

National Grid Electricity Distribution

NGED's Business Plan Commitments Report

In December 2021 National Grid Electricity Distribution (NGED) published a business plan for the five year period from April 2023 to the end of March 2028.

The business plan was submitted in line with the Ofgem framework known as RIIO-ED2; whereby Revenue = Incentives, Innovation and Outputs. This is the second business plan submitted under this framework.

The Business Plan Commitments Report details progress made against the 42 commitments we made within our Business Plan, and a number of new developments and initiatives introduced since its publication.

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Foreword - an overview from our President

As I reflect on this past year, the three themes that come to my mind are progress, resilience and learning. Throughout 2024/25, our dedicated team of over 7,000 colleagues continued to deliver a safe, reliable service to 20 million consumers across the Midlands, South Wales and the South West. It is thanks to this hard work we have maintained network reliability of above 99.98% and achieved a strong customer satisfaction score at 8.98 out of 10.

Against a backdrop of ongoing global and economic uncertainty, our teams have shown commitment and resolve in delivering on our RIIO-ED2 commitments, and as a business we have focused on strengthening capability, driving efficiency and improving the experience for our customers and communities. We have invested over £1.1bn across the year and are on track to deliver our ambitious £7.7bn ED2 plan.

Underpinning all of this is an ongoing focus on safety, with company-wide behavioural training delivered throughout the year to deepen our safety culture. Keeping our people and the public safe is paramount, and so an increase in safety reporting and a reduction in serious incidents is great to see.

The year has not been without its operational challenges, with our region facing some of the toughest weather conditions it has seen in decades. Storm Darragh, the largest storm in recent memory, brought 96mph winds and widespread disruption. Over 750,000 customers were impacted, and thanks to the extraordinary efforts of our colleagues, 95% of these affected customers had their power restored within 48 hours.

Supporting customers through challenging times is essential at all times of year, not just when there are storms. I'm immensely proud of the programmes we have run this year, helping more than 21,000 households experiencing fuel poverty to save over £22 million. In addition, we have continued to work with our partners to identify those customers most in need and have now registered 75% of eligible customers on the Priority Services Register - our highest reach yet.

As well as focussing on the network we have today, we're also building the networks of the future. We're fully engaged in the connections reform process and have played a leading role, accelerating the connection of 2.9 GW of new energy projects across our region, with an average timeline improvement of 5.8yrs. We've connected over 42,000 EV charge points, 42,000 solar installations and 16,000 heat pumps to our network - enabling customers and communities to engage with a cleaner, smarter energy system.

Through our DSO, we're also continuing to evolve how customers can engage with the network, driving participation in flexibility services. The DSO has also made huge progress against the Strategic Action

Plan, better utilising network capacity and facilitating growth in a timely and efficient way. It has been great to see this progress recognised by the Independent DSO Panel.

I'm proud of the progress we're making as we move through ED2. Of course, there's still more to do and we want to go even further with some of our primary outputs, but we're determined to deliver for our customers.

As we look ahead to ED3 and beyond, we'll keep pushing forward and building the networks the UK needs to reach its clean energy goals, power economic growth, and deliver for every customer we serve.

COHara

Cordi O'Hara OBE,
President of
National Grid
Electricity Distribution



2024/25 key performance highlights

Key performance highlights from this year have included:



Newly mobilised connections team established as a leading voice in connections reform. 5.2 GW of accelerated connections offered through our Technical Limits initiative, with 2.9 GW already accepted. Reducing connection timelines for these projects by an average of 5.8 years.



Customer experience transformation programme commenced, underpinned by digitalisation.
Customer satisfaction of 8.98 out of 10.



Over 21,000
vulnerable customers
experiencing fuel poverty
supported to save
over £22.1m

Company-wide behavioural safety

training programme

delivered.



Biodiversity strategy successfully embedded allowing us to support a 10 per cent net gain in biodiversity for selected sites. Achieved a significant reduction in waste sent to landfill.



99.98% network reliability delivered across our network. On target to deliver Network Asset Risk Metrics, replacing poor condition network assets.



Step change in flexibility markets achieved with over 162,000 flexibility assets registered on our Market Gateway Platform.

Transformative plans

ongoing to deliver change

for the customer experience,

connections, productivity,

capital delivery, IT & digital

and our workforce



£1m awarded to grassroots



Totex expenditure of over £1.1 billion, an increase of 12% year on year with a focus on delivering value for customers. Our Efficiency Delivery change programme has delivered savings of £40m during 2024/25.





Who we are and what we do

We are the nation's largest Distribution Network Operator (DNO) by geography, powering more than 8 million homes and businesses across England and Wales. Our vision is to be at the heart of a clean, fair and affordable energy future.

Our main responsibilities to our customers are:



Keep the power flowing

Operating our network, to ensure we power the lives of all of our customers.



Maintain equipment

Maintaining the condition and therefore reliability of our assets.



Fix the network

Fixing our assets if they get damaged or if they are faulty.



Connect customers

Upgrading the existing network and expanding it to provide additional electricity supply or capacity to our customers who want to connect.



Operate a smart system

Operating a smart, dynamic system by managing two-way power flows and flexibility services.

We are not a supplier. We do not buy and sell electricity, or directly bill customers. We own and operate the network of cables, pylons and substations that transport electricity directly to homes and businesses across our distribution area.

The UK electricity system is experiencing its most significant period of transformation in decades, with a national commitment to net zero by 2050 written into law and a new Government with ambitions to see a clean power electricity grid by 2030. The ambition to reach net zero is changing the way that electricity is generated and consumed, with widespread renewable generation at a distribution level, and adoption of low-carbon technologies such as heat pumps and electric vehicles across homes and businesses.

Our networks are becoming smarter and more active; to adapt to changing customer needs we established a functionally separate Distribution System Operator (DSO) and independent DSO Panel in the first year of RIIO-ED2.

The DSO is responsible for:



Establishing processes to operate the network more flexibly, utilising systems thinking to unlock latent capacity.



Forecasting supply and demand in more detail.



Avoiding or deferring, where possible, the need for costly conventional reinforcement of the network by contracting for flexibility services from distributed energy resources.



Locally managing generation output, load and power flows.



Facilitating better whole system coordination outcomes.

We continue to look for and make use of innovative techniques and encourage creativity so that we can meet our customer requirements in an effective and efficient manner. This helps to ensure value for money for our customers and stakeholders and a fair return for our shareholders.



ED2 Monitoring Group

Our newly established ED2 Monitoring Group is helping monitor our progress against our business plan commitments, providing scrutiny and challenge where needed, whilst also considering how we can feed progress into our planning for the next price control period.

We recognise the importance of considering the needs of customers and stakeholders in everything we do, including delivery of our business plan. In 2025 we launched our ED2 Monitoring Group (ED2MG) to help track how we are progressing against our business plan commitments and ensure that stakeholder views continue to influence our decision making.

Lead by the independent chair, Duncan McCombie, the ED2MG consists of five expert stakeholders with long histories of representing stakeholder views in the energy and utilities industry.

As well as monitoring NGED's overall progress, they will also hold us to account for delivering what was agreed with stakeholders during the ED2 planning process and ensure that we continue to consider the views of customers and stakeholders throughout the price control period.

Their influence continues into our planning for the next regulatory period, with the Chair also sitting on the Independent Stakeholder Group for ED3 planning, ensuring that the committee is informed of ED2 performance and how that might affect future price controls.

We welcome the constructive challenge that the ED2MG has already been able to provide us with.

In the inaugural group meeting, we presented our proposal to update two of our business plan commitments in response to evolving customer needs (see **pages 15** and **25**) with members asking stretching questions about why changes were necessary and testing how we involved stakeholders in this decision making.

Our second meeting was dedicated to discussing a first draft of this 2024/25 Business Plan Commitment Report, challenging NGED on the process followed to assign performance ratings, the actions we are taking and helping give them the confidence to endorse the report before publication.

NGED will continue to work with the ED2 Monitoring Group throughout the rest of ED2 and we look forward to seeing how they can help shape the future delivery of our business plan commitments.

Comments from ED2MG on BPCR

We believe NGED's report generally shows good progress across most of the business plan commitments.

We challenged NGED to mark unmet annual or ongoing commitments red and reserve amber for commitments on track to be met by the end of the price control.

We welcome NGED's constructive response in improving the clarity of the report.

We intend to focus on areas where progress is mixed or unclear, particularly;

- Telephone and complaint response.
- Environmental performance.
- Supply interruptions.

We believe NGED should state more clearly its assessments of risk of non-achievement by end of the ED2 reporting period, particularly in areas such as customer satisfaction where progress is being made but performance is still well short of 2027/28 target. We suggest highlighting areas of changing external risk arising from energy system transformation or policy, where they may be material in the outcome of the RIIO-ED2 business plan delivery.

We welcome the good progress made on connections, innovation and smart and flexible network.

We will continue to verify any changes to business plan targets suggested by NGED provide customer or stakeholder benefit and will suggest further improvements to NGED's reporting for future years.

Duncan McCombie,Independent Chair of NGED
ED2 Monitoring Group





RIIO-ED2 Business Plan Commitments Report 2024-2025

East Midlands

South

Wales

South

West

Performance Snapshot for 2024/25

Our performance snapshot provides a set of data, common across all UK DNOs, which allows a high level performance comparison. This performance snapshot is based upon the requirements specified by Ofgem in the Business Plan Commitments Report guidance document, replicating the data submitted in table SI1 of the annual regulatory reporting packs.

	West Midlands	East Midlands	South Wales	South West
Number of Customers				
No. of customers on DNOs network	2,526,904	2,705,005	1,161,671	1,662,078
Network Length				
Overhead lines (km)	22,890	20,373	17,866	27,269
Underground lines (km)	43,579	55,674	18,516	24,368
Other (subsea cables) (km)	0	-	9	84
Total DNO network length (km)	66,470	76,047	36,391	51,721
Total Expenditure (TOTEX)*				
Total expenditure (£m)*	305	321	192	289
RIIO-ED2 allowance (£m)*	318	348	188	271
% of allowed	96%	92%	102%	107%
Unrestricted Domestic Tariff (adjusted for typical consumption)				
Tariff charge (£)*	97	82	112	116
Quality of Service (unweighted)**				
Customers interrupted (including exceptional events)	52.3	34.7	60.2	82.4
Customers minutes lost (including exceptional events)	53.6	24.7	195.8	132.8
Customers interrupted (excluding exceptional events)	43.8	33.5	38.0	55.1
Customers minutes lost (excluding exceptional events)	29.8	23.2	22.6	41.8
Connections				
Time to quote (LVSSA) (Days)	3	2	2	3
Time to connect (LVSSA) (Days)	27	29	21	33
No. of completed connections per regulatory year***	7,759	10,648	4,783	5,444
Customer Service				
Overall broad measure of customer satisfaction score (out of 10)	8.99	9.00	9.12	8.87

^{*} Values are quoted in 2020/21 prices, as this is the price base used for setting allowances, within licence conditions and within Ofgem financial models. Costs incurred in 2024/25 have been deflated to be comparable to the allowances. The allowances are updated from those reported in table SI1 to represent the latest view of ED2 allowances as at July 2025 in the wider RRP.

*** Sum of metered and unmetered connections.

Annual Vulnerability Report - qualitative summary

Our Annual Vulnerability report, published in July 2025, details the steps that we've taken through partnership working to deliver substantial value to thousands of customers. We have helped to reduce fuel poverty, enabled access to low carbon technologies, and provided support and additional care to customers with a range of additional needs. We have delivered more than £22.1m of fuel poverty savings this year, supporting 21,372 customers. As we experience a significant update of low carbon technologies on our network, we are supporting customers in vulnerable situations to access the benefits this brings.

Major Connections Annual Report - qualitative summary

Our Major Connections Annual Report, published in July 2025, showcases the work that we have undertaken to embed our new Connections directorate structure. We have continued to evolve our approach to engagement with our stakeholders and delivered improved performance. Our Major Connections Customer Satisfaction Score remains strong at 8.65/10 and we have launched a suite of new digital tools designed to streamline the customer journey. Alongside this we have played a key role in shaping national connections reform.

Connections

Aggregate customer satisfaction score (out of 10)	8.62	8.66	8.93	8.55
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A smart and flexible network

DSO Performance Panel Score (out of 10)	8.45
Stakeholder satisfaction score (out of 10)	9.03

Safety performance - qualitative summary

In 2024/25 we implemented a new Safety, Health and Environment operating model and implemented a companywide behavioural safety training programme designed to drive a reporting and learning culture within the organisation. We achieved challenging new targets for increasing the reporting of accidents and near misses and recorded a Lost Time Injurty Frequency rate of 0.18 per 100,000 working hours.

Community outreach - qualitative summary

We have undertaken a review of strategy for Community Energy, engaging with key stakeholders to understand how best we can work in partnership with communities to address the challenges faced. We facilitated four Community Energy in person events - engaging with key stakeholders and sharing knowledge. We continue to provide information for stakeholders on available funding.

Environmental impact - qualitative summary

NGED has committed to becoming a net zero organisation by 2043 (for scope 1 and 2 emissions) in line with National Grid's validated 1.5°C science-based target (SBT). To monitor our progress we have established annual targets for each year of RIIO-ED2. Targets have proved challenging for 2024/25 and we have instigated a review of emission reduction pathways as a result.

Innovation - qualitative summary

Our innovation programme is focussed on developing business as usual solutions that will assist us with our pathway towards decarbonisation and net zero.

^{**} The values shown are based upon data submitted to Ofgem in Table SI1 as part of annual reporting on 31 July 2025. The values in SI1 vary to those stated in other sections of this report. SI1 states the total unweighted, unplanned, impact, whereas in other sections of this report we compare performance to targets (which include application of weighting factors defined by Ofgem). Other differences may arise due to the values used for exceptional event exclusions which are not finalised by Ofgem until after 31 July.

Our RIIO-ED2 Business Plan

Our Business Plan was created with customers, for customers. Extensive stakeholder engagement was undertaken, with unprecedented levels of scrutiny and collaboration in order to identify the outcomes that our customers wanted us to prioritise as we invest in the network.

During the five year RIIO-ED2 period we are focused on delivering against four overarching customer outcomes, as detailed below.

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- Sustainability Lead the drive to net zero as early as possible.
- Connectability Customers can connect their electric vehicles, heat pumps and renewable generation.
- **Vulnerability** First class vulnerable customer support programme where everyone benefits in a smart future.
- **Affordability** Maintain excellent customer service, safety and network performance and transform the energy grid for future generations, while keeping bills broadly flat.



We have committed to delivering 42 outputs in the following categories:

Category	A summary of our commitments
A Smart and Flexible Network	Deliver a smart, digitalised electricity network to enable net zero for our stakeholders.
Community Energy	Actively support the expansion of green, renewable energy generation and help local communities to decarbonise.
Environment and Sustainability	Reduce NGED's impact on the environment and facilitate the use of low carbon technologies (LCTs).
Innovation	Utilise innovation to deliver efficiencies and make NGED's data available to our customers.
Customers in Vulnerable Situations	Support customers in vulnerable situations by expanding and improving our Priority Services Register, helping customers to access new technologies and targeting fuel poverty.
Social Contract	Deliver enduring, long term support for our communities.
Customer Service	Provide excellent customer service.
Connections	Enable customers to connect to the network quickly and cheaply.
Network Resilience	Maintain a reliable supply of electricity and make the network more resilient to external events.
Safety	Minimise the safety risks associated with operating the network.
Business IT Security and Cyber Resilience	Protect against the risk of disruption to our operations by developing the resilience of our IT systems.
Workforce Resilience	Demonstrate exceptional employment practices and build a workforce that reflects the diversity of the communities that we serve.

