Regulatory Financial Performance Report

Northern Powergrid (Northeast) plc

Northern Powergrid (Yorkshire) plc

2023/24

CONTENTS

1. EXECUTIVE SUMMARY 2

a. CEO foreword 2

b. ED2 business plan delivery and strategic priorities 3

2. KEY FINANCIAL PERFORMANCE MEASURES 4

a. Explaining our financials 4

b. Step-by-step breakdown of RoRE 6

c. RoRE - excluding Holdco debt 8

d. Totex performance summary 10

3. KEY OPERATIONAL PERFORMANCE MEASURES 14

a. Primary output performance 14

b. Safety 15

c. Reliability & availability 16

d. Environment 17

e. Connections 18

f. Customer satisfaction 19

g. Innovation 20

h. Whole systems progress 24

ANNEX A1(a): NORTHERN POWERGRID PERFORMANCE 27

ANNEX A1(b): LICENSEE PERFORMANCE (NORTHEAST) 28

ANNEX A1(c): LICENSEE PERFORMANCE (YORKSHIRE) 29

ANNEX A2: OUTPUT PERFORMANCE ASSESSMENT 30

4. OVERVIEW OF REGULATORY PERFORMANCE 31

ANNEX B1: CORPORATE OWNERSHIP AND GOVERNANCE FRAMEWORK 35

ANNEX B2: DIVIDEND POLICIES 38

ANNEX C1: ENDURING VALUE METHODOLOGIES 39

ANNEX C2: BASIS OF APPORTIONMENTS AND ALLOCATIONS 40

Note

1. *All financial figures within this document are rounded to 1 decimal place and quoted in 2020/21 prices (unless otherwise stated). As such, there may be variances in total figures due to rounding.*

1. EXECUTIVE SUMMARY

a. CEO foreword

Taking a positive step forward in the first year of the 2023-28 period

I'm pleased to report good progress in delivering the promises we made to customers in our ambitious plan for 2023-28. Perhaps most notable are the service improvements we've made for our customers, particularly in connections. We've seen some encouraging progress at both the smaller-scale domestic level and in the major connections arena, where we have been engaging with our customers to find local solutions to some of the extended connection dates caused by constraints on the transmission network.

Behind the scenes, we have been ramping up our activities that support decarbonisation, whilst we re-engineer our investment plans to deliver in line with the efficiency challenges set by our regulator. That means the profile of investment and outputs won't be a straight line over the five-year period, and that's what the first-year shows. We have delivered 11% of our outputs and expect this to accelerate steadily in the later years of our plan. We expect that to coincide with national policy looking to further accelerate the pace of progress towards net zero in the 2028-33 period.

Delivering an outstanding service for our customers

We are very pleased to report significant progress in our customer service performance. Our customers are telling us they are feeling the benefits of us increasing resources in key areas, upskilling our existing teams, and upgrading our online services. A good example is a new self-service tool for connections and an upgraded power cut map. This has helped us deliver a 1.8% year-on-year improvement to score 90% satisfaction, and we continue to improve with the January-March period of 2024 scoring above 91% satisfaction.

This has been mirrored in connections, which has been one of our focus points given the critical role we play in facilitating the uptake of low carbon technologies. We have delivered a 50% improvement in our quotation speed and 24% improvement in delivery time for single premises connections and service alterations to allow customers to install heat pumps, solar panels and electric vehicle chargers in their properties.

Leading the drive towards decarbonisation

In the major connections space, particularly the connection of low carbon generation, we have been working hard with others in the industry, and Ofgem, to address an issue of national importance – helping to ease the impact of constraints on the transmission network caused by a connections queue that includes a lot of speculative projects that are holding up those that are ready to deliver. Our new processes are accelerating connections that are ready, ahead of those that are not. Where we have been able to do that, the connection dates have come forward by an average of six years. But much more needs to be done across the industry to enable the UK to meet its net zero target and our customers can count on us to play a key part in that national work – and bringing the benefits of it to our region.

Operating a highly reliable and resilient network

Despite the significant progress in many areas, an unusually wet year, including nine consecutive months of higher-than-normal rainfall in our Yorkshire region, added to seven named storms, made for a challenging year on the network reliability front. Customers still experienced 99.99% availability, but we want to see that improve. We have made good progress on investments that will help to make that happen; we have increased pole replacement by 50% in the year, deployed 1,300 new remote switches, and conducted vegetation cuts across 1,850km of network.

There is still more to do, and 2024/25 will see us increase our capability, particularly out of hours, across both our own workforce and our contractors. This will be supported by improvements in technology to provide customers with better information when they do have a power cut.

Encouraging sustainable and long-term investment

Our investor's long-term outlook provides financial stability that our stakeholders deserve. We are consistently one of the most financially resilient companies in the sector. Our owner looks to invest in support of decarbonisation across our region for a fair and balanced return that delivers for customers for the long term.

We are proud to be the team that provides the North East, Yorkshire and northern Lincolnshire with the electricity network that powers everyday life for more than eight million people.

Phil Jones

Chief Executive

b. ED2 business plan delivery and strategic priorities

Key Strategic Priorities	ED2			Key initiatives
	Target	*2023/24*	*Forecast*	
COSTS & OUTPUTS: Efficiently deliver our £2.7bn ED2 investment programme				
Total Costs – ED2 to date *(Variance to allowances)*	£2,722m	-£100.6m *(-19.6%)*	£2,722m (0.0%)	• ED2 cost efficiency programme
Outputs – ED2 to date *(Variance to target)*	100%	11.0% *(-7.8%)*	100% *(-)*	
SAFETY & SECURITY: Maintain our position as an industry leading safety performer whilst delivering continued improvement.				
OSHA accident rate	0.18	0.34	0.18	• Safety engagement, training and audits • Contractor safety performance improvement programme • Cyber-specialist training and automated threat detections
CUSTOMER SERVICE: Improve customer satisfaction to become a leader in the industry				
Overall BMCS *(Improvement in period)*	91.2%	90.1% *(+1.8pp)*	93.5%	• Three new contact channels and more choice when booking planned services • On site support for longer duration power cuts • Six regional teams to address complaints locally
Day+1 complaint resolution *(Improvement in period)*	91.2%	77.7% *(+1.3pp)*	90.0%	
CONNECTIONS: Reducing routine connections lead times whilst facilitating the mass uptake of low carbon technologies and network flexibility.				
Connections BMCS *(Improvement in period)*	91.2%	89.8% *(+2.7pp)*	92.5%	• Enhanced and expanded self-serve AutoDesign capabilities • LV network availability heat maps • Advice and guides for customers wishing to connect LCTs
Small works lead times *(Improvement in period)*	42.7 days	*41.2 days (24.5%)*	29.0 days	
RELIABILITY AND AVAILABILITY: Increased network resilience, 25% shorter and 12% fewer unplanned power cuts				
Customer minutes lost[1]	40.6	51.9	28.3	• Network remote control and automation • Foresight data integration and LV guard deployment, providing LV network management • Accelerated vegetation management programme
Customer interruptions[1]	47.7	52.5	42.0	
ENVIRONMENTAL PROTECTION: Minimise our impact on the environment				
Oil/fluid lost to ground	23,200	20,995	17,530	• Targeting assets liable for fluid or SF_6 loss for replacement • Installing lower loss cables and transformers
Business Carbon Footprint	11,430	14,297	11,430	
DECARBONISATION: Facilitating the uptake of low carbon technology and using flexibility for demand reduction, faster connections and efficient investment				
Accelerated Connection Offers made to transmission constrained customers	NA	35	NA	• Flexibility tender exercises annually • Expanded network and market data with enhanced analytics • Cross-sector and cross-vector planning with various industry stakeholders
Average reduction in lead-times for transmission constrained customers when offers made	NA	6.5 years	6.5 years	

