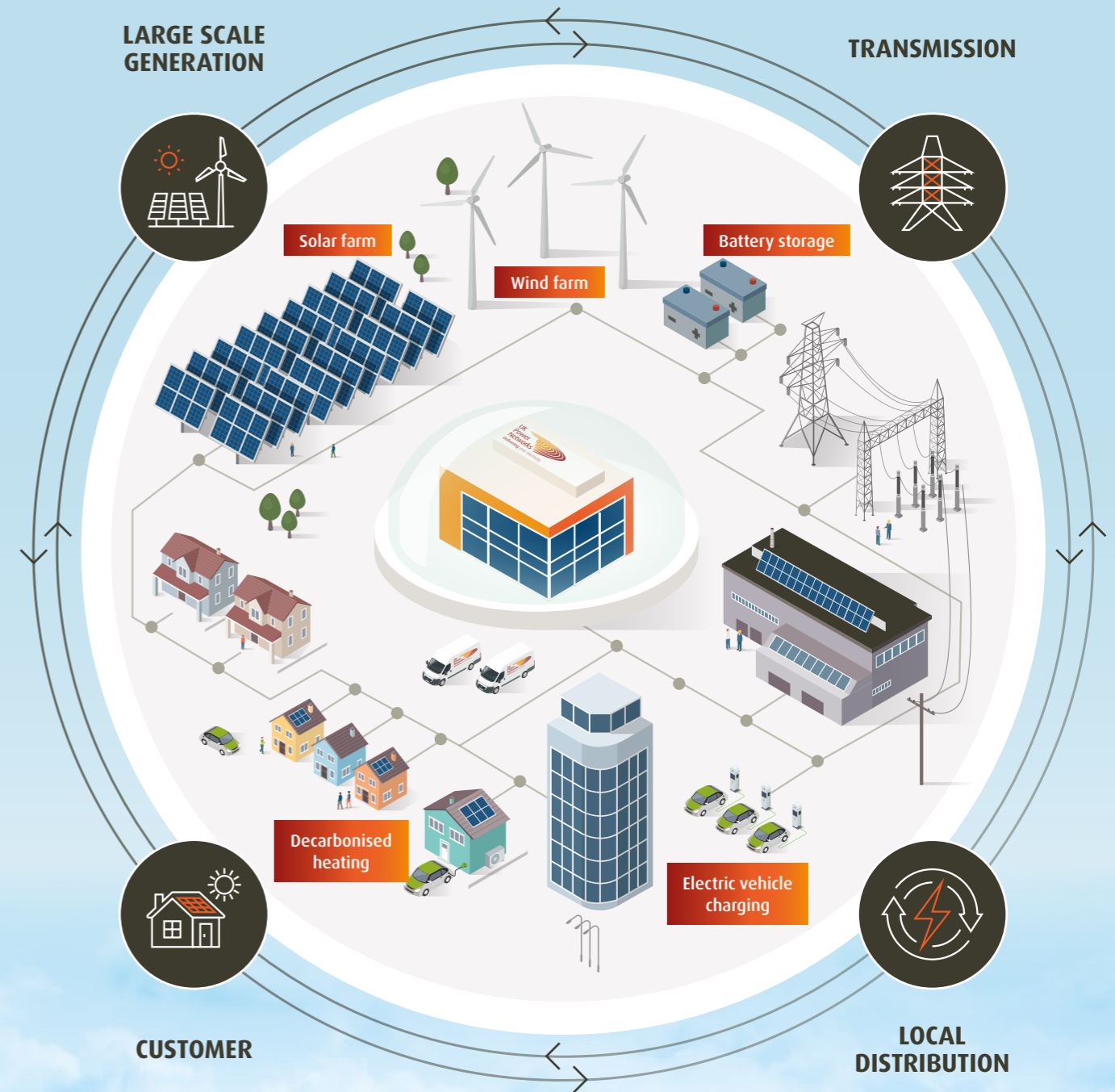
We serve South London, Kent, East Sussex and parts of Surrey and West Sussex, covering a rich variety of customers and locations.

UK Power Networks Services

UK Power Networks Services is the commercial arm of UK Power Networks that manages private energy networks and delivers major national power infrastructure projects for customers on a competitive, commercial basis.



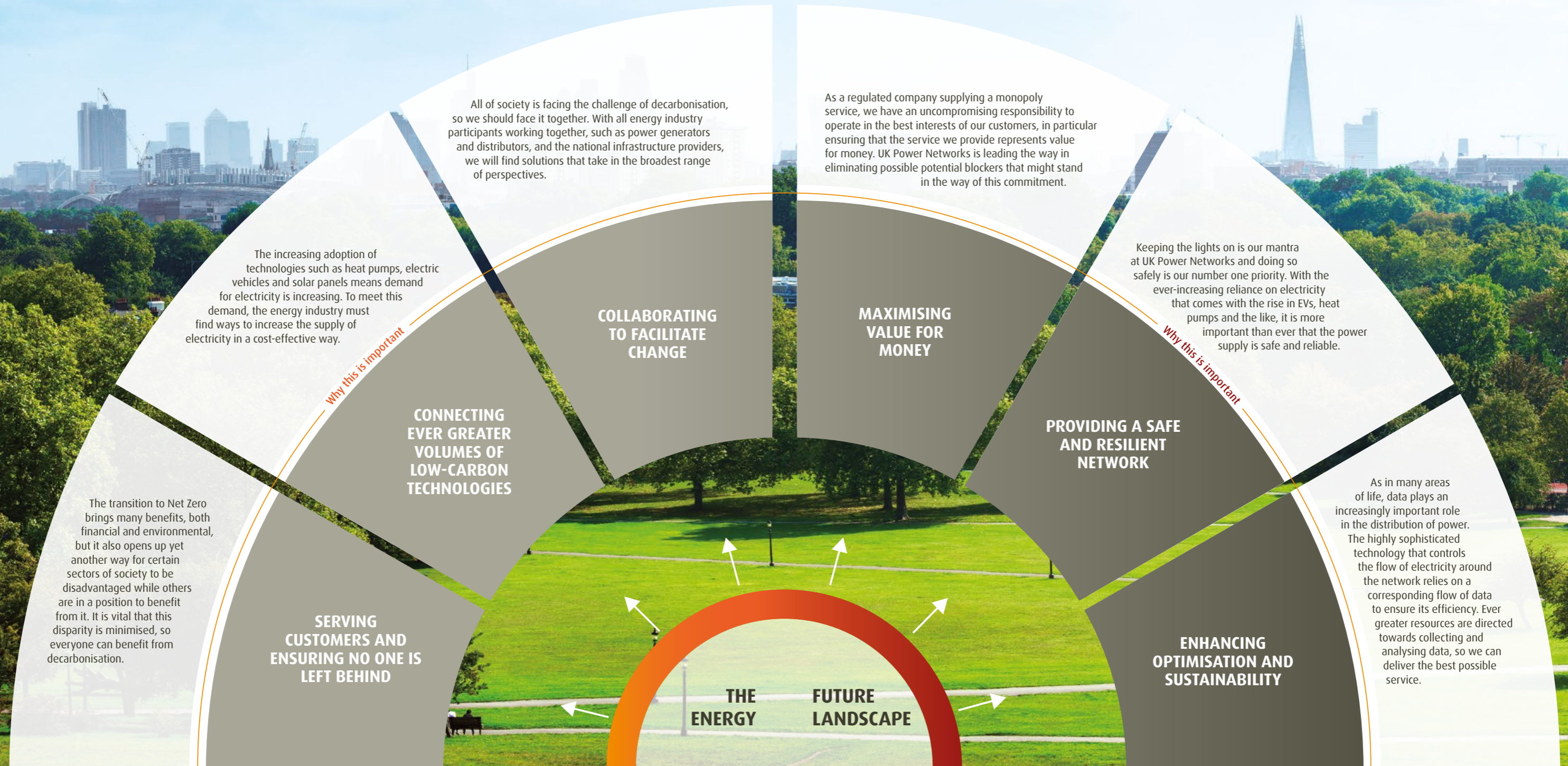
The energy ecosystem



The requirements for

the future energy landscape

The decarbonisation of energy is both vital and urgent if Net Zero is to be achieved by 2050. We will all see fundamental changes to the way we live over the next decade. Technology is advancing fast, and the changes will affect society as a whole, as well as the wider energy system. UK Power Networks is determined to play a leading role in shaping how the future unfolds.



How we are supporting

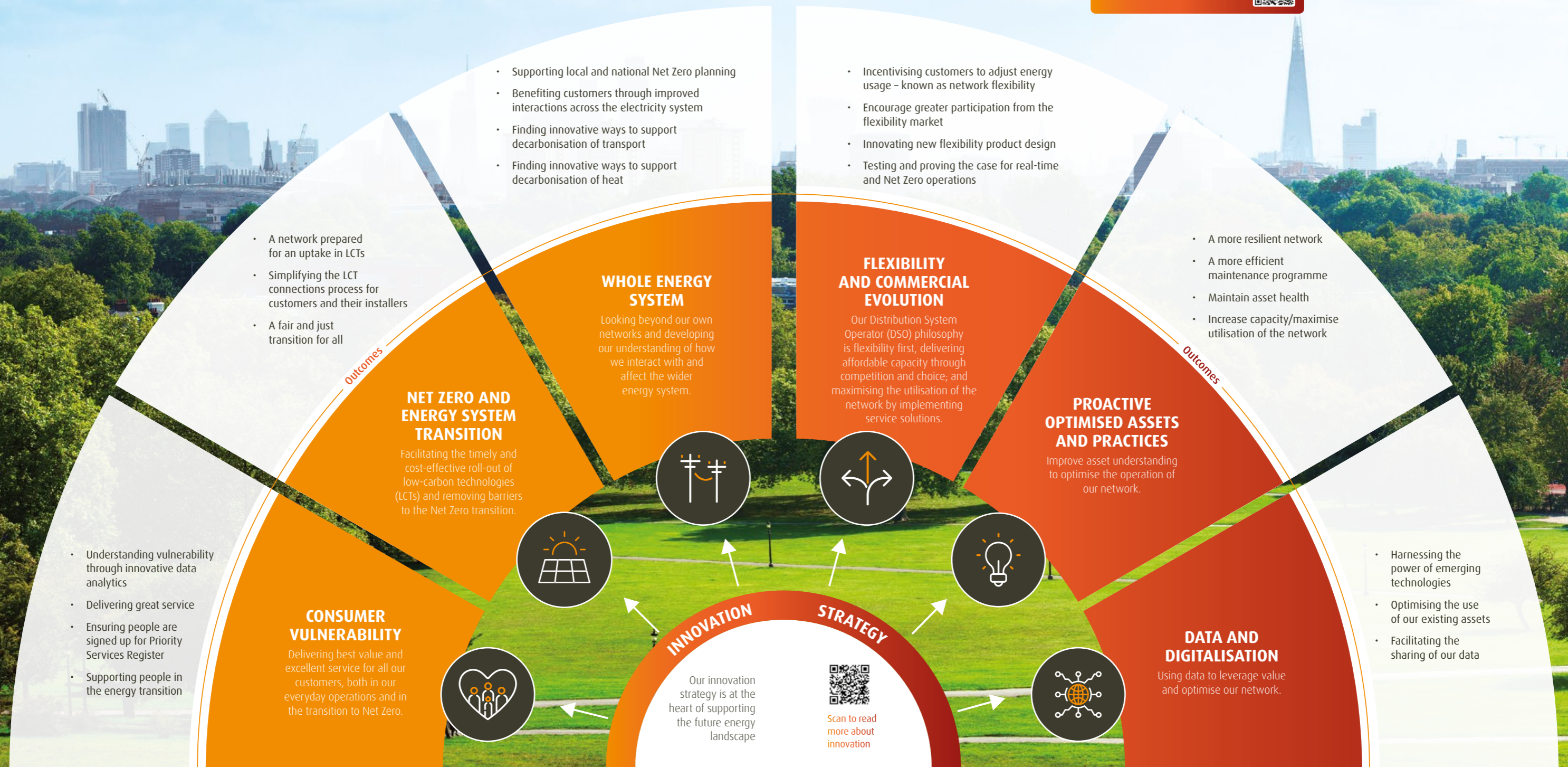
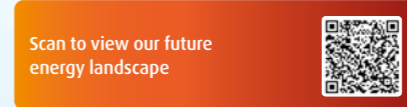
the future energy landscape

Innovation drives improvements in all aspects of our performance, helping us to find ways to be safer, more reliable, more cost-efficient and more equitable. We want to lead the way in tackling the transition of the energy system to Net Zero.

To turn this vision into reality, we focus on six fundamental themes:

“Innovation is our life blood. With a culture that encourages everyone to push the boundaries of what is possible, we are proud of the service we provide.”

Basil Scarsella
Chief Executive Officer, UK Power Networks



How we are

delivering strong performance

For customers...

“Our dedication to meeting customers’ needs at the lowest possible cost while delivering the safest, most reliable electricity network, supported by industry-leading customer service, has never been more important.”



Our people are the driving force...

“We attribute our success to our employees and their unwavering commitment to excellence.”



Basil Scarsella
Chief Executive Officer, UK Power Networks



I am immensely proud of our achievements in our last price control R110-ED1, which ran from 2015 until 2023. During that time we became the leading company in our sector, recognised by Ofgem as the best performing distribution company across most key performance metrics.

It remains our vision at UK Power Networks to consistently be the best performing organisation in our sector within an agreed set of values. I’m pleased to report that UK Power Networks has performed well in 2023/24, the first year of our new five-year regulatory contract which will run from April 2023 to March 2028.

We ranked No.1 in Ofgem’s Broad Measure of Customer Satisfaction with our best ever score of 94% and remain the lowest cost DNO. Our London network outperformed its targets for the year, and remains the most reliable network. However, our Eastern and Southern networks did not meet their reliability targets. These were stretching and, had we met them, performance would have been the best ever for both those networks, but we did not achieve the level we expected. We are taking a careful look at our operations and will be increasing our investment to further improve the reliability of our network.

The safety of our employees, contractors and the general public is as ever, our number one priority. Regrettably, however, three people working for UK Power Networks sustained Lost Time Injuries where the employees concerned needed to take at least one day off work. Although this represents an industry-leading safety performance, we have zero tolerance of accidents in the workplace, so three such accidents is three too many. We continue to reinforce our message to employees and contractors alike that safety must be our primary concern and each of us is responsible for our role in delivering a safe working environment.

The economic uncertainties of 2023, stemming from the legacy effects of the COVID-19 pandemic and global conflicts, have underscored the importance of delivering services efficiently. I am proud to say that we continue to be the lowest-cost DNO. Our dedication to meeting customers’ needs at the lowest possible cost while delivering the safest, most reliable electricity network, supported by industry-leading customer service, has never been more important.

A key focus for UK Power Networks is how we support the country’s transition to Net Zero. Our role is to ensure that there is sufficient electrical network capacity for customers to connect low-carbon technologies such as electric vehicles, heat pumps and solar generation. We have created the UK Power Networks’ DSO as a legally separate entity with its own, independent Supervisory Board. The DSO provides confidence that the investment decisions made by the DNO are truly made in the best interest of customers and future bill paying customers.

We are proud to be judged the leading DSO by both customers and Ofgem. UK Power Networks DSO topped the customer satisfaction survey with an average score of 91% and led the way with a score of 8.91 in Ofgem’s expert panel report.

At UK Power Networks, we attribute our success to our employees and their unwavering commitment to excellence. We strive to attract and retain top talent, and our efforts have been recognised with our inclusion in the Best Companies’ Top 25 Best Big Companies to Work For, as well as being named Utility of the Year and the second most inclusive company in the UK. These accolades are testament to the dedication of our employees in delivering industry-leading performance. I am deeply grateful to everyone at UK Power Networks for their contribution.

Basil Scarsella
Chief Executive Officer, UK Power Networks

For communities...

“We have created the UK Power Networks’ DSO as a legally separate entity with its own, independent Supervisory Board. The DSO provides confidence that the investment decisions made by the DNO are truly made in the best interest of customers and future bill paying customers.”



How we
add value

RESOURCES AND RELATIONSHIPS

Physical

The seamless provision of our service depends on advanced, cutting-edge equipment. We engage creatively with leading suppliers to guarantee that every element of our resources and infrastructure is up to standard, ensuring a safe and reliable service for our customers.

Our people

The success of UK Power Networks is driven by its people. We appreciate everyone who contributes to our company. Our goal is to create a positive and inclusive workplace where everyone can thrive and find fulfilment.

Social and relationships

We deliver a vital service that our customers and communities depend on every day. We are deeply committed to our social responsibilities, including providing support for customers whose circumstances mean they are vulnerable. As part of a broader, evolving energy system, we recognise that meaningful progress can only be achieved by collaborating with others to shape the future.

Intellectual

Innovation drives our achievements at UK Power Networks. Over the years, we have assembled an innovation team that has created cutting-edge tools, techniques, and systems, reshaping our business and the industry. The intellectual property and innovative culture at UK Power Networks are crucial to our success.

WHAT WE DO

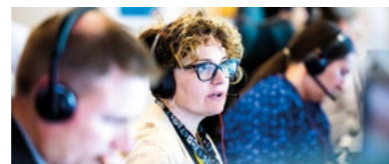


Distribute power

It is our job to ensure that the power generated at power plants and transmitted by National Grid is distributed safely and efficiently across power lines to our 19 million customers. To date approximately 4 GW of large scale renewable generation is connected to our network. This is achieved through the electricity grid which is a system of electricity substations, transformers and power lines.

70,736 GWh

electricity distributed: 28% of Great Britain's total electricity distributed



Connecting businesses and homes

Our customers include royal palaces, tower blocks, factories, farms and more besides. We supply them all with electricity at the flick of a switch.

8.5m

homes and businesses with more than 23,000 new connections included from 2022/23



Maintain the network

A network of over 190,000 km of power lines requires constant vigilance and maintenance, as does the whole system of substations and transformers. We aim to anticipate problems before they arise and if a fault does occur, minimise the number of customers that are affected. We have teams of engineers who will attend and fix faults quickly and efficiently.

191,523 km

of network maintained



Serve our customers

We work hard to balance the needs of all our customers, especially those in the most vulnerable circumstances. We aim to provide value for money as well as a safe, resilient network that is ready for a Net Zero future.