A summary of our output performance for 2024/25

A Smart and Flexible Network

- 1. Drive net zero
- **2.** Ensure capacity is available for LCTs
- **3.** Drive delivery of LAEPs and local energy surgeries
- 4. Publish an annual DFES
- **5.** Ensure flexibility first
- **6.** Develop flexibility markets
- **7.** Achieve whole systems outcomes

Community Energy

- **8.** Support communities to decarbonise
- **9.** Facilitate access to available funding schemes

Environment and Sustainability

- **10.** Achieve science-based targets for net zero
- 11. Reduce leakage from fluid filled cables
- ◆ 12. Reduce leakage from SF₆ insulated switchgear
- 13. Reduce waste produced and minimise waste to landfill
- **14.** Improve visual amenity in AONBs
- **15.** Improve biodiversity

Innovation

- **16.** Deliver a stretch efficiency through ED2
- **17.** Make data available via an interactive API

Customers in Vulnerable Situations

- ▶ 18. Offer bespoke energy plans to PSR customers
- **19.** Fuel poverty savings
- **20.** Expand the reach of our PSR
- **21.** PSR data sharing
- **22.** Improve PSR data quality by regular customer contact

Social Contract

- **23.** Community matters fund and volunteering
- 24. Publish an annual Social Contract
- **25.** Provide PV funding for schools and community buildings

Customer Service

- **26.** Customer satisfaction
- **27.** Telephone response times and abandoned calls
- **28.** Social media and webchat response times
- 29. Online planned work viewer
- **30.** Swift complaints resolution

Connections

- 31. Online self assessment for connections
- **32.** Curtailable and flexible connections

Network Resilience

- 33. Customer Interruptions and Customer Minutes Lost
- **34.** Worst served customers
- **35.** Network asset risk reduction strategy
- **36.** Reduce flooding at key sites

Safety

- 37. Increase safety at school sites
- **38.** Electrical safety education

Business IT Security and Cyber Resilience

- **39.** Reduce data risks related to cyber attacks
- **40.** IT network security resilience

Workforce Resilience

- **41.** Exceptional and embedded employment practices
- **42.** Annual improvements in Diversity, Equity & Inclusion

R G RAG Status key

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Green progress against the implementation milestones is on track

Amber progress is delayed but is likely to be achievable before the end of regulatory period

ed progress not on track

Summary statement

During 2024/25 we have continued our journey to build capability within the organisation, we are driving transformative plans to deliver change for the customer experience, connections, productivity, capital delivery, IT and digital and our workforce.

We recognise that progress has been impacted for those outputs rated amber but we have plans in place to drive improved performance for each of these outputs. We are reviewing our approach to telephone response times, recognising that we have not met in year targets.

Developments in the energy system

- 1.1 The UK electricity system is undergoing a fundamental transformation. This transition is rapidly changing how electricity is generated and consumed. By 2050, annual electricity demand is expected to more than double, driven by demand from electric vehicles, heat pumps and industry, alongside the growth of renewable energy generation and storage, most of which will be connected to the distribution network.
- 1.2 NGED knows that the evolution of the distribution networks will be integral in enabling a transition to a cleaner, more secure energy system. Through our functionally separate Distribution System Operator (DSO) business we are embracing the changing needs of our customers and stakeholders. During 2024/25 we have made significant progress in delivering our key objectives, with a rigorous focus on delivering good outcomes for our customers and stakeholders.
- 1.3 More detail on our DSO objectives and the outcomes delivered for customers can be found on our website dso.nationalgrid.co.uk which includes our DSO Strategic Action Plan and our DSO Performance Panel Report.

Enabling low carbon technology (LCTs) to connect

1.4 Decarbonisation of transport, heating, and localised electricity generation will result in increasing connections of LCTs at lower voltages. The role of the DSO is to enable a smarter, more flexible and consumer focused energy system. We have the responsibility to ensure that sufficient capacity is available on the network to support changing customer needs. As part of our RIIO-ED2 Business Plan we committed to the following interrelated outputs:

Output 1

Sooner than 2050 in line with stakeholder plans by ensuring network capacity is available.

Ensure customers are able to connect low carbon technologies quickly and easily with the network ready to support at least an additional 1.5 million electric vehicles and 600,000 heat pumps by 2028.

Deliver a network to meet the evolving needs of our customers by aligning our future energy forecasts with the plans of local regions and the Electricity System Operator, by updating NGED's Distribution Future Energy Scenarios every year.

Drive the achievement of net zero across our regions

- 1.5 On an annual basis, we update our Distribution Future Energy Scenarios (DFES) in order to identify how customers will interact with our network in the future. The DFES captures information from over 8,000 local authority strategy projects, highlighting the types of technology and customer behaviours that the network may need to accommodate. Our latest DFES was published in January 2025 and can be found on our website at the following address https://dso.nationalgrid.co.uk/planning-ourfuture-network
- 1.6 We support local authorities with the development and publication of Local Area Energy Plans (LAEPs) and include LAEP data within the DFES. A LAEP sets out the change required to transition an area's energy system to net zero in a given timeframe. By reflecting the ambition of local authorities within our DFES we ensure that our strategic network planning provides sufficient capacity for the transition to net zero.
- 1.7 Over the course of 2024/25 we have focused activity on increasing the scope and accessibility of the information that we provide on planning and network development, demonstrating how information flows through our system planning and options assessment process. Further information can be found within our DSO Performance Panel Report on our website dso.nationalgrid.co.uk/about-dso/strategy-and-performance. An example of the activity undertaken is the publication of a DFES Customer Behaviour Report in January 2025, providing stakeholders with critical insights into customer behaviour assumptions used in our forecasting.

- B DFES data is used to develop Network Development Plans to forecast and identify future network constraints. We use optioneering to develop our Distribution Network Options Assessment (DNOA) which outlines how we plan to invest in our network to solve constraints, either through the development of flexibility services or conventional reinforcement.
- 1.9 Information on our planning processes can be found on our website at this address dso.nationalgrid.co.uk/planning -our-future-network.
- 1.10 We refresh the assumptions made about customer uptake of LCTs via the DFES and our latest forecasts take into account preparation for the RIIO-ED3 programme. When forecasting we consider the range of future scenarios that could occur and we have adopted an approach that moves beyond reactive planning and seeks to identify credible, strategic routes to net zero. As a result the figures below follow the 'Holistic Transition' pathway, which anticipates unabated fossil fuel generation reducing sharply to zero after 2035. Further detail on this approach can be found within our DFES reporting. Our updated planning indicates that uptake for ED2 will be as follows:
 - 600,000 additional heat pumps
 - 1.23 million additional electric vehicles
- 1.11 We anticipate that customer demand will fluctuate over the RIIO-ED2 period but our regular forecasting process ensures that we are on track to provide the capacity that customers require when they need it. To date an assumed 198,868 electric vehicles and 30,803 heat pumps have connected within our regions during RIIO-ED2¹. Whilst we are notified of a large proportion of LCT installations, we also use external data sources² to calculate an assumed total, this allows us to account for under reporting of LCT notifications.
- 1.12 In 2024/25 we saw 54 MVA of capacity required as a result of new LCT connections; we exceeded this requirement via a blend of conventional reinforcement and flexibility, procuring 2.4 MVA of flexibility across NGED, during times of peak demand, and increasing our net secondary transformer capacity by a total of 525 MVA across our four licence areas. 99 MVA of this new capacity is in areas specifically targeted due to demand growth.
- 1.13 We measure the speed of response times when a customer requests an LCT connection and during 2024/25 we enabled over 100,000 LCT connections, with 87% of direct enquiries approved on the same day.

¹Confirmed numbers, where we were notified of the connection, are stated elsewhere within this report.

²The Department for Transport, and the Microgeneration Certification scheme (MCS) database.

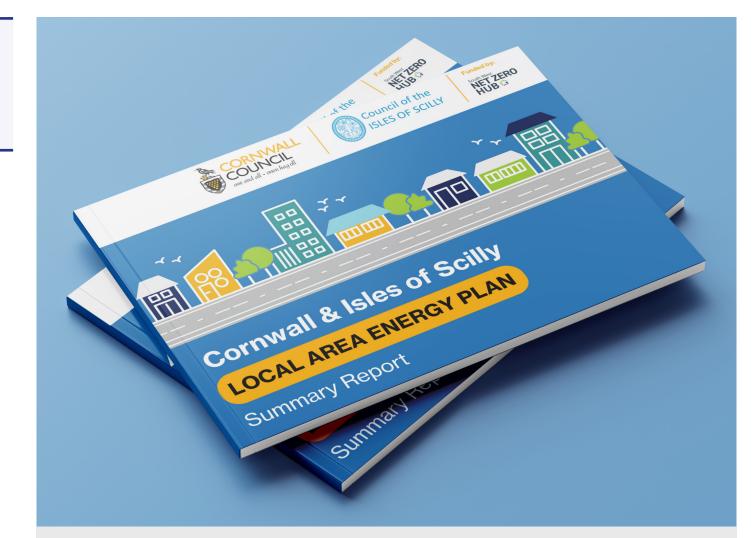
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A Smart and Flexible Network



Make it easy for customers to adopt low carbon technologies and achieve net zero in their region much Output 3 sooner than 2050 by driving the delivery of Local Area Energy Plans and proactively engaging all local authorities each year via 90 local energy surgeries.

- **1.14** We recognise the importance of assisting Local Authorities to achieve their decarbonisation aspirations and during 2024/25 we proactively engaged with all 120 Local Authorities within our regions.
- **1.15** We facilitate Local Energy Surgeries so that NGED representatives can assist Local Authorities to scope, develop and publish an LAEP. During 2024/25 we facilitated 213 surgeries (specifically with Local Authorities).
- **1.16** To date we have supported Local Authorities in completing 14 LAEPs with a further 52 LAEPs in progress. We share technical data to assist with the development of LAEPs and provide clear insights that support local decision making.
- **1.17** We provide a range of information for LAEPs on our website at dso.nationalgrid.co.uk/planning-our-future-network/localauthority-information and during 2024/25 we launched 'Switched On' a quarterly newsletter reaching nearly 300 local officers. The newsletter shares best practice, keeps Local Authorities updated on work that we are doing to help local areas decarbonise and provides useful information to support the LAEP process.
- **1.18** In response to feedback we have also taken steps to improve the accessibility of planning datasets, by providing a tailored user-interface for Local Authorities. The 'DFES Local Authority Excel Workbook' was launched in February 2025 and provides easy access to DFES data with clear guidance for users seeking to understand anticipated growth on the network in their area.



Case Study



Cornwall Council and the Council for the Isles of Scilly

Cornwall Council and the Council for the Isles of Scilly completed their LAEP in early 2025.

Our team of engagement officers and engineers were involved throughout the process, attending around 20 meetings and engagement sessions with the LAEP project team. We provided crucial information and data on the local electricity network, using a variety of data sets from our connected data portal.

In addition, we shared our future forecasts for demand and generation growth using our DFES data. We served as a key stakeholder, providing essential information that directly supported the creation of their LAEP.



Keep bills as low as possible and minimise the need for load related reinforcement by adopting a "flexibility first" approach to maximise utilisation of the existing network.

- **1.19** To operate reliably, electricity networks must be designed with adequate capacity to meet current and future demand. As electricity demand grows, driven by electrification and decarbonisation, additional capacity is required. Traditionally, this has been achieved by reinforcing the network — either by upgrading existing assets or installing new ones.
- While significant network expansion will be essential to achieving net zero, NGED has been at the forefront of adopting flexibility services. These offer lower-cost alternatives to unlocking capacity, deferring capital investment, and helping to minimise bill impacts for consumers. Flexibility services can include agreements with generators to adjust output, or arrangements with demand customers to vary their consumption based on network conditions.
- **1.21** To determine the most economically viable solution, NGED conducts cost-benefit analyses using an industry-standard methodology. The Distribution Network Options Assessment (DNOA) outlines the processes and investment decisions made for each network constraint, including the viability of using flexibility services. Outcomes may include deploying flexibility, conventional reinforcement, or a combination of both. The DNOA is updated and refreshed annually - the latest version was published in September 2024 and is available at: https://dso.nationalgrid.co.uk/ distribution-network-options-assessment.
- **1.22** During 2024–25, we have significantly scaled up our flexibility offerings, pre-emptively reducing peak-time power flows across the network. NGED procured 33 GWh of flexibility availability across 70,000 dispatch events, a significant increase from 19,000 events in 2023–24 . This enabled the deferral of £105 million in conventional reinforcement investment over the course of this price control. Increased competition in our markets also led to more bids being accepted below the ceiling price, delivering £75,000 in consumer savings.
- NGED has pioneered new markets for customers to provide flexibility solutions and adopted a 'Flexibility First' approach. This means exploring the potential of flexibility services before committing to capital investment. However, this approach will evolve under ED3, where flexibility will no longer be used to avoid building infrastructure that may be needed to support future demand growth. NGED is committed to continue scaling flexibility offerings whilst developing new flexibility use cases. This twin-track strategy ensures we remain market-ready while establishing a clear understanding of the role flexibility will play in ED3.



Unlock capacity from the existing grid and therefore avoid the need for reinforcement by stimulating the development of flexibility markets and implementing simple, fair and transparent rules for procuring flexibility services, with a six-month tender and exceptional customer satisfaction for flexibility services.

- 1.24 We design our flexibility markets and procurement processes to be open, transparent, and technology-neutral, encouraging broad participation from a diverse range of providers. In 2023 we introduced the Market Gateway platform, our in-house flexibility marketplace where we tender for flexibility services. Since then, we have seen a rapid increase in participation since the platform was launched with 162,500 flexible assets registered as of March 2025. This is more than double the 70,000 registered last year over the same period.
- 1.25 Continuous enhancements to our Market Gateway platform delivered by our in-house development team have played a pivotal role in scaling flexibility services across our network. When we submitted our RIIO-ED2 business plan in 2021, flexibility procurement operated on a six-monthly cycle. Since then, we've introduced functionality that allows Flexibility Service Providers (FSPs) to register and validate assets at any time, giving participants the freedom to engage on their own schedule.
- 1.26 This shift has enabled the launch of short-term, week-ahead markets, where improved network visibility and more accurate forecasting of flexible capacity lead to better system management and stronger engagement from FSPs. Alongside this, the soft launch of digital trading and a streamlined asset registration process have reduced qualification timelines by up to 1–2 months, boosting efficiency, increasing market liquidity, and driving faster participation.

- 1.27 We significantly expanded the reach of our flexibility markets by bringing 64 high-voltage (HV) and 744 low-voltage (LV) locations to market. This represented a procurement opportunity of over 220 GWh of flexibility, with an estimated market value exceeding £5 million. A key development during this period was the integration of our Market Gateway platform with the Piclo marketplace, giving Flexibility Service Providers (FSPs) greater choice in how they engage with National Grid DSO. This integration marks Britain's first example of platform interoperability in the flexibility space, helping to drive increased liquidity, competition, and successful trades across both platforms.
- 1.28 Over the past year, we have taken significant steps to enhance the clarity, usefulness and accessibility of the data we publish, ensuring alignment with stakeholder expectations and supporting informed participation in our flexibility markets. We have expanded the scope of published market data, offering greater visibility into available opportunities and the potential revenue. Key developments include:
 - Market Insights Report: Clear, digestible headlines for stakeholders published at regular intervals.
 - Revenue Estimator Tool: enabling Flexibility Service Providers to forecast potential earnings in our markets.
 - **Pre-qualification Asset Matching:** We have allowed potential providers to register their assets and see which constraint zones they match with before signing the full terms and conditions. This means that an assessment of potential earnings can be made before signing the standard agreement.
 - Network Opportunities Map: Our Network Opportunities Map (commercial.nationalgrid.co.uk/networkopportunity-map) offers information on the available headroom at 190,000 substations across all voltage levels on our network.
 - Flexibility Map: Our Flexibility Map (commercial. nationalgrid.co.uk/network-flexibility-map) displays active constraint management zones, where flexibility is being procured.

- 1.29 The expansion of our flexibility markets is delivering tangible environmental and financial benefits that puts communities at the heart of the transition. A significant majority, 96% of accepted trades in high-voltage zones, are powered by low-carbon assets, with domestic households making up 90% of market participation. Notably, 78% of registered assets are electric vehicle charge points, helping to reduce the carbon intensity of our dispatches. On average, the flexibility we dispatch has a carbon footprint of just 1.50g CO₂/kWh, compared to the national grid average of 125g CO₂/kWh a clear step toward a cleaner energy system.
- 1.30 Our most recent long-term procurement round, launched in autumn 2024, delivered strong value for customers. Flexibility services in high-voltage zones were awarded at prices 34% below ceiling levels, while low-voltage zones saw awards 18% below ceiling prices. These competitive outcomes resulted in direct savings of approximately £75,000, reinforcing the role of flexibility in delivering cost-effective solutions for our network and our customer
- 1.31 Further information on the actions we have taken in relation to flexibility market development can be found within our DSO Performance Panel Submission which is published on an annual basis as part of Ofgem's DSO Incentive. The latest submission can be found on our website at dso.nationalgrid.co.uk/about-dso/strategy-and-performance.
- As part of the DSO Incentive Ofgem measure customer satisfaction on an annual basis. A stakeholder survey measures customer satisfaction and includes questions on 'Flexibility Market Development'. For 2024/25 our Customer Satisfaction score for flexibility was 8.88 out of 10 based on responses from 32 stakeholders. This is an improvement upon our score of 7.57 out of 10 in 2023/24. Stakeholder feedback for this question praised the clear evidence of our actions driving progress over the last year and delivering benefits through increased participation and competition. Positive comments noted our responsiveness, collaboration and implementation of new services (Demand Turn Up). Opportunities for further improvement were identified as procuring flexibility further ahead and inclusion of industrial/commercial flexibility.