KEY RISKS & UNCERTAINTIES

Risk	Description	Risk Mitigation
DECARBONISATION	**The network becoming an obstacle to the decarbonisation objectives and energy transition.**	• Increase in network information provisions. • Connections framework reform • Accelerated Connections offers to speed up major connections
NETWORK RESILIENCE	**Widespread loss of network from weather, asset failure or physical attack**	• Physical security upgrades • Targeted network investment • Major incident management plans
CYBER	**Successful cyber-attack on our IT or OT network**	• £72m Investment in cyber security defences • NIS-R CAF compliance

Figure 1.1 *Northern Powergrid ED2 performance summary*

1. Unplanned, excluding exceptional events - reduction is relative to business plan baseline, four year average 2019-23

2. KEY FINANCIAL PERFORMANCE MEASURES

a. Explaining our financials

Our overall Return on Regulatory Equity (RoRE) forecast for the ED2 period is 8.0% based on Ofgem's notional gearing calculation[1] (7.0% based on actual gearing)

Northern Powergrid RoRE	Notes[2]	Notional gearing		Actual gearing	
		2023/24	ED2 forecast	2023/24	ED2 forecast
Allowed equity return	1	5.3%	5.5%	4.3%	4.8%
Totex outperformance	2	(1.1)%	0.0%	(0.9)%	0.0%
Business Plan Incentive	3	-	-	-	-
Time to Connect ODI	4	(0.0)%	(0.0)%	(0.0)%	(0.0)%
Broad Measure of Customer Service ODI	5	(0.2)%	0.0%	(0.2)%	0.0%
Interruptions Incentive Scheme ODI	6	(0.7)%	(0.1)%	(0.6)%	(0.1)%
Major Connections ODI	7	-	-	-	-
Consumer Vulnerability ODI	8	-	-	-	-
Distribution System Operator ODI	9	0.1%	0.0%	0.0%	0.0%
Network Innovation	10	(0.0)%	(0.0)%	(0.0)%	(0.0)%
Carry-over Network Innovation	10	(0.0)%	(0.0)%	(0.0)%	(0.0)%
Strategic Innovation	11	(0.0)%	(0.0)%	(0.0)%	(0.0)%
Penalties and fines	12	(0.1)%	(0.1)%	(0.1)%	(0.1)%
RoRE - operational performance		**3.2%**	**5.4%**	**2.6%**	**4.7%**
Debt performance	13	10.3%	3.0%	7.8%	2.6%
Tax performance	14	(0.9)%	(0.3)%	(0.6)%	(0.3)%
RoRE - including financing and tax		**12.6%**	**8.0%**	**9.8%**	**7.0%**
RoRE - excluding holdco debt[3]		**13.3%**	**8.3%**	**9.7%**	**7.3%**
Northeast		*14.4%*	*9.4%*	*10.7%*	*8.4%*
Yorkshire		*12.5%*	*7.5%*	*8.9%*	*6.6%*

Figure 2.1: *Northern Powergrid RoRE summary table*

RoRE measures how much a company has earned on its investment in regulatory assets that have been funded by shareholders. This starts with the base return that Ofgem allows to reflect the cost of equity in capital markets and is adjusted for the value earned from any incentive schemes to reflect performance, and any difference between the company's debt finance costs and Ofgem's assumption. In setting the base return in ED2, Ofgem assumes notional gearing of 60%, (i.e. 60% of regulatory assets are funded by debt and 40% by equity); however, a company's actual gearing level will be different to this, which impacts shareholder returns.

Our RoRE for the ED2 period is 7.0%, taking into account our actual level of gearing (i.e. debt to equity ratio) and debt held by our holding company, Northern Powergrid Holdings Company (Holdco), outside of our two regulatory licensees (Northeast and Yorkshire). When Ofgem views our regulatory returns, it uses the 60% notional assumption for gearing. On this basis, our RoRE for the ED2 period (including Holdco debt) is 8.0%. This is 2.5 percentage points above the 5.5% base return allowed by Ofgem for the ED2 period.

Operational performance for the ED2 period is close to the allowed equity return at notional gearing, as we forecast to spend in line with totex allowances and to achieve a broadly neutral position with respect to output delivery incentive performance.

Operational performance for 2023/24 is 2.1 percentage points below the allowed equity return, primarily due to Totex Incentive Mechanism (TIM) and Interruptions Incentive Scheme (IIS) performance. Totex underperformance in 2023/24 is expected to reverse over the ED2 period as targeted efficiencies of 11% on our overall cost base are realised. This is a stretching target and, at this stage of the price control, realised efficiencies are outweighed by expenditure that is not fully funded by allowances (e.g., Quality of Supply expenditure for which no funding was received). Our IIS

1. Including holding company debt
2. See section 2b for detail
3. Including financing and tax

performance in 2023/24 was affected by a high number of storms and an abnormally wet year, which resulted in a challenging year against our reliability and availability targets. Ongoing targeted asset replacement investment in key parts of the network, increased deployment of automation and an accelerated vegetation management programme have laid a recovery path to the targets.

Operational performance is supplemented by outperformance on debt financing (2.6% forecast outperformance at actual gearing which gives a 3.0% assumed outperformance at notional gearing), driven by high inflation in 2023/24 and our debt rates being below the allowed cost of debt (when expressed in nominal terms). Debt outperformance is partially offset by a related underperformance on tax, as the tax impact of lower debt costs is not captured in tax allowance calculations.