19m

people served

WHAT MAKES US DIFFERENT

Clear vision and purpose

Everyone at UK Power Networks knows what our vision and purpose are and understands their role in realising them. Across the company, we establish targets with incentives to ensure we are all united in pursuit of the common goals we recognise.

A safe, reliable, resilient network

UK Power Networks has established itself as one of the nation's most reliable Distribution Network Operators (DNO). In 2023/24, our network achieved a reliability performance of 99.99%. We are the only DNO to have been assessed against our alignment with BSI Guidance on organisational resilience (BS 65000:2014) and have consistently been the safest DNO, with the lowest number of Lost Time Injuries for nine of the past 11 years.

Our employees

At UK Power Networks, we have cultivated a distinctive performance culture focused on continuous improvement and driven by the goal of exceeding customer satisfaction in innovative ways. Our employees instinctively empathise with our customers, bringing this culture to life in their everyday work. Diversity and inclusion are fundamental to our ethos, and we foster an environment where employees can learn, grow, and excel. We are proud to be one of a select group of companies that warrants a Platinum award from Investors in People (IiP).

Customers at the heart of our business

Our business consistently strives to view the world from our customers' perspective. This year, our customer service measure achieved our best ever satisfaction score of 94%, and once again, Ofgem ranked us as the top DNO for customer satisfaction.

Transparent and accountable

As a monopoly provider of an essential service, UK Power Networks is dedicated to transparency for anyone seeking to understand our operations. We welcome such scrutiny. We encourage all stakeholders, especially our customers, to closely examine all aspects of our business.

Value for customers' money

We fully recognise that our customers do not have a choice in their electricity distributor, which is why we are committed to offering them the best possible value for their money. Our focus is always on finding ways to save our customers money. UK Power Networks' annual domestic charges are £88.22 which is 22% lower than the industry average.

Always innovating

We are always innovating to improve the reliability, affordability, cleanliness, and safety of our service. We are always looking for fresh approaches, including advanced technology solutions for achieving Net Zero challenges, or ways to manage our business, such as our creation of a legally separate, independent Distribution System Operator (DSO).

DELIVERING VALUE FOR...

Partners

First DNO

to share historical data with water companies. This strategic collaboration to share historical data with Thames Water and Affinity Water, resulted in over 86,000 more registrations to our Priority Service Register

Customers

Ranked 1st

Ofgem ranked us No.1 for our Broad Measure of Customer Satisfaction with our best ever score of 94%

Communities

105,528

Supported more than 100,000 customers in the transition to Net Zero through support such as digital skills training and providing tailored action plans to improve energy efficiency in homes

Colleagues

Ranked 2nd

in the Inclusive Top 50 UK Employers List and remain in the Top 10 list of Best Big Companies to Work For list

Governments and non-government organisations

133 local authorities

We reviewed and published all 133 local authorities' decarbonisation plans, providing a single view and clarity on where further information is needed

Underpinned by factors that determine our long-term growth:

Energy sector trends

Find out more



p.14

Stakeholders

Find out more



p.12

Strategy

Find out more



p.16

Governance

Find out more



p.42

How we

engage with our stakeholders

Listening to and learning from our stakeholders is a central part of our culture and way of working. Understanding emerging challenges, needs and opportunities through engagement helps us focus on actions that make a real difference for our customers. For example, engagement has played a crucial role in shaping how we design and communicate services for customers who are on the Priority Services Register (PSR) and need extra support during a power cut. You can read more about this development on page 28, where we talk about our Spotlight project.

During RII0-ED21, we will report annually on the outcomes of our stakeholder engagement programme through a new Ongoing Engagement Report. You can see the 2023/24 Ongoing Engagement Report here.

Below we set out a selection of our engagement activities this year and the outcomes they helped to deliver.

ACTION PLANS TO REDUCE SUPPLY CHAIN EMISSIONS

In 2021, 50 of our 1,250 suppliers accounted for 63% of the total supply chain emissions, so we have focused on these highest-emitting suppliers.

We identified suppliers with the highest emissions and engaged with the top 12 of them to develop targeted action plans. These plans focus on reducing emissions where the biggest impact can be made. More widely, over 80% of our supply chain have signed up to our code of conduct, which includes environmental commitments, resulting in a total carbon saving of approximately 15%.



¹ RII0-ED2 is the five-year regulatory price control period which covers the period from April 2023 – March 2028.

Partners

We engage with partners with complementary capabilities, expertise and capacity to design and deliver initiatives and services that benefit our customers.

How we engage

- Forums, workshops, events and conferences to help us understand key issues and share our plan and progress.
- Expert panels and councils provide insight into strategic issues.
- Collaboration to design and deliver initiatives.
- Training and upskilling.

Key outcomes of engagement

- Over 86,000 additional customers registered for extra support during power cuts through our expansion of data sharing with water companies to include the sharing of historical PSR registrations.
- Developed new ways of working to provide Fuel Poverty partners with longer term certainty enabling them to plan, deliver and scale up support to more customers over the next five years.
- Supported and trained our partners to deliver high-quality service and maximise impact, resulting in 92.1% customer satisfaction with fuel poverty support.
- Grew domestic participation in flexibility through launching demand turn-up product, with 24,000 households receiving more than £1.3m of free electricity through collaboration with Octopus (see page 39).

Over 148,000

customers in or at risk of fuel poverty supported through one-to-one support and energy advice in 2023/24



How we engage

- Workshops, training and information sharing with local authorities, including videos and podcasts.
- Regular meetings and site visits with politicians.
- Community events.
- Discussions with community energy groups.
- Involvement in trials.
- Indirectly via organisations representing community interests.

Key outcomes of engagement

- Supported all 11 Local Resilience Forums in our area of operation to build resilience plans in preparation for a power cut.
- Launched Your Local Net Zero Hub, a free online energy planning tool that makes it easier for local authorities to create robust and investable energy plans. The tool is backed by over 160 datasets and organised into themes to support decarbonisation planning. Local authorities can now share their plans with us through, Your Local Net Zero Hub.
- Actively supported 39 local authorities and development areas through their local area energy planning. Reviewed the published decarbonisation plans of all 133 local authorities in our regions.
- Delivered enough power to every Motorway Service Areas (MSA) in our region, enabling more than 200 high powered chargers to be deployed at MSAs across our area.

87

of 133 local authorities are using Your Local Net Zero Hub

Communities

We engage with local authorities, community energy groups and politicians to understand what they need from us to best serve their communities, from delivering Net Zero in their local areas to providing support during major disruption.



Customers

We engage with customers to understand their evolving needs and develop services and initiatives that meet them.

How we engage

- Customer research, including surveys, focus groups, and our online inclusive customer panel.
- Forums, workshops and events.
- Feedback on customer experience.
- Involving customers in trials.
- Targeted campaigns, such as bus-side advertising, community events, social media presence.
- Letterdrops, web pages and drop-ins about major projects impacting their area.

Key outcomes of engagement

- Increased PSR registrations by 9.4% on 2022/23 to 2.6m (77% of eligible households) through data-led, targeted campaigns.
- Reached over 27,000 customers with in-depth fuel poverty support, and over 6,000 customers with new in-depth support that targets overcoming key barriers in the transition to Net Zero.
- In 2023/24, we trialled the deployment of portable batteries for medically dependent customers without power for over four hours. 67% of customers rated the service 10/10 and we have incorporated our learnings in the business to make it even better for our customers.
- Launched the Green Home Support Service, an accessible self-serve tool to help renters and homeowner customers understand actions they can take to decarbonise, regardless of their budget.

93%

PSR customer satisfaction



How we engage

- Employee engagement surveys.
- Fortnightly CEO video updates to staff.
- Internal publications including magazines, podcasts, newsletters and campaigns.
- CEO staff forums.
- Ongoing training and development.

Key outcomes of engagement

- Remained in the Top 10 Best Big Companies to Work For List.
- Continued to be one of only 5% of companies worldwide with Platinum status with Investors in People (iIP).
- Awarded 2nd place in the Inclusive Top 50 UK Employers List.
- 76% of those graduating from Leadership Academy awarded a distinction.
- Won the most prestigious prize in the UK utility industry, 'Utility of the Year', at the Utility Week Awards.
- Maintained position within an elite worldwide group that has gained the Chartered Institute of Procurement & Supply (CIPS) Corporate Certification advanced – the only DNO and one of 16 companies worldwide that has been awarded Platinum.

Ranked 2nd

in the Inclusive Top 50 UK Employers List

Colleagues

We engage with our employees to understand what matters to them in their work so we can attract and retain a talented, happy workforce.



An energy sector

for the future

The energy sector is undergoing significant technological and societal disruption.

Innovations like battery storage, electric vehicles, and network flexibility are transforming the energy landscape. Customers are increasingly moving away from centralised energy generation, opting instead for smaller distributed generation and low-carbon technologies. The global push for a clean energy transition aims to achieve Net Zero with secure and affordable energy.

Global instability

Russia-Ukraine conflict and the geopolitical tensions in the Middle East

The ongoing war in Ukraine and unrest in the Middle East continue to destabilise the global energy market. Ukraine's conflict has disrupted energy supply chains, particularly affecting Europe's natural gas imports. Meanwhile, tensions in the Middle East, a critical oil-producing region, exacerbate supply uncertainties and drive up oil prices.

A destabilised energy market leads to higher household energy bills, contributing to the cost-of-living crisis. The instability also drives demand for alternative energy sources, influencing consumer behaviour towards adopting low-carbon technologies to manage costs and ensure energy security.

Our response:

- We delivered £91m benefits to customers by using flexibility to defer distribution network investment. This means 100% of these savings flow to bill-payers rather than shareholders and will result in lower customer bills.
- We successfully challenged industry assumptions about how the grid operates, resulting in access to an additional 700 MW of renewable generation being made available to customers and bringing connection dates forward by years in some cases and at lower costs.
- This year, more than 40,000 domestic solar installations have been connected, benefiting households with lower electricity bills.

£91m

Delivered £91m benefit to customers in 2023/24 by using flexibility

Cyber security

Protecting national infrastructure

Our Corporate IT and Industrial Control Systems are crucial for keeping electricity flowing for our customers. We are not just keeping the lights on, we are keeping transport running, homes warm and much more. As everyone's reliance on technology grows, so does the impact of a cyber-attack. Given that our area of operation includes the UK's capital city, its primary financial centre and the seat of government, we set ourselves high standards of cyber security that considerably exceed the regulatory requirements.

Our response:

- We comply with the Network and Information Systems Regulations 2018 and use the National Cyber Security Centre's Cyber Assessment Framework.
- We have robust communication programmes to raise cyber-attack awareness among employees, including periodic random tests to identify vulnerabilities.
- Our dedicated cyber resilience programme includes annual cyber crisis exercises to rehearse and refine our response to potential threats, ensuring rapid and effective action.

Tackling climate change

Reducing carbon emissions for ourselves and our customers

Accurate forecasting of future electricity demand, particularly due to decarbonisation efforts, is crucial for efficient network planning. Local authorities play a significant role in achieving Net Zero, influencing over 80% of the UK's carbon emissions. Despite their ambitions, many face challenges like resource constraints and the need for better data and analytical tools.

Our response:

- We collaborate closely with local authorities, providing support and resources to develop robust Net Zero plans.
- We are converting our fleet of vehicles and generators to reduce carbon emissions (see page 23).
- We are adopting a circular economy model (see page 23).
- We have analysed our supply chain to reduce Scope 3 emissions (see page 22).

£2m benefits

in 2023/24 due to 7,397 tonnes of carbon emissions avoided by reduced curtailment of low-carbon generation



Reliability and quality

Ensuring network resilience

There are threats to the reliability and quality of the power network. Growing energy insecurity, increasing demand for electricity to power transport and heating as well as lighting and myriad other devices, combined with the rise in cyber threats and the hazards of increasingly extreme weather, mean that network resilience is more important than ever. Power distributors must anticipate future demand and provide capacity efficiently and cost-effectively while minimising disruption to customers.

Our response:

- We maintain vigilance through horizon scanning to identify and mitigate potential threats, such as the impact of extreme temperatures on the network.
- We are building a culture that understands the role of resilience, for example developing a way to measure and track resilience.
- We continue to plan for expected and unexpected events, integrating stress-testing where possible, and reviewing events afterwards to learn valuable lessons.



Industry regulation

A framework for Net Zero

Recent regulatory changes in the UK energy sector include the establishment of the National Electricity System Operator (NESO). This change is designed to improve the coordination of the electricity grid, ensuring a more efficient and reliable energy system. The NESO will operate independently from National Grid, focusing on integrating renewable energy sources, improving grid resilience, and facilitating the UK's Net Zero targets. Additionally, regulatory reforms are being implemented to promote grid flexibility, support the deployment of low-carbon technologies, and improve market competitiveness.

Our response:

- We launched an independent Distribution System Operator (DSO) to expand network capacity sustainably and cost-effectively.
- Instead of automatically investing in new infrastructure, the DSO considers the option to buy flexibility to increase network capacity, adapting to the growing demand for EVs and other needs.
- We awarded over 1.5 GW of flexibility contracts, including 14 new providers. We dispatched 7.8 GWh of flexibility in 2023/24, a seven-fold increase on 2022/23.

Leaders in

our sector



Our vision

To be consistently the best performing organisation in our sector in the UK.

There are **four aspects** to our vision:

To be an employer of choice

To be a respected and trusted corporate citizen

To be sustainably cost-efficient

Enabling the Net Zero transition for all

Our strategic priorities

We aim to provide a safe, reliable service that meets our customers' needs at the lowest price and that facilitates the transition to Net Zero.

Keeping employees and the public safe

Find out more [→ p.32](#)

Providing a reliable electricity supply

Find out more [→ p.34](#)

Focus on customer satisfaction

Find out more [→ p.36](#)

Delivering value for money

Find out more [→ p.38](#)

Innovating to facilitate the transition to Net Zero

Find out more [→ p.40](#)

Our sustainability strategy

We want to make sure that we operate in a way that means we can do so for many years to come.

Environment

We aim to do as much good and as little harm to the environment as possible.



Find out more [→ p.22](#)

Our people

We are a safe, fair and inclusive employer that people want to work for.



Find out more [→ p.26](#)

Social responsibility

We play an important role in the life of our communities.



Find out more [→ p.28](#)

Our values

We deliver high performance underpinned by our values.



Integrity



Respect



Continuous improvement



Responsibility



Diversity and inclusiveness



Unity

Delivering on our

strategic priorities

UK Power Networks delivers a safe, reliable service that meets our customers' needs, provides value for money and facilitates the transition to Net Zero.



Ensuring safety of employees and customers

What this means

We make the safety of our employees, contractors and the public our number one priority.

Why this is important

We want UK Power Networks to provide a working environment where no one suffers injury or illness because of our actions or inactions.

Find out more [→ p.32](#)

Our commitments

- Minimise injuries to our staff as measured by the Total Recordable Injury Rate (accident rate per 100,000 hours worked) striving to be less than 0.05 by the end of the RIIO-ED2 period.
- Reduce the number of third-party overhead line and underground cable strikes by at least 20% over RIIO-ED2 (relative to the average of RIIO-ED1 actuals from 2015-2020).
- Increase our commitment to engage with the public around safety issues, focusing on those who are at highest risk of injury from contact with our networks, by engaging with 300,000 people per year during RIIO-ED2 (vs. 250,000 people per year during RIIO-ED1).

2023/24 achievements

- Since becoming an independent company in 2010, our Total Recordable Injury Rate (TRIR) has decreased by 84%. Our TRIR in 2023/24, the first year of RIIO-ED2, was 0.08. Safety remains our top priority and we are intensifying our efforts to reach our commitment of less than 0.05 by the end of the five-year RIIO-ED2 period.
- In 2023/24, we achieved a reduction in third-party strikes of our overheads lines and underground cables of 38% and 62% respectively.
- In the first year of RIIO-ED2, we engaged with more than 580,000 people through our public outreach programme against a target of 300,000 for the year. This keeps us on target to reach 1.5 million people over the five-year RIIO-ED2 period.

Providing a reliable electricity supply

What this means

We maintain electricity cables and lines across London, the East and South East of England and make sure power flows reliably, safely and securely.

Why this is important

Reliable access to electricity is becoming ever-more crucial, as we decarbonise transport and heating systems, for example by switching to electric vehicles and heat pumps.

Find out more [→ p.34](#)

Our commitments

- Improve underlying network reliability (as measured by Customer Interruptions (CIs) and Customer Minutes Lost (CMLs)) by the end of RIIO-ED2.
- Continue to improve our organisational resilience and aim to achieve a 'Good practice' rating against the BS 65000 standard that will be independently assessed by the Emergency Planning College (EPC), by the end of the RIIO-ED2 period.
- Continue to improve our resilience to sophisticated cyber-attacks throughout RIIO-ED2 and comply with the relevant regulations.

2023/24 achievements

- In 2023/24, our networks achieved a reliability performance of 99.99%. We ranked number one in the UK for smart grid capabilities in the Singapore Power Group's Smart Grid Index.
- Working with the Cabinet Office Emergency Planning College, we have aligned ourselves to the British Standard, BS 65000:2014 Guidance on organisational resilience. In our latest baseline review conducted in September 2021, we beat our target by achieving the highest possible maturity rating for 'Risk Management' and 'Leadership and Culture' and received the next highest rating in the remaining three categories.
- We attained our Network and Information Systems (NIS) Cyber Assessment Framework Basic Profile in Dec 2023 and are planning for an enhanced profile attainment.

Ensuring customer satisfaction

What this means

We continue to improve existing services to meet customers' evolving needs.

Why this is important

We want to ensure that our customers have the best possible service from us. We are always on the lookout for ways to improve what we do and how we do it.

Find out more [→ p.36](#)

Our commitments

- Maintain our position as the best service provider over the RIIO-ED2 period. We aim to be the No.1 DNO Group as measured by customer satisfaction, or to achieve at least a 93% score on average across our networks in each year of RIIO-ED2, whichever is higher.
- Resolve customer complaints quickly, improving customer satisfaction against our RIIO-ED1 baseline performance in each year of RIIO-ED2. We will target 89% 1st day resolution and 99% 31-day resolution.
- Monitor and measure customer service in segments: those who are vulnerable, those using LCTs, and small businesses. We aim to be the No.1 DNO for customer satisfaction in those segments or to achieve at least a 93% score on average across our networks in each year of RIIO-ED2.