Deliver solutions that achieve the greatest social benefit to customers by utilising a whole system approach for major reinforcement to improve network efficiency. We will undertake three regional collaboration trial schemes by 2025 involving gas, electricity, water, waste, transport and heating sectors.

- 1.33 Delivering net zero requires coordinated action at national, regional and local levels and we therefore take a whole systems approach to network planning and development. We work with partners across the whole energy system to ensure that investment in our physical network infrastructure is delivered where and when it is needed, in a way that minimises cost to consumers.
- 1.34 At the point that the ED2 Business Plan was in development, our DSO, and our approach to whole systems, was in its infancy with a functionally separate DSO yet to be established. As part of the Business Plan we anticipated undertaking three standalone regional collaboration trial schemes. Over time, since the submission of our Business Plan in 2021, our approach to whole systems has evolved.
- 1.35 In 2023 we introduced a new Strategic Engagement team within the DSO with the aim of working closely with Local Authorities, and combined Authorities, in order to ensure that local plans are effectively fed into our system planning and reinforcement decisions. The team are focused on ensuring that whole systems thinking is engineered into our approach through proactive engagement with Local Authorities and a range of other stakeholders. This approach recognises that a whole systems approach should not be designed or driven solely by the DSO and DNO, our partnership working ensures that we can identify and then support and contribute to a range of projects that are relevant to stakeholders.
- 1.36 Whilst we envisaged undertaking three standalone trials our new approach allows us to identify and support a much wider range of projects, which focus on whole systems working across a range of sectors. The following projects give a snapshot of the activities that we are currently supporting via this approach.

Case Study - South Wales:



'Future Energy Grids for Wales' and associated decarbonisation projects

We continue to collaborate closely with the Welsh Government, supporting the journey to net zero in South Wales.

In the last year we supported 13 local authorities to complete their LAEPs meaning that all the local authorities in Wales now have meaningful action plans to help their communities get ready for net zero.

We have worked with Net Zero Industry Wales, the South Wales Industrial Cluster (SWIC) and transmission to establish an industry working group in South Wales, recognising the critical role of electricity for industries and ensuring we are working collaboratively to understand decarbonisation needs.

We have also established a close working relationship with Transport for Wales to understand the transport needs for bus decarbonisation and EV charging rollout across Wales. As part of this we have ensured the EV charging map for Wales can be included in our strategic planning process. We have continued our engagement with the Zemo Partnership to help set a transport decarbonisation strategy for Wales' commercial vehicle sector.



Case Study - West of England:



Bristol Mission net zero

During 2024/25 we have continued to be a pivotal and active partner in the £5 million Innovate UK project.

This collaborative effort is designed to accelerate the region's transition to net zero by breaking down major barriers like investment and skills gaps.

Our team are playing an important role in the project's success by providing crucial electricity network information and data.

This work is directly enabling the development of a regional climate investment plan that will carry out energy planning supported by a digital platform, to create a strategic plan for climate investment and identify an investment pipeline.





Case Study - West Midlands:



UK Central Hub

In 2024/25 we have continued to be involved with the UK Central Hub project in Solihull, collaborating with a number of stakeholders, including the project developers and consultants, industrial users, Solihull Council and West Midlands combined Authority.

The hub is a 1,300 hectare mixed-use commercial site in Solihull which offers economic growth opportunities for business, leisure and living.

We have been part of a number of meetings to understand the site's future energy demands. We have issued a connection offer for phase one and are continuing to plan for the full development by including their plans in our DFES. We've also shared our demand forecasts with the National Energy System Operator (NESO), highlighting the need for strategic investment in the area.

1.37 We are regularly asked to contribute to a variety of different regional and local collaboration projects across our licence areas – other examples include, but are not limited to Walsall Net Zero Partnership, Worcestershire Energy Strategy, the Leicestershire Collaboration to Accelerate Net Zero project, South East Lincolnshire Carbon Action Network and the South West Net Zero Hub industrial decarbonisation project.

1.38 In May 2025 we published our updated Whole System Coordination Register covering the period 1 April 2024 to 31 March 2025. The register transparently demonstrates the processes and activities National Grid have taken to coordinate with others to advance the efficient and economical operation of our network. Whilst Ofgem only require details of collaboration with other electricity network licensees, National Grid have included any activities which have any actual or potential Whole System benefit.

1.39 Day to day examples of Whole System coordination we have undertaken in the last 12 months are shown in the following table:

Description of coordination

Development

of Local Area

Energy Plans.

Stakeholder

engagement

to inform our

Distribution

Scenarios.

Future Energy

Collaborating parties

Whole-system benefit

Local Authorities, other DNOs, Gas Distribution Networks.

orities, Optimised decarbonisation, s, coordinated investment, cost savings through synergies, data driven decisions and economic growth.

Local Authorities, major energy users including rail, maritime, agriculture and aviation. Ensuring the network is ready to support local decarbonisation aspirations and that we are offering value to consumers by investing at the right time and place and

by touching the network once.

- **1.40** The publication benefits stakeholders by simplifying access to key information and reducing the effort needed to track coordination efforts.
- 1.41 In November 2023 Ofgem confirmed the introduction of a new regional strategic planning function to be delivered by the National Energy System Operator. The Regional Energy Strategic Plan (RESP) is designed to enable coordinated development of the energy system. In the last year we have actively engaged with all the RESP teams in our area, providing them with information on key stakeholders and working closely to share data and local intelligence, supporting whole system thinking as we work together towards net zero.

1.42 RESP offers opportunities for driving whole system coordination. We have shared valuable insights into our existing load forecasting activities and identified areas for improvement which are shared with other electricity and gas networks. We have established regular touchpoints at senior levels and policy framework working groups to ensure that best practices are shared and issues are addressed promptly.



Community Energy

- In our 2023/24 report we identified the changing landscape impacting our approach to Community Energy. Our Business Plan outputs were designed and submitted to Ofgem in 2021 and since that time the scope and definition of Community Energy as a concept has evolved.
- 2.2 During 2023/24 we undertook a range of activities to support Community Energy groups to ensure that they were not left behind or disadvantaged when seeking entry to new markets. Despite the range of activity and investment that we carried out, we identified only one group connecting to our network. This outcome led us to undertake a detailed review of our approach to the commitments that we made within our RIIO-ED2 Business Plan.
- 2.3 We have undertaken a significant level of stakeholder engagement to ensure that we understand the issues that are preventing Community Energy groups from gaining traction. We remain committed to increasing awareness of community energy, stimulating demand and working with both industry and government bodies to seek their continued support on connections and planning reform.
- 2.4 Our review of strategy has led us to identify three clear barriers to Community Energy groups:
 - Lack of funding in relation to start up projects as well as having funds for when a project is operational.
 - **Mentoring** the sector is predominantly made up of volunteers who require support to navigate a range of complex processes such as planning, the connections process, and applying for grants and funding.
 - **The grid** Community Energy groups have identified the need for longer lead times to seek funding, and this doesn't align with milestones established for connection processes.
- 2.5 Having reviewed these challenges we believe we are best placed to work in partnership with communities to enable them to understand the challenges that they face and to provide support to navigate these challenges.

- In the last 12 months, we have established partnerships with Community Energy England and Community Energy Wales, the largest representatives of Community Energy groups, in order to ensure that we capture the broadest range of feedback possible. We are clear that we need to:
 - Collaborate with a range of Community Energy groups.
 - Engage with government to advocate for the challenges faced by Community Energy groups.
 - Offer a range of support tailored to Community Energy bodies and groups.
- Having reviewed our strategy and compared our approach to other DNOs, we have concluded that our original intended output, as specified within our RIIO ED2 Business Plan, is not fit for purpose as we cannot create demand for connections. Our original commitment was as follows: Actively support the expansion of green, renewable energy generation and help local communities to decarbonise and lower their bills, by connecting at least 30 community energy groups to the network each year.
- 2.8 We have consulted with Community Energy England and Community Energy Wales in order to identify an appropriate alternative, we discussed the history of the output, our work to date and ambitions for the future. They approved our suggestions and revised wording was subsequently put forward to our ED2 Monitoring Group for agreement.
- 2.9 At the ED2 Monitoring Group's request, we further tested our revised wording with Community Energy England and Community Energy Wales. The monitoring group agreed that this revised wording reflected the reality that both NGED and Community Energy groups were facing and was therefore an appropriate change.



Community Energy

2.10 The revised output is as follows.

Actively support the expansion of green, renewable energy generation and help local communities to decarbonise and lower their bills, by:



- Creating and publishing information (including case studies and informative guides) in relation to renewable energy generation and the connections process. These documents will be publicised at our Connections:communities events, which are targeted at Community Energy groups and are held as a minimum twice a year.
- Amplifying the voices of Community Energy groups to the relevant stakeholders to ensure that community energy can be unlocked and any learning on community energy can inform ED3 planning and delivery.
- 2.11 Over the past year, our focus has been on understanding the challenges that Community Energy groups face. Having gathered this knowledge and translated it into potential actions, we have been able to feed into various reports, to amplify the voices of this sector. An example includes our response to the Energy Security and Net Zero Select Committee Inquiry: Unlocking Community Energy at Scale.
- **2.12** We have since presented our findings at various forums, such as the South West Net Zero Hub, and the Midlands Net Zero Hub, and have received very positive feedback as a result.

- 2.13 During 2024/25 we held four Community Energy in-person events across our regions with support from Regen (a not-for-profit energy consultancy). These sessions are designed to provide opportunities for stakeholders to engage and share knowledge with us, and they provide the opportunity for peer-to-peer learning between Community Energy groups. In addition we provided updates on policy and information on regulatory changes from a range of experts. Our sessions in 2024/25 were attended by 297 stakeholders and covered a wide range of topics, including:
 - Shared Ownership.
 - The role GB Energy could play in supporting the sector.
 - Community Energy Funding.
 - Generating Social Value.
 - Community Engagement.
- **2.14** With renewed focus on the updated output detailed above, we are confident that we can provide strong support for Community Energy customers in the future.



Output 9

Support a growth in community energy schemes by facilitating their access to available funding streams.

- 2.15 During 2024/25 at our Community Energy events, as well as on our website, we have kept Community Energy groups and other stakeholders informed about funding that is available. Our website provides a range of information for Community Energy stakeholders and we have created a page that provides a consistent source of information on Community Energy funding. This can be found at https://community-energy/communit
- 2.16 In addition to listing links to helpful resources, we have shared funding guidance. As an example we shared information related to the Great British Community Energy Fund A £5 million national fund aimed at increasing the level of community and locally owned renewable and low carbon energy assets, facilitating progress towards the government's net zero carbon emissions targets.



Further detail on all of our environmental targets can be found within NGED's Annual Environment Report (AER) which is published annually on 31st October and can be found on the NGED website at **commercial.nationalgrid.co.uk/our-community/environment**.



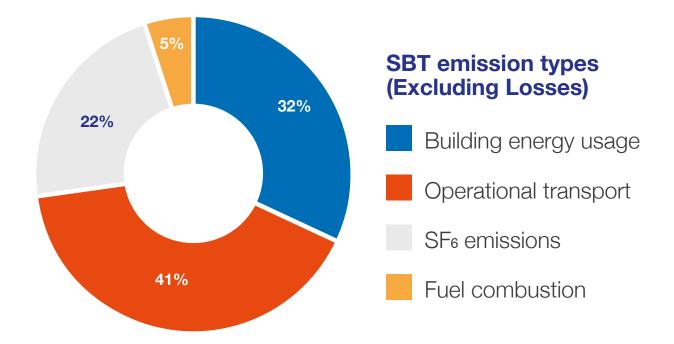
Output 10

Become a net zero organisation by 2043 in line with our validated 1.5°C science-based target (SBT).

- of our operational activities. We have committed to becoming a net zero organisation in advance of the UK government's 2050 deadline by setting science-based targets (SBTs). A carbon emissions target is defined as science-based if it is in line with reductions needed to keep the global temperature increase below 2°C above pre-industrial temperatures. We have engaged with the SBT initiative and had our more ambitious 1.5 °C SBT officially verified at an NGED level.
- **3.2** Our targets specifically relate to scope 1 and 2 carbon emissions:

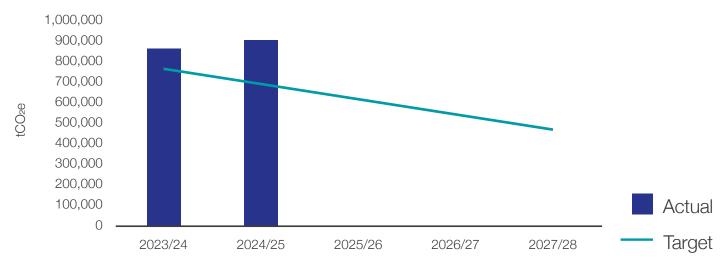
Scope 1 emissions	 SF₆ leaks from network equipment Fuel use in operational transport Fuel use in generators and plant Gas use in buildings
Scope 2 emissions	Losses (Line Losses)Purchased electricity use in buildings

3.3 The proportionate distribution of emission types is shown below (excluding losses).

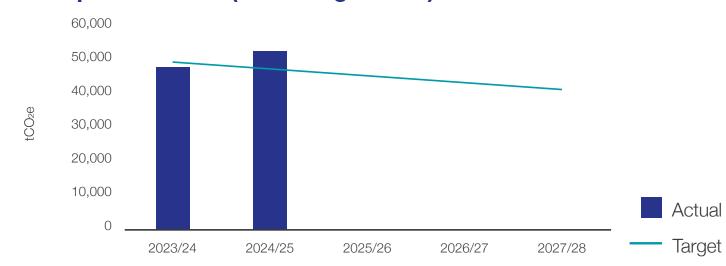


- 3.4 During 2024/25 we have restructured our Environment and Sustainability function, recognising the challenge represented by our ambitious SBT targets. We have created a new Head of Environment and Sustainability and will recruit an additional 2.8 FTE within 2025/26 to bolster our new sustainability team.
- 3.5 We have seen an increase in scope 1 and 2 emissions (with the exception of fuel combustion) during 2024/25 and this has caused us to miss our current in year targets. We are reviewing the emission reduction pathways that we had previously identified as part of our ED2 Business Planning processes.
- (BCF) reflects changes in our business, for example the growth of our fleet to support changes in our operational model. With a backdrop of operational growth and increasing energy demand we recognise that our progress on carbon reductions will be non-linear and we must review current glidepaths and action plans to ensure our net zero targets remain credible. Our performance against our SBT target is shown below.

BCF performance (including losses)



BCF performance (excluding losses)



- 3.7 During 2024/25 we have undertaken a range of action to support the decarbonisation of our operations.
- Operational transport is the largest contributor to our business carbon footprint (excluding losses), accounting for 41% of the whole. Operational requirements mean that our light duty fleet increased in 2024/25 but we have continued to increase the total number of EVs within this total. We continue to seek to improve the efficiency of our internal combustion engine vehicles replacing older models with lower emission options. These activities mean that, although we have seen an increase in operational mileage in 2024/25, the environmental impact of each journey is reducing, with the average CO2 emissions per km driven in 2024/25 being approximately 10% lower than our RIIO-ED1 baseline figures.
- Building energy use accounts for 32% of our business carbon footprint and we have either initiated or completed a range of activities designed to upgrade the energy efficiency of our buildings over the course of RIIO-ED2. This includes planning for replacement depots in Exeter and Torquay, where the new depots are designed to achieve an improved Energy Performance Certificate and will incorporate the use of Solar PV systems to supply their regulated energy demand throughout the year. We have completed the first phase of an initiative to replace all existing fluorescent light fittings with new LED fittings across the non-operational portfolio. 18 sites were completed in 2024/25 with a further phase of work planned for 2025/26. Whilst we have seen an increase in building energy usage for 2024/25, we are confident that the long term projects planned for RIIO-ED2 will result in improvements in usage in the future.
- **3.10** Our activity in relation to fugitive emissions (SF₆) is detailed below.
- **3.11** Fuel combustion has improved with a reduction in associated carbon emissions.
- **3.12** Further information on electricity distribution losses can be found within our Annual Environmental report which is published on our website **commercial.nationalgrid.co.uk/our-community/environment**.