As our actual level of gearing is 55% on average for ED2 (lower than Ofgem's 60% notional assumption), this reduces equity returns as our shareholder has contributed more equity than the notional calculation assumes. This means that while the financial rewards remain the same in absolute terms, as a percentage of our investment the return reduces. This accounts for the majority of the 1.0 percentage point difference between the 8.0% ED2 forecast using Ofgem's notional gearing (including Holdco debt) and the ED2 forecast RoRE of 7.0% using actual gearing (including Holdco debt).

b. Step-by-step breakdown of RoRE

RoRE Components	Comments
1. Allowed equity return	*Ofgem's allowed average base cost of equity for the ED2 period is 5.5%, assuming notional gearing of 60%. This is a forecast, which is subject to change via Ofgem's annual updating of the risk-free rate component of the allowed cost of equity.* The allowed equity return falls to 4.8% when our actual gearing of 55% is taken into account, as our shareholders have invested a greater amount of equity than Ofgem's assumed 40% i.e. they receive a lower rate of return (Ofgem's assumed cost of debt) on the additional equity[1].
2. Totex outperformance	*The Totex Incentive Mechanism (TIM) incentivises DNOs to outperform their total cost allowances, sharing any under/overspend with investors and customers through adjusted network charges.* Our forecast expenditure for the ED2 period is £2,722m, which is in line with our allowances.
3. Business Plan Incentive	*The Business Plan Incentive is an ED2 mechanism that could provide companies with a penalty or reward for Ofgem's assessment of their business plan submissions, depending on a number of factors.* We received no penalty or reward under the ED2 Business Plan Incentive.
4. Time to Connect ODI	*The Time to Connect Output Delivery Incentive (ODI) incentivises DNOs to reduce connection times for minor/small connections customers.* We made significant improvements in the time taken to deliver connections to our customers in 2023/24 but incurred a small penalty (£0.2m) in one of the four categories. This has an insignificant impact on RoRE.
5. Broad Measure of Customer Service ODI	*The Broad Measure of Customer Service (BMCS) ODI incentivises DNOs to improve customer satisfaction, deal with complaints quickly and effectively, and engage with stakeholders to inform how they run their business.* Our annual average forecast earnings from this incentive over the ED2 period are £0.3m, which has an insignificant impact on RoRE.
6. Interruptions Incentive Scheme ODI	*The Interruptions Incentive Scheme (IIS) incentivises each DNO to improve performance against their targets for the number of customers interrupted per 100 customers (CI) and the number of customer minutes lost (CML).* We incurred IIS penalties of £9.8m in 2023-24 and forecast an overall total penalty for the ED2 period of £6.2m.
7. Major Connections ODI	*The Major Connections ODI is a penalty-only mechanism to ensure DNOs deliver quality service to customers seeking major connections.* We forecast no penalties against this mechanism in ED2.
8. Distribution System Operator ODI	*The Distribution System Operator (DSO) ODI incentivises DNOs to more efficiently develop and use their network, taking into account flexible alternatives to network reinforcement.* We earned a reward of £0.7m under this incentive mechanism in 2023/24, which has a small impact on RoRE.
9. Consumer Vulnerability ODI	*The Consumer Vulnerability ODI incentivises DNOs to deliver against their vulnerability strategies and to develop ambitious and best practice initiatives.* We have included no forecast rewards or penalties under this incentive mechanism.

1. Adjusting the RoRE calculation from notional to actual gearing also impacts other line items as the same monetary value is divided by a greater amount of equity investment

10. Network Innovation and Carry-forward Network Innovation	*The Network Innovation Allowance (NIA) is a set allowance received by each DNO to fund smaller technical, commercial or operational innovation projects. Funding carried over from ED1 could be used in 2023/24.* 10% of network innovation expenditure is DNO funded and therefore not recovered from customers. This has a small impact on RoRE.
11. Strategic Innovation	*The Strategic Innovation Fund (SIF) supports strategic network innovation projects that contribute to the achievement of net zero. Network companies compete for funding of their proposed SIF projects.* A proportion of project expenditure is DNO funded and therefore not recovered from customers. This has a small impact on RoRE.
12. Penalties and fines	*These are the penalty payments we incur if we fail against the Guaranteed Standards of Performance (GSoP).* This line item takes into account the small impact on RoRE of payments we make to customers in respect of GSoP failures.
13. Debt performance	*Debt performance shows the difference between our actual cost of debt (on a real basis) and Ofgem's allowed cost of debt.* Over the ED2 period, this has a positive impact on RoRE, driven by high inflation in 2023/24 and our debt rates being below the allowed cost of debt (when expressed in nominal terms). Debt performance is influenced by inflation. The cost of debt allowance is not materially affected by short-term increases or decreases in inflation, but the conversion of our nominal cost of debt to a real basis within the RFPR template results in values which can vary significantly from year-to-year, even when nominal debt interest payments remain relatively stable.
14. Tax performance	*Tax performance shows the difference between our actual tax costs (converted to a comparable basis) and Ofgem's allowed tax cost.* This mainly consists of the impact of debt performance on tax, which partially offsets the forecast ED2 debt performance.

Figure 2.2: *Explaining our RoRE components*

c. RoRE - excluding Holdco debt

In this section we show our RoRE results on a licensee basis and provide explanation where there is a difference in performance between the licensees. The RFPR tables published alongside this report are on a licensee basis and do not include Holdco debt.

RoRE based on notional gearing

On a notional gearing basis, there is no difference to the NPg operational RoRE as set out in figure 2.1 above.

The main differences in performance between the two licensees are 'Totex performance' and 'Debt performance'.

- **Totex performance**: We forecast a small overspend against totex allowances in Yorkshire (£12m) and a corresponding underspend in Northeast, with an overall forecast in line with allowances. We have a significantly higher amount of Quality of Supply expenditure forecast in Yorkshire, than in Northeast, to continue and expand the rollout of HV remote control. This programme was not awarded any funding via totex allowances.
- **Debt performance**: This is driven by the different timing of debt issuances in each company. Northeast has a higher proportion of debt instruments that were issued when market interest rates were low, which outperform the training average index used in setting the allowed cost of debt.

The difference in RoRE including finance and tax to the figures shown in section 2a and 2b is due to the exclusion of Holdco debt.

ED Forecast - Notional Gearing	NPgN	NPgY	NPg
Allowed equity return	5.5%	5.5%	**5.5%**
Totex outperformance	0.2%	(0.1)%	**0.0%**
Business Plan Incentive	-	-	**-**
Time to Connect ODI	(0.0)%	(0.0)%	**(0.0)%**
Broad Measure of Customer Service ODI	0.0%	0.0%	**0.0%**
Interruptions Incentive Scheme ODI	0.0%	(0.1)%	**(0.1)%**
Major Connections ODI	-	-	**-**
Consumer Vulnerability ODI	-	-	**-**
Distribution System Operator ODI	0.0%	0.0%	**0.0%**
Network Innovation	(0.0)%	(0.0)%	**(0.0)%**
Carry-over Network Innovation	(0.0)%	(0.0)%	**(0.0)%**
Strategic Innovation	(0.0)%	-	**(0.0)%**
Penalties and fines	(0.1)%	(0.1)%	**(0.1)%**
RoRE – operational performance	**5.6%**	**5.2%**	**5.4%**
Debt performance – at notional gearing	4.5%	2.6%	**3.4%**
Tax performance – at notional gearing	(0.7)%	(0.3)%	**(0.4)%**
RoRE – including financing and tax	**9.4%**	**7.5%**	**8.3%**

Figure 2.3: *Five-year RoRE (notional gearing, excluding Holdco debt)*

RoRE based on actual gearing

When we include actual debt in the licensees (rather than notional), the gearing of our two licensees falls to around 55% on average over the ED2 period. When viewed in isolation, our forecast RoRE for our Northeast and Yorkshire licensees is 8.4% and 6.6% respectively based on actual gearing. The difference in debt performance between the licensees again reflects their historical debt books.