2023/24 achievements

- We have maintained our position as the number one service provider after having been ranked 1st in Ofgem's Broad Measure of Customer Satisfaction with a 94% customer satisfaction; our best ever score.
- Remained in the top 10 list of best customer service providers by the Institute of Customer Service (ICS) across all UK industries. Our customer complaints 1st day resolution rate is 91% and our 31-day resolution rate is 99%.
- Ranked 1st for stakeholder engagement and consumer vulnerability for fifth year in a row. We are ranked No.1 DNO group for customer satisfaction in the low-carbon technology segment.

Delivering value for money

What this means

We deliver the lowest possible bills by driving efficiency and innovation in everything we do.

Why this is important

We provide an essential service, so we take every opportunity to maximise value for our customers, and keep our part of the bill low.

Find out more [→ p.38](#)

Our commitments

- Our DSO function to deliver up to £410m reduction in load related expenditure during RIIO-ED2 through increased competition and use of Low Voltage (LV) flexibility, including at the domestic level.
- Keep our costs down by taking a flexibility and energy efficiency first approach over RIIO-ED2 and will market test all network needs before considering reinforcement. These needs to be procured through a range of long-term and short-term markets and products, which are inclusive by design and ensure no customer is left behind in the energy transition.

2023/24 achievements

- We continue to remain the lowest cost DNO in 2023/24. This means our customers pay 22% less than the industry average.
- £91m benefits in 2023/24 by using flexibility to deliver capacity, saving the cost of distribution network reinforcement. As committed in the business plan, we are on target to deliver £410m benefits during the RIIO-ED2 period.
- We continue to run long-term tenders twice a year. We awarded over 1.5 GW of contracts and dispatched 7.8 GWh of flexibility in 2023/24, a seven-fold increase on 2022/23. We continue to operate the most accessible flex markets in GB, with c30,000 households currently participating.

Innovating to facilitate the transition to Net Zero

What this means

Innovation is central to our vision, as we strive to be the most innovative of all the Distribution Network Operators.

Why this is important

Our openness to new and better ways of working is the driving force behind our success. That is why we are continuing to lead the industry in preparing the electricity infrastructure and network for transition to Net Zero.

Find out more [→ p.40](#)

Our commitments

- Allocate £25m Network Innovation Allowance (NIA) funding over the RIIO-ED2 period, of which £20m will go to third parties, targeted to ideas that deliver wider societal benefits.
- Over RIIO-ED2 we will deliver 1 GW of distributed energy resources (DER) capacity at no more than £8m, using smart interventions and new innovations, reporting progress in our annual business plan.

2023/24 achievements

- In the first year of RIIO-ED2, 2023/24, we have deployed three innovative solutions into our everyday business as usual operations resulting in £0.9m of customer savings due to innovation.
- In 2023/24, we have spent £2.9m on innovation projects with 85% of funding to third parties.
- In 2023/24, we have delivered 0.3 GW of distributed energy resources (DER) and are on track to deliver 1 GW of DER capacity at no more than £8m over RIIO-ED2.

Our approach to responsible business



We are committed to conducting our business responsibly; this is a fundamental element of the values that shape our purpose. Making integrity our watchword means that we consistently make ethical decisions, fostering a culture where responsible decision-making is central to our every action.”

Suleman Alli
Director Finance, Customer Service and Technology



Environment P22

Responsible decision-making is at the core of our approach to business and is in line with our vision to be a respected and trusted corporate citizen. We welcome the opportunity to stand up and be counted for the way we look after the environment, the customers we serve – especially those whose circumstances mean they need extra support – and the people who work to make UK Power Networks the responsible business it is.

one of our key priorities to ensure that our electricity network has the capacity to support the decarbonisation of transport and heating, alongside connecting renewable energy sources to meet rising demand.

In leading the industry towards sustainable practices, we have pioneered the establishment of the first independent Distribution System Operator (DSO) with its own oversight board (see more about this on page 39). This structure ensures that our DSO investment proposals are critically reviewed, so customers’ interests are always the primary focus. Innovative strategies, such as incentivising customers to adjust energy usage – known as network flexibility – will reduce asset expenditure by £410 million over the next five years, reducing demand for raw materials and minimising disruption caused by digging up the streets.

Acknowledging the economic challenges faced by our customers, we are intensifying our support for them. Collaborating closely with local authorities, we have matched their cost-of-living support funds and we will be providing £4m annually to support their activities.

Additionally, our dedicated DSO team offers free guidance to local and county councils and other planning bodies as they develop and implement their Net Zero plans.

A sustainable business approach has always been – and will continue to be – integral to our strategic framework.

Our people P26

At UK Power Networks, our vision is to be, consistently, the best performing organisation in our sector in the UK. Central to this vision is our commitment to delivering services that meet our customers’ needs at the lowest possible cost, while maintaining sustainability at the heart of our strategy. We believe that sustained high performance can only be achieved through a balanced approach across all our activities.

Social responsibility P28

Responsibility guides how we conduct our business; this is underpinned by a defined set of values that shape our operations. Upholding integrity is fundamental; it fosters a culture where ethical decision-making is ingrained in every aspect of our work.

Sustainability at UK Power Networks extends beyond reducing our carbon footprint; it encompasses how we support and develop our employees, innovate for Net Zero solutions, and collaborate to benefit the communities we serve. Our ongoing efforts in these areas are detailed further in the following sections.

Recognising our pivotal role in facilitating the UK’s transition to a Net Zero society by 2050, it is

Our governance framework

UK Power Networks’ Board

The Board of Directors is the principal decision-making forum for the Group. It has overall responsibility for leading and controlling the Group as well as its financial and operational performance. The Board composition is determined by the shareholding companies, each of which nominates Directors in proportion to their shareholdings. In addition, two ‘Sufficiently Independent Directors’ (SIDs) must be appointed to the boards of the Group’s regulated distribution companies.

The positions of the Chairman of the Board and Chief Executive Officer (CEO) are held by separate individuals with a view to maintaining effective segregation of duties between management of the Board and the day-to-day management of the UK Power Networks Group.

To assist the Board in fulfilling its oversight responsibilities, six Board sub-committees have been created, as shown below. Their main activities are:

The Audit Committee

The Audit Committee assists the Board with its responsibilities for financial reporting, maintaining an effective system of internal control and internal and external audit processes.

The Treasury Committee

The Treasury Committee assists the Board in fulfilling its oversight responsibilities with respect to compliance with Treasury Policy.

These responsibilities include the monitoring and management of treasury risks, including liquidity risk, funding and refinancing risk, interest rate risk, foreign exchange risk and credit risk.

The Remuneration Committee

The Remuneration Committee’s key responsibilities include making recommendations to the Board on the Group’s policies and structure in relation to the remuneration of senior management and employees of the Group, based on the corporate goals and objectives set by the Board.

The Risk Management and Compliance Committee

The Risk Management and Compliance Committee supports the Board in relation to risk management and by overseeing compliance with obligations determined by statute, legislation, regulation, contract or agreement.

The Nominations Committee

The Nominations Committee recommends Sufficiently Independent Directors (SIDs) for appointment to the boards of the distribution companies.

The ESG Committee

The Environmental, Social and Governance (ESG) Committee’s primary function is to assist the Board in ensuring that the Group has a suitable and sufficient strategy in place to deliver the key ESG-based commitments.

Executive responsibility

Our Executive Management Team, about whom you can read on page 52, has collective responsibility for running our business and executing our strategy.

Environment and climate change

We are key contributors to the UK's journey toward a Net Zero economy, making sure our network supports the decarbonisation of power, heat, and transport. Further, we are committed to reducing our operational carbon emissions, managing resources responsibly, enhancing biodiversity, and minimising pollution.



Who is responsible

Mark Adolphus

Director of Health, Safety, Sustainability and Connections

Targets

- **Overall Net Zero target:** We are committed to reaching Net Zero greenhouse gas (GHG) emissions throughout our supply chain by FY 2040.
- **Near-term targets:** We intend to reduce our Scope 1 and 2 GHG emissions 53.1% by FY2029 from a FY2019 base year. We also commit to reducing Scope 3 GHG emissions 25% within the same timeframe.
- **Long-term targets:** We are committed to reducing Scope 1 and 2 GHG emissions 90% by FY2040 from a FY2019 base year and to reducing Scope 3 GHG emissions 90% within the same timeframe.
- Recycle 80% of office, depot and network waste and re-use 99.5% of streetworks material by the end of the RIIO-ED2 period, with no recoverable waste to landfill by 2025.
- Reduce NOx emissions by 33% over the RIIO-ED2 period, improving air quality for our customers.

As a major player in the energy business, UK Power Networks has an important role in decarbonising the energy network and the economy. Our initiatives to reduce carbon emissions and support the Net Zero transition have most impact in the work we do for our customers.

Whether it is related to maintaining continuity of supply, ensuring we can accommodate greener power generation, or the connection of heat pumps or EV charging infrastructure, we have a pivotal role to play. Although our primary focus is on these areas, we nevertheless have an important obligation to address our own environmental impact alongside reducing that of our customers.

Our direct Scope 1 and 2 carbon emissions from our day-to-day operations relate to fuel consumption, Sulphur hexafluoride (SF₆) gas leaks in our switch gear and the energy we purchase to run our substations, depots and offices. Since 2018/19 we have reduced these emissions by 19% and made good inroads in starting to tackle the difficult-to-abate sources of carbon.

An important part of our overall carbon footprint, however, is the Scope 3 indirect emissions associated with our supply chain. For most companies these are often the largest part of their footprint (around 80%), and are also the most difficult to measure and manage.

At UK Power Networks we recognise our influence on these indirect emissions and decided to tackle them head on. In partnership with our suppliers, we have set about identifying where these emissions sit across Scope 3 categories, and more importantly who our most material suppliers are.

Our initial screening exercises, using average spend-based carbon factors, enabled us to clearly see that our Scope 3 emissions were concentrated in Purchased Goods and Services and Capital Goods. We have over a thousand suppliers and could see that around 100 of them accounted for 80% of the Scope 3 emissions.

Working with our partner, the Minimum Consultancy, we have now completed more detailed assessments of our top 160 suppliers, so we have a better understanding of their contribution to our Scope 3 footprint. In addition, over the last year we have worked with our suppliers to adopt Science Based Target initiative (SBTi) validated carbon reduction targets and have developed bespoke carbon reduction plans for the goods and services with which they supply us. This has enabled us to measure these emissions more accurately and identify both carbon savings and opportunities for change. To date we have seen our Scope 3 emissions decrease by 19.6% from our baseline but there is more work to do.

In 2021, we were the first UK DNO to have our carbon reduction targets validated by the Science Based Target initiative (SBTi) for all carbon scopes, aiming for 'well-below 2°C' equivalent reduction (a 25% reduction from 2018/19 with a target year of 2028/29). In 2022/23, we committed to upgrading our Scope 1 and 2 targets to 1.5°C in recognition of the success we had achieved in the previous five years and these new upgraded near-term targets at 1.5°C, as well as a Net Zero target, have been validated by the SBTi.

The Science Based Targets initiative (SBTi) Net Zero Standard provides companies with a clear blueprint on how to bring their Net Zero plans in line with the science. It requires companies to have short-term carbon reduction targets and a long-term Net Zero standard, with the ultimate aim of achieving a 90% reduction in emissions before 2050. The remaining 10% can be neutralised through high-quality carbon offsets that permanently remove and store these residual emissions.

Circular economy

We are committed to taking a sustainable approach to the management of our infrastructure in support of the nation's progress towards a circular economy. For the second year UK Power Networks has submitted its data to the Ellen MacArthur Foundation for assessment against the Circulytics criteria. We received an individual performance assessment which recognised that our efforts so far have resulted in an increase in our scoring, specifically in the 'Enablers' category. This marks a significant improvement in our approach to setting up the right conditions for a circular transition. Since the Circulytics toolkit is no longer available we are now on our way to developing our own tailored circular economy assessment tool to continue to monitor and measure our performance in this area.

Projects such as using low-carbon concrete made with waste materials, including fly ash where it is suitable, are part of our continued drive to eliminate waste and pollution, and to drive down carbon emissions. By adopting a circular economy model, we will help achieve a market in which products are re-designed to drive out waste, reduce the use of virgin materials, can be repaired, reused or dismantled for strategic spares and fed back into our large supply chain that we can influence positively.

Electrifying our fleet

UK Power Networks runs a fleet of over 3,100 vehicles, ranging from cars to vans and HGVs as well as specially modified vehicles required of an electricity network provider. We aim to have an integrated fleet that works throughout the company, and this year we have been doing the groundwork to enable that to happen. As well as making sure that the infrastructure is there to enable the uptake of EVs across the company, we must also ensure that the relevant support contracts are in place. This includes having procedures and policies set up in a way that will allow a streamlined and joined up vehicle fleet to operate smoothly and procuring practical solutions to make it easier for staff to change to an EV, such as partnering with a fuel card provider that covers both home and public charging costs. Our first priority was to identify the UK Power Networks' employees whose role, duty cycle, business mileage and access to home charging made it appropriate for them to have an EV allocated to them. It was important to identify which roles required which type of vehicle;

for example, a conventional passenger EV is likely to be right for a field engineer whereas a jointer needs a panel van sized EV. Alongside the contract work and with the help of our associated company UK Power Networks Services, we also began work on establishing the right infrastructure, such as charging facilities. The carbon emissions relating to the UK Power Networks' vehicle fleet have reduced considerably since 2018 and this is in part a result of the introduction of EVs as well as the greater fuel efficiency of our conventional vehicles.

We want to encourage all employees to switch to EVs wherever possible so in 2023/24 we introduced a scheme to allow all employees to apply for an EV through our leasing partners, Tusker. Employees, including those who do not need a vehicle for their role, can opt to lease an EV or a hybrid vehicle. Tusker manages the administration and financing for the lease on our behalf.



DORMICE AND ORCHIDS PROTECTED IN NATURE RESERVE

UK Power Networks' tree cutters, TreeSmiths, worked with experts at Happy Valley and Farthing Downs to protect dormice and other vulnerable species, while keeping overhead power lines safe and reliable for residents.

Low undergrowth was preserved, where possible, to maintain the leafy corridors used by dormice, and scrub was cut to provide dappled shade for fly orchids. Logs were stacked, rather than chipped, to avoid smothering flowers, use of machinery was minimised and air was let out of tyres to minimise the impact of vehicles.

What we've achieved

24%

reduction in our CO₂ emissions since our baseline year 2018/19, which includes our Scope 1, 2 and 3 emissions

1st UK DNO

to have all Scope 1, 2 and 3 emission targets validated by SBTi

How we are...

reducing our emissions

OUR INNOVATION STRATEGY



“The embodied carbon tool allows us to challenge the scope, design and material used in the delivery of our major projects, lowering carbon impact and providing sustainable solutions, for UK Power Networks and our customers.”

Allan Ponsonby
Head of Engineering, UK Power Networks

EMBODIED CARBON

UK Power Networks has developed a tool to monitor and report on embodied carbon in all new projects. This allows us to establish a baseline and commit to a target percentage reduction, to help us to achieve our Science Based Target commitments. The tool measures the embodied carbon of all major projects (we have defined these as projects valued at over £1 million) at both concept and developed design phases. The tool is aligned to the PAS 2080 international standard for Carbon Management in Infrastructure. It focuses on those key elements of the project that can be influenced through detailed design and which make a significant difference to the project's carbon footprint.

What this means for our customers

Since its launch in mid-Jan 2024, the Supply Chain Carbon Reporting tool has been used in 24 major projects, 12 of which have been completed resulting in approximately 15% total carbon saving.

Converting our in-house generators

Our temporary generator fleet is essential for maintaining continuity of electricity supply in both planned works and emergencies. We utilise both in-house and rented generators to meet our requirements and have been exploring opportunities to reduce the use of diesel. Clearly minimising use is the priority, but we have also trialled hybrid engines (battery with diesel engine) with low-carbon fuels.

Hybrid generators typically provide much better load management than diesel ones as they adapt and manage peaks and troughs of demand. Diesel generators tend to be highly inefficient compared to hybrid ones in cases of low demand, such as overnight.

In 2023/24, we began converting some of our in-house generators to hybrids and this will bring fuel efficiency benefits, improve air quality and reduce noise. The advantage of a hybrid engine is that it switches to battery during low load periods, such as at night when power demand is low.

Working to reduce sulphur hexafluoride on our network

Sulphur hexafluoride (SF₆), a potent greenhouse gas (23,500 times the warming potential of carbon dioxide), is used across the electrical industry as the main method of insulation in high voltage electrical equipment. Our key actions are to engage in research to develop low-carbon alternatives and to improve our leak management.

Over the last two years, where appropriate, we have installed alternative low-carbon options, such as Clean Air, which utilises a mix of dehumidified oxygen and nitrogen and g3 which utilises a fluoronitrile for our 132kV switchgear. At the 36kV level, we have installed Air Plus circuit breakers, which also utilise fluoronitrile compounds in a different gas mix to g3. We also continue to engage on research with our partner bodies such as the Energy Network Association who are currently working with Nuventura on their new 33kV dry air circuit breakers.

The management of leaks is a vital part of our work in minimising SF₆ fugitive emissions. We have piloted a new adhesive-based leak sealing solution for one of our 132kV circuit breakers. This has been developed in conjunction with the Electric Power Research Institute and has proved successful. We subsequently used it to successfully repair a significant leak on a busbar at one of our 11kV primary substations.

Biodiversity

Alongside the strategic, technical approach to protecting the environment, we also take care of the local flora and fauna in our area of operation. Biodiversity is crucial to the health of the planet, and projects such as helping to install nest boxes for swifts and kestrels in West Sussex and rescuing and re-siting a wild bee colony from the walls of a substation in Norfolk contribute to it. When we were cutting back trees in Surrey, our contractors were careful to preserve low undergrowth where possible, to maintain the leafy corridors used by dormice, and the scrub was kept, providing dappled shade for fly orchids.