- **3.13** Whilst we have made some progress in reducing our Business Carbon Footprint in ED2, reducing by 8% over our ED2 plan baseline, we recognise that we have a lot further to go. To this end, we have a number of activities planed to drive further improvements. These include:
 - Continue to develop and roll out specially designed All Wheel Drive electric vehicles to reduce the need for conventional 4x4 vehicles.
 - Where ICE vehicles are still needed, replace our fleet with new lower emission vehicles.
 - Replace our depots in Exeter and Torquay with buildings that achieve greater energy efficiency and incorporate Solar PV systems to supply their regulated energy demand.
 - Replacing the roof at our Stoke and Avonbank offices to enhance the thermal performance of these large non-operational sites and drive down energy loss.
 - Continue to replace all fluorescent lighting with energy efficient LED fittings at our non-operational buildings.
 - Continue to install new non-SF6 132kV live tank circuit breakers and work with manufacturers to progress further viable alternatives to SF6 switchgears.
 - Recognising that smaller cables suffer greater electrical loses, increase the minimum size of cables and transformers we install wherever possible.
- **3.14** These activities will be rolled out during the ED2 period and will contribute to direct emissions reductions, alongside which we continue to review other emissions reduction opportunities to deliver our ED2 BCF Targets.

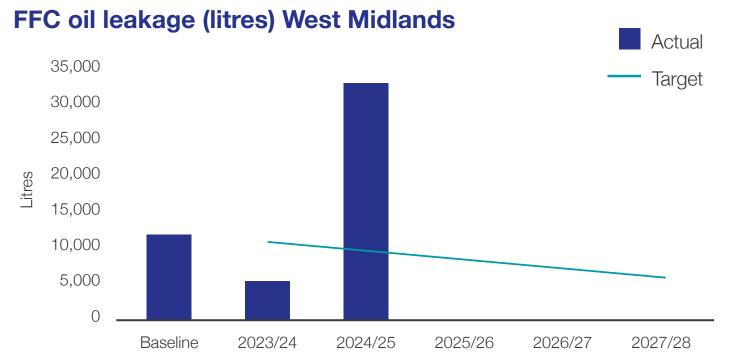


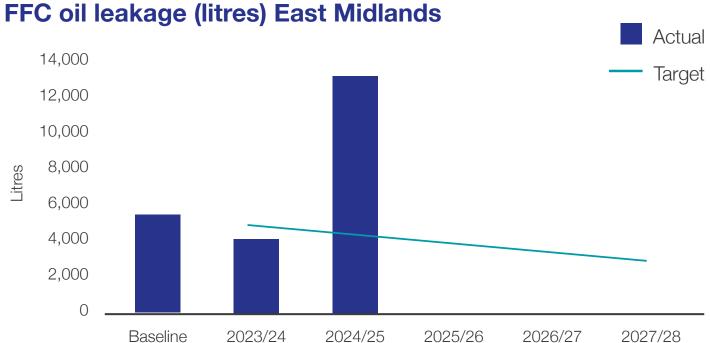
Avoid damage to the environment by reducing the volume of leakage from fluid filled cables by 50 per Output 11 cent by 2028 and replacing the worst leaking circuits with non-oil alternatives putting NGED on target to remove all oil-filled cables by 2060.

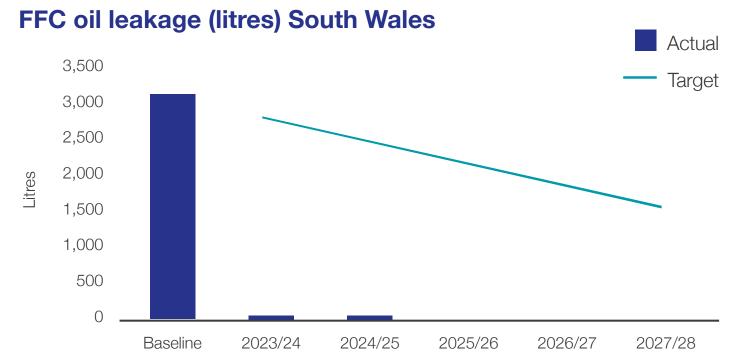
3.15 Some older types of higher voltage cables contain oil based fluids to assist in the insulation of the cables. These cables sometimes leak, either as a result of third party damage, age related degradation, or ground movements. New cable designs do not use this technology so the problems associated with these cables will reduce over time as the populations are reduced through replacement.

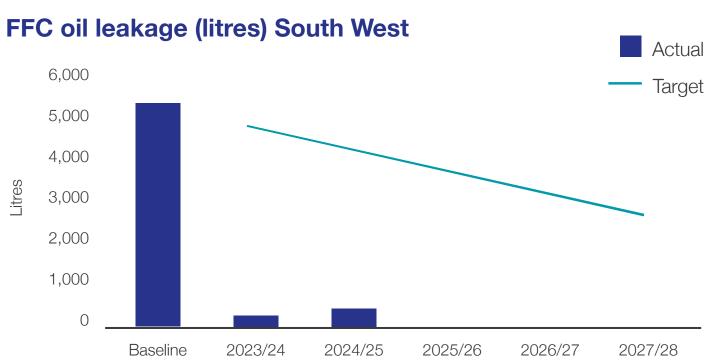
3.16 To date during RIIO-ED2 we have removed 24.4 km of fluid filled cables, 99% of which were condition related removals. We are currently in line with our internal work plan for the removal of all fluid filled cables by 2060.

Despite the volume of work undertaken to remove leaking cables, we have seen an increase in oil leaked during 2024/25, predominantly due to cable leakage in West and East Midlands. It should be noted that 75% of our total fluid filled cables population are situated within the Midlands. Performance for 2024/25 for each licence area is shown below.









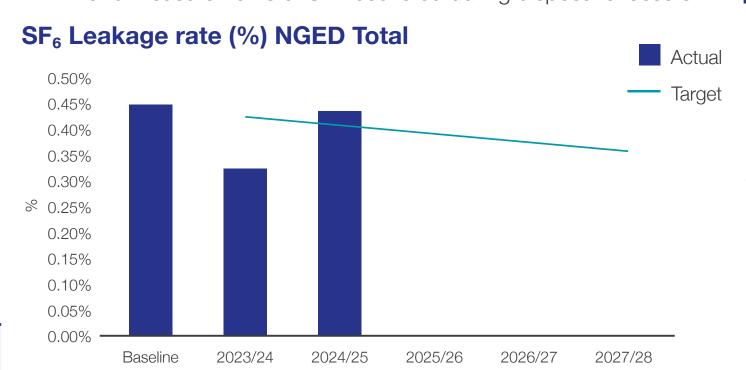
- **3.18** In the East Midlands one particular cable has experienced recurrent leaks, testing has been undertaken to identify the source of the leaks but has so far been unsuccessful. The cable is visited twice weekly to check for further leakage.
- **3.19** For the West Midlands, approximately half of the total leakage is due to a single circuit which had several leaks during 2024/25. The largest of these was located on a canal towpath which raised a number of significant challenges in terms of access, logistics and site constraints. Repairs therefore took considerably longer than would be considered standard. Due to volume of leaks on this circuit it has been included in the replacement programme, with work commencing in March 2025.
- 3.20 We have established a fluid filled cables replacement group, made up of Cable Engineers from each region, together with representatives from our Environment and Sustainability team. The group is responsible for identifying worst performing circuits, promoting a proactive approach to managing leakage - by monitoring replacement plans and understanding risks to sensitive environments.
- **3.21** To minimise environmental damage, fluid levels in our cables are monitored remotely so that operational teams can respond quickly to a leak event. Leaks are located quickly by using perfluorocarbon tracer chemical (PFT) which is injected into the cable and can be detected above ground to pinpoint leaks. We continue to promote usage of PFT to aid leak detection.



Significantly reduce our impact on climate change by delivering a 20 per cent reduction in SF₆ losses Output 12 and drive industry partners to develop technological alternatives to reduce overall volumes of SF₆ on the system.

3.22 Sulphur Hexafluoride (SF₆) is a gas commonly used to insulate switchgear. Whilst SF6 is effective for this purpose, it is a potent greenhouse gas. An international ban on installing new SF₆ switchgear is pending and NGED is working closely with manufacturers in the development of SF₆ alternatives.

- **3.23** We continue to work at an industry level across multiple suppliers and at all voltage levels to progress viable alternatives to SF₆. We have already standardised the use of non-SF₆ 132kV live tank circuit breakers with six units installed and activated between 2023 and 2025. Each unit saves on average the use of 10kg of SF₆ over its lifetime. We expect to be able to implement further non-SF₆ apparatus over the coming years as technology develops.
- **3.24** We have seen an increase in SF₆ emissions from the network during 2024/25 and we have not met our in year targets within the West Midlands and South Wales regions. Performance against NGED targets for the first two years of RIIO-ED2 is shown below, against the baseline level. Data reflects top-ups made where SF6 leaks are identified in live apparatus and measurements of SF6 recovered during disposal of assets.

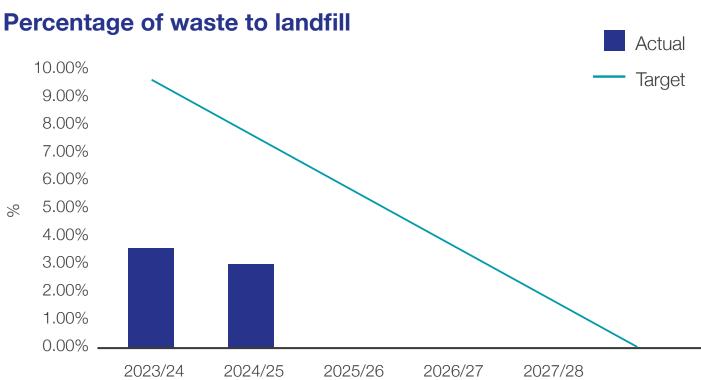


3.25 We have undertaken analysis of the causes of the increased SF₆ leakage for 2024/25 and we want to investigate the inherent design leak-rate of our equipment types to understand the impact on our reporting of SF6 leakage and guide our strategy in addressing leaking assets. Working with manufacturers, we are also considering how to build inhouse capability to identify and verify leak locations to reduce response times and improve supplies of spare parts.



Significantly reduce the environmental impact of our operations by achieving zero waste to landfill by 2028 (excluding hazardous waste) and delivering an overall 30 per cent reduction in tonnage of waste produced.

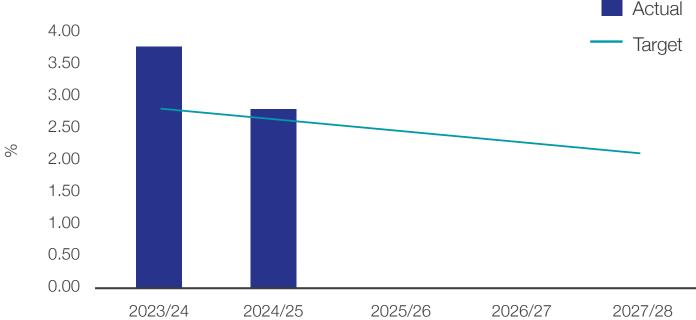
- NGED recognises our responsibility to reduce the environmental impact of our operations. Our business activities create a number of waste streams and we take steps to ensure that we segregate and recycle waste wherever possible.
- **3.27** During 2024/25 only 2.93% of our total waste ended up in landfill and we are well on the way to achieving our commitment to send zero waste to landfill by 2028 as shown below:



3.28 We work closely with our waste contractors to identify opportunities to improve our performance. We are reviewing how we organise our commercial waste management with a view to establishing a delivery partnership to operate commercial waste management across the whole of our business. A delivery partnership approach will promote better waste management across our activities and help us to target improved recycling rates, continue to reduce waste disposal to landfill and develop innovative solutions around the principles of a circular economy.

3.29 As tonnage of waste produced annually varies depending on work volumes, we look at tonnage of waste as a proportion of annual turnover and assign targets accordingly. After a challenging start to ED2 we are now on track to achieve our target of reducing overall waste by 30 percent. In 2024/25 our tonnage of waste as a proportion of turnover was 2.69% against a target of 2.6%. We have achieved a significant reduction in the proportion of waste to turnover as shown below.

Tonnage of waste per £m turnover (%)





Improve visual amenity by removing at least 50km of Output 14 overhead lines in Areas of Outstanding Natural Beauty and National Parks.

- **3.30** Across NGED's geographical footprint, we operate within a number of National Landscapes (previously known as Areas of Outstanding Natural Beauty) and National Parks. Whilst overhead lines are a recognised and necessary element of the electricity network, we are committed to supporting National Landscapes with the removal of overhead lines where this would improve the visual amenity of these sites.
- **3.31** We work with regional steering groups (which include representatives both from NGED and National Landscapes and National Parks) in order to identify projects where overhead lines could be replaced with underground cables. We provide information and appropriate assistance to stakeholders to help them in scheme selection, including budget costing and feasibility assessments.
- **3.32** To date we have undergrounded just over 7km of overhead line. Scheme delivery in the first two years of the price control has been lower than anticipated, due in part to the necessary focus required from our overhead teams to deliver the legislative requirement to safely remove Polychlorinated Biphenyls (PCBs) from assets on our network. The PCB programme has impacted work programming but this work is due to complete by the end of December 2025.
- **3.33** We have an additional 35 schemes in the pipeline for delivery as a result of liaison with our steering groups. These additional schemes will provide us with the ability to fulfil our target of undergrounding 50km during RIIO-ED2 and operational teams are confident that they have the capacity to deliver these schemes during the remainder of the price control period. The acceptance and delivery of projects is dependent on the views of the steering group, and as a result timescales to deliver schemes can vary.

Case Study



Pembrokeshire Coast National Park

Blacktar, Llangwm lies within the Pembrokeshire Coast National Park, close to the River Cleddau, a Site of Special Scientific Interest (SSSI).

Rolling farmland, woodland and scenic views over the Cleddau make this spot a popular destination for walkers. As such Blacktar was chosen through discussions with the National Park steering group as a site for the undergrounding of overhead lines.

The work included the undergrounding of four spans of high voltage cable and two spans of low voltage cable, with a total of just over 400m of overhead lines being dismantled and replaced with underground cable. Wayleaves were required from the land owner for the works and teams worked closely with the tenant farmer throughout to limit any disruption to farming practices. This included siting HV cable along a hedge line to preserve mineral resources within the field. In addition, to preserve the integrity of the landscape, a replacement pole was sited near to a tree line so that the it blended in with the landscape, an improvement from the previous position. Once works were completed additional drainage was installed in one area to remedy compaction of land as a result of the work undertaken.

The project, which took around two weeks to complete, has enhanced the landscape for future visitors.





Achieve a 10 per cent net gain in biodiversity (in line with nationally recognised assessment tools) for new major projects and for selected primary and grid substation sites.

- **3.34** NGED is fully committed to taking steps to protect the natural environment and aims to:
 - Address the biodiversity impacts of new construction projects in line with legislation, and
 - Enhance the biodiversity on land already within our portfolio.
- **3.35** Biodiversity Net Gain (BNG) legislation states that major development projects must have a positive impact on biodiversity, leaving habitats in a measurably better condition post-development.
- 3.36 Prior to development we undertake surveys using the statutory biodiversity metric, to explore options to achieve a minimum 10% biodiversity net gain. Where this net gain cannot be achieved on-site developers can either make biodiversity gains on land outside the development site or buy off-site biodiversity units on the market. A biodiversity unit is a standardised measure used to quantify the biodiversity value of a habitat.
- **3.37** The legislation requires developers to maintain the habitats created or enhanced for a minimum of 30 years in order to achieve the target condition.
- 3.38 In 2024/25 nine projects in England were eligible and all delivered the minimum 10 per cent net gain, using a mixture of onsite and offsite approaches to secure the required biodiversity units.
- **3.39** Going beyond our statutory requirements, we have undertaken baseline biodiversity surveys at selected primary and grid substation sites to investigate the potential for implementing additional Biodiversity Management Plans.

- 3.40 In the first year of ED2 we identified 40 sites where we undertook an initial assessment of suitability, with the aim of prioritising sites which offer higher potential for BNG units. We took into consideration issues with land ownership, constraints related to the electrical assets on site, proximity to sites of conservation interest and mapping imagery to confirm habitat type. As a result of these feasibility studies, we progressed 22 of the 40 sites for a full biodiversity survey. A total of 125 potential BNG units have been identified, with the varied site types offering differing levels of potential.
- **3.41** For each of the sites habitat management and monitoring plans have been produced.
- 3.42 Assessing the suitability of the initial 40 sites has enabled us to refine our selection methodology and to understand the complexity of the process and the potential limitations of certain sites. We have identified 20 new sites, which subject to a desktop ecological appraisal will be surveyed in summer 2025.





Innovation



Keep bills for customers low by delivering a minimum stretch efficiency saving of £95 million through Output 16 RIIO-ED2 (on top of £723 million of efficiencies already included in the plan) by utilising innovation to improve our processes.