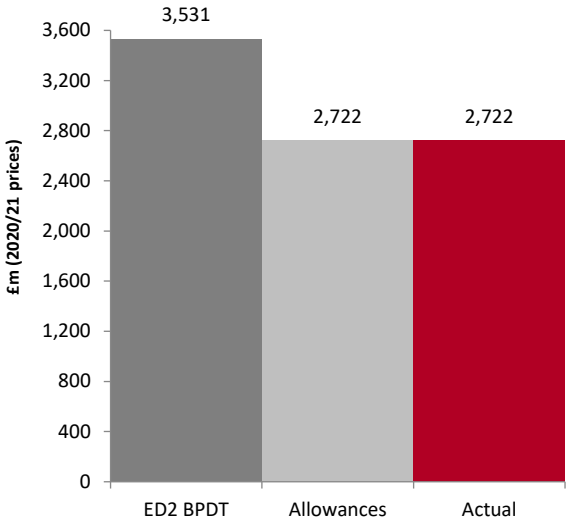
ED2 Forecast - Actual Gearing	NPgN	NPgY	NPg
Allowed equity return	5.0%	4.9%	**4.9%**
Totex outperformance	0.2%	(0.1)%	**0.0%**
Business Plan Incentive	-	-	**-**
Time to Connect ODI	(0.0)%	(0.0)%	**(0.0)%**
Broad Measure of Customer Service ODI	0.0%	0.0%	**0.0%**
Interruptions Incentive Scheme ODI	0.0%	(0.1)%	**(0.1)%**
Major Connections ODI	-	-	**-**
Consumer Vulnerability ODI	-	-	**-**
Distribution System Operator ODI	0.0%	0.0%	**0.0%**
Network Innovation	(0.0)%	(0.0)%	**(0.0)%**
Carry-over Network Innovation	(0.0)%	(0.0)%	**(0.0)%**
Strategic Innovation	(0.0)%	-	**(0.0)%**
Penalties and fines	(0.1)%	(0.0)%	**(0.1)%**
RoRE – operational performance	**5.1%**	**4.6%**	**4.8%**
Debt performance – at actual gearing	3.9%	2.2%	**2.9%**
Tax performance – at actual gearing	(0.6)%	(0.2)%	**(0.4)%**
RoRE – including financing and tax	**8.4%**	**6.6%**	**7.3%**

Figure 2.4: *Five-year RoRE (actual gearing, excluding Holdco debt)*

d. Totex performance summary

ED2 forecast: Expenditure is in line with allowances

Figure 2.5 ED2 forecast



ED2 totex allowances are £2,721.7m, £808.9m (23%) lower than our ED2 business plan submission of £3,530.6m[1]. Within our ED2 allowances, 88% (£2,387.8m) are 'fixed' in nature with 12% (£333.9m) subject to volume drivers or other reopeners. Our view of uncertainty mechanism funding included in this report reflects our latest view of reopener funding, including submissions made to-date to Ofgem, and our current view of RPE forecasts.

Our expenditure forecast for the ED2 period is in line with allowances. In order to deliver 100% of our target outputs within the allowances envelope, we are targeting 11% efficiencies on our overall cost base. This is a stretching target which at this stage of the price control still contains a degree of uncertainty around deliverability.

Our forecast provided in this report reflects the delivery of those efficiencies offset by cost pressures, and changes in stakeholder requirements.

At a licensee level, our ED2 period forecast expenditure is consistent with the overall NPg view, broadly in line with allowances (Northeast 1% below allowances and Yorkshire 1% above allowances).

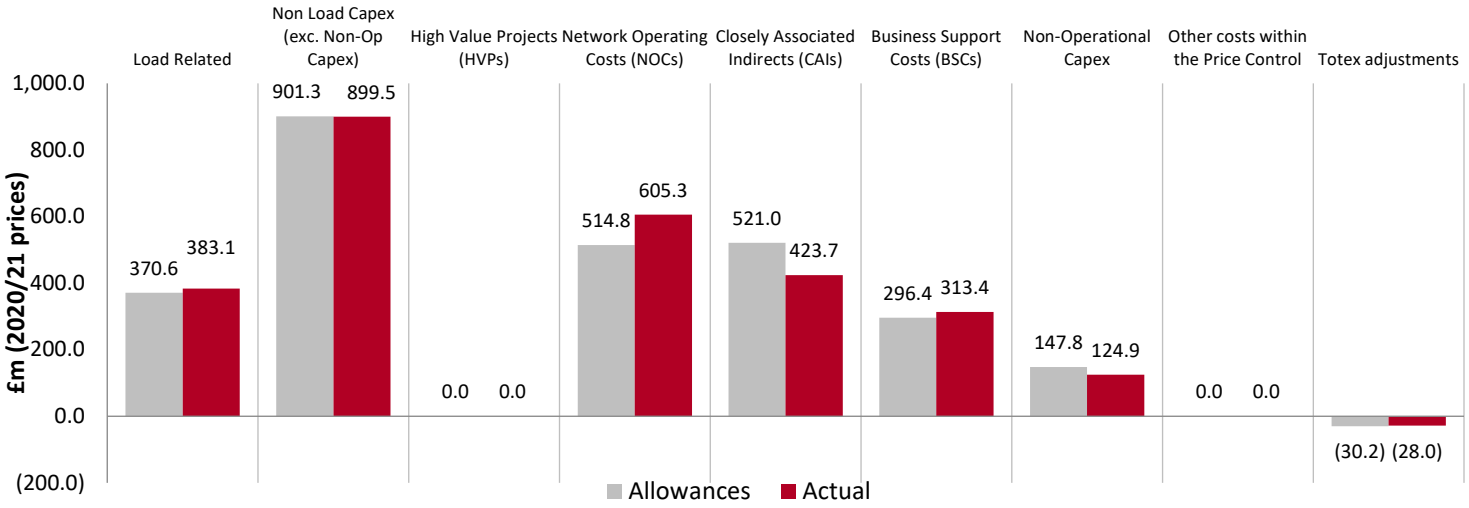


Figure 2.6 Forecast ED2 outturn against allowances by cost category

We expect underspends in certain cost categories to offset overspends in others to enable us to deliver ED2 outputs in line with allowances

Putting aside load related expenditure (which is subject to uncertainty mechanisms), at a category level we expect our expenditure to be broadly in line with allowances in non-load network investment, above allowances in network operating costs (£90.5m; 18%) and business support costs (£17.0m; 6%) and below allowances in non-operational capex (£22.9m; 16%) and closely associated indirects (£97.3m; 19%), overall balancing to total allowances.

We were not allowed our ED2 business plan costs for faults in Ofgem's final determination and whilst our cost reduction programme sees us target that area of spend, we do not expect to be able to operate within allowances for Network Operating Costs (NOCs). Allowances in NOCs were 12% lower than our business plan submission and continued use of generators to improve restoration times and increasing contractor cost pressures means that we expect to be over-spent against allowances in this area.