This year, 27 employees volunteered to work on improving the biodiversity at our Addington Grid site. This large site is in a semi-rural location in Croydon and is quite unusual as a large proportion of this secured site is made up of ancient woodland and chalk grassland, both of which are now rare habitats that should be preserved in the UK.

With repeat visits from volunteers the condition of this land is changing for the better. The woodland has been improved by tackling invasive species on site and the chalk grassland, that was heavily overgrown, is being restored by scraping back the topsoil and reseeding with a specific chalk grassland seed mix. Chalk grassland scrapes are well known for attracting and supporting a remarkable array of butterfly and moth species, as well as other wildlife.

Our approach to climate change



UK Power Networks continues to play an essential role in facilitating Net Zero for our customers and the UK economy, as we all look to decarbonise our lifestyles, transport, commerce and industry. We will ensure that the electricity network can accommodate low-carbon generation, EV infrastructure charging, energy storage, heat pumps and so on. We must also prepare the network to be climate resilient through our climate adaptation plan and ensure that this plan remains current and viable so that the network remains robust. At the same time we are committed to reducing our own daily operational carbon emissions in line with our Science Based Targets, as well as addressing our wider environmental impacts.

Governance

The governance around climate-related risks and opportunities

Description

As a regulated high-performing business, our operations and activities are open to rigorous scrutiny from both our regulator Ofgem and wider stakeholders. In addition, our environmental management system (EMS) certified to ISO 14001 requires us to undergo independent third-party audits from a UK Accreditation Service certified body. Our Environment, Social and Governance (ESG) Board sub-committee, formed in 2021, has continued to meet three times a year to review our progress against key ESG metrics. The issuance of green bonds also continues to bring external scrutiny to our operations and our actions in reducing our carbon emissions and environmental impacts. We will also be looking to formalise our external monitoring and verification of our carbon reporting in line with our Science Based Target reporting. All these actions and oversight of our activity will continue to drive the ESG performance of this company, holding us to account for any underperformance.

Strategy

The planning and organisation needed to achieve our overall goals under conditions of uncertainty

Our business plan for R110-ED2 has clear commitments to ensure we reduce our operational carbon footprint, support vulnerable customers and ensure that our network is not an impediment to the transition to Net Zero. Our objective is to achieve this at the lowest cost to the customer and we have adopted a flexible plan to avoid saddling our customers with large upfront and potentially unnecessary costs. We are actively targeting flexibility through our DSO, building our market intelligence, upskilling our workforce, investing strategically and engaging widely with key stakeholders, including Ofgem, local authorities, domestic and business customers and non-governmental organisations. We will regularly review and track our strategy and our approach across our business functions to address shortcomings and seize opportunities to go further where it makes strategic sense to do so.

Risk management

The processes used to identify, assess and manage climate-related risks

UK Power Networks has a mature and well-embedded risk management process that continually reviews current risks against our existing operations, business plans, stakeholder expectations and changing regulatory environment. The threat of climate change is an area of growing concern to our society and economy. As an operator of the UK's largest electricity network, it is imperative that we have a robust climate adaptation plan in place. This aspect only grows in importance as we consider the changes that progressing to a Net Zero economy present, such as domestic heating switching to heat pumps or transport to EVs. Reliance on electricity is therefore growing. We have, under our current plan, made excellent progress protecting substations at risk of flooding in the future and updated our model to identify additional sites to address in R110-ED2. In addition, we have made improvements to our vegetation management, enhanced our capability to identify high impact rainfall events and significantly stepped up our storm response and enhanced our call handling capability.

Metrics and targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

Over the last seven years UK Power Networks has been proactive in improving the resilience of its network to climate change. We protected over 135 substations that were identified as being at risk of various types of flooding. This reduced the risk of flooding at these sites from 70% to 13%. In the first year of R110-ED2 we have continued this work, successfully delivering 16 mitigation projects as planned. Other additional measures include:

- Improving vegetation management, using Light Detection and Ranging (LiDAR) assessments to target tree cutting activities more accurately around overhead lines;
- Improving modelling and analytical tools to identify high impact rainfall accumulation that may affect infrastructure five days in advance; and
- Improving storm response of the business to ensure call handling centres are not overwhelmed, storm roles of staff are embedded, and vulnerable customers are supported.

Our people

This is an exciting time to work at UK Power Networks. We are doing important work that makes a real difference to our customers' lives and our employees are what makes that happen. We are proud of the diverse, inclusive team we are building and the positive effect this work has on them and the communities we serve.



Who is responsible

Andrew Pace
 Director of HR, Legal, Risk and Assurance and Company Secretary

Targets

- Benchmark nationally and globally as a leader in the field and target retention of our Platinum Investors in People accreditation and Best Companies listing throughout RIIO-ED2.
- Retain our National Equality Standard accreditation and status as an Inclusive Top 50 UK Employer throughout RIIO-ED2.
- Improve our safety performance and reduce the Total Recordable Injury Rate to less than 0.05 by the end of RIIO-ED2.
- Establish a Digital Skills Academy to provide DSO and digital future skills and target the achievement of an 'Outstanding' Ofsted rating for our training programmes.

It is thanks to the people who work at UK Power Networks that we can deliver excellent service to our customers and build the company that will help bring about the decarbonisation of power.

We have developed a culture where people thrive, and we do our best to make our company a great place to work. Our people work hard, and we take care of them and help them forge a satisfying career with us. This is an exciting time to work for UK Power Networks. We are building a team that will take us well into the future, developing home grown talent through our Academies and Apprenticeship programmes, and in 2023/24 we recruited 15 graduate engineers.

Digital skills academy

The world of energy distribution is developing at a dizzying pace and our whole industry is facing a digital skills gap that must be filled if it is to meet the needs of the Net Zero economy. Digital skills are vital in today's world, as access to reliable data and the ability to manage it are crucial to success. Building our own capability in this field will allow us to keep our strategic focus where it needs to be. At UK Power Networks we have a track record of nurturing some of the most creative, innovative ideas in the business. We want to continue to expand this element of our workforce, to make sure we have the skills we need to continue to push the boundaries of the new generation of power.

Our digital skills academy, which we launched in April 2023, is central to this ambition. The Digital Academy is funded by the apprenticeship levy, so we can provide this training at no cost to

the company or our customers. In designing the Digital Academy, we followed the successful model of our Leadership Academy, which was launched in 2021. The Digital Skills academy provides training and a career path ranging from a basic digital skills training programme at level 3, roughly equivalent to an 'A' level, up to level 7, which is on par with an MSc postgraduate degree. The majority of our intake in 2023/24 was at level 4, where participants develop digital skills such as data analysis, visualising data and some coding.

We have some 20 employees in the Digital Skills Academy so far and intend to swell these ranks up to four times a year in the coming years. We are starting relatively small, as we build the skills to run the programme, working with technical training specialists such as QA and Firebrand. To be admitted to the Academy, employees must already be in a role that requires the skills that are on offer. The programme includes live training sessions (face-to-face and virtual) which are complemented by e-learning, additional modules and self-led learning.

Leadership Academy

Our unique Leadership Academy goes from strength to strength. We saw 40 employees graduate from it in March 2023. Two new cohorts – at levels 3 and 5 – joined in 2023/24 and we adapted the level 3 curriculum to allow aspiring leaders to join. This means that participants who are not currently managing people but who have been identified as having the potential to do so can learn the skills and competencies they need to manage people before taking on such a role.

SOME OF OUR PAST YEAR'S AWARDS



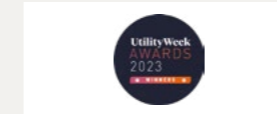
The UK's Best Big Companies to Work For

UK Power Networks remains in the top 10 list of the UK's 25 Best Big Companies To Work For List in 2023 and we remain the only electricity distribution network operator to feature in this list.



International Energy Engagement Award

UK Power Networks won the Energy Institute's International Energy Engagement Award for its collaboration with local authorities.



UK Power Networks took home the 'Digital Transformation Award' at the Utility Week Awards 2023

UK Power Networks picked up the Digital Transformation Award for our smart connections portal and an innovation project which removes barriers to Net Zero by allowing meter operators to upgrade domestic fuses for the first time.



UK Power Networks awarded 'Utility of the Year' at the Utility Week awards

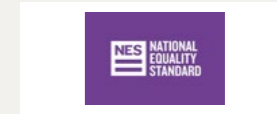
The company's drive to collaborate for the benefit of customers won it the most prestigious prize in the UK's utility industry, 'Utility of the Year', at the Utility Week Awards.

ACCREDITATIONS



Investors in People – Platinum

UK Power Networks has retained its Platinum status reaffirming our position among just 5% of companies globally to be awarded this highest status.



National Equality Standard

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



Inclusive Top 50 UK Employers

UK Power Networks was awarded second place on the Inclusive Top 50 UK Employers List at the Inclusive Companies Awards. The company has appeared on the list for several years, but this marks UK Power Networks' highest ever ranking.



The Chartered Institute of Procurement & Supply (CIPS) Corporate Certification Advanced

UK Power Networks maintained its position within an elite worldwide group who have gained the Chartered Institute of Procurement & Supply (CIPS) Corporate Certification advanced 'Platinum Award'.

A great place to work

UK Power Networks is one of a select group of companies that warrants a Platinum award from Investors in People (IIP). No other DNO has that honour and only 5% of companies around the world are given this accolade. We also retained our accreditation from the National Equality Standard, and we achieved the highest ranking in the Inclusive Top 50 UK Employers List. Our commitment to diversity and inclusion is one of the reasons this is a great place to work.

Apprenticeship programme

We took on more than 50 craft apprentices in 2023/24 and for the first time, women made up 10% of that intake. This is the result of a programme of sustained outreach with schools, including all day events, demonstrations and workshops, encouraging girls to study STEM subjects and see the role they play in a company such as UK Power Networks. Our intentional strategy of always having at least one woman on the apprenticeship interview panel has undoubtedly contributed to this.

Valuing our diverse workforce

This year, following feedback from our employees, we trained all our technical trainers in neurodiversity awareness. Our training team ran 11 operational well-being days for field staff. In the course of those events, we learned that around 20% of our field staff have either been diagnosed or suspect they have a neurodiverse condition, such as dyslexia, autism or ADHD. Managers are receiving training to help them spot and support neurodiverse team members and we have trained over 30 neurodiversity allies across the business.

As a matter of policy, our diversity network is all inclusive; we don't have individual groups relating to gender, race, sexuality or neurodiversity. This aligns with our approach that what matters is equity for everyone.

As mentioned above, our schools' outreach is sharply focused on increasing the number of women in our workforce at all levels. This long-term programme, which we began in 2022, starts with year 9 students; our apprentice intake this year shows that it is beginning to bear fruit.

We are also committed to levelling up the opportunities available for potential employees, regardless of background and socio-economic status.

We run initiatives designed to support and encourage school students who might not otherwise see opportunities to progress their career. Future Frontiers is a mentoring programme for year 10 students who are on pupil premiums, and a similar programme called Brightside operates virtually and is aimed at low-income families in remote rural areas.

We are continuing our successful partnership with Urban Synergy which offers paid internships to 16-18-year-olds from under-represented sectors of society and our Powering Potential programme that is part of our STEM project this year includes bursaries and other support for students from low-income households who want to go to university.

Social responsibility

It is part of our sustainability strategy to play a central role in the life of our communities. The new regulatory period heralds our taking social responsibility to a new level, with an ever-more sophisticated approach to data leading to a deepening understanding of our stakeholders.



Who is responsible

Suleman Alli
 Director of Finance, Customer Service and Technology

Targets

- Expand the scope and reach of our Priority Services Register (PSR), delivering an overall 30% increase in registrations in the R110-ED2 period, and continue to improve the satisfaction of our PSR customers.
- Provide targeted support to a total of 500,000 fuel-poor customers over R110-ED2, investing £18m to support over 200,000 directly and 300,000 through partnership programmes.
- Provide information and help to 500,000 vulnerable customers over R110-ED2 to ensure no one is left behind in the changing energy system, at no cost to customers.
- Reduce the number of third-party overhead line and underground cable strikes by at least 20% for each year over R110-ED2 and increase our commitment to engage with the public around safety.

As a provider of an essential service, social responsibility is of the utmost importance at UK Power Networks. Being a respected, trusted corporate citizen is a core part of our vision; social responsibility is deeply embedded in our culture.

2023/24 was the first year of the new regulatory period (R110-ED2) which runs until 2028. This presented us with the opportunity to take a careful look at our social responsibility strategy and activities across the organisation to ensure that we continue to build this vital aspect of our business in the way that our customers have told us is important to them.

We are acutely aware that many of our customers are having to cope with the cost-of-living crisis, and energy costs are a significant element in that. The transition to Net Zero threatens to widen the gap between those who can afford to decarbonise and those who cannot.

Taking particular care of customers whose circumstances make them vulnerable is central to our socially responsible approach. We estimate that, across our three networks, there are currently 3.3 million households eligible for our Priority Services Register (PSR). These include those over the age of 65, people living with children under five or customers facing mental or physical health challenges. We currently have approximately 77% of households eligible registered to our PSR. We also believe there to be 1.58 million customers in our areas alone who are at risk of being left behind in the energy system transition by 2030.

Taking social responsibility to a new level

We have taken our consumer vulnerability programme to a new level, setting ambitious targets for ED2. We are investing for the long term in partnerships and making huge advances in our internal processes to drive greater support and deliver meaningful impact to support our customers and their communities.

Deepening our understanding of our vulnerable customers

We use data throughout the business and have extensive expertise in managing information to provide insights on which vulnerabilities are affecting our customers and how vulnerability differs across the communities we serve. To improve the support we provide and to be more targeted in our approach, we need a clearer view of vulnerability trends across the areas we serve.

In 2023/24, we developed a new, innovative solution called Spotlight. This tool uses advanced AI and machine learning techniques to help us understand customer segmentation and identify vulnerable customers with an unprecedented level of granularity. We can apply this information to our management of the PSR. Our interactions with vulnerable customers can not only be more specific but can also be tailored to meet customers' unique needs within identified categories of vulnerable customers. By analysing data gaps and testing different communication channels with customer groups, we are gaining valuable insights such as which ways of engaging are most effective at achieving new

registrations. By providing actionable information about customers' needs, such as what makes them eligible for the PSR and which service offerings best meet their needs, these insights are improving the way we can support vulnerable customers.

These developments will enable us to apply data-led decision-making to target customers in need and ramp up support over the coming years not only for those on the PSR, but also in identifying vulnerable customers in fuel poverty and those at risk of being left behind in the transition to Net Zero.

Sharing data with other utilities

A key achievement we made in 2023/24 in relation to building the PSR was our collaboration with water companies operating in our area. In ED1 we began data sharing with other utilities that served the same customers, putting in place arrangements with seven of the eight water companies in our area. This meant customers only needed to register once for the PSR.

This year we've gone further, becoming the first DNO to share historical data with two water companies in our region. This means that customers who registered with suppliers before our data sharing agreement was in place are registered to receive support across all their utilities without having to register more than once. This collaboration with Thames Water and Affinity Water resulted in 86,923 more registrations to our PSR.

Addressing fuel poverty and leaving no one behind

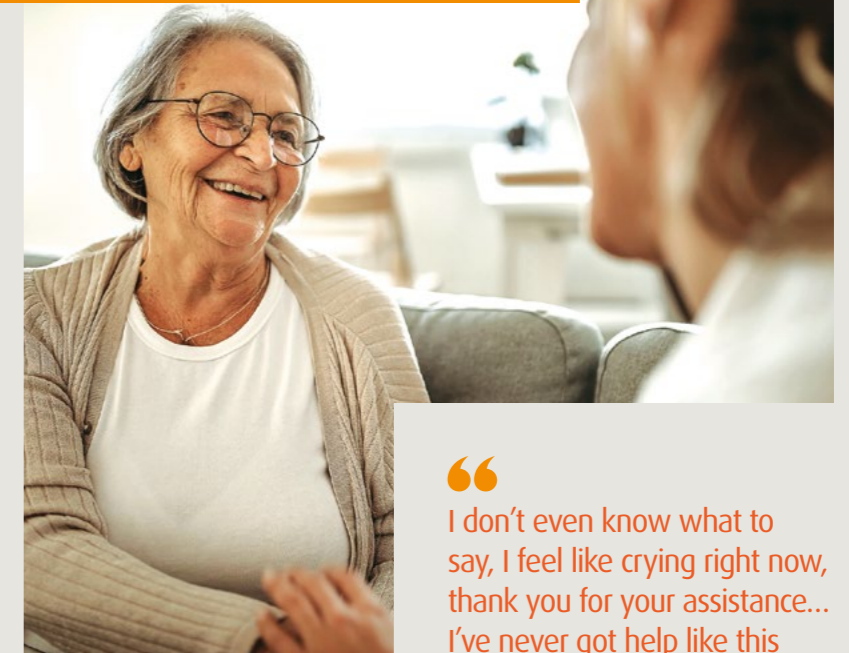
We made great strides in 2023/24 in our undertaking to support customers in fuel poverty and those who are at risk of being left behind in the transition to Net Zero. Our increasing understanding of the root causes of these two aspects of disadvantage has shown us that they often overlap. As part of our strategy, we took the opportunity to reinforce our foundations, reviewing, for example, how we use data and setting up the most effective partnership models. We are re-evaluating what we offer to customers who need extra help so we can deliver maximum value to them. We are also developing a new portfolio of services to include a greater range of offerings and formats. For example, our stakeholder engagement tells us that people want a choice in how they access help; some want to be served online in order to remain anonymous, while others value the personal approach, be that on the phone or face-to-face.

We are all too aware that many of the benefits of the transition to a Net Zero economy are more readily available to those with digital skills and disposable income. To redress this disparity, we are working to find ways to provide customers with the skills they need to engage with the energy market and use low-carbon technologies. We set up a partnership with Social Enterprise

How we are...

looking after our most vulnerable customers

OUR INNOVATION STRATEGY



“I don't even know what to say, I feel like crying right now, thank you for your assistance... I've never got help like this before. I don't really know what to say, I couldn't believe my eyes! Thank you again, this was literally life changing for me!”

Customer testimonial

GREAT ADVICE DELIVERED LOCALLY

Over the last year, we partnered with Citizens Advice Arun and Chichester to offer a range of fuel poverty support, including income maximisation, home energy audits and grant application support to customers.