- We recognise that increasing costs place pressure on consumers and that driving efficiency and value for money for consumers is more important than ever. During 2024/25 our Efficiency Delivery change programme has delivered savings of £40 million, with a cumulative total of £46m. As a result we are on track to achieve our RIIO-ED2 targets.
- To date we have achieved savings that benefit customers by improving our faults processes, reviewing our approach to executing planned work and introducing procurement efficiencies by maximising on the synergies available to us as part of the wider National Grid Group and driving value though our supply chain.
- Significant savings were achieved in the projects detailed below:

Faults

We achieved savings of £21m by optimising our response to call-outs and the triage of faults. This enabled improvements in our average time of restoration.

Asset management and DSO

We achieved savings of £14m through optimising benefits through our supply chain and delivering savings on programme execution.

Execution of planned work delivery

We achieved savings of £6m by creating standardised processes to improve work planning and scheduling, with clearer roles and responsibilities, which has driven lower unit costs.

The change programme will continue to assess further opportunities for efficiency savings over the remainder of the RIIO-ED2 period.



Output 17

Enhance access to data that is tailored to the individual needs of our customers, by making 60 per cent of NGED's network data available via an interactive Application Programming Interface.

- In advance of RIIO-ED2, NGED worked with an independent research and technology company, the Energy Systems Catapult (ESC), to understand the value of open data to customers. We recognise that as networks become smarter there are opportunities for third parties to make use of network data for their own purposes or to develop new ways of managing the network.
- In line with ESC guidance, we aim to ensure that our data platform, the Connected Data Portal, is as visible as possible and that we provide information for users on how to access data via an Application Programming Interface (API). An API is a consistent, cost effective, mechanism for processing and sharing data.
- Customers are able to request data via our website at the following link https://commercial.nationalgrid.co.uk/ digitalisation-and-data/data-request-form. Data requests are reviewed for any potential security issues and then actioned as appropriate.
- At present, 90 open data sets are available on our Connected Data Portal which can be found at **connecteddata.nationalgrid.co.uk**.
- We identify network data as the substation time-series data sets covering Grid Supply Points (GSPs), Primary substations, LV substations, feeders, connections registers and capacity or headroom data. This incorporates 90 datasets in total. 72% of these datasets are already published via an API, meaning that we have achieved our AllO-ED2 target of 60%.
- **4.10** During 2024/25 existing APIs were used in 26 million data interactions. As an example the Department for Energy Security and Net Zero (DESNZ) are currently using an API to access live power cut data to feed real time analysis into the National Energy Outage platform. NGED was the first DNO to provide a live API feed into the platform, with the most complete dataset across all participating networks.
- **4.11** We have engaged an external consultant to provide assurance on our approach to calculating the percentage of NGED's network data available via an API. The consultants agreed with our approach.

Case Study



The impact of data sharing for our DSO

Data and information sharing is critical to our role as a **Distribution System Operator – access to high quality** accurate data is crucial for informed decision-making.

We aim to ensure that all stakeholders, no matter their size or expertise, can access and benefit from the data and insights we provide. Stakeholders can access data sets that feed into our DFES via the APIs on our Connected Data Portal.

Maintaining data across the 190,000 substations in our region is a challenge and requires continuous updates and a commitment to data quality. We have developed a cloud-based asset data twin, used to run data quality and integrity checks, helping us to proactively identify potentially erroneous data points.

We are responsive to customer need - we have updated the frequency of datasets such as our flexibility market data in order to ensure that stakeholders have access to the latest data.



Customers in Vulnerable Situations

Further detail on our vulnerability targets and performance can be found within NGED's Annual Vulnerability Report (AVR) which was published on 31st July and can be found on the NGED website nationalgrid.co.uk/psr.



Ensure customers are not left behind in the smart energy transition by offering at least 600,000 Priority Services Register customers a bespoke smart energy action plan each year.

Our Smart Energy Action Plans provide an innovative support service for customers on the PSR, designed to ensure that vulnerable customers are not left behind in the smart energy transition. We offer either an introductory plan or a detailed plan dependent on customer preference.

Introductory plans

Provide tailored advice on improving smart energy capabilities as well as providing advice on one or two smart offers such as smart meters or digital display units.

Detailed plans

Include comprehensive preparatory work completed by an expert advisor and a detailed call with the customer – using a questionnaire to determine the customers priorities. Suggested outcomes will relate to topics such as smart heating, time of use tariffs, electric vehicles and energy storage.

- When a customer accepts an offer of a plan, the process is delivered on our behalf by the Centre for Sustainable Energy (CSE).
- We offer this service through a variety of communication channels - including direct telephone calls from our Contact Centres, written communication and through digital channels such as webchats. Using a multi-channel approach has enabled us to reach a much wider audience than we originally anticipated.

During 2024/25 we offered 880,246 plans to customers. We aim to continuously evolve our activity within this area and for 2024/25 this included collaborating with housing associations to support social housing tenants. Plans provided for this customer group included advice on a variety of topics including allowing tenants who are unlikely to be able to make changes to their property benefit from the smart transition. For 25/26 we are looking at the potential to develop a self-serve tool with the CSE, allowing upskilled Contact Centre agents to provide Plans - maximizing the level of support that we can offer our customers.



Support at least 113,000 fuel poor customers to save £60 million on their energy bills over RIIO-ED2.

- The rising cost of energy and the cost-of-living crisis continue to force families into fuel poverty. We seek to make a difference by partnering with trusted organisations to provide customers with advice and support. Our fuel poverty programme is delivered via our well-established partnership projects 'Power Up' and 'Affordable Warmth'.
- Our aim is to ensure that customers living in cold homes and/ or struggling to afford their energy bills receive tailored support to make long term changes. Our projects must be capable of fulfilling the following interventions:



Health and wellbeing measures





Managed referrals to water social tariffs



Befriending services

←⇔> Low carbon transition support



Behavioural changes



Customers in Vulnerable Situations

To date during RIIO-ED2 we have supported over 45,000 customers to save a total of £45.5m on their energy bills. We are on track to meet our commitments for RIIO-ED23.



Expand the reach of the Priority Services Register to at least 75 per cent of total eligible customers and 80 per cent of customers with critical medical Output 20 dependencies to ensure those in greatest need receive targeted support services. This will include registering at least 50,000 additional "hard-to-reach" customers each year.

- We recognise that certain customers might struggle more than others during a power cut and we are therefore committed to ensuring that we can reach and register as many eligible customers to our Priority Services Register (PSR) as possible. We use a variety of channels to identify potential PSR customers including our own colleagues, trusted support partners and collaborative industry relationships. We now have 2.6 million customers on the PSR, and 76% of eligible customers are now registered.
- During 2024/25 we have taken a variety of actions to boost the reach of our PSR, including designating PSR champions at every depot and providing regular PSR training. We have also introduced new weekly drop-in sessions for local depot staff. These online sessions, open to all employees, provide best practice sharing and offer information from PSR experts on our policy and practices. Throughout the year we also use social media channels to share resilience advice and promote the register.
- **5.10** Within our RIIO-ED2 Business Plan, we made a commitment to expand the reach of the PSR to 80% of customers with critical medical dependencies. Our data on customers with a critical medical dependency comes from our partner the Centre for Sustainable Energy and unfortunately we have been unable to establish the total number of such customers within our regions through recognised, available, datasets. We are therefore seeking to ensure that we see year-on-year growth in the number of customers with a critical medical dependency registering on the PSR, and have a number of partnerships in place to help reach customers with specific medical needs. During 2024/25 we have seen a 19% increase in such customers registering.

Case Study



Working with Kidney Care UK

Kidney Care UK (KCUK) is the UK's leading kidney patient support charity.

During 2024/25 we partnered with KCUK for the first time, enabling active face-to-face promotion of the PSR to the kidney community. Actions included:

- Over 2,000 patients reached with PSR advice.
- Contact Centre teams trained to support kidney patients in a power cut, especially those with kidney failure and on dialysis.
- NGED volunteers attended kidney units.



5.11 This year, 223 partners helped us to sign up 62,875 hard-to-reach customers to the PSR. We define hard-to-reach customers as those who we have to proactively make contact with in order to make them aware of our PSR services. This may be via day-to-day discussion with our contact centre teams or via liaison with partner organisations - such as those providing fuel poverty support to individuals within our regions.



Achieve a one-stop shop service so customers only have to join the Priority Services Register once to be registered automatically with their energy, water, gas and telecommunications suppliers.

- **5.12** We recognise that for customers in vulnerable circumstances dealing with multiple different utility companies can cause confusion and frustration. We are therefore committed to increasing secure data sharing between utility providers.
- **5.13** NGED continues to collaborate at industry level and to share data with oxygen providers, Fire and Rescue Services, Local Authorities and, importantly, other utilities to move towards a 'tell us once' service allowing customers to receive support from multiple organisations by telling just one about their needs.
- We continue to work with participating water companies in our region on an industry wide solution. This joined-up approach to PSR data sharing will allow us to move away from multiple data-share agreements and monthly data swaps with water companies towards a simple, standard, automated solution. This will ensure customers receive emergency assistance alongside support with bills and debt advice from water suppliers as well as from their energy suppliers. It is still our ambition to extend this beyond utility companies, and include telecommunication providers, however this will be governed by industry standard practice which is still under discussion.

Customers in Vulnerable Situations

Building power cut resilience through accurate data

- **5.15** We recognise that customer requirements are constantly evolving, and the ways in which they want to communicate and engage with us are changing too. We are committed to proactively contacting our Priority Services Register customers on a regular basis, and within our RIIO-ED2 Business Plan we made a specific commitment to contact a proportion of customers via direct telephone call. Our commitment was as follows: Maintain high quality data to allow us to deliver bespoke support to customers in vulnerable situations by proactively contacting over two million Priority Services Register customers once every two years to remind them of our services and update their records (with 60 per cent via direct telephone call).
- **5.16** Over a period of time, since the submission of the business plan we have seen a significant rise in the use of digital channels, with more customers opting to contact us through text messages, web chat or social media.
- **5.17** As part of our PSR customer journey work, independent customer research was undertaken through a series of customer workshops. The feedback from these workshops highlighted that many customers wanted to communicate with us in different ways. We recognise that a proportion of customers prefer to be able to interact with us instantly and online – for a variety of reasons including hearing impairment, mental health issues, being time-poor or not having English as a first language.
- **5.18** Listening to customer feedback and recognising that customer habits are changing, we initiated a six month trial of live digital engagement with PSR customers during 2023/24, with the aim of understanding whether our largely telephone based approach of contacting PSR customers was appropriate.
- **5.19** We worked with our expert Customer Panel to explore the rationale for increasing digital accessibility and agreed a basic principal that customers can switch to telephone at any point during digital interactions.
- **5.20** Customer feedback from our digital trial was positive with every customer engaged rating the chat as 'good'. Digital contact continues to grow month-on-month as we continue to develop technology to improve the digital customer experience.

5.21 Having reviewed the outcomes of the digital trial we concluded that it was appropriate to update our existing output, recognising a change in customer behaviour since the submission of the Business Plan. A rationale for the change and revised wording was put forwards to our ED2 Monitoring group. The following output was agreed as a result.



Maintain high quality, accessible data to allow us to deliver bespoke support to customers in vulnerable situations by proactively contacting over two million Output 22 Priority Services Register customers once every two years to remind them of our services and update their records (with 60 per cent via direct telephone call and digital).

- **5.22** Our PSR now holds details of 2.6 million customers. Regular contact enables us to update customers' individual needs and provide them with valuable advice on how to be prepared in the event of a power cut. Our enhanced digital communication channels offer immediate, one-to-one support for customers.
- **5.23** We now have five permanent digital agents available to support customers with extended service hours, 8am to 7pm weekdays.
- **5.24** In line with our commitment we have attempted to contact 100% of PSR customers at least once every two years to verify their PSR data.
- **5.25** Customers are contacted via a variety of mechanisms, including letter, and during 2024/25 we contacted 21.23% by direct telephone call or digital channels. Whilst this is below our target of 60% we have seen significant increases in this performance measure since amending our output and we are confident that we will achieve targets. Over the period 1 April to 30 September 2025 we have contacted 43.9% of PSR customers by telephone call or digital channels, doubling our performance in comparison to the 2024/25 regulatory year. These improvements were achieved through the automation of extraction of data from our systems, allowing our teams to increase contact by moving away from existing manual processes for establishing relevant contact details. Further system changes are due to take place in quarter three of 2025, we anticipate that these changes, in addition to the improvements we have already achieved, will enable us to reach our targets.

5.26 Our work to keep our Priority Services Register accurate has several benefits to our customers. Accurate data makes it easier for us to support customers during faults and ensures that we have a greater understanding of their individual needs, as well as knowing the best means to communicate with them. Having a regular contact point with PSR customers provides the opportunity to offer fuel poverty support, smart energy advice and signposting information on low carbon technologies. Updated PSR data is also shared to other utilities through our partnerships with other utilities.



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Social Contract



Support and add significant value to our local communities via a "Community Matters" social initiative associated with the smart energy transition, Output 23 vulnerability, environment and sustainability. This will include a shareholder-funded annual £1 million community support fund and 1,900 volunteer days per year for NGED staff to support local causes.

- We established our Community Matters Fund in 2020 with the aim of delivering far-reaching support to our communities. This annual fund is paid for by shareholders and distributes £1million a year to local grassroots organisations.
- Funding is awarded in phases over the year and administered in partnership with Localgiving, ensuring a range of societal challenges are addressed.
- In early 2025 our Consumer Insights Forum reviewed our approach to community investment to ensure that funding focus areas align with the most pressing needs and concerns of the communities we serve. The Consumer Insights Forum is a community of domestic, business and future customers who undertake research and focus group exercises, enabling them to provide informed and candid feedback on our approach.
- In 2024/25 the Community Matters Fund offered grants across three key focus areas:
 - Fuel Poverty £500,000 was awarded to 117 organisations providing warm packs, energy efficiency advice, and warm welcoming spaces for people struggling with energy affordability.
 - Inspiring young people in Science, Technology, Engineering and Maths (STEM) - £250,000 was awarded to 67 organisations offering hands-on STEM workshops, after school clubs, and interactive activities to introduce young people to careers in science, technology, engineering, and maths.
 - Skills and employability £250,000 was awarded to 62 groups helping people with the development of key professional skills, networking and placements, including CV masterclasses and interview coaching.

Case Study



One funding recipient was Dallaglio RugbyWorks, who were awarded £1,780 for their project in Birmingham.

Between August and November 2024 Dallaglio RugbyWorks ran 18 employability sessions at the Lighthouse Community Centre, working with a total of 35 local young people to help them develop skills and raise their aspirations.

Sessions focussed on teamwork and communication and all the young people who attended had access to mentoring from accredited coaches – covering employability, career guidance, and mental well-being.



- We have committed to facilitating 1,900 volunteer days per year for NGED staff to support local causes. We encourage colleagues to share their skills, time and expertise through volunteering in the community. The employee volunteering programme has been championed by senior leaders, with many participating in team-building volunteering days to bring colleagues together whist making a meaningful difference in our communities.
- This delivers social, educational, economic and environmental benefits across our regions as volunteering brings National Grids' values to life, providing individuals with the opportunity to be active in the communities we serve.
- We take advantage of the skills of our employees to ensure that we maximise the value of volunteering. National Grid works with a number of charity partners (as detailed above) to support skills development and employability opportunities for socio-economically disadvantaged and underrepresented young people. Through these partnerships National Grid employees are able to directly offer career coaching sessions, advice and mentoring. In addition our STEM outreach programme enables colleagues from a wide range of roles and geographic areas to become STEM ambassadors, helping us to share the vast knowledge and experience that exists across the company, through volunteering. Looking ahead to 2025/26 we are keen to consider ways that colleagues from other functions, such as corporate affairs, legal and finance, can also share their specific skill sets through our volunteering programme.
- During 2024/25 our colleagues have undertaken 1,356 volunteering days. Whilst this is below our annual target we are confident that we can achieve our target in future years, volunteering days achieved within 2024/25 represent a 63% increase from 2023/24. The volunteering process was initiated in 2023/24 and has taken time to establish, but opportunities are available and colleagues are now fully aware of the process, volunteering has become an established part of annual planning for our teams.



Social Contract



Deliver enduring long-term support to our communities by publishing an updated Social Output 24 Contract and performance report every year, and maintain our prime Environmental, Social and Governance rating.