1 ED2 business plan included our decarbonisation planning scenario and Access SCR forecast (i.e. before scenario normalisation undertaken by Ofgem) and forecast of RPEs at the time of business plan submission

We were awarded more than our ED2 business plan forecast for closely associated indirects (8%) and business support costs (15%) where we were the most efficient company in Ofgem's disaggregated cost assessment. We expect to marginally overspend against allowances in business support costs due to re-allocation of IT costs from non-operational capex and outperform allowances in closely associated indirects and non-operational capex which will contribute to balancing overall expenditure within allowances.

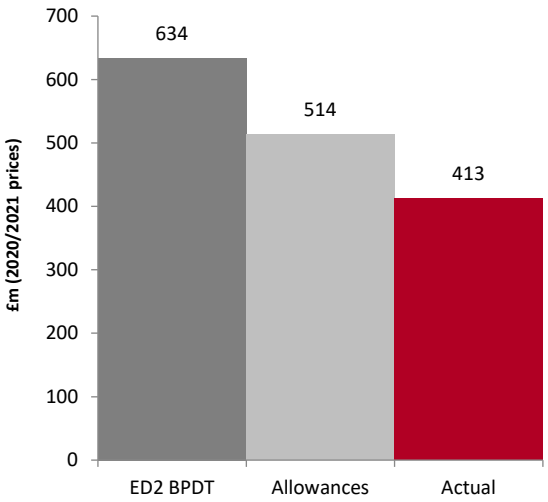
ED2 period to-date: Expenditure in 2023/24 was 20% behind phased allowances as we mobilised our ED2 programme

In the first year of ED2, expenditure was 9% higher than prior year but 20% (£100.6m) below phased totex allowances at £412.9m.

The underspend was driven primarily by:

- Cost re-engineering work to seek to deliver the outputs we committed to stakeholders at the lower level of allowed costs provided in Ofgem's final determination. This cost re-engineering work continues into 2024/25;
- Mobilisation of new programmes and contracts to efficiently deliver outputs in new the price control; and
- Connections within price control being 88% lower than allowances due to high first year allowances related to Access SCR impact that due to project lead times have not yet resulted in higher expenditure levels.

Figure 2.7 *ED2 expenditure to-date*



We delivered 11% of our total ED2 network outputs (NARMs) in 2023/24, which whilst being behind a flat phased run-rate is expected to be recovered by the end of the 5-year period.

At a licensee level, Yorkshire expenditure (16% below allowances) was ahead of Northeast expenditure (24% below allowances), largely due to a slow-down in capital delivery run-rates in the Northeast in the prior regulatory year (2022/23) as the ED1 investment programme was completed. In Yorkshire, tree cutting expenditure was notably higher than Northeast due to an acceleration of the regional programme in line with higher infestation levels.

Overall volume driver and reopener expenditure was broadly in line with allowances with Load Related expenditure within 2% of baseline allowances. The largest variance to allowances on reopeners in 2023/24 related to the cyber programme with expenditure across non-load capex, business support costs and non-operational capex being lower than phased allowances as the programme worked through its mobilisation phases following the re-opener awards.

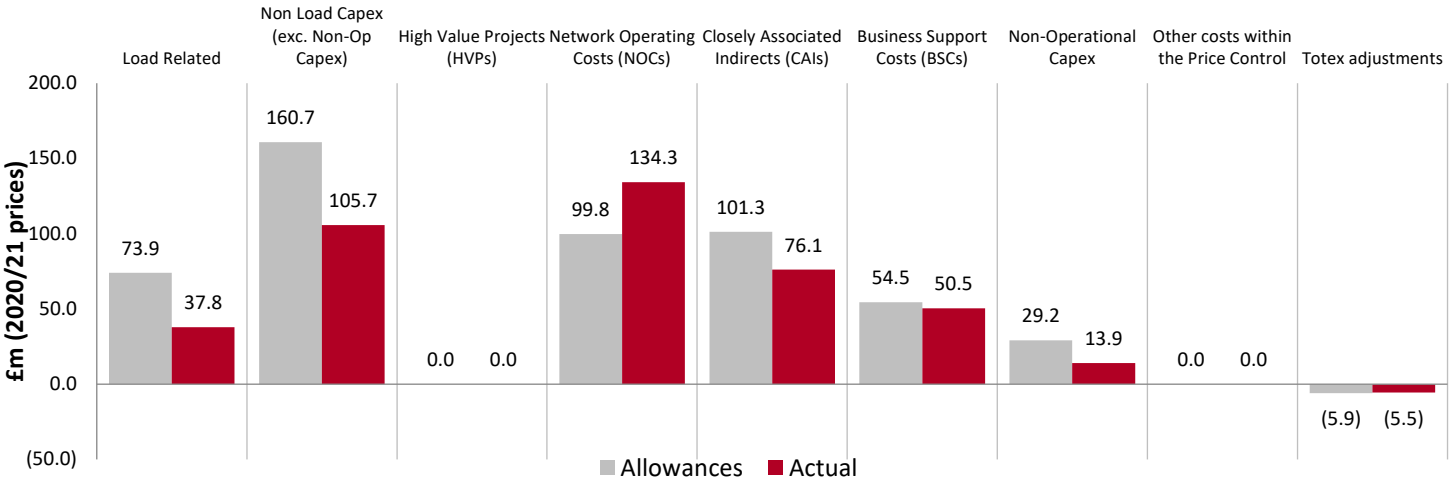


Figure 2.8 *ED2 to-date actuals and allowances by cost category*

At a cost sub-category level:

- Load related spend was £36.1m (49%) below baseline allowances due to lower spend on connections within price control as a result of transmission network bottlenecks and lower impact of Access SCR on investment levels than assumed in allowances.
- Cost re-engineering and mobilisation of contracts drove a £55.0m (34%) underspend against allowances in non-load capex and £15.2m (52%) underspend in non-operational capex.
- Network operating costs were £34.5m (35%) above allowances in the 2023/24 mainly due to significant overspend on fault costs due to a combination of insufficient funding in the price control, higher contractor costs and higher generator spend to drive customer service levels. High levels of rainfall impacted underground faults and we also saw a continued high level of named storms causing increased fault repairs. 2023/24 saw higher spend on tree cutting in the Yorkshire licensee to address increased weather-driven infestation levels.
- Closely associated indirects and business support costs were underspent against allowances by £25.2m (25%) and £4.0m (7%) respectively as we leveraged our relative cost efficiency in these areas.

Under / overspend	Unit	Efficiency	Service Enhancements	External Factors	Provision in the P.C settlement	Re-phasing or timing of work	Other	**Total**
Northeast	£m	(11.3)	3.8	0.1	16.3	(65.7)	5.0	**(51.8)**
	%	*(5%)*	*2%*	*0%*	*8%*	*(30%)*	*2%*	***(24%)***
Yorkshire	£m	(12.4)	6.1	0.4	17.3	(65.0)	4.7	**(48.8)**
	%	*(4%)*	*2%*	*0%*	*6%*	*(22%)*	*2%*	***(16%)***
Northern Powergrid	**£m**	**(23.7)**	**9.9**	**0.5**	**33.7**	**(130.8)**	**9.7**	**(100.6)**
	%	***(5%)***	***(2%)***	***0%***	***7%***	***(25%)***	***2%***	***(20%)***

Figure 2.9 *Cost driver allocation for Totex variance to allowance in the ED2 period to date*

Re-phasing of timing of work (£130.8m) is the primary driver of the £100.6m overall variance to allowances to date as we have re-engineered our programme to live within allowances offset by a £33.7m cost driver variance for 'provision in price control' where the Final Determination did not fund our ED2 business plan forecast.