Kent to develop Digital Skills Training, with a focus on Net Zero. The service helps customers develop the digital skills they need which will increase the likelihood of them participating in the Net Zero transition. We also partnered with Camden Council and Utilita – a power supplier specialising in pay-as-you-go meters – to promote and reward energy-saving practices in 46 social housing homes, helping customers realise the benefits energy flexibility offers to groups that are not typical adopters of such technology.

For more information about our programmes to support customers in vulnerable circumstances and the way we manage our partnerships with charities and groups embedded in the communities we serve, see our [Annual Vulnerability Report](#).

What this means for our customers

Building on our network of partnerships means we can deliver more support to more customers. Through our engagement with Citizens Advice Arun and Chichester, we were able to leverage the network of Citizens Advice branches throughout our area. Working together, we expanded the support service to work with Citizens Advice Essex as well. In total, both branches supported more than 9,000 customers.

Our contribution to UN Sustainable Development Goals

UK Power Networks is committed to achieving a better and more sustainable future for everyone. That's why we have aligned our activities to the United Nations' sustainable development goals (SDGs). We have prioritised 11 of those goals and these are set out below.

■ Ahead
 ■ On track
 ■ Not on track

OUR FOCUS AREAS

RELEVANT UN SUSTAINABLE DEVELOPMENT GOALS (SDGS)

COMMITMENTS

STATUS

Environment



Ensure sustainable consumption and production patterns



Take urgent action to combat climate change and its impacts



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

We have revalidated our Science Based Target at 1.5°C and have also been validated by the Science Based Targets initiative (SBTi) to the Net Zero Standard. ■

We will work with our suppliers to reduce our supply chain carbon emissions (Scope 3) by 25% by 2028, compared to a 2018/19 baseline. ■

We will recycle 80% of office, depot and network waste and 99.5% of streetworks material by the end of RII0-ED2, with no recoverable waste to landfill by 2025. ■

We will increase the biodiversity of new major substation developments by a net gain of 10-20%, and at 100 existing sites by a net gain of 30% overall over RII0-ED2. ■

We will reduce NOx emissions by 33% over RII0-ED2, improving air quality for our customers. ■

We will develop and implement a circular economy tool to address our high impact materials by the start of RII0-ED2, and we will subsequently set and monitor our reduction targets. ■

Our people



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



Achieve gender equality and empower all women and girls



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



Reduce inequality within and among countries

We will minimise injuries to our staff as measured by the Total Recordable Injury Rate (accident rate per 100,000 hours worked), striving for a TRIR of less than 0.05 by the end of RII0-ED2. ■

We will reduce overhead line and underground cable strikes by at least 20% over RII0-ED2 (relative to the average of RII0-ED1 actuals from 2015-2020). ■

We will continue to build a diverse workforce to reflect and serve our communities by further improving equality of employment access, measuring continuous performance improvement. We will retain our NES accreditation and status as an Inclusive Top 50 UK Employer throughout RII0-ED2. ■

We will engage with the public around safety issues, focusing on those who are at highest risk of injury from contact with our networks by engaging with 300,000 people per year during RII0-ED2, an increase of 20% over the RII0-ED1 period. ■

Social responsibility



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



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



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



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

We aim to provide targeted support to 500,000 fuel-poor customers over RII0-ED2, investing £18m to support over 200,000 directly and 300,000 through partnership programmes, delivering £67m of benefits by 2028. ■

Over RII0-ED2 we will deliver 1 GW of distributed energy resources (DER) capacity at no more than £8m, using smart interventions and innovations, reporting progress in our annual business plan. ■

We will allocate £25m Network Innovation Allowance (NIA) funding over the RII0-ED2 period, of which £20m will go to third parties, targeted to ideas that deliver wider societal benefits. ■

Health and safety

Health and safety is and always will be our top priority. Ours is a hazardous industry and we take the utmost responsibility to keep our employees and the public safe.

UK Power Networks distributes electricity safely and reliably to satisfied customers at the lowest cost. These priorities are all crucial, but safety wins every time.

It is always at the forefront of our minds that electricity is dangerous. We know that safety is rooted in the psychology of us all as human beings as much as it is in equipment and processes. We are meticulous and rigorous at a company level; alongside that discipline, we have a culture where everyone who works for or with UK Power Networks recognises that each of us has a personal responsibility to ourselves and our colleagues to make safety our number one priority.

We had three Lost Time Injuries in 2023/24, where the employees concerned needed to take at least one day off work. None of those three involved electrical activity. Two happened

because of lack of attention to the potential hazards in the surroundings and the other was caused by incorrect lifting technique. We have zero tolerance of accidents in the workplace, so three such accidents is three too many. We continue to reinforce our message to employees and contractors alike that safety must be our primary concern and each of us is responsible for our role in delivering a safe working environment.

Corporate memory

There is no substitute for firsthand experience for imprinting an event on our minds, but of course no one wants to experience or witness an accident. To capture some of the immediacy of safety failures of the past, we are building a stock of stories drawn from the collective memories of UK Power Networks and its predecessor companies.

At a series of forums and workshops, we are sharing these with employees in a way that sticks in their minds; they are the stories of real colleagues. These accounts set out the circumstances that led to the accident and describe what happened. We also examine what we have learnt from the accident and what we do differently in light of those lessons.

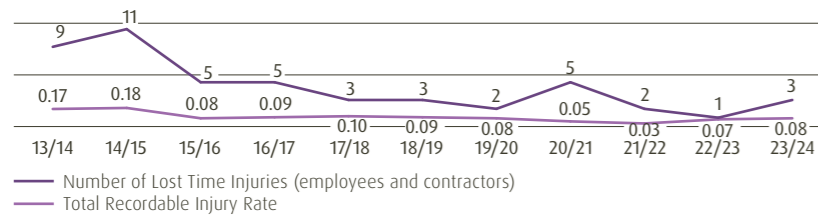
There are circumstances where we have no choice but to work on live overhead electricity lines to fix a fault. This is particularly hazardous and the small group of employees who work on live lines need highly focused training and preparation. We hold an annual conference for this group and this year we shared stories going back to 1975, chronicling the context and combination of circumstances that led to accidents, some of which – sadly – were fatal. The delegates at the conference were all too able to relate to these accounts. By building this corporate memory of what can go wrong, and spreading it throughout the workforce using case studies and role plays, we are striving to eliminate such accidents in the future.

Continuing to embed safety awareness in our operations

Since February 2023, UK Power Networks has held weekly company-wide Safety Calls at which representatives from across the business share safety performance and other relevant reports that everyone can learn from. The calls provide the leadership team with a holistic picture of safety throughout the company. A nominated leader reports on each area of the business from a safety perspective and a safety league table shows where each area is in relation to its peers. Activities are ranked and the focus is on improvement rather than criticism. The reports cover safety incidents and near misses, compliance breaches or changes and anything else that is relevant.

The output of the call is an action plan for each area, designed to address any gaps identified. This approach mirrors what we do in our customer service and network reliability functions. Since starting these calls we have seen significant improvement in safety compliance across the board, including, for example, better reporting levels and reduction in missed appointments relating to health and fitness to work.

Our performance in numbers



3
The number of injuries where employees needed at least a full day off work due to injuries in 2023/24

84%
improvement in the Total Recordable Injury Rate since 2010/11 when the rate was 0.48. This is the number of workplace injuries that result in an individual being absent from work, receiving professional medical treatment per 100,000 hours worked

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



How we are...

keeping people safe

OUR INNOVATION STRATEGY

Safety climate survey

The UK Health and Safety Executive (HSE) runs a simple online questionnaire that measures a company's safety climate and explores employees' attitudes and perceptions in key areas of health and safety. The survey results in a report that provides the company with an analysis of its safety ethos in the context of its peer group and indicates those areas in the business where its approach to safety is strong, neutral or in need of attention. In 2023/24, UK Power Networks was in the top 10% of its peer group for six of the eight categories and in the top 40% for the remaining two. The report is helpful in identifying areas such as reporting of accidents and near misses where we need to improve our performance. Despite the accidents in recent years, UK Power Networks was once again recognised by the Energy Networks Association (ENA) as the safest DNO in Great Britain in 2023. We nevertheless remain vigilant and committed to continuous improvement in our safety record.

Employee health and well-being

As well as striving to eradicate all possibilities of hazards in the workplace, we also want our employees to be healthy and well. Employees have access to an app that provides support such as advice on nutrition, sleep and mindfulness, as well as kiosks to check physical health indicators such as blood pressure and BMI. In July 2023, following analysis of the data provided by our occupational health team, we ran an awareness campaign to encourage employees to lose an inch or two from their waistlines to avoid the health problems associated with carrying extra weight in that area.

Public safety

As well as doing everything we can to make UK Power Networks safe for those working for the company, we are also committed to ensuring that our actions or mistakes are not responsible for any harm coming to members of the public. Using a multi-channel communications approach, we reached over 0.6 million members of the public with our safety messages, against a target of 300,000 for this period. At the end of year one of this new five-year ED2 regulatory period, we have already reached 40% of our target of 1.5 million members of the public.

In 2023/24, we continued to establish a strong focus on engagement with high-risk groups as identified through analysis of incident data from the previous reporting period. Public data from 2022/23 showed that contact with underground services makes up 39% of the safety incidents in the year, interference with the network accounted for 17% and contact with overhead lines was 16% of the total. This informed the public safety approach for 2023/24.

Below is a sample of the public safety initiatives we have run:

- Social media campaigns to target the building industry.



“What the forum demonstrated to us was UK Power Networks' number one priority is safety. The emphasis was on good leadership and ensuring that no job is so important, urgent or costly that it can't be planned accordingly and delivered safely every time.

It was a well worthwhile day for contractors and much appreciated by us at TreeSmiths.”

Ben Smith
Director, TreeSmiths Ltd

CONTRACTOR FORUM

It is essential that our contractors are completely aligned with our internal standards, especially regarding safety. In March 2024, 150 contractors – along with our CEO and other senior UK Power Networks managers – gathered at a forum designed to share, learn and collaborate so that, together, we can reduce the risk of harm from our activities. The Forum looked at the principles underlying safe management of a hazardous workplace, sharing lessons from recent safety incidents and drawing on experience from other industries.

What this means for our customers

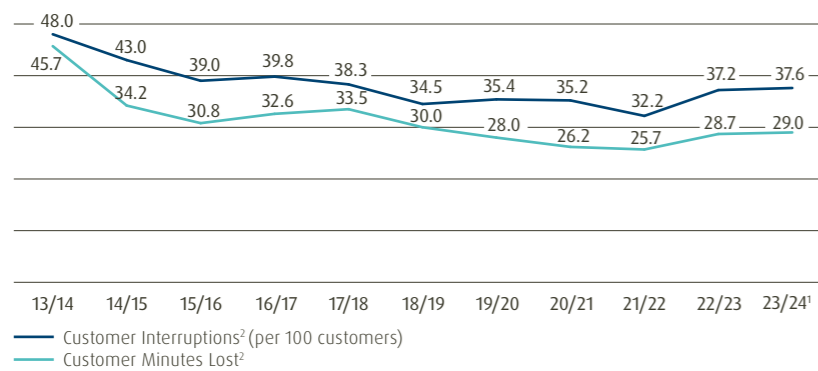
A safety-conscious workforce protects everyone: employees, customers and the general public. Contractors are a vital factor in how we deliver a safe service, so the better our contractors understand and follow our safety culture, the better – and safer – service they can provide.

- Continued the rollout of our external trailer safety stickers for Look Up and Look Out, with the NFU/RHA (Road Haulage Association) and British Sugar.
- Extended collaboration with the RHA.
- Over 54,000 safety-related resources provided to third parties, including to specific trade associations identified as high-risk.
- Attended and delivered key safety messaging at 42 external events focused on SME builders/trades, streetworks practitioners, the agricultural community, and the construction industry.
- Line Search Before You Dig (LSBUD) working party collaboration continues. Safety information is provided to all customers requesting UK Power Networks plans

Network reliability

With the growth in low-carbon technologies powered by electricity, our customers are ever-more reliant on a reliable power supply. We are working tirelessly to deliver that.

Our performance highlights



1 2023/24 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.

37.6 CIs

Our power cut performance has improved by 43% since 2010/11 when our CIs were at 66.1, which means customers now see an interruption on average once every 32 months, compared to an average of once every 18 months in 2010/11.

29.0 CMLs

A customer connected to our network will be off supply on average for less than half an hour per year. This is a 55% improvement over 2010/11, when the average duration was 64 minutes.



At UK Power Networks we pride ourselves on the reliability of our networks. Keeping the lights on is a key priority, whatever the weather or nature throws at us.

Most of our customers had an excellent service from us in 2023/24, but the power supply for a small number of people in our area of operations fell below our usual standard. Some of the interruptions to our service were caused by a small number of large, unrelated events. Other power cuts were caused by equipment malfunctioning. We are taking a careful look at our network and operational processes to find out why these events happened, and why they had such an impact, and to do all we can to ensure our service is back to the excellent levels that we expect.

Our record shows us to be one of the most reliable DNO groups in the country, out-performing Ofgem performance targets by over 30% in the last regulatory period, R10-ED1. We are determined to continue to deserve our reputation for reliability in the current period, ED2. Our push for ever-greater reliability continues to focus on two main fronts: finding new ways to prevent faults rather than waiting for them to need to be repaired, and making greater use of remote control to restore customers' supplies more quickly and efficiently.

Automating to improve network reliability

Automation of the network is a crucial element in how we ensure that it runs smoothly and, when there is an interruption, it helps us get up and running again quickly without the need for manual intervention. Our deployment of remote-control technology increased considerably this year, and this is set to continue. We have now fitted over 14,000 of our substations with this kit to restore the electricity network remotely. We have the ambitious target of installing remote control equipment in over 5,000 substations across our area of operation, for both our HV (High Voltage) and LV (Low Voltage) networks. This involves, for example, retro-fitting remote switches on some older HV switchgear, replacing some with newer remote controllable ones and installing LV reclosers.

We have about 3,000 sets of LV reclosers, which we routinely deploy across our LV network. These reclosers quickly restore the power supply after a transient LV fault and collect enough information about the fault to enable us carry out repairs.

The next step in our proactive repair strategy is to introduce LV fault monitors. Whereas we use the LV reclosers to target specific LV circuits, we mostly use the LV fault monitors to keep a check on every LV cable coming out of the substation. The LV monitor records any disturbance it detects on the network and identifies where a fault is developing. That means we can find it and fix it before it becomes a problem for customers. The monitors also help us to keep any eye on network loads at any time. That means that when people are connecting low-carbon technology such as EVs and heat pumps, we have a better idea of how this is affecting the network, so we can be better prepared to handle the additional load. We made an important pledge to our customers that they won't see a reduction in the quality of their supply as a result of our Net Zero commitments. The project to install 5,000 LV monitors over the course of ED2 (up to 2028) is central to that promise.

In 2023/24, our LV reclosers were used 2,417 times, which means that we avoided 1.27 Customer Interruptions per 100 connected customers and 2.09 Customer Minutes Lost per connected customer.

Worst served customers

The focus of our programmes to continually improve the reliability of our network tends to be on reducing both the frequency and duration of power cuts for the majority of our customers. Nevertheless, we also want to address the position of the few and far between customers – fewer than 0.3% of them – who experience repeated power cuts. In the previous regulatory period (ED1), customers who had 12 high voltage faults in a three-year period, including a minimum of three faults in each year, were classed as Worst Served Customers according to Ofgem's definition. This criterion has now changed, with the minimum three faults in each year reducing to two.

This change means a 70% increase in the number of customers falling into the 'worst served' category. We have a programme of improvements to address these shortcomings, such as putting overhead lines underground. In the last year we have designed and delivered 40 such initiatives to support these poorly served customers, which is the approximate number we completed in the whole eight-year period of ED1.

Technical innovations supporting network resilience

Our innovations team is always striving to improve the reliability of our network, and 2023/24 has seen the introduction of a range of new technologies designed to make the network more resilient. These include satellite technology (see case study, right), robot dogs, and drones to spot faults on the line.

How we are...

delivering a reliable network

OUR INNOVATION STRATEGY



“The results of our trial using satellite technology have proved to be encouraging. We will be able to monitor tree growth and decaying trees much more accurately, this will enable us to manage the tree cutting programme much more effectively by being able to target those trees that are fast growing or in danger of falling over.”

Colin Barden
Head of Quality of Supply, UK Power Networks

SATELLITE TECHNOLOGY

In recent years, we have used laser technology to assess the growth of vegetation along our overhead power lines, so we know when it needs cutting back. Climate change has meant that trees and other vegetation grows more quickly than it used to and, in the last year, we have seen infestations of new pests such as the spruce bark beetle that can damage trees and leave them likely to fall. In 2023/24, we are looking to utilise satellite technology to do the same job. It is less carbon-intensive than using drones, and faster and more accurate in delivering the information to our tree-cutting teams.

What this means for our customers

Satellite technology's accuracy delivers great value compared to the existing LiDAR approach. The images can be analysed in a fraction of the time (two weeks compared to more than six months) and we can run spot checks after storms to assess damage. This type of data acquisition is much cheaper so we can do more of it and act on it more quickly. This means our vegetation management is altogether more cost-effective. We think we will save around £25m of customers' money over the next ten years.

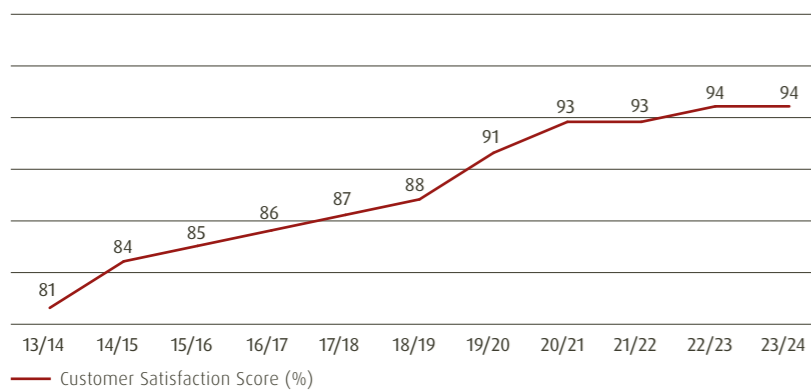
On this page you will see how we have performed against the following Sustainable Development Goals:



Customer satisfaction

Our culture focuses on understanding what our customers want and expect and providing service that meets those needs, tailoring it to their individual requirements whenever we can. This approach has earned us another year of increased customer satisfaction.