- NGED is committed to doing the right thing, delivering social and environmental value for our colleagues, customers and wider society. Our Social Contract outlines our commitment to do business in a way that actively benefits our region and the communities we serve, both now and in the future. We have committed to listening actively to our communities and colleagues, acting with integrity and contributing positive, locally tailored solutions to the challenges they face.
- **6.10** We publish a Social Contract on an annual basis together with an integrated business performance report. The Social Contract can be found at the following link: customer.nationalgrid.co.uk/ about-us/our-social-contract.
- **6.11** Our Social Contract Strategy is focused on benefitting our communities, colleagues and the environment.

Social Contract Strategy



- **6.12** The Social Contract is co-created with stakeholders and we undertake a range of activities in order to ensure that our commitments keep pace with the evolving needs of our customers. Our Customer Panel, an enduring group of 24 expert members, representing all stakeholder segments, continues to provide challenge and steer on key issues.
- **6.13** We have been awarded prime status for outstanding performance in Environmental, Social and Governance every year since our first rating in 2020. Further detail on the rating can be found within the Social Contract.



Build decarbonised communities and local energy schemes by providing £540,000 shareholder-funded Output 25 support per year to install solar PV on schools and community buildings in areas of high economic deprivation.

- **6.14** To support communities to navigate the rapidly changing energy landscape we have committed to supporting schools and community buildings in areas of high economic deprivation to adopt Solar PV at their locations.
- **6.15** We work in collaboration with Solar for Schools to provide grant funding for solar panel installations. Solar for Schools provides a complete service covering the design, installation and maintenance of solar panels but also offers funding options for schools who may struggle to invest capital upfront. Our grant funding helps to unlock projects for schools that might otherwise not be able to install solar panels.
- **6.16** We continue to make funding available to any school in our region who meets our grant criteria and we promote the scheme through a variety of channels and stakeholders. To date we have committed nearly £300,000 to 14 school projects, with further projects in the pipeline for the coming year. To date, we have not spent to the maximum of our committed funding for this area but the remaining funding from years one and two will be available during future years of the price control if appropriate projects are put forwards.

Case Study



Shireland Collegiate

In October 2024, Shireland Collegiate in Sandwell (West Midlands) received a grant of £25,000 towards installation of their solar panels.

The system is forecasted to save the school £314,541 over 25 years as well as 597 tonnes of CO2.

Alongside ongoing maintenance of solar panels for every project, Solar for Schools provide STEM education. Sixth Form students at Shireland Collegiate received renewable energy education sessions - covering the environmental impact of the solar panels, a drone workshop to see the installation process and an interview with the installers.

Politics Students were also given the opportunity to attend an event at Westminster to meet their local MP.



National Grid Electricity Distribution RIIO-ED2 Business Plan Commitments Report 2024-2025

Customer Service

7.1 Delivering great customer service is a core business objective. We recognise that customer needs are changing and that we need to evolve the service that we offer in response to this change. As a result, we have commenced a major customer orientated transformation programme, focused on the themes identified below:

Customer Experience Transformation						
Introduce and use customer data insights	Pro-active and personalised communications	Transform customer journeys	Modernised customer service	Shift to customer centric mindset		

- 7.2 The transformation will be underpinned by the introduction of digitalisation and self-serve options for our customers.
- 7.3 We aim to deliver a seamless customer experience with the development of digitally enabled Contact Centres and, personalised customer communications, with customer journeys that fit to the customer need, and connection journeys that are quick and consistent.
- 7.4 Whilst we are currently delivering good customer service, we recognise the continued need to invest in the customer experience in order to achieve the ambitious commitments that we made within our RIIO-ED2 business plan.



Deliver exceptional service levels by achieving an overall average customer satisfaction of 93 per cent or higher by the end of RIIO-ED2, with separate reporting for emerging technology customers.

7.5 Customer service is assessed by Ofgem using the Broad Measure of Customer Satisfaction (BMCS). This includes a customer satisfaction survey covering three types of interaction – customers requesting a connection (minor connections only), customers experiencing a supply interruption and customers making a general enquiry.

7.6 During 2024/25 our licence areas achieved a combined score of 8.98 out of 10, equivalent to 89.8% customer satisfaction, this is a small improvement on our 2023/24 results. Whilst this is a positive score, reflecting the excellent work undertaken by our teams, we recognise that to achieve our target we have significant work to do in line with our transformation programme. To this end, we have launched a number of initiatives aimed at improving the customer experience.

LV connections

- 7.7 Activity has initially focused on the customer experience of individuals requiring a low voltage (LV) connection. Using the results of insight work undertaken within 2023/24 we have initiated the following during 2024/25:
 - A new LV connections quotes playbook, detailing established processes and best practice. Training has been provided to Field Operations colleagues on the use of this playbook.
 - A new connections dashboard is in development, with the aim of pulling together the key operational metrics most correlated with customer satisfaction and providing clear visibility of performance. This should provide our Field Operations colleagues with leading indicators of their progress.
 - Formal journey management will be implemented, providing new governance and accountabilities, ensuring leadership focus on this critical experience. This should also ensure that improvement efforts are properly coordinated at all levels of the organisation. This represents a new way of working for NGED which, if successful, will be rolled out across other customer journeys.
- 7.8 As a result of this initial focus we have seen some initial improvements for BMCS scores for connection quotes in three out of our four licence areas, and some significant improvements in specific depots. We are hopeful that the sharing of best practice will continue to boost our BMCS scores in this area.

Faults

new insights into faults. This has highlighted the importance of: how we communicate our estimated time of restoration (ETRs); how we manage expectations about the accuracy of those ETRs; how we keep customers updated; and how effective we are at ensuring that customers do not have to contact us more than once, if at all. We will draw on our experiences in connections to implement improved communications, journey management governance, dashboards, tools, and training to ensure that an improved customer experience becomes embedded in our culture.

Customer service training

- 7.10 We have instigated broad Customer Service training and coaching to improve the quality of our interaction with customers. During 2024/25 we used an external consultant to deliver Customer Service half day sessions at all our depots, which all Team Managers and Heads of Operations have attended. The sessions were tailored to the specific depot, using current performance data and case studies of local initiatives that have made a real difference to performance. The sessions included:
 - An explanation of the concept of behavioural customer excellence and why it is critical.
 - Using psychology to optimise our performance developing self-awareness for those team members dealing with customers on a daily basis.
 - An understanding of the BMCS process and a discussion around customer perceptions and expectations.
 - Defining and applying positive behaviours in challenging situations, helping individuals to use communication methods to develop a rapport with customers.

Customer Service



Ensure a speedy telephone response to customers by answering calls within an average of four seconds and maintain an abandoned call rate of less than one per cent within our UK-based in-region contact centres.

- **7.11** We recognise that ensuring customers can speak to someone is an essential part of good customer service but we are also focused on developing digital pathways for customers who prefer alternative contact methods to a telephone call. During 2024/25 we have taken the first steps in a programme to deliver a significant level of investment in our Contact Centre with the aim of modernising the customer service that we provide.
- **7.12** We are in the process of migrating our telephony platform to Amazon Connect technology, allowing scalable customer support though multiple channels, providing a seamless experience for customers. The system allows us to measure customer centric KPI's that will enable us to continuously improve customer experience. The cloud-based solution will improve IT resilience, removing legacy, on-premises, equipment.
- **7.13** The first phase of delivery has already led to positive impacts for our Priority Services Register team. The system recognises customers on the PSR and enables us to better understand the varied 'personas' of our PSR customers. Identifying the diverse needs and expectations of our broad customer base enables us to provide targeted, meaningful support during both planned and unplanned power cuts.



7.14 In December 2024 we faced a significant challenge to network resilience as a result of Storm Darragh. A record number of customers were impacted and our average call answering times were significantly affected during the storm period. In this context we took a range of actions to support customers including messaging customers with a series of regular updates providing advice and promoting the PSR. We shared customer data with local authorities to allow them to check additional support needs and we instigated our standard welfare response – including the provision of warm spaces and food vans. This was promoted via our social media channels. During the storm:



880,785 proactive calls were made over 12 days to our customers on the PSR.





Website traffic increased by 600% and 5,860 **customers** joined the PSR online.

- 7.15 During 2024/25 average response times were 32.3 seconds, falling to circa 13 seconds if we exclude the impact of Storm Darragh.
- **7.16** Abandoned calls arise when customers decide to hang up before they speak to a call taker. This typically happens when a customer is on hold for a longer period but can also be a result of the power being restored or the customer needing to deal with a distraction. During 2024/25 6.64% of fault and emergency calls were abandoned, falling to circa 1.8% if we exclude the impact of Storm Darragh.
- **7.17** We recognise that customers value the opportunity to contact us by telephone but we are reviewing the importance of call answering times to customers, particularly when we have seen significant increases in alternative digital contact methods. We understand that call answering times are important, as is the quality of the service that customers receive when we answer their call. This will be an area of continuing review during 2025/26.



Output 28

Ensure a speedy social media response to customers by replying to enquiries within an average of five minutes and webchats in an average of less than a minute, 24 hours a day.

- **7.18** We provide customers with a variety of contact mechanisms appropriate for our broad customer base. Social media and webchat allow customers to communicate with us in a way and at a time that suits them, with NGED advisors available 24 hours a day online.
- We seek to respond to customers quickly and during 2024/25 our average response time to respond to social media enquiries was 4 minutes and 57 seconds whilst the average time to respond to webchat enquiries was 61 seconds.



Provide greater insight on our planned work activities Output 29 and interruptions on our network by creating an online viewer.

- **7.20** Customers value timely and accurate information in relation to power cuts, for both planned and unplanned outages. We recognise that the way that we communicate around incidents has a positive impact on customer perception of our service.
- **7.21** In 2023/24 we introduced new pages on our website for planned outages – giving customers the ability to search via their post code to identify any planned outages within their area. To keep customers up to date we:
 - Send a letter in advance of the outage to each affected address, providing summary information and giving access to a detailed, personalised web page providing information on the timeframe of the outage, the reason for the outage and detailed information on affected areas.
 - Provide customers with the opportunity to sign up for SMS updates.
 - Provide guidance via the web page on what to do during a power cut and how to prepare for a planned outage.

Customer Service

- 7.22 During 2024/25 we have refined the process we follow for sending text messages to those individuals who have signed up for updates. We now provide a greater level of detail and ensure that reminder texts are sent to customers a couple of days before an outage. We also provide information on cancellations and/or changes to the planned work. PSR customers receive a message which is tailored to the needs of vulnerable customers, ensuring that individuals are provided with contact details for our PSR team.
- **7.23** We have also improved accessibility to the planned work pages, ensuring that these can be found easily from our main power cut pages. We have seen an increase in the volume of clicks on these pages, increasing from 8,829 in 2023/24 to 98,040 in 2024/25.
- 7.24 We have undertaken customer surveys during 2024/25 with the express intention of understanding whether the information currently provided is valuable and how customers perceive our service. 100 customers responded and confirmed that the information provided on the current website satisfies user expectations and that a planned outage map is a desirable but non-essential feature.
- 7.25 Looking ahead we are currently undertaking stakeholder engagement to understand additional information needs that could be combined with planned outage data. This could include information on roadworks associated with our activities and planned investment information at a local level. Work to develop the availability of such information on the website will continue over the remainder of RIIO-ED2.



When things go wrong, ensure we put things right very quickly, by resolving at least 90 per cent of complaints within one day and 99 per cent of complaints within 31 days.

7.26 Whilst we endeavour to get things right first time for our customers, we recognise that challenges can arise. In line with our Customer Experience Transformation programme we have undertaken a range of insights work in relation to complaints during 2024/25.

- 7.27 We have appointed a new central Complaints Manager and team to coordinate, track, report and identify trends in complaints. Local teams are responsible for resolving complaints with the customer but central oversight gives more opportunity to spot trends and take action.
- 7.28 We have undertaken analysis work to understand common issues that result in complaints. Communication issues figure prominently as a source of complaints but there are regional variations from which we can learn. In order to drive improved performance across all of our regions, Operations teams have been provided with some of the key learning from the insights work.
- **7.29** We anticipate that the appointment of the new complaints team will ensure consistency and result in an improvement of our complaints resolution over the course of 2025/26. For 2024/25 we resolved 84% of complaints within one day and 96% within 31 days.
- 7.30 During 2024/25 the prompt resolution of complaints was impacted by Storm Darragh. This was a significant incident and we received an above average level of queries, which had the potential to be reportable complaints. Resolving these concerns created a backlog of work that impacted our delivery of the normal expected workload associated with complaints.



Connections

- When customers want to connect to our distribution network, we aim to make the process as straightforward and efficient as possible. Our connections service supports three main customer categories: demand (those who use electricity), generation (those who produce electricity and may export it to the network), and unmetered connections (such as street lighting or traffic signals).
- 8.2 Within these categories, we serve a wide range of customer types. From small-scale applicants seeking a single service connection to major developers managing complex, multi-site projects. Each has distinct needs, and our approach is designed to be flexible, responsive, and customer-focused.
- 2024/25 marked a year of continued transformation for our Connections Directorate. We have embedded a new structure built around six strategic pillars, enabling us to deliver a more coordinated and streamlined service. This has allowed us to sharpen our focus on policy, strategy, operational optimisation, and customer engagement, particularly in areas such as transport decarbonisation and connections reform.
- 8.4 We've expanded our engagement with stakeholders, reaching over 2,300 participants through targeted events and forums. Feedback from these sessions has helped us co-create practical solutions, many of which are now being delivered.
- In November 2024, we hosted a major connections workshop focused on strategy, the insights gathered from this event have directly informed the evolution of our directorate and processes. We have expanded our engagement to include technical groups, renewable energy organisations and community energy projects.
- **8.6** Our Customer Journey programme continues to develop, helping us better understand the end-to-end experience from pre-application through to energisation. This work is shaping tailored solutions that reflect the diverse needs of our customer base.
- 8.7 Further detail on our performance, commitments, and future plans for major connections can be found in the Major Connections Annual Report, which provides a transparent view of how we're delivering against our targets and preparing for the future. The report can be found here yourpowerfuture.nationalgrid.co.uk/our-engagement-groups/connection-customer-engagement/major-connections-annual-report-mcar.



Make it as easy as possible for customers to apply to connect individual domestic low carbon technologies by providing a same day connections response via an online self-assessment tool.

- 8.8 We are committed to improving access to data and streamlining the customer journey through digital innovation of our systems and processes. We aim to support customers to manage their connection through all stages, from pre to post application. We continue to see increasing volumes of enquiries for low carbon technologies (LCTs) and we are adapting our systems to reflect this growth.
- In addition to our existing online self-assessment tools for electric vehicles and small generation installations (including solar, wind, battery and storage) we have now introduced a tool for domestic heat pumps. The heat pump self-assessment tool was introduced in May 2024 and we have seen just under 2,500 enquiries through the tool as a result.
- **8.10** During 2024/25 we have enabled over 103,000 LCT connections, with 87% approved on the same day.
- 8.11 These changes are a part of our wider programme of connections digital innovation which includes the launch of a suite of new tools, including the Network Opportunities Map, the Local Electric Vehicle Infrastructure (LEVI) Fund portal,, and an enhanced customer enquiry portal. Further information on these tools can be found within our Major Connections Annual Report on our website at yourpowerfuture.nationalgrid.co.uk/ourengagement-groups/connection-customer-engagement/major-connections-annual-report-mcar. In addition we have contributed to the digital innovation instigated as a result of Connections Reform including developing and implementing a digital submission form to allow customers to submit their Gate 2 Whole Queue Evidence (documentation required to demonstrate that the applicant meets specific connection criteria). Further information on Connections Reform can be found below.
- 8.12 Our customers can choose to utilise the online tools detailed above on our website. In addition, our industry body, the Energy Networks Association (ENA) hosts the ENA Connect Direct tool which provides customers with a speedy mechanism to get approval to connect domestic LCTs to the network.



Connections



Provide quicker and cheaper connections options for Output 32 customers by introducing a wider range of curtailable and flexible connections.

- **8.13** Standard connections agreements allow customers to utilise that connection to the full rated capacity of the agreement at all times of normal network operation. These agreements require the network to have the stated capacity available, even if it is not being used.
- **8.14** A significant challenge within the connections environment is keeping up with demand and ensuring capacity is available on the network. Against the backdrop of an increasing connections queue, and a constrained network, we continue to develop smarter ways to connect customers. Curtailable or flexible connections include some form of limit placed on the customer (whether generation or demand) but allow for the deferment of costly and time-consuming network reinforcement.
- **8.15** Our business plan commitments were published in December 2021 and in May 2022 Ofgem published a Significant Code Review (SCR) – a mechanism for reviewing existing practices in order to accelerate industry reform. The 'Access and Forward-Looking Charges SCR', also known as the Access SCR, changes the way that we charge for connecting to our network and is designed to ensure that customers are able to access the electricity network efficiently and to encourage new technologies to connect.
- **8.16** The Access SCR applies to connections in areas of the network that would otherwise be subject to constraints and provides a standardised approach to providing curtailable connections and enabling both the costs and timescales of connections to be reduced.
- **8.17** The requirements of the Access SCR supersede our business plan commitment to provide a wide range of differing connections and provides certainty for customers and faster access to a connection.