Over the period as a whole we will endeavour to generate 11% of efficiency savings reflecting the savings we need to make from our ED2 business plan submission to deliver outputs within allowances, adjusted for decarbonisation scenario normalisation.

Northern Powergrid Actuals *minus* Allowance	**Cumulative ED2 to-date**		**Forecast ED2 period**	
	£m	**%**	**£m**	**%**
Load Related	(36.1)	(49%)	12.5	3%
Non Load Capex (exc. Non-Op Capex)	(55.0)	(34%)	(1.9)	(0%)
High Value Projects (HVPs)	-	-	-	-
Network Operating Costs (NOCs)	34.5	35%	90.5	18%
Closely Associated Indirects (CAIs)	(25.2)	(25%)	(97.3)	19%
Business Support Costs (BSCs)	(4.0)	(7%)	17.0	6%
Non-Operational Capex	(15.2)	(52%)	(22.9)	16%
Other costs within Price Control[1]	-	-	-	-
Totex adjustments[2]	0.5	(8%)	2.2	(7%)
Totex	**(100.6)**	**(20%)**	**0.0**	**0%**

Figure 2.10 *Totex performance summary - Northern Powergrid*

Northeast Actuals *minus* Allowance	**Cumulative ED2 to-date**		**Forecast ED2 period**	
	£m	**%**	**£m**	**%**
Load Related	(13.0)	(48%)	6.6	5%
Non Load Capex (exc. Non-Op Capex)	(35.1)	(49%)	29.0	(7%)
High Value Projects (HVPs)	-	-	-	-
Network Operating Costs (NOCs)	14.3	38%	49.7	26%
Closely Associated Indirects (CAIs)	(8.5)	(19%)	(33.6)	15%
Business Support Costs (BSCs)	(1.9)	(8%)	5.7	4%
Non-Operational Capex	(7.6)	(54%)	(12.0)	(17%)
Other costs within Price Control	-	-	-	-
Totex adjustments	0.1	(2%)	0.7	(3%)
Totex	**(51.8)**	**(24%)**	**(11.9)**	**(1%)**

Figure 2.11 *Totex performance summary - Northeast*

Yorkshire Actuals *minus* Allowance	**Cumulative ED2 to-date**		**Forecast ED2 period**	
	£m	**%**	**£m**	**%**
Load Related	(23.1)	(49%)	5.8	3%
Non Load Capex (exc. Non-Op Capex)	(19.9)	(22%)	27.2	6%
High Value Projects (HVPs)	-	-	-	-
Network Operating Costs (NOCs)	20.2	33%	40.8	13%
Closely Associated Indirects (CAIs)	(16.7)	(30%)	(63.7)	(22%)
Business Support Costs (BSCs)	(2.1)	(7%)	11.2	7%
Non-Operational Capex	(7.6)	(50%)	(10.9)	(14%)
Other costs within Price Control	-	-	-	-
Totex adjustments	0.4	(20%)	1.5	(15%)
Totex	**(48.8)**	**(16%)**	**12.0**	**1%**

Figure 2.12 *Totex performance summary - Yorkshire*

1 Primarily atypicals
2 Includes disallowed related party margin, scrap/disposal proceeds, DRS10/16

3. KEY OPERATIONAL PERFORMANCE MEASURES

a. Primary output performance

Output	Licensee	RAG	DNO Group RAG	Comments
Safety	**Northeast**	🟢	🟢	• Accident rate performance in 2023/24 was challenging compared to our stretching target but we saw a record low number of Preventable Vehicle Accidents in 2023. • No HSE enforcement notices for either licensee.
	Yorkshire	🟢		
Reliability & Availability	**Northeast**	🔴	🔴	• Unplanned CI and CML were both adverse to our business plan baseline, 3% and 18% respectively. There was however a 3% reduction on CI compared to the prior regulatory year. • In 2023/24 we fell short of our four Ofgem reliability and availability targets for Customer Interruptions (CI) and Customer Minutes Lost (CML) for each licence. • We are delivering on the automation programme we committed to our customers in our ED2 plan despite lacking funding from Ofgem. We have deployed 1,305 new ground mounted remote switches.
	Yorkshire	🔴		
Environment	**Northeast**	🟡	🟡	• We have had a mixed year of performance across our key environmental measures – exceeding or being in line with our targets for Business Carbon Footprint (BCF) and oil leakage but falling short of our internal target for SF_6 emissions. • We are currently on track to hit our targets for reducing our BCF by 20% and oil leakage by 15% over the ED2 period. • We replaced our first 132kV SF_6 circuit breaker with our innovative non-SF_6 breaker and have also begun to deploy innovative gas leak repair systems. • We will continue to target assets with high levels of SF_6 losses, with five such assets targeted for repair by the end of Q3 2024.
	Yorkshire	🟡		
Connections	**Northeast**	🟡	🟡	• Connections BMCS performance in 2023/24 represented a 3.7 percentage point (pp) improvement since the start of ED2. • We have significantly improved our performance in time to quote for both LVSSA and LVSSB connections and have also made progress with our time to deliver connections. • We are progressing well with our work to improve our online connections application process. Work to extend our self-serve offering to include adding individual Low Carbon Technologies (LCT) to an existing connection on track to deploy in 2024/25 and AutoDesign enhancements to allow bulk LCT connections are due in 2025/26.
	Yorkshire	🟡		
Customer Satisfaction	**Northeast**	🟡	🟡	• Overall satisfaction has improved by 1.8pp since the start of ED2. • Our customer satisfaction score of 90.1% in the year, saw us rank fourth in the DNO rankings (out of 6). • Complaints resolution remains a target for improvement, with Day+1 resolutions standing at 77.7% and Day+31 finishing at 88.8%. Both these metrics have begun to improve in 2024 most notably Day+31 which is up 7.5pp in Q2 of 2024.
	Yorkshire	🟡		

Figure 3.1 *Northern Powergrid output performance*

b. Safety

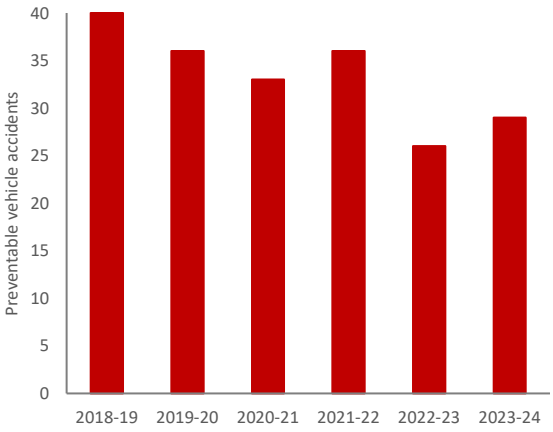
Measure	DNO	2023/24			Comments
		Target[1]	Actual	RAG	
HSE compliance	NPg[2]	✓	✓	●	No HSE non-compliance raised
OSHA[3] Rate	NPg[2]	0.18[4]	0.34	●	Nine recordable incidents in the year
RIDDOR[5] Rate	NPg[2]	0.06[4]	0.22	●	Six recordable incidents in the year

***Figure 3.2** Northern Powergrid safety performance*

Our safety performance remains on a positive trajectory despite a disappointing year for OSHA incidents in 2023/24, with a strong performance in preventable vehicle accidents and continued engagement with the agricultural and transport sector, as well as with school children, to improve safety in our communities.