Our performance highlights



94%
Customer satisfaction score

Ranked No.1
Ofgem ranked us No.1 DNO for our Broad Measure of Customer Satisfaction score

While the safety of our employees and the public is always our number one priority, customer satisfaction has been a key strategic focus for UK Power Networks since its formation in 2010.

We have built a culture in which everyone who works for the company recognises the importance of doing what is right for our customers. Since those early days of UK Power Networks, we have improved our customer satisfaction ratings every year. This year, 2023/24, we once again achieved an industry-leading Broad Measure of Customer Satisfaction (BMoCS) score from Ofgem of 94%, up from 93.8% in the previous year.

We provide a safe, reliable, cost-effective power supply. As the economy reduces its reliance on fossil fuels and progresses towards Net Zero emissions, ever-greater pressure on the clean electricity network means we are continually upping our game. We have met the twin challenges of increasing customer service expectations and the inexorable rise in demand for renewable generation head on, increasing our customer satisfaction on an already high base. The culture we have built at UK Power Networks means our people are highly motivated to put themselves in the shoes of our customers and deliver better and better service every time.

A more granular approach

We are now one year into the new regulatory period, RIIO-ED2, which began in April 2023. This has heralded a more granular approach to measuring customer satisfaction; we now measure it in categories such as business customers, low-carbon technology customers and vulnerable customers. This gives us a far superior level of detail that supports our targeted approach to taking care of our customers. These insights mean that we have adapted some of the ways that we approach customer service, such as how to triage customer enquiries and which partners we work with to deliver that service. For example, we have changed the order in which things happen in the connections process. Having an engineer visit the property early in the process means we understand the customers' requirements better. This in turn means that the connection is much more likely to be right first time, particularly in the case of a complex installation.

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



Challenging assumptions to free up connections

Our commitment to excellent customer satisfaction applies throughout the business: in the field, at the corporate level and everything in between. We want to support customers in their wish to decarbonise their lives and we recognise that there are infrastructure challenges thwarting that ambition. The vast majority of projects that want to connect to our network can do so, and individual householders who want to connect clean energy technology like electric vehicle charge points and solar panels can continue to do so. Constraints on the national transmission network mean there is not always enough capacity to connect much larger projects in all areas. UK Power Networks is leading the industry in accelerating large-scale connections.

We are challenging established industry assumptions to free up capacity for renewables to connect. We are leading a UK-wide project called Technical Limits which is freeing up nearly 4 GW of capacity for new connections in our licence areas alone, cutting years off the waiting times for large renewable energy projects to connect.

Data driving our approach

Our business, along with many others, is hungry for more and better data. The insights from well-managed data are driving change at UK Power Networks. Our user-focused approach to data management has had a significant impact on operational success throughout the business. Our systematic improvements in data handling and analysis have contributed to that success. Rigorous data quality measures have helped instil deep trust in our data, so we can make informed decisions based on reliable insights.

In relation to how we serve customers, for instance, we now have same-day tracking of customer service performance.

This means we can see the detail of how we are performing at a granular level as well as being able to see trends mapped against the customer journey. This attention to detail means we can spot where there are problems in the process and act quickly to rectify them.

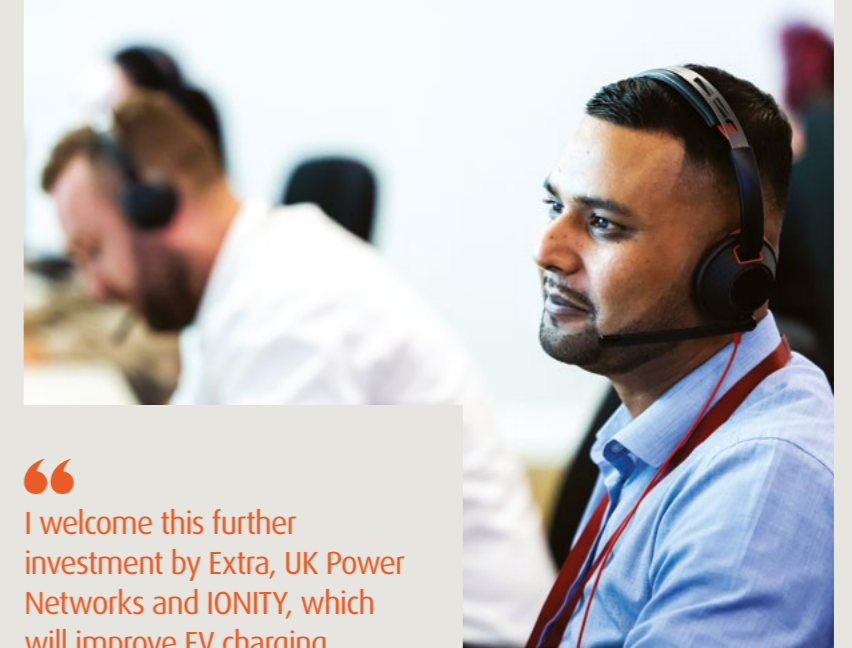
88%
customer satisfaction score for connections

5-star
Trustpilot rating based on 6,000+ reviews

How we are...

keeping our customers satisfied

OUR INNOVATION STRATEGY



“ I welcome this further investment by Extra, UK Power Networks and IONITY, which will improve EV charging provision on England’s motorway network. This will not only support EV drivers on UK roads, but also help the Government’s drive towards a greener motor industry.”

Anthony Browne
Former Decarbonisation Minister

INFRASTRUCTURE FOR 12 NEW ULTRA-RAPID CHARGE POINTS

UK Power Networks has delivered new electricity infrastructure to power 12 new IONITY ultra-rapid charge points between J9 and J10 of the M25 at Extra Motorway Service Area’s (MSA) Cobham Services to support EV uptake, reduce carbon emissions and improve local air quality. As part of our Green Recovery programme, power upgrades are progressing at several motorway service stations to connect more electric vehicle chargers. At Cobham, UK Power Networks has installed 5 km of new 33,000-volt cabling and new equipment at a substation in Effingham.

What this means for our customers

This investment in power infrastructure for the motorway network at Cobham Services will enable more drivers to make the switch to EVs, improve air quality and reduce carbon emissions. It will also promote jobs and economic growth.

92%
customer satisfaction score for low-carbon technology customers

87%
of complaints resolved within one day

Value for money

Two central elements of our vision are to be a respected and trusted corporate citizen and to be sustainably cost efficient.

Our performance highlights

Annual domestic charges 2023-24

Domestic unrestricted customers based on a typical annual consumption value of 2,700 kWh.

22% lower

annual domestic charges than the industry average

£88.22

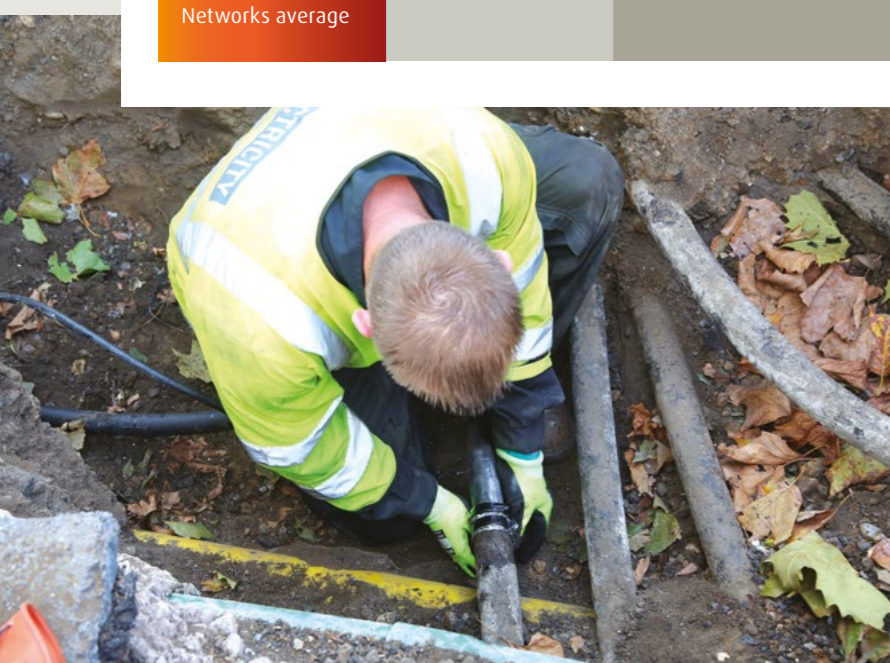
UK Power Networks average

£107.93

Industry average

£137.95

Most expensive DNO group average



Providing value for money for our customers is a fundamental responsibility that we take with the utmost seriousness, particularly in these times of financial pressure caused by the cost-of-living crisis. Many of the innovations we have introduced in 2023/24 are designed with value for our customers' money in mind.

Customer videos speed up LCT connections

As people want to connect equipment such as EVs and heat pumps in ever-greater numbers, more of them are coming directly to us rather than going through installers. The Fuse Upgrade that is required is complicated and requires information customers don't have and uses technical language many won't understand. This can lead to them submitting incorrect information which makes the process longer and more complicated for the customer.

Building on work we've already done to make the process easier for installers, we can now use video surveys that customers complete at their own convenience. These allow our staff to identify what work is required, without the need for complex, technical questions. For example, an external view of the customer's home tells us if their supply is fed through overground or underground cables, and this is not necessarily apparent to customers. The information we gather allows us to assign the correct engineer for the job quickly and increases the proportion of work that is delivered right first time. This speeds the process up considerably, reducing customer frustration and saving both time and money.

During 2023/24, we supported 300 customers through video calls and in 100 cases, the video calls told us that the faults were internal; without those calls we would have sent an engineer to investigate, so we saved 100 unnecessary engineer visits.

We are building on the success of this project, and are now looking to roll this solution out to other areas of the business to make better use of our resources, thereby reducing our operating costs thanks to fewer aborted connections engineer visits.

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



Automated Tunnel Data Capture

In 2023/24, we started using a robot (see page 35) to carry out tunnel and shaft inspections. The robot can work tirelessly and accurately, with none of the safety risks involved in sending a person into these confined spaces. It works more quickly and, thanks to AI, detects anomalies and defects that are not obvious to the naked, human eye, so we fix the problems sooner. This project was funded by UK Power Networks, and the savings that it will make on behalf of customers are significant.

Flex provides saving on reinforcement costs

We consistently market test all future network needs to identify the lowest cost option to deliver capacity. This year we market tested £470m of network investment across 450 sites through our twice-yearly flexibility tenders and delivered £91m benefits to customers by using flexibility to defer distribution network investment. The independent DSO Supervisory Board (see case study, right) challenged us to ensure our network investment levels remain sustainable to meet future demand, while keeping costs low for consumers. We are on track to deliver our business plan commitment of a £410m reduction in network reinforcement spend during RIIO-ED2. 100% of these savings flow to bill-payers rather than shareholders. The savings this year will result in customer bills being lower than they would otherwise have been.

£1.3m worth of free electricity for 24,000 households

We worked with Octopus Energy to launch an offer that allows customers with a smart meter to use spare green electricity at no cost (see page 41). 24,000 customers enrolled for this in 2023/24, with 77% taking part at each event. The offer makes use of the excess green electricity that is generated when it is sunny or windy. This is another example of us finding ways to provide value for our customers.

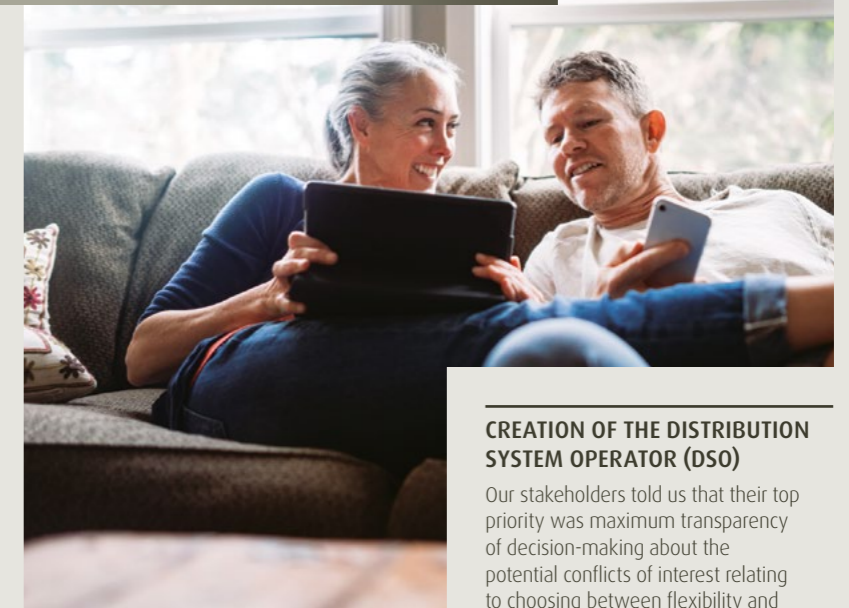
We ran sessions with Octopus Energy, to share our learnings with other DSOs, to support the service to scale up, so that more customers across Great Britain can take part. We are pleased to see National Grid Electricity Distribution (NGED) committing to introduce demand turn-up from 2025. Building on the success of our work with Octopus, we engaged with other energy suppliers with significant customer bases to understand their appetite to provide flexibility and identify any barriers we could help address. This resulted in us awarding contracts to British Gas and OVO which, together with Octopus, supply energy to more than 50% of domestic customers in the UK.

Find out more: See our DSO strategy document →

How we are...

looking after the interests of our customers

OUR INNOVATION STRATEGY



CREATION OF THE DISTRIBUTION SYSTEM OPERATOR (DSO)

Our stakeholders told us that their top priority was maximum transparency of decision-making about the potential conflicts of interest relating to choosing between flexibility and network investment. To ensure that we are providing value for money for our customers, we opted to form a Distribution System Operator (DSO) that is legally separate from the UK Power Networks Distribution Network Operator (DNO). We now have the world's first legally separate DSO, overseen by an independent Supervisory Board that approves investment decisions, ensuring we deliver capacity at the lowest overall cost to consumers.

The DSO Supervisory Board challenges and approves the recommendations made by the Distribution Network Options Assessment process, through which we identify needs for additional capacity on the network and evaluate flexibility and network solutions on a level playing field.

“UK Power Networks' full legal unbundling of the DSO and the appointment of an independent Supervisory Board is a radical shift that moves our focus towards the needs of customers and away from the way DNOs have always done things.”

Michael Walsh
Chair UK Power Networks DSO Supervisory Board

What this means for our customers

The DSO panel reviewed £470m of additional potential investments in detail. We challenged the DSO to maximise flexibility, unlocking the potential for an additional £81m of customer savings during RIIO-ED2, while ensuring that this does not build a problem for the future.

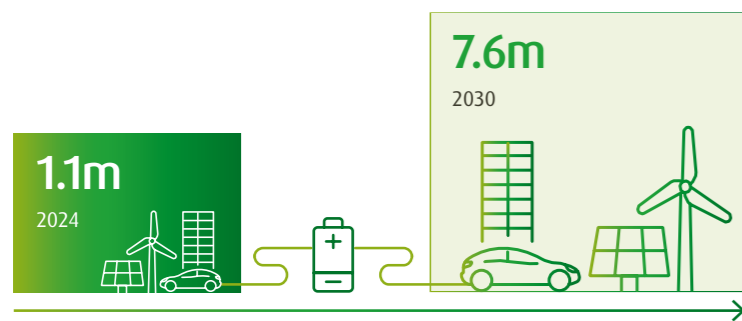
Innovation and the path to Net Zero

We never forget that we have a responsibility to provide value for money for our customers. This principle underpins every decision we make in the business. It is the reason, for example, that we structured our Distribution System Operator (DSO) in a way that has the best interests of our customers at heart.

Our performance highlights

Low-carbon technologies predicted growth

By 2030, 7.6m LCT¹ are expected to be connected to our network.



¹ LCT includes EVs, heat pumps, district heating connections and homes with solar panels.



Innovation is vital for the future of our network. It helps us keep at the forefront of developments in our field, keep costs down for customers, and helps ensure we are ready to facilitate a fair transition to a low-carbon economy.

Many innovative projects we work on are technical engineering solutions that both enhance and inform the way we manage our network. These may include digitising traditionally analogue systems to give network operators greater visibility of our network, or helping more green technologies to connect on our journey to Net Zero. Some of our innovations are rooted in our approach to data collection and management, others relate to the way we manage our customer service or our relationships with partners of all kinds.

This regulatory year we became the first ever network operator in the UK to establish a legally-independent Distribution System Operator, which further underlined our bold approach to innovation. Led by a director, the DSO is scrutinised by an independent Supervisory Board that is tasked with ensuring our investments provide value for customers.

Our approach to planning the future of our network is to put flexibility first. In other words, we look for ways to get the most from our network before building new infrastructure. That helps to ensure that when we do build new infrastructure it's the right capacity in the right place at the right time.

Ambitious and groundbreaking innovations

The ambition of Net Zero continues to drive our innovations and is a recurring theme in the many advances we saw in 2023/24.

Day-ahead flexibility

In March 2024, we were the first network to offer a day-ahead flexibility product at a distribution level. Daily mini tenders are held to secure services for the next day, in addition to the traditional twice-yearly flexibility tenders. These mini-tenders enable flexibility providers to give a more accurate picture of their availability, creating new business opportunities and allowing them to coordinate their services in other areas, such as wholesale markets and ancillary services. This new product helps flexibility providers manage supply and demand peaks more effectively, by allowing them to commit to changes in their operations one day in advance.

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



Powercast – putting EV drivers in charge

We are always looking for ways to encourage EV driving. In March 2024, we helped ev.energy launch an innovative feature on their charging app, helping EV owners stay charged in the event of a planned power cut. The app provides alerts to EV drivers about both planned and unplanned power cuts, so people can plan ahead and charge their cars before the outage starts.

Known as 'Powercast', the free feature works by linking ev.energy's system with UK Power Networks' live power cut data, which shares real-time information. ev.energy passes the key facts on to the driver and provides advice on alternative charging methods so they can make an informed decision of what to do.