Case Study

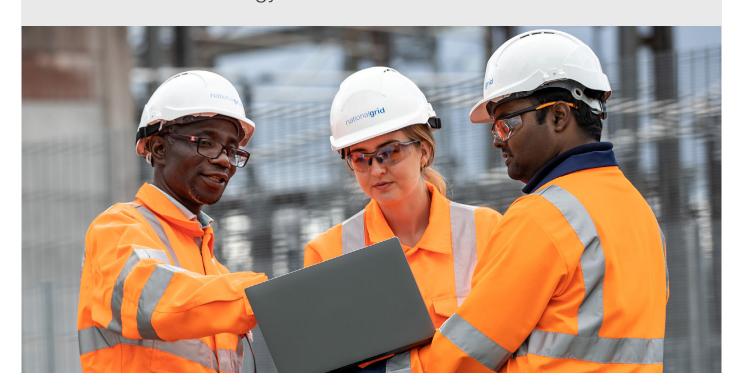


The Technical Limits Initiative

We continue to facilitate quicker and cheaper connections through our Technical Limits initiative, which aims to accelerate the connection of generation and storage into the distribution network ahead of required transmission level reinforcement works which can require long build times.

A Technical Limit is a limit for a specific Grid Supply Point (GSP) agreed between the Transmission Electricity Systems Operator (ESO) and the DNOs. It allows DNOs to connect qualifying customers ahead of the completion of required transmission reinforcement works, under the condition that the DNOs limit the power flow across the GSP to their agreed limit. This is facilitated through the DNOs' deployment of automated control schemes, and the subsequent control of generation customers' power imports and exports.

Through the Technical Limits initiative we have offered 5.2 GW of accelerated connections, with 2.9 GW already accepted. This progress allows us to reduce connection timelines for these projects by an average of 5.8 years, bringing us closer to a sustainable energy future.



Connections reform

- **8.18** Ofgem have confirmed their intention to reform the electricity grid connection process, by implementing 'Connections Reform'. This marks a significant step in making the necessary changes required to streamline the electricity connection arrangements in Great Britain, crucial for achieving the government's Clean Power by 2030 (CP2030) goals.
- **8.19** NGED continues to play a key role in delivering connections reform, which is currently in its implementation phase. Through connections reform projects, we should see accelerated connection dates and a reduction in the timeframe that it takes to connect. This will be enabled by granting 'ready and needed' projects a new contract through redefined processes, moving away from the current first come, first served approach. Additionally, we will see more strategic alignment with technology being connected where it's needed.
- **8.20** Our Technical Limits initiative will continue to operate as the Connections Reform process is delivered.
- **8.21** Further information on our involvement with the Connections Reform process can be found on our website at connections.nationalgrid.co.uk/connections-reform.

Network Resilience



Maintain network reliability where on average power cuts are better than one interruption every two Output 33 years lasting less than 24 minutes whilst utilising vulnerable customer data to prioritise network improvement schemes.

- During 2024/25 we ensured that customers experienced less than one interruption every two years. This was a 3% improvement from our baseline performance (a four year average based on performance across 2017/18 to 2020/21).
- However the average length of interruption during 2024/25 was 29 minutes. We recognise the inconvenience that a lengthy interruption can cause and we therefore continue to take steps to ensure that interruptions are minimised and that the length of an interruption is as short as possible.
- We undertake a wide range of activities to reduce the number of faults on our network – including completing comprehensive inspection and maintenance programmes, asset replacement programmes and routine tree clearance as interruptions can be caused by trees failing into overhead lines or by branches coming into contact with our equipment. We seek to identify best practice from local teams that can be rolled out across NGED.

Some key initiatives deployed in 2024/25 are as follows:

Automation enables us to reduce the number of customers affected by HV faults by quickly re-routing and restoring power. Remote controlled devices (RCDs) allow electricity supplies to be 'switched' without the need to send a person to site. Increasing the use of this technology reduces the average number of customers affected by faults.

Increasing our utilisation of existing 'Kelvatek' fault location equipment, reducing the number of customer interruptions by using automatic fuse replacers.

Optimising utilisation of 'hot glove' techniques, which involve using protective equipment to allow work to be undertaken on live overhead lines, thus minimising planned outages.

Drafting a new HV Repair Strategy, prioritising repairs to minimise failures for restoration of supplies that take longer than 12 hours. This will be actioned in 2025/26.

Planned work outage optimization – ensuring outages are planned alongside other work – i.e. asset replacement to avoid multiple interruptions for the customer.

- During 2024/25 NGED were provided with additional funding as a result of one of Ofgem's uncertainty mechanisms: the Storm Arwen re-opener. Uncertainty mechanisms allow network companies to apply for additional funding during a price control in response to changing developments during the RIIO-ED2 price control period, which are then assessed by Ofgem, who can adjust our allowances. Storm Arwen was a severe weather event in November 2021 that caused widespread disruption, including power outages. The significance of this storm resulted in Ofgem and DESNZ conducting reviews of DNOs' responses.
- The Storm Arwen re-opener provided an opportunity for all DNOs to consider these recommendations and make requests for additional funding to undertake a range of projects to improve network resilience and minimise impact of future storms. In 2024/25, through this re-opener, Ofgem awarded further funding to NGED for a range of projects, including:
 - Undergrounding HV overhead lines in wooded areas to reduce incidents.
 - Utilising new technology which allows us to detect and fix potential faults before they occur.
 - Speeding up restoration through switching (via automation).
 - Reducing the number of customers in protection zones.
- These projects will be delivered during the remainder of the price control.
- We continue to see the impact of increasing weather and environment related incidents on our networks, with eight named storms occurring nationally during 2024/25. Most significant of these was Storm Darragh which saw wind gusts of up to 96mph and a record number of customers were impacted. Major storms are classified as exceptional events and their impact is excluded from the results detailed above, however storm related damage often has ongoing impact beyond the initial event – restricting access to fault sites, delays in restoration for unrelated faults and stretching field resources beyond normal operating capacity. This means that non storm related faults may also experience extended resolution times, impacting overall performance.



Network Resilience

- During 2024/25 we spent £5.2m (nominal prices) on Quality of Supply, recognising that whilst there are no direct allowances for this within RIIO-ED2 we can identify schemes that will directly benefit customers and help to improve network reliability performance.
- **9.10** During 2024/25 we have ensured that we are able to overlay vulnerable customer data onto existing mechanisms for identifying network improvement schemes, and we currently utilise this data in assisting some investment decisions. As part of our Asset Management transformation, we are introducing a centralised, end to end, investment planning process. As new processes are delivered as part of this transformation, we will include guidance for managers on a consistent mechanism for prioritising vulnerable customers, where appropriate, for all investment decisions.





Improve the service for at least 8,260 Worst Served Customers by undertaking 70 schemes.

- **9.11** Worst served customers are defined by Ofgem as customers experiencing 12 or more higher voltage interruptions over a three-year period (with a minimum of two interruptions per year).
- **9.12** Improvements for worst served customers aim to reduce the number of interruptions for customers who experience an unusually poor level of service. The types of work carried out might include the installation of additional automated switching so that fewer customers are interrupted or changing equipment which is prone to damage in exposed areas with high winds.
- **9.13** Progress against planned schemes for RIIO-ED2 has been slower than anticipated. To date we have undertaken two schemes which are expected to benefit 780 customers.
- **9.14** This has lead to us conducting a review of schemes that can be delivered within the remaining three years of RIIO-ED2.
- **9.15** We have established a list of all worst served feeders and have set up regional tracking to provide more visibility of any issues and to track closer to real time impact on customers. This allows us to prioritise circuits that have the greatest ongoing impact to customers, rather than relying solely on historic worst served data.

- **9.16** As part of this review, we have identified the need to focus primarily on delivering benefits to the greatest number of customers rather than the greatest number of schemes. As a result whilst we still have some small but technically challenging schemes to complete in 2025/26, we expect the volumes of customers benefitting from schemes to notably increase in the latter years of the period.
- **9.17** We have identified 52 further schemes which are expected to benefit circa 11,700 customers and we are confident that these schemes can be delivered during the price control.



Output 35

Counteract deterioration of network assets by delivering a 20 per cent change in risk to keep network risk at similar levels to the start of the price control period.

- **9.18** The condition of network assets degrades over time and as a result NGED has an ongoing programme of asset replacement and refurbishment. The work is primarily carried out to maintain the reliability and safety of the network.
- **9.19** We assess the impact of asset replacement and refurbishment by applying a risk assessment process which considers the likelihood of an asset failing (asset health) and the consequences of the failure (criticality). Assets in good condition have a lower risk than assets in poor condition, so the act of replacing a poor condition asset with a new asset reduces risk levels. All DNOs use a common methodology for assessing such risk – this is referred to as the Network Asset Risk Metrics (NARMs).
- **9.20** The table below shows the targeted risk point reduction we need to achieve in order to deliver a 20% change in risk to keep network risk at similar levels to the start of the price control period. We are currently on track against our planned schedule to deliver the risk point reduction that we committed to by the completion of RIIO-ED2. As a whole NGED has delivered just over 36% of our overall programme for maintaining asset health within the first two years of the price control period.

NARM Performance	West Midlands	East Midlands	South Wales	South West	NGED Total
RIIO-ED2 total target	-519,787,560	-404,654,338	-362,711,582	-627,171,211	-1,914,324,691
RIIO-ED2 delivered (5 years)	-176,556,890	-163,028,145	-153,628,177	-194,006,699	-687,219,910
RIIO-ED2 to date percentage	34%	40%	42%	31%	36%



Reduce flooding risk of our key sites and engage with Output 36 stakeholders to reduce the need for new assets in flood risk areas.

- Flooding can pose a risk to our assets and impair our ability to keep power flowing. To mitigate this we install flood defences at a number of substations that are at a greater risk of flooding.
- 9.22 Flood risk is assessed based on the probability that flooding will affect electricity supplies and the number of customers likely to be impacted. Flooding is categorised as either fluvial where it relates to river or coastal sites, or pluvial where it relates to excessive rainwater (flash flooding).
- To date we have installed 21 flood defences as part of our RIIO-ED2 programme, six related to potential fluvial flooding and 19 related to potential pluvial flooding risks. During 2024/25 we undertook 47 hydrological surveys at sites potentially at risk of flooding. These surveys inform our programme planning for the remainder of RIIO-ED2, allowing us to prioritise sites at greater risk.
- **9.24** Whilst scheme delivery is less than the volume of sites we anticipated as a result of our RIIO-ED2 forecasts (submitted in December 2021) we have a programme of 50 additional sites to deliver in the remaining years of RIIO-ED2 and remain confident that we will appropriately manage risk over the remainder of the price control.

Safety

- **10.1** We are committed to ensuring the safety of every single colleague and anyone who interacts with our organisation. We continuously strive to evolve our safety culture, encouraging and enabling everyone to have a voice when it comes to safety.
- **10.2** During 2024/25 we reviewed our existing arrangements and implemented a new Safety, Health and Environment (SHE) operating model across NGED. This involved identifying and recruiting new roles, including additional specialisms, in order to drive improved SHE performance, with the aim of becoming an industry leader.
- **10.3** To this end we implemented an enhanced companywide behavioural safety training programme within 2024/25. This programme was developed to drive a reporting and learning culture within the organisation - in order to ensure that incidents are reported and investigated, with suitable corrective action implemented as a result.
- **10.4** We recognise the value of learning from near miss incidents, and the potential for reducing the likelihood of a more serious incident occurring in the future. For 2024/25 we set challenging targets for increasing the reporting of Accidents (injuries), Near Miss and Good Catch (unsafe conditions) categories. In 2024/25 we saw 1,576 Near Misses reported and 596 good catches, an increase of 1,807 reports when compared to 2023/24. This increase allows us to identify, investigate and implement corrective actions as a result of these events, before injuries can occur.
- **10.5** During 2024/25 we recorded a Lost Time Injury Frequency Rate (LTIFR) of 0.18 per 100,000 working hours. There have been no prohibition notices received from the HSE.
- **10.6** As part of our ED2 Business Plan we established two core commitments for public safety as detailed below.



Increase the safety of children by delivering schemes Output 37 to underground, insulate or divert overhead lines that cross school playing areas.

- **10.7** In order to reduce risk and keep children safe we have committed to delivering schemes that underground, insulate or divert overhead lines that cross school playing areas.
- **10.8** Where an overhead line crosses or runs adjacent to a school playing area we have risk assessed and categorised each asset in order to identify work that needs to be undertaken. The initial survey undertaken as part of RIIO-ED2 business planning identified just over 700 assets requiring action. These assets were risk assessed and categorised from 0 (very low risk) to 5 (high risk). Our asset management systems log data on each asset and enable us to monitor progress on removing risks.
- 10.9 To date we have removed 160 overhead hazards. Whilst scheme delivery for the first two years of RIIO-ED2 has been slower than anticipated we are confident that we will remove the nominated assets over the remaining years of the price control.



Case Study



Removing risks from school playing areas

Our Worcester Cotswold team have identified seven assets within their area which pose a potential safety risk for school children and will therefore be addressed during the course of RIIO-ED2. Each site has been assessed to consider the work required and the level of risk posed.

In 2024/25 the team undertook two schemes to remove open wire conductors from locations adjacent to, or oversailing, school playing areas. The poles carrying the wires were assessed as sound and the existing open wires were replaced with aerial bundled conductor (ABC), a system that bundles multiple insulated conductors together into a single cable. ABCs provide increased safety compared to conventional bare overhead lines by providing insulation between conductors. ABC reduces the risk of direct contact and other associated risks. Of the seven assets requiring action within the RIIO-ED2 period four remain.

In 2025/26 the team plan to undertake a further scheme which requires a more complex approach as the poles and overhead line which pose a risk will need to be undergrounded and diverted from the existing pathway. The scheme has been planned and costed and is ready for delivery during school holidays when work can be safely undertaken.



Safety



Keep our children safe by sending electrical safety education packs to every primary school in NGED's region and educate at least 80,000 children per year via direct learning.

- **10.10** We recognise that we have a responsibility to raise awareness of the dangers of the electricity network, and we provide safety information focused on potential hazards and how to avoid them, so that our customers stay safe around our electrical assets.
- 10.11 Our education outreach programme provides information and education to children and young people with the aim of raising awareness of hazards. For RIIO-ED2 we developed an educational resource pack which was sent to all primary schools in 2023/24. We will refresh the pack as appropriate over the course of RIIO-ED2. It currently provides access to an interactive lesson designed with teachers.
- **10.12** Our education outreach programme uses a range of activities to teach children about the importance of electrical safety and includes:
 - Individual school visits.
 - Crucial Crew and Junior Life Skills events held in conjunction with emergency services and linked to the national curriculum.
 - Resources, games and videos for students and teachers on our Power Discovery Zone website.
 - Electrical safety resources at permanent safety centres across our region.
- 10.13 Whilst we have a specific team focused on education and outreach, we also encourage colleagues from across the business to share their knowledge and experience to help engage and inform others on electrical safety. By developing a network of individuals across our regions we have been able to engage with 85,000 children on the topic of electrical safety.

Case Study



Summer engagement events

Throughout the summer, we engage thousands of people with vital electrical safety education and STEM outreach at agricultural shows and science festivals across our regions.

This year we attended five shows: The Royal Bath and West Show, The Royal Welsh Show, The Royal Three Counties Show, Cheltenham Science Festival and the National Eisteddfod.

143 colleagues volunteered more than 1,400 hours to support these events, which included an educational puppet show, a VR helicopter experience and electricity generating bikes.





Business IT Security and Cyber Resilience



Reduce the risk of data loss or network interruption from a cyber attack by continually assessing emerging threats in order to enhance our cyber security systems.

- 11.1 Recent years have seen a rise in the cyber activities of organised crime, through attacks such as ransomware, targeted phishing and business email compromise. State sponsored cyber actors continue to demonstrate increasingly sophisticated capabilities leveraging professional skills, proficiency in the use of tools and technologies, and in some cases a working knowledge of systems to execute cyber attacks.
- 11.2 NGED's ED2 Cyber Security Business Plan defines our baseline security capabilities and the strategic investment and maturity outcomes NGED will achieve within ED2 in the areas of cyber security risk management, identity and access management, platform security, network security, vulnerability management, third party supply chain risk, data protection and training and awareness.
- 11.3 We continually assess our exposure to emerging cyber security threats and our maturity in these areas through a comprehensive programme of:
 - Vulnerability scanning and penetration testing. This also includes 'red teaming' – a method of security assessment where security professionals undertake exercises designed to simulate real world attacks so that we can more accurately gauge how vulnerabilities might be exploited.
 - Cyber security awareness and training programmes for our colleagues.
 - Third party supply chain risk management.
 - Internal and external threat intelligence integration with our security information and event management tooling to enhance cyber security incident response processes.
 - Independent external audits to review our cyber security management systems in order to identify and mitigate ongoing threats and vulnerabilities.