- Our OSHA accident rate in 2023/24 was disappointing with nine incidents in the year. The majority of these incidents were minor; however, we did incur one lost time accident where a colleague suffered burns to a hand following an electrical flashover.
- Our performance in 2023/24 again saw no HSE non-compliance issues.
- We successfully retained ISO45001 accreditation for our occupational health and safety management system.
- We have conducted field trials of arc flash visors that will enhance our industry leading arc flash workwear provision. Engagement with our staff was positive and the trials were successful. The visors will be rolled out across our organisation during 2024 as we continue to invest in the protection of our workforce.

***Figure 3.3** Northern Powergrid Preventable Vehicle Accident performance*



- During the year, we recorded only 29 preventable vehicle accidents over the 16.1 million miles that our people drove, that's one accident for every 550,000 miles driven. We have continued to improve performance through the use of telematics data and leveraging the improvements made to our fleet over the last few years with on-board reversing cameras, driver safety assistance packages and telematics systems to equip our drivers to be safer on the roads. This has seen us continue to drive down the number of preventable vehicle accidents we see, with 2023 setting our best-ever annual performance for PVAs with only 25 incidents, down 43% from the peak in 2018.
- We have continued to use our adapted safety engagement programmes that were developed during the pandemic. We used social media to target agriculture and road haulage via our 'Look Up It's Live' programme as well as producing several press releases to share our safety messages through local media outlets. We were again a main sponsor of the Great Yorkshire Show, which allowed us to get our message out to the 140,000 attendees of the event. This has helped to contribute to us continuing to see reduced numbers of overhead line strikes from third party vehicles, with 29 strikes in 2023/24, down 37% since 2020/21.
- Improving safety in our region is important and we have continued to deliver our safety message to school children through a mixture of face-to-face and online lessons and videos. We estimate these lessons have reached around 39,000 pupils this year, raising awareness and understanding of safety around our assets and in our communities.

1. Ofgem targets unless otherwise stated
2. Our key safety targets are agreed and reported at a group level to our shareholder
3. The Operational Safety and Health Administrators (OSHA) is a US based measure of reportable work-related accidents (per 200,000man hours). It includes major incidents leading to absence and less severe injuries leading to restricted duties or the prescription of drugs as treatment or therapy. See www.OSHA.gov
4. Northern Powergrid target
5. The major accident rate measures the number of accidents we have that are reported under the UK's Reporting of Injuries, Disease and Dangerous Occurrences Regulations 2013 (RIDDOR). These accidents are reportable to the Health and Safety Executive (HSE) and include fatal, major injury and lost-time accidents resulting in over seven days' absence from work. See www.hse.gov.uk/riddor/index.html

c. Reliability & availability

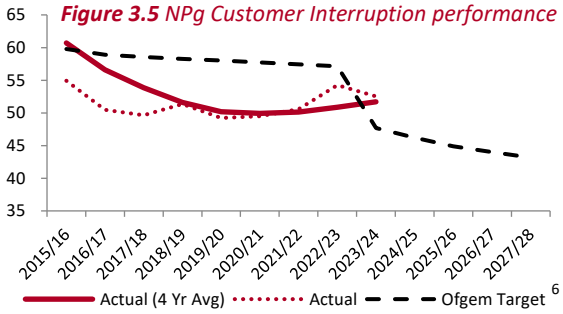
Measure	DNO	2023/24			Comments
		Target[1]	Actual	RAG	
Customer Interruptions[2] (CI)	**NPg**	**47.7**	**52.5**	●	3% reduction year- on-year. 3% above our ED2 business plan baseline.
	Northeast	47.7	48.6	●	
	Yorkshire	47.6	55.2	●	
Customer Minutes Lost[2] (CML)	**NPg**	**40.6**	**51.9**	●	6% increase year-on-year. 18% above our ED2 business plan baseline.
	Northeast	**42.0**	49.5	●	
	Yorkshire	39.7	53.5	●	
NARM[3] (% of target)	**NPg**	**18.8%**	**11.0%**	●	We are on track to deliver our Baseline Network Risk Output by the end of ED2.
	Northeast	17.0%	6.9%	●	
	Yorkshire	20.7%	15.0%	●	
Non-connections GSoP failures[4] (Count)	**NPg**	**3,850**[5]	**9,719**	●	Over the course of 2023/24 the network faced a number of significant weather events which fell marginally short of severe weather exemption criteria. As a result, we encountered an increased volume of EGS2 failures
	Northeast	1,580[5]	4,771	●	
	Yorkshire	2,270[5]	4,948	●	
Non-connections GSoP (Payments, £)	**NPg**	**N/A**	**879,280**	N/A	
	Northeast	N/A	425,520	N/A	
	Yorkshire	N/A	453,760	N/A	

Figure 3.4 *Northern Powergrid reliability & availability performance*

A high number of storms and an abnormally wet year resulted in a challenging year against our reliability and availability targets. Ongoing targeted asset replacement investment in key parts of the network, increased deployment of automation and an accelerated vegetation management programme have laid a solid recovery path.

- The 2023-24 regulatory year was challenging for our reliability performance with considerably higher than normal rainfall levels affecting us across both licence areas. This included nine consecutive months of higher-than-normal rainfall in Yorkshire and 51% higher-than-normal rainfall in the Northeast in the second half of the year.
- Customer interruptions performance improved 3.1% year-on-year to 52.5 but missed Ofgem's reliability targets which stepped down significantly between 2022/23 and 2023/24.

Figure 3.5 *NPg Customer Interruption performance*



- We are already delivering on the automation programme we committed to our customers in our ED2 plan despite lacking funding from Ofgem, though this will naturally result in a trajectory to meet the target rather than a step change. As part of this programme, we have deployed 1,305 new ground mounted remote switches. Moreover, a further 412 HV circuits were enabled within our automated power restoration system (APRS).
- Our work on the secondary SCADA network continued, the upgraded communications network improves the speed and stability of performance of the whole automation system.
- Customer minutes lost increased 6.4% year-on-year after seven named storms, and severe weather that did not meet exemption criteria. This is a record number of annual storms since naming conventions began in 2015.
- Part of this was the impact of storms and increased growth, driven by the wetter weather, in vegetation. We have accelerated our programme of tree cutting and in 2023/24 we cut back vegetation from 22,410 spans on our network, making around 1,850 km of our network more resilient to power cuts. This will continue going forward and be supported with the use of LIDAR to help more effectively target the work.
- We are on track to deliver our Baseline Network Risk Output by the end of ED2. This is characterised by unprecedented volumes of pole replacements. As such, we have already put new contracts in place and increased our replacement rates by 50% after the first year. We also delivered a significant number of major substation replacement works, with further ramp up planned over the remainder of the regulatory period.