Neat Heat: Trial opens the door to low-carbon heating

Decarbonising heating is a vital part of the path to Net Zero and in 2022 we launched a trial to test how we can move heat demand away from peak electricity hours. By installing suitable zero-emission, smart heating systems in homes which might have trouble installing traditional heat pumps, and by taking advantage of an innovative 'type-of-use' tariff developed by OVO, we proved the ability to shift electricity demand for heating outside peak hours by over 90%. The groundbreaking Neat Heat project could enable millions of small households to cut their carbon emissions significantly.

During the trial, the Zero Emission Boiler® (ZEB) 'charged' when electricity was cheaper or greener based on OVO's price signals. With a high-density storage core, the ZEB makes the most of off-peak tariffs to charge up overnight or during the day, efficiently storing this energy and releasing it when the thermostat calls for heat or hot water.

Support for Local Authorities planning for Net Zero

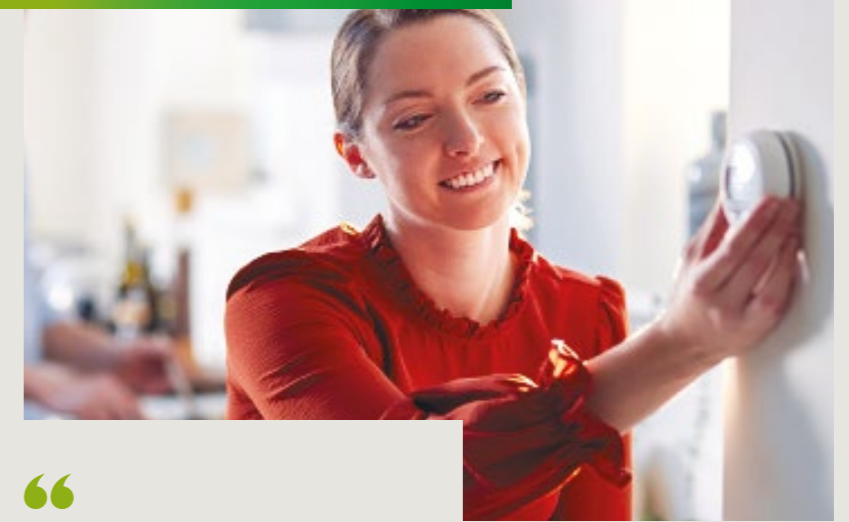
Around 100 of the 133 Local Authorities (LAs) in the UK Power Networks region have declared a climate emergency, and over 300 across the UK have done the same. LAs need help to produce and deploy an effective Local Area Energy Plan (LAEP) and UK Power Networks has developed an innovative approach to do that.

We have built a web-based geospatial tool, called 'Your Local Net Zero Hub' that enables Local Energy Planners to use extensive, sophisticated data sets to analyse and design ways to decarbonise their area and produce effective LAEPs that will help plan energy use for decades to come.

How we are...

Putting Net Zero within everyone's reach

OUR INNOVATION STRATEGY



“Power-ups are good for the grid and good for the planet – a win for everyone. This is yet another arrow in the quiver of 'demand flexibility' and it's great to work with an innovator like UK Power Networks.”

Alex Schoch
Head of Flexibility at Octopus Energy Group

POWER-UPS – GREEN POWER FOR FREE

Working with Octopus Energy, we launched an innovative offer for customers with a smart meter to use spare green electricity at no cost. The service reduces the excess generation that can occur when the wind is blowing and the sun is shining. Until now it would have been wasted. Customers are alerted by email, usually the day before, and they need to opt in for each Power-up session, which typically lasts for an hour or two. For that period, they can use as much electricity as they like at no cost, to charge EVs, run the dishwasher or whatever they want.

Spotlight

Not all our innovation is designed to cut carbon emissions directly. We also put our creative minds to addressing vulnerability and the inequalities that can trigger. The Spotlight project uses data modelling and machine learning to identify customers who may need more support with greater accuracy. It pulls together a huge range of data sources into a useable, comprehensive resource which allows us to understand our vulnerable customers with a degree of granularity that we have not seen before. The information it provides means we can shape our services and communicate with customers in ways that we know will be relevant for the needs we have identified. See page 28 for more detail.

What this means for our customers

During Power-up sessions, customers can use as much electricity as they want and it will all be free. It's a perfect time to do the hoovering, run your heat pump or immersion heater, run the dishwasher or washing machine, make dinner, you name it. This initiative increased opportunities for domestic customers to benefit from taking part in flexibility services. 24,000 households taking part in Octopus's Power-ups received over £1.3m worth of free electricity.

An open and transparent business

As the sole provider of an essential service, UK Power Networks is committed to transparency and welcomes scrutiny from all interested parties.

We encourage stakeholders, especially our customers, to examine every aspect of our operations. Our performance data on safety, reliability, customer satisfaction, financial health, and environmental impact are openly accessible. After publishing our Open Data strategy last year, in 2023/24 we have continued to be open with our data, to foster a competitive energy market and support decarbonisation efforts.

We want to make it as easy as possible for stakeholders to access and understand our performance metrics. This Annual Review exemplifies our commitment, alongside other reports such as our RIIO-ED2 Business Plan, our DSO Performance Panel Report and the Annual Vulnerability Report.

Incentivising our employees

At UK Power Networks, we incentivise our employees to perform in alignment with our business vision. Our Company Incentive Plan rewards achievements in safety, network reliability, customer service, and cost efficiency, ensuring that all employees work towards shared goals agreed upon with stakeholders. Since our inception in 2010, our mission has remained constant: to deliver what our customers need at the lowest possible cost. We have made substantial strides in improving safety, network reliability, and customer service, while maintaining our position as the lowest cost Distribution Network Operator (DNO) in Great Britain.

Financial incentives are linked to exceeding Ofgem's targets for reliability and customer service, and we are penalised for underperformance. Our performance data are validated by independent assessors before we submit them to Ofgem. This means we are both transparent and accountable. In the regulatory year 2023/24, we earned £18 million from these Ofgem incentive schemes.

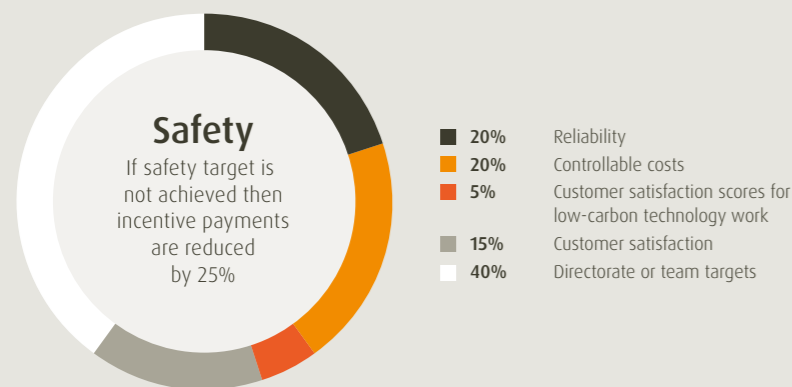


90%
of UK Power Networks employees are covered by Trade Union Collective Agreements

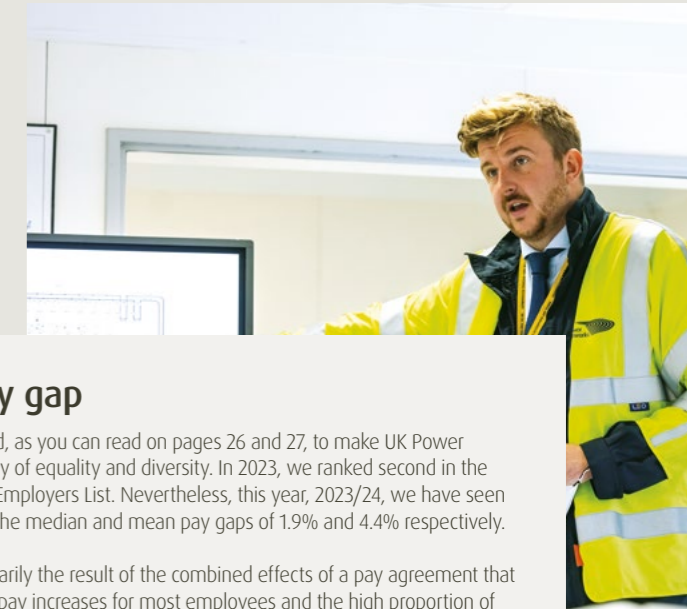
£18m
In 2023/24, the first year of RIIO-ED2, we earned £18 million from Ofgem incentive schemes

Main Company Incentive Plan for all employees

Linking performance with delivery for customers

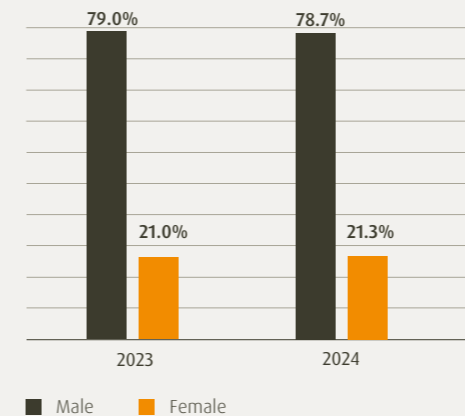


Gender equality is a subject of particular importance in an engineering-based company such as ours. The inherent justice of gender equality is fully aligned with our vision and values, and we are committed to building a more balanced workforce, which is a better workforce.



Gender mix

Gender diversity remains a challenge in our industry, which historically has been male dominated. We are actively working to address this imbalance through educational initiatives that challenge stereotypes and encourage greater participation of women and girls in STEM subjects.

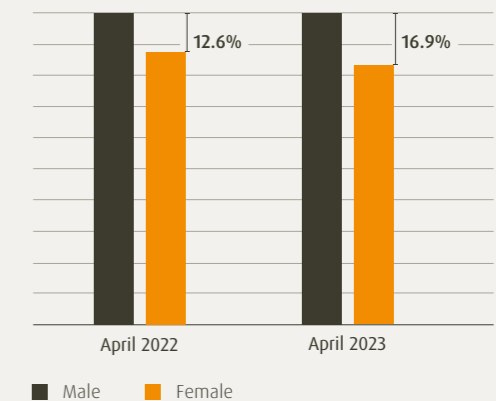


Gender pay gap

We are working hard, as you can read on pages 26 and 27, to make UK Power Networks a company of equality and diversity. In 2023, we ranked second in the Inclusive Top 50 UK Employers List. Nevertheless, this year, 2023/24, we have seen an increase in both the median and mean pay gaps of 1.9% and 4.4% respectively.

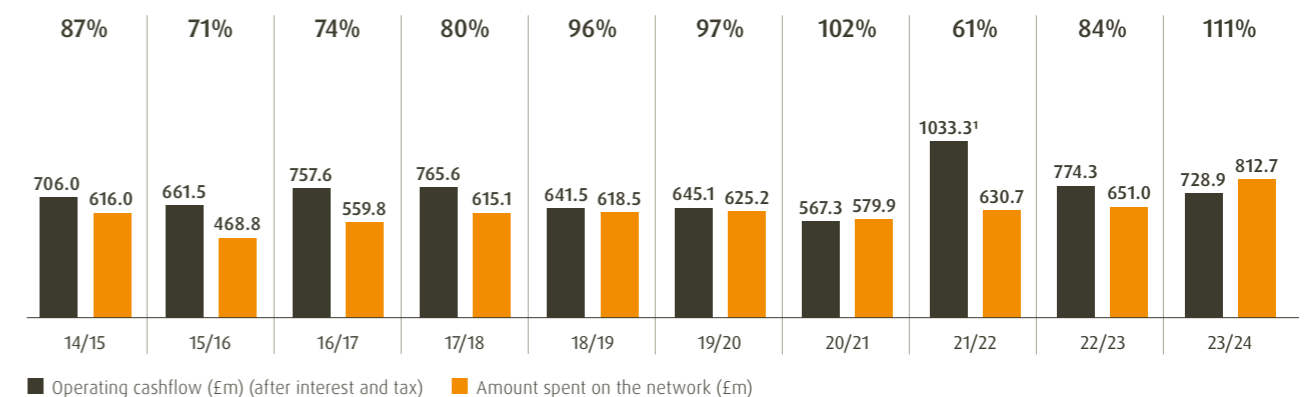
These rises are primarily the result of the combined effects of a pay agreement that provided significant pay increases for most employees and the high proportion of male employees in the higher-paid categories.

We continue to work to close this gap, through a far-reaching Diversity and Inclusion programme. We have a Women in Leadership mentoring programme and, in 2023, we launched the Female Engineers Development Group.



Investment in the network

Long-term investment in new and existing assets is not taken into account in annual profit margins. In our view, it is a more helpful measure to compare how a business is investing the cash it generates. Over the past 10 years, we have reinvested an average of 85% of our operational cash flow into our assets, benefiting the 19 million people connected to our networks.



¹ The operating cashflow after interest and tax in 2021/22 is high due to an exceptional amount of £174m settled on intercompany loans during 2021/22.

Embedding resilience throughout

Resilience is a strategic imperative for us at UK Power Networks. It exemplifies our ability to anticipate and adapt to challenges, sudden or gradual, and absorb the shocks that they inflict.

Organisational resilience depends on a deep-seated culture that permeates an organisation. It cannot be attached or acquired; the only way to achieve it is to embrace it wholeheartedly and make sure everyone in the organisation understands it and takes responsibility for their part in it. Resilience builds over time, with experience, practice and commitment. At UK Power Networks we have been building this culture over many years and it is an important element of our way of working.

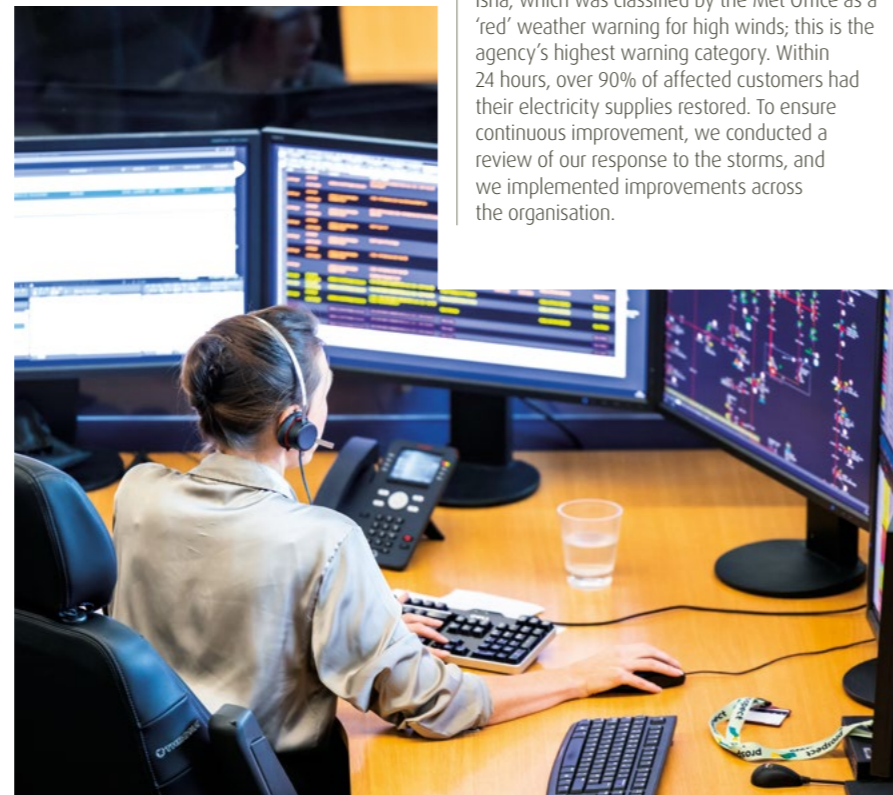
We were not subject to any events in 2023/24 that tested our readiness to withstand a crisis. That does not mean, however, that we did not continue to scan the horizon ceaselessly; if anything, it gave us the opportunity to refocus and deepen awareness throughout the business. We have a programme of communication and awareness-raising that reaches all levels of the business.

Revised British Standards Institution (BSI) guidance

We align our organisational resilience with the BSI guidance (BS 65000). In 2023/24, this was revised to view resilience in more breadth, placing emphasis on the dependencies and interrelations of functions. It further suggests that an organisation's strategy, business model and risk management are fundamental to building and maintaining organisational resilience. This fresh approach chimes with our own and we are matching our activities with this new Code of Practice.

A resilience dashboard

We are beginning to be more explicit in how we measure our organisational resilience, as we recognise that what we choose to measure is what gets done. We are developing a dashboard that helps our leadership team track factors of resilience and issues relating to them and to identify areas where we should concentrate our efforts to reinforce our position.



Introducing the principle of the pre-mortem

In 2024, we started to encourage the use of pre-mortems more widely in resilience planning. A pre-mortem involves identifying a potential crisis that we could face as a business and defining it in as much detail as possible. Working backwards, we proceed to determine the steps and decisions that could have led to the event and our imagined failure to manage it. This technique is a valuable way of discussing the threats that face us and analysing them systematically. It also allows us to identify what actions we might take to prevent the circumstances arising.

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



Response to extreme weather

As a DNO it is a fundamental aspect of our role to be able to operate in spite of extreme weather. Traditionally, this has referred to storms but, increasingly our preparation includes measures to deal with extreme heat.

We prepare our plans meticulously in anticipation of every major event and we hold reviews afterwards to ensure we learn the lessons they teach us and make the relevant improvements. This aspect of our resilience planning proved to be crucial during the extreme weather conditions experienced throughout 2023 and the beginning of 2024. A series of named storms, which caused nationwide disruption, stress-tested every element of UK Power Networks' severe weather response plans. Particularly noteworthy was Storm Isha, which was classified by the Met Office as a 'red' weather warning for high winds; this is the agency's highest warning category. Within 24 hours, over 90% of affected customers had their electricity supplies restored. To ensure continuous improvement, we conducted a review of our response to the storms, and we implemented improvements across the organisation.