- 11.4 The outputs of these activities are used for in depth validation of the design, implementation and defense provided by our preventative and detective cyber security controls, to ensure we are able to proactively respond to emerging threats.
- 11.5 Our activities ensure that we are compliant with the Security of Network & Information Systems Regulations (NIS Regulations) legal measures designed to boost the security of network and information systems. We use the associated Cyber Assessment Framework (CAF) and NIST (National Institute of Standards and Technology) Cyber Security Framework to assess our cyber resilience in relation to essential functions. We aim to achieve a continuing improvement in our NIST score to evaluate maturity in this area.
- 11.6 We routinely engage with Ofgem and our peers through various industry working groups to benchmark our understanding of current and forthcoming NIS regulatory compliance requirements. This includes annual compliance reporting to Ofgem, which is used to articulate our current compliance position and validate planned works to achieve future compliance requirements. We seek independent assurance in these matters on an annual basis through a combination of internal National Grid and external cyber security subject matter experts.



Reduce the risk of disruption to our operations and enhance the resilience of our IT network security as we deliver greater digitalisation by increasing levels of threat monitoring, prevention and alerting systems and upgrading our disaster recovery capability to ensure continuity of our operations.

- 11.7 The growing external threat environment detailed above, together with the increasing digitalisation of our network is likely to increase both the potential attack surface but also the probability and impact of a cyber incident.
- 11.8 Traditional boundaries between our IT network and our Operational Technology (OT) systems are becoming increasingly interconnected. Within our RIIO-ED2 Business Plan we committed to continually improving customer service through increasing provision of open data, and network and service digitalisation initiatives such as the adoption of AI and the increased use of smart monitoring devices on our network.

- 11.9 We seek to apply the industry best practices detailed above to our IT and OT environments by undertaking a programme of:
 - Vulnerability scanning and penetration testing as detailed above.
 - Cyber security awareness and training programmes.
 - Third party supply chain risk management.
 - Cyber security incident response, business continuity and disaster recovery exercises to maximise readiness in event operations are affected.
 - Independent external audits to review our cyber security management systems in order to validate strategic maturity programmes and identify further opportunities that will allow us to prevent or reduce the likelihood of cyber attacks and/or minimise their impact.
- **11.10** We are committed to identifying new initiatives to improve the cyber resilience of business functions and systems.



National Grid Electricity Distribution RIIO-ED2 Business Plan Commitments Report 2024-2025

Workforce Resilience



Output 41

Demonstrate exceptional and embedded employment practices by the end of RIIO-ED2.

- **12.1** We are committed to being an employer of choice, attracting new talent to the sector and developing our workforce to deliver now and in the future. We prioritise the safety, health and wellbeing of our people and continue to focus on embedding an inclusive workplace culture.
- **12.2** We continued to grow our organisation in 2024/25 by investing in new capabilities and strengthening our workforce. This included the introduction of 150 new Team Leaders within Operations, enhancing leadership and delivery at the frontline. Alongside this, we've continued to build capability and capacity in strategically important areas such as our DSO, Asset Management & Commercial and Connections teams, ensuring we're well-positioned to meet the evolving needs of our customers. Underpinning these activities is our Strategic Workforce Plan, where we assess future needs of the business to ensure that we have the right people, in the right place at the right time.
- **12.3** As the business grows, we continue to develop our people strategies whilst key elements remain central to our approach. We are committed to building an inclusive culture where diversity is embraced and everyone can succeed.

Safe to Say – Embedding our safety culture to one where we feel safe to speak up, raise near misses and learn from them.

- **12.4** We operate a company-wide 'Safe to Say' principle which underpins our safety culture and our values as a company. Safe to Say means having meaningful and regular safety discussions, openly talking about our safety performance (whether it's good or bad) and, most importantly, being and feeling safe to say what's on our minds.
- **12.5** During 2024/25 we delivered our new safety behaviour training programmes which focused on living our safety principles to over 6,000 colleagues and leading our safety principles to over 350 leaders to create a proactive safety culture. Teams regularly discuss safety via team meetings, safety briefings and general discussions.

Investing in our Leaders

12.6 During 2024/25 we continued to deliver a range of leadership schemes.

111 Line Managers attended Behavioural Leadership programme focused on building high performing teams.

Over **200 leaders** have attended our **Lead to Transform programme**, focusing on leading change and transformation.

Bitesize virtual leader sessions and leaderships labs provided regular upskilling sessions, focusing on driving change, developing others and managing performance and recruitment.

159 Field Operations Team Leaders completed a Team Leader **Development Programme**. A blended approach using online and in person sessions, bite size learning and peer networking.

We delivered **6 Mindgym virtual sessions**, helping leaders drive a culture of performance.

Development assessments led to 48 operational leaders attending coaching programs (with 360 feedback), and 34 attending additional leadership programmes.

32 Team effectiveness sessions delivered to 236 leaders and their teams, fostering cohesion and positive collaboration among teams.

12.7 As part of our ongoing commitment to upskilling leaders in inclusion, addressing behaviours and having challenging conversations, we created and delivered "BIG Respect" training days for our leaders. We delivered 2 training days per license area in person, reaching over 200 of our leaders.

Supporting Social Mobility

- **12.8** To remove additional barriers to a career in the energy industry we continue to invest in the Power Network Craft Assistant (PNCA) scheme, which waives formal educational requirements in order to encourage applications from those who have the attitude, work ethic, and relevant life skills but lack the academic qualifications to join our craft teams via other routes. In total during 2024/25 we had 12 successful PNCA recruits.
- **12.9** The scheme runs for a period of 12 to 18 months providing classroom training followed by the opportunity to gain experience through on the job training. Trainees develop a portfolio of evidence and are provided with an individual learning plan. Trainees are provided with a mentor and have the opportunity to progress to a range of career opportunities such as the Power Networks Craft Apprenticeships.



Workforce Resilience

Supporting colleagues to thrive at work

12.10 We provide a range of support mechanisms to ensure that colleagues have the opportunity to develop in a supportive environment. This includes:

10 **Employee Resource Groups** (ERGs) proactively building awareness of inclusion and diversity. Offering colleagues the opportunity to attend events, connect with others and improve NGED policies.

Our recently updated **Employee Assistance Programme** provides a comprehensive mental health support pathway. Individuals can access confidential guidance and support on a range of topics that may affect wellbeing.

Mentoring is used to support individuals to progress their careers. Every individual on a formal training scheme has a mentor with mentoring training rolled out to 300 colleagues in 2024/25.

Our **Thrive Mental Wellbeing app** is a proactive mental health tool available to all colleagues offering 24/7 access to support. This includes self-management tools and in-app therapy services.

Providing early career opportunities

- **12.11** We provide a range of early career opportunities including Craft Apprenticeships, Graduate Development Programmes, Intern schemes and leadership programmes for new and aspiring managers. During 2024/25, we took on 20 new graduates who undertook placements across the business and 122 apprentices.
- **12.12** All employees can access LinkedIn Learning which allows colleagues to access over 8,000 learning resources covering a wide range of topics. LinkedIn Learning is a flexible solution, accessible via any internet-enabled device allowing individuals to access learning at a time convenient to them.

12.13 All employees have access to our Career and Development pages via the NGED intranet, which provide tools and guidance to help employees understand where they are now and what they can do to develop in their role or progress in their careers.

Employee engagement

- **12.14** We recognise the benefits of an engaged workforce and ask for employee views via Grid:voice, an anonymous annual survey where every employee is invited to have their say about working for National Grid. Grid:voice enables individuals to share their views on what it is like to work for NGED so that we can build on what is going well and improve what isn't.
- **12.15** Once the survey closes, managers or supervisors are given access to personalised dashboards, including feedback on their leadership. Leaders are encouraged to create local action plans aligned with NGED-wide initiatives, enabling targeted improvement activities.



Case Study



Grid: Voice in Action

As an example, the 2024/25 Grid:Voice survey results identified that colleagues wanted to see more communications about the things that matter most to them.

This included updates on vehicle replacement strategies, upgrades to facilities, technical training and changes to PPE.

A review of existing communications was undertaken, including independent focus groups and the following changes were implemented, including:-

- A new quarterly call for Field Operations colleagues, dedicated to answering questions on key topics.
- A monthly call for the Field Operations Leadership Team to ensure they are equipped with the latest information across a range of topics.
- A streamlined approach to team brief that prioritises local information that matters most to Field Operations colleagues and encourages two-way dialogue.
- Various development sessions to build effective communication capability across our leadership population.





Workforce Resilience

Code of Ethics

- 12.16 Our Code of Ethics outlines how we behave and is shaped by our three values - Do the Right Thing, Find a Better Way and Make it Happen.
- **12.17** The key themes of the Code of Ethics are highlighted via a regular communications campaign for colleagues. Leaders provide updates via team meetings, and our independent Ethics Team carry out in-person visits across our depots with the aim of highlighting what to do if you have a concern, and how the Ethics Team can support colleagues.
- **12.18** If a colleague has a concern that someone may be acting unethically, they can report this to their line manager, the People Team, or to our central and independent Ethics Team (via our anonymous hotline if preferred) to prompt appropriate action.



Achieve year-on-year improvement to the levels of Output 40 diversity within the business and publish an annually updated Diversity, Equity and Inclusion Action Plan.

12.19 At NGED we value colleagues from all backgrounds and celebrate the diversity this can bring to our business and our culture. We are committed to maintaining an inclusive and respectful workplace and on an annual basis we update our Diversity, Equity and Inclusion (DEI) Action Plan and share this with our employees. We actively champion Big Respect across the business and over 200 leaders have received training to role model and embed this.



12.20 We aim to:

- Attract, develop and retain a high performing, diverse and inclusive workforce
- Maintain an inclusive workplace culture
- Foster partnerships that support the growth and vitality of the communities and customers we serve
- Develop and sustain relationships with a range of suppliers, vendors and service providers.
- **12.21** All employees complete a group induction that introduces ethics and our approach to inclusion and diversity. Employees also have the option of getting involved with the NGED Inclusion Network, an employee-led initiative that brings together people in NGED who are passionate about driving inclusion in their local depots and connecting with others across the business.
- **12.22** We measure the gender and ethnic diversity of our workforce on an annual basis and have achieved year-on-year improvement to the levels of diversity within the business.

Case Study

Diversity in action



We are committed to upskilling our leaders and giving them the knowledge to lead inclusively and in line with the values of National Grid.

To support them with this, we created our in person BIG Respect training sessions. The sessions were designed in partnership with an external company utilising actors and tackled three key themes.

- Understanding what is meant by BIG Respect and recognising what responsibility leaders have towards addressing inappropriate behaviour.
- Learning the importance of having difficult conversations and how to communicate more effectively within teams.
- Understanding the recent law changes around the Workers Protection Act and the responsibility managers have relating to this.

In conjunction with the above, a workbook was developed as an additional resource to take back to their depots following the session, with exercises and prompts for further discussions with their teams.

8 sessions were hosted initially, reaching over 200 managers across all four licence areas. Additional sessions were also delivered to those who could not make the initial dates to ensure all leaders had multiple opportunities to attend.

Feedback from the training was overwhelmingly positive.



Expenditure

- 13.1 Over the course of RIIO-ED2, we have been set allowances by Ofgem that currently total around £5.5 billion (in 2020/21 prices) over the 5 years. We are committed to keeping costs low for customers and achieving efficiency savings through a range of initiatives (as detailed within output 16). The savings that we deliver are shared 50:50 between us and our customers.
- Allowances are subject to variation throughout the price control period, in order to keep pace with changing industry requirements as we progress towards net zero. Ofgem have introduced 'uncertainty mechanisms' that allow network companies to apply for additional funding and for Ofgem to adjust our allowances in response to developments in the way we deliver work. Around a quarter of our allowances are subject to these mechanisms. The allowances identified below are those forecast and submitted to Ofgem in our annual regulatory reporting, submitted in July 2025.
- 13.3 Expenditure in 2024/25 saw a 12% increase from 2023/24, and we are forecasting that investment levels will continue to grow over the remaining years of RIIO-ED2. 2024/25 has been a period of continued mobilisation and we have made huge strides: growing our new Asset Management team to transition towards a centrally coordinated programme of work; evolving our Customer Strategy with increased customer segmentation and journey mapping; establishing ourselves as a leading voice in connections reform; and increasing our management and analysis of safety measures.
- 13.4 Although NGED expenditure in the first 2 years of RIIO-ED2 is 7% lower than allowances, we are on track to deliver in line with our ED2 allowances at Totex level (total costs), and deliver the outputs that we've committed to for our customers and stakeholders through RIIO-ED2.
- **13.5** Total costs for ED2 to date are shown below, with variations by licence area.

Total costs (Totex) for ED2 to date (based on 20/21 prices) £ million

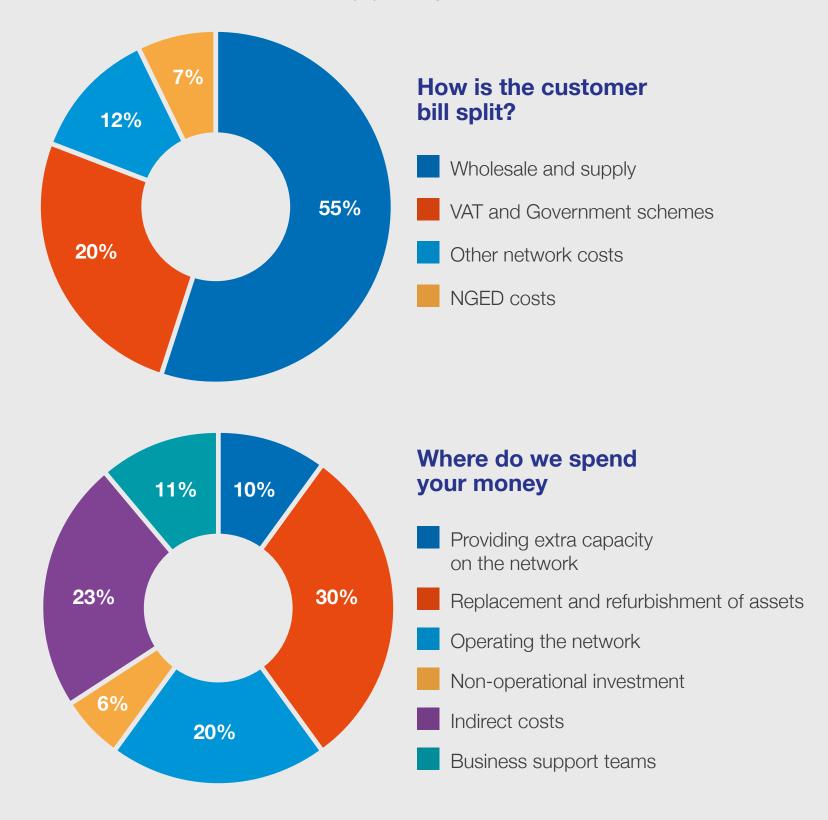
Licence area	West Midlands	East Midlands	South Wales	South West	NGED Total
Totex actual costs	583	620	350	545	2,097
Totex allowance	633	694	378	540	2,245
% difference	8%	11%	7%	-1%	7%

- **13.6** Our Totex expenditure covers all aspects of running a distribution network including the following:
 - Providing extra capacity on the network.
 - Capital investment in the network, including the replacement and refurbishment of assets which are in poor condition.
 - Network operating costs includes inspections, repair and maintenance, faults and tree cutting.
 - Non-operational investment such as buying new IT systems, property, vehicles and small equipment.
 - Closely associated indirect costs the costs of staff and systems that allow us to carry out work on the network, such as network design activities.
 - Business support central functional teams such as Human Resources and Finance, which support the whole business.

What does this mean for our customers?

Around 7%⁴ of the bill that customers pay to their supplier comes to us, the remainder goes to other costs including the cost of the energy in the first place, government environmental and social schemes, and the costs of other networks like the transmission and gas networks.

Our proportion of this bill is on average £98⁵ for the typical dual-fuel domestic customer, less than 27p per day.



⁴Based on MPAN usage of 2900 kwh over 365 days

⁵Values are quoted in 2020/21 prices, as this is the price base used for setting allowances.

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