PREPARATION FOR AND OPERATION OF THE CORONATION

Although we did not have any significant crisis occur over the past few months, we were not without the need for resilience. On 6 May 2023 the Coronation of His Majesty the King and Her Majesty the Queen Consort took place at Westminster Abbey in London. A once-in-a-lifetime event for many, the Coronation was watched by tens of millions worldwide. This meant that our network and the underpinning systems had to be reliable and resilient to ensure both a seamless delivery of the event itself, and the ability to broadcast around the world. Months of preparation, collaboration and hard work paid off, and the Coronation ran smoothly, without a glitch.



Resilience in Design

Outside influences are highly valuable in resilience planning. There is always something to learn from others. To that end, along with our colleagues in our commercial arm, UK Power Networks Services, we have joined a collaborative forum called Resilience in Design. This brings together, on a 'Chatham House' basis, practitioners from a wide range of industries with the aim of sharing, discussing and learning from each other about current issues, challenges and practical approaches in relation to achieving a truly resilient organisation.



Safe, reliable and sustainable power networks

UK Power Networks Services is the commercial arm of UK Power Networks that manages private energy networks and delivers major national power infrastructure projects for customers on a competitive, commercial basis.

Relationships that are built to last

In 2023/24, we were delighted to recognise the longevity of several major projects that we – and our predecessor companies – have worked on for twenty and thirty years. We aim for a partnership in our business relationships, so it is rewarding to be able to celebrate these long-standing associations. For the past 30 years we have owned, operated and maintained the critical power networks that have kept three major airports – Heathrow, Gatwick and Stansted – running smoothly. We have built on these projects and are also working with the airports to reduce carbon emissions and mitigate the environmental impact of increasing air travel.

We also marked the twentieth anniversary of our relationship with HS1, the UK’s only high-speed railway. The partnership goes well beyond this; our company designed, built and commissioned the network that has transported over 100 million passengers since it opened in 2003. We continue to work with HS1 to help it drive forward its green Net Zero agenda. For example, in 2023/24, we supported the line in its introduction of regenerative braking, which allows the energy released when a train brakes to be picked up and used by other trains on the line.

We continue to bring our expertise to bear in the field of transport, with new projects in 2023/24 with the Docklands Light Railway and London Trams.

Zero LTIs

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

Focus on renewables

Much of our focus in 2023/24 was on helping our clients make progress towards their sustainability objectives. For Yorkshire Water, UK Power Networks Services is building one of the largest EV charging installations in the UK as the water utility works towards a fleet of electric vehicles in line with its Net Zero ambitions. The scheme brings together all aspects of EV charging, including installation, operation, maintenance and management of the infrastructure. We are also helping our sister company, UK Power Networks, to reduce its carbon footprint by introducing EVs to its fleet of company vehicles (see page 23). UK Power Networks Services has also been appointed to develop a primary EV Strategy to support Southern Water to transition its fleet vehicles to electric and low-carbon alternatives.



Our trailblazing partnership with resource management company Veolia continues, supporting Yeovil District Hospital to decarbonise, and helping Veolia to introduce electric refuse collection vehicles across Westminster City Council. For this latter project, we have introduced 21 charge points to support 40 electric vehicles. Refuse collection vehicles in London are prime candidates for electrification as they operate within Central London’s Ultra Low Emissions Zone; and it is the nature of their use to stop and start frequently in residential areas. Electrification not only reduces emissions and improves air quality, it also makes the vehicles much quieter.

How we are...

building relationships that last

OUR INNOVATION STRATEGY



“I want to say a huge thank you to everyone involved in making it happen. It is a real example of using innovative technologies to move us towards a cleaner and more sustainable future.”

Councillor Glen Sanderson
Council Leader and Cabinet Member for Climate Change

CLEAN ENERGY FOR NORTHUMBERLAND COUNTY COUNCIL

In 2023/24, UK Power Networks Services delivered a pivotal project for Northumberland County Council to install solar infrastructure in one of the largest solar car port installations in the UK.

It features 800kW solar panels and provides weather protection for electric vehicles. Additionally, there is a 400kW battery energy storage system with smart controls to optimise energy use, carbon emissions and costs.

Energy from the solar panels is used to power the main building and provide electricity to EV charge points for fleet and staff vehicles.

120 EV charge points were installed in the staff car park, including 100 fast chargers and 20 rapid chargers.

What this means for our customers

This project will provide clean energy for the Council’s headquarters and is expected to save between £100,000 and £150,000 on energy costs each year, as well as saving over 250 tonnes of carbon emissions.

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 good 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	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24 ²
Turnover	608.7	607.4	636.1	642.6	625.4	652.1	670.0	715.1	863.1	710.2
EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation)	411.6	416.8	449.3	448.0	447.3	468.2	470.6	503.6	545.3	444.9
Tax paid/(credit)	30.4	28.9	21.4	46.8	38.7	75.6	37.1	92.3	87.6	56.1
Profit after tax	115.3	178.8	128.4	185.3	162.3	207.1	164.0	52.0	304.3	127.8
Operating cashflow post capex, interest and tax	16.2	19.3	59.5	60.2	23.0	7.3	(80.5)	212.3	39.1	(40.7)
Capital expenditure	288.1	182.9	234.9	249.2	255.5	265.2	251.1	267.0	278.5	359.9
Net debt ¹	1,588.5	1,593.5	1,629.8	1,706.2	1,804.3	1,880.0	1,868.7	1,933.0	1,992.1	2,204.6
Regulated asset value (RAV) ²	2,413.5	2,436.1	2,540.5	2,630.4	2,705.4	2,773.5	2,855.6	3,170.0	3,578.1	3,753.3
Net debt to RAV	66%	65%	64%	65%	67%	68%	65%	61%	56%	59%
Incentive earned	29.8	26.2	26.6	23.1	30.3	32.3	33.3	36.1	35.2	6.4

London Power Networks plc, serving Inner London

£m	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24 ²
Turnover	497.0	462.0	502.3	501.5	491.9	517.4	519.3	523.6	624.0	485.4
EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation)	356.2	317.7	347.4	367.4	361.5	389.4	392.0	385.8	421.7	314.6
Tax paid/(credit)	51.2	23.6	31.8	46.1	50.4	66.2	45.3	101.5	50.2	43.0
Profit after tax	193.6	161.0	167.4	183.6	165.9	178.6	195.7	106.0	188.4	90.6
Operating cashflow post capex, interest and tax	49.6	127.5	65.1	48.6	9.0	6.9	27.6	138.4	113.3	(11.1)
Capital expenditure	186.6	138.3	155.7	186.9	174.8	178.3	173.3	189.4	175.9	209.0
Net debt ¹	989.1	967.9	1,046.6	1,067.9	1,098.1	1,155.7	1,184.3	1,214.4	1,225.3	1,365.6
Regulated asset value (RAV) ²	1,484.7	1,509.7	1,581.7	1,648.2	1,700.0	1,746.3	1,792.9	2,000.5	2,218.7	2,330.3
Net debt to RAV	67%	64%	66%	65%	65%	66%	66%	61%	55%	59%
Incentive earned	13.4	16.6	17.6	19.4	20.5	21.0	21.8	23.3	24.3	9.3

South Eastern Power Networks plc, serving South London, Kent, East Sussex and parts of Surrey and West Sussex

£m	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24 ²
Turnover	404.8	388.7	449.0	421.3	405.2	427.5	455.5	493.3	581.6	479.5
EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation)	298.6	279.0	330.1	305.2	293.8	315.0	333.3	353.2	367.3	311.0
Tax paid/(credit)	39.4	20.3	33.4	35.9	34.1	50.7	37.1	92.4	43.3	44.5
Profit after tax	151.6	126.9	173.6	139.8	126.2	127.9	157.3	112.1	168.6	118.9
Operating cashflow post capex, interest and tax	24.2	45.9	73.2	41.7	(9.0)	5.7	40.3	51.9	(29.1)	(32.0)
Capital expenditure	154.6	114.6	152.7	160.3	174.9	166.7	151.7	167.5	195.5	224.4
Net debt ¹	1,023.6	980.9	1,025.1	1,095.5	1,146.5	1,225.5	1,218.0	1,240.8	1,334.1	1,434.8
Regulated asset value (RAV) ²	1,514.1	1,541.8	1,630.2	1,703.2	1,762.8	1,814.5	1,862.3	2,061.4	2,330.1	2,436.1
Net debt to RAV	68%	64%	63%	64%	65%	68%	65%	60%	57%	59%
Incentive earned	23.3	15.7	16.0	14.2	15.2	17.6	18.1	20.5	9.0	2.2

¹ Net debt is defined within certain of the company's covenant arrangements.

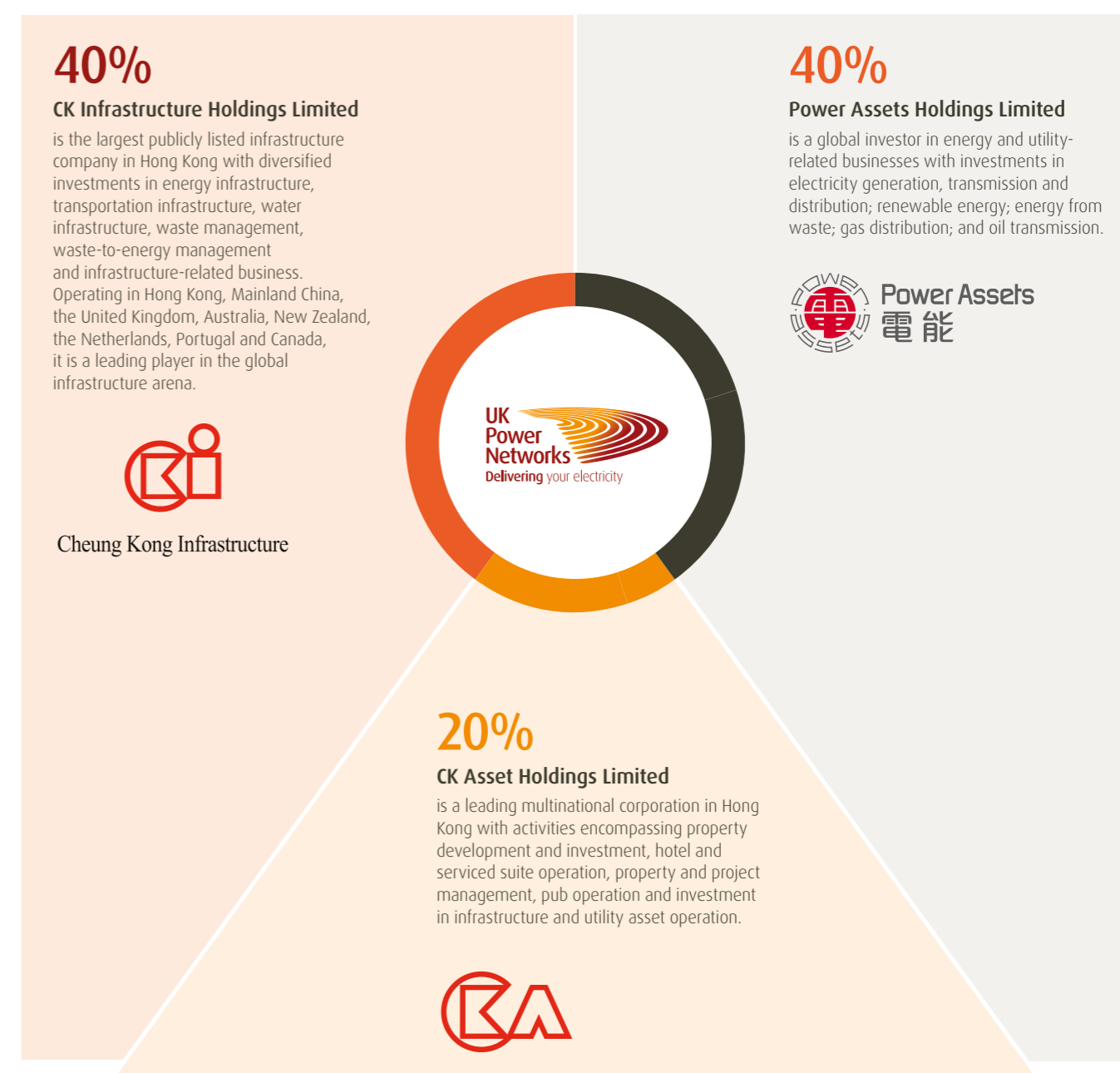
² 2023/24 RAV presented is provisional at the date the accounts are signed. Discussion with Ofgem may result in RAV being increased or decreased. The prior year comparatives have been restated to reflect the latest agreed position.

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



Strategic direction and governance

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.



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

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



Neil McGee
Director – UK Power Networks Holdings Limited and certain of UK Power Networks’ wholly owned subsidiaries

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



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 and 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.



Dr Edmond Ho
Director – UK Power Networks Holdings Limited and certain of UK Power Networks’ wholly owned subsidiaries

Dr Ho joined the UK Power Networks Board of Directors in 2022. As a Director of Hutchison Property Group, he oversees all property development and investment portfolios in the UK. He has delivered numerous prestigious, large-scale, mixed-use developments in London. He holds Bachelor’s, Master’s and Doctor’s degrees in Science in Engineering and has substantial property development, property management and construction experience in the UK.



Angus Ng
Director – UK Power Networks Holdings Limited

Mr Ng joined the UK Power Networks Board of Directors in 2024 and is the Group Financial Controller for International Business of CK Infrastructure Holdings Limited. He has over 25 years of experience in accounting and financial management.

He holds the Chartered Financial Analyst (CFA) designation and a degree in Accountancy and is a member of the Hong Kong Institute of Certified Public Accountants.



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).



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.



Ka Man Jenny Yu
Director – UK Power Networks Holdings Limited and certain of UK Power Networks’ wholly owned subsidiaries

Ms Yu has worked for the Power Assets Group since 2016. She is a Senior Manager (International Business) of Power Assets Holdings Limited. She has over 20 years of experience in the energy industry with international business exposure.

She holds a Master of Business Administration degree. She is a fellow of the Association of Chartered Certified Accountants, a member of the Hong Kong Institute of Certified Public Accountants and a member of the Hong Kong Institute of Directors. She is also a Certified Environmental, Social and Governance Analyst of the European Federation of Financial Analysts Societies.



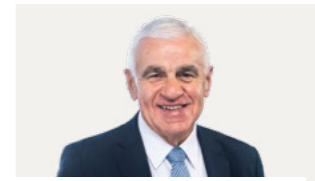
Duncan Macrae
Director – UK Power Networks Holdings Limited and certain of UK Power Networks’ wholly owned subsidiaries

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.



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.



Man Ka Keung Simon
Director – UK Power Networks Holdings Limited and certain of UK Power Networks’ wholly owned subsidiaries

Mr Man joined CKG in December 1987 and is an Executive Committee Member and General Manager in the Accounts Department of CK Asset Holdings Limited. He is an Alternate Director to Mr Tak Chuen Edmond Ip as well as holding the posts of Deputy Chairman and Executive Director of CK Infrastructure Holdings Limited. In addition, he is a board member of the Community Chest of Hong Kong. Mr Man has over 41 years of experience in accounting, auditing, tax and finance. He holds a Bachelor’s degree in Economics and is a member of Chartered Accountants Australia and New Zealand.

Strong, experienced leadership



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 East and South 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.



Kieran Coughlan
Director of Capital Programme

Kieran is responsible for UK Power Networks' Capital Programme directorate. He joined UK Power Networks in 2017 and was previously head of engineering and safety at the Energy Networks Association. He has held engineering, delivery, regulation and commercial roles in the energy sector in the UK, Ireland and Australia. He is a Chartered Electrical Engineer with the IET and Engineers Ireland and holds an honours degree in Electrical Engineering from University College Cork.



Suleman Alli
Director of Finance, Customer Service and Technology

Suleman joined UK Power Networks in May 2015 as Director of Strategy and Regulation. His responsibilities now also include Finance, Customer Service, Technology and Data which are core to UK Power Network's business strategy.

Previously Suleman was a Managing Director at Accenture, leading the utility network operations practice in the UK. Suleman has over 20 years' utilities experience, delivering business transformation, company restructures and operational performance improvement across the gas, electricity and water sectors. He holds a BSc (Hons) from the London School of Economics and Political Science.



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.



David Mitchell
Director of UK Power Networks Services

David leads UK Power Networks Services. He is a chartered electrical engineer who joined the organisation in 1980 as an apprentice, achieving a degree in Electrical Engineering at Southampton University and an MBA at Brighton University. He has held several senior posts within the company, most recently as Head of Client Delivery overseeing long-term airport and military contracts as well as delivering major infrastructure projects.



Andrew Pace
Director of HR, Legal, Risk and Assurance, 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. He holds an MBA from Nottingham Trent Business School and is a Chartered member of the Institute of Personnel and Development.



Roger Waring
Director of Commercial Services and Technical Training

Roger joined UK Power Networks in February 2014 as Head of Operational Procurement and has progressed through several responsibilities since then. He has over 20 years' experience operating in diverse commercial environments. His current focus is on delivering substantial and sustainable efficiencies and performance improvements across the business.

Roger has a B. Eng Hons in Manufacturing Engineering and Operations Management from the University of Nottingham.



Sotiris Georgiopoulos
Director of Distribution System Operator

Sotiris leads UK Power Networks' Distribution System Operator. He joined the organisation in 2005 and for the last decade has championed innovative ways to plan and operate our networks such as flexible connections and the development of flexibility markets.

Sotiris is Chair of the ENA's Open Networks project. He studied electrical engineering at the University of Manchester and has an MBA from the University of Cambridge.

Key contacts

General enquiries

0800 029 4285

Emergencies or power cuts (24 hours a day)

Free power cut helpline:
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 during a power cut Search, Track and Report Power Cuts on our dedicated website:

www.ukpowernetworks.co.uk/power-cut

Text Relay

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

www.ukpowernetworks.co.uk

Connection services

0800 029 4280

Our unregulated business

services@ukpowernetworks.co.uk

Media enquiries

0330 159 1712

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

www.ukpowernetworks.co.uk



Scan to view the interactive online version



Visit our Annual Review website:

annualreview2024.ukpowernetworks.co.uk



UK Power Networks Holdings Limited

Registered in England and Wales No. 7290590

Registered office: Newington House,

237 Southwark Bridge Road, London SE1 6NP

www.ukpowernetworks.co.uk

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