1. Ofgem targets unless otherwise stated
2. Planned and unplanned, excluding exceptional events
3. Cumulative Baseline Network Risk Output for ED2 period
4. Guaranteed Standards Payments (GSoP) reflects the number of failures after exemptions
5. Northern Powergrid target
6 Ofgem target for CI formed by combining the respective targets for NPg Northeast and NPg Yorkshire, using the same weighting methodology as for CI actual performance.

d. Environment

Measure	DNO	2023/24			Comments
		Target[1]	Actual	RAG	
Business Carbon Footprint[2] (tCO_2e)	**NPg**	**13,720**	**14,297**	🟡	2.4% improvement year-on-year
	Northeast	5,962	5,858	🟢	
	Yorkshire	7,758	8,440	🔴	
SF_6 emissions (kg)	**NPg**	**48.7**	**101.8**	🔴	21% improvement year-on-year
	Northeast	12.2	8.7	🟢	
	Yorkshire	36.5	95.1	🔴	
Oil Leakage (Litres)	**NPg**	**26,500**	**20,995**	🟢	18% ahead of our ED2 target and 25% decrease since 2020/21
	Northeast	10,390	8,447	🟢	
	Yorkshire	16,110	12,508	🟢	
Visual Amenity – removing overhead lines from AONBs (km, cumulative ED2)	**NPg**	**10.0**	**5.7**	🔴	Scheme now developed to accelerate activities through the rest of the period.
	Northeast	5.3	0.5	🔴	
	Yorkshire	4.7	5.2	🟢	

***Figure 3.6** Northern Powergrid environmental performance*

Our environmental impact from fluid filled cables continued to improve, however BCF performance was impacted by increased SF_6 losses from a small number of larger assets.

- Our Business Carbon Footprint (BCF) for 2023/24 was 14,297. This represents a 2.4% improvement on our 2022/23 performance.
- We saw a modest increase in our BCF at the end of ED1 as business travel and building usage increased with the return to the office post-COVID. We have taken the positives from this more agile way of working, while increasing in-person interaction to aid collaboration, training and efficiency, this has been supplemented by the efficiency improvements made during office refurbishment programmes.
- SF_6 emissions are a significant contributor to carbon footprint. In 2023/24, 102kg of SF_6 was emitted by our network. Whilst this represents a 21% reduction on levels seen in the previous year, it is still higher than we would like. We are targeting five assets that between them were responsible for 68% of all SF_6 losses and these are all scheduled for repair by the end of Q3 2024. In 2023 we trialled a first innovative solution for sealing a leak using a molten metal manipulation technique. Initial testing showed no obvious enduring leak - the trial will continue until the 'repaired' metal work has at least one cycle of seasonal temperature variations. A successful outcome will provide a rapidly deployable solution to seal or mitigate SF_6 leaks.

***Figure 3.7** Business Carbon footprint (excluding contractors)*

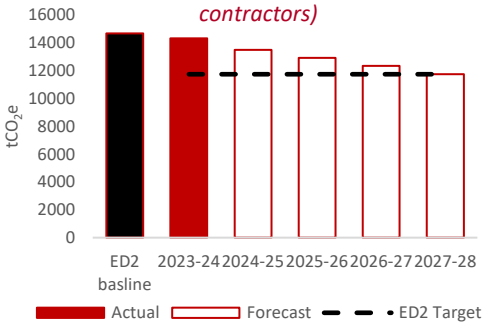
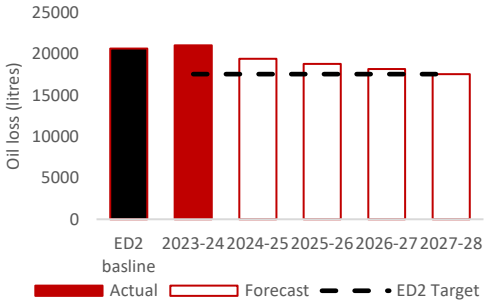


***Figure 3.8** Oil/fluid lost to ground*



- We have also replaced two of our worst performing SF_6 high voltage circuit breakers with 'clean air' insulated switchgear. The live tank 145 kilovolt circuit breaker utilises a vacuum interrupter unit with SF_6 replaced by a high-pressure mixture of nitrogen (80 per cent) and oxygen (20 per cent) – this provides the electrical insulation required. These units effectively remove the equivalent of over 400,000 kg of CO_2 from our network.
- Our improved performance on oil leakage established in ED1 has continued into the new price control period with an annual leakage of 20,995 litres. Our performance in this area is reflective of a combination of cable replacement and use of PFT[3] technology to locate leaks earlier in the repair cycle. We are also continuing to trial self-healing cable fluid additives in conjunction with other DNOs.
- Building upon the substantial work we completed in ED1, much of our efforts in this first year of work to underground further overhead line in Area of Outstanding Natural Beauty has been about scheme development with stakeholders to enable the acceleration through the period in the right places.

1. Northern Powergrid ED2 business plan targets
2. Excluding contractors and losses
3. Perfluorocarbon tracers (PFT) are an additive put into fluid filled cables so we can detect leaks by 'sniffing' the specific chemical structure of the tracer in the ground above the leak

e. Connections

Measure	DNO	2023/24			Comments
		Target[1]	Actual	RAG	
Time to quote: LVSSA (Days)	**NPg**	**4.1**	**3.7**	●	Time to quote has improved by 51% year-on-year for LVSSA connections and by 54% for LVSSB.
	Northeast	4.1	4.1	●	
	Yorkshire	4.1	3.4	●	
Time to quote: LVSSB (Days)	**NPg**	**6.8**	**5.9**	●	
	Northeast	6.8	6.0	●	
	Yorkshire	6.8	5.9	●	
Time to deliver: LVSSA (Days)	**NPg**	**35.7**	**30.1**	●	Time to deliver has improved by 24% year-on-year for LVSSA connections and by 4% for LVSSB.
	Northeast	35.7	31.1	●	
	Yorkshire	35.7	29.3	●	
Time to deliver: LVSSB (Days)	**NPg**	**44.3**	**56.0**	●	
	Northeast	44.3	64.2	●	
	Yorkshire	44.3	51.5	●	
GSoP failures[2] (Count)	**NPg**	**610[3]**	**823**	●	42% decrease in the number of failures year-on-year.
	Northeast	260[3]	347	●	
	Yorkshire	350[3]	476	●	
GSoP failures[2] (% of cases)	**NPg**	**2.0%**	**2.8%**	●	
	Northeast	2.0%	2.6%	●	
	Yorkshire	2.0%	2.9%	●	
GSoP failures[2] (£)	**NPg**	**N/A**	**455,440**	N/A	
	Northeast	N/A	178,485	N/A	
	Yorkshire	N/A	276,955	N/A	

***Figure 3.9** Northern Powergrid connections performance*

We have made significant improvements to our connections performance with our customer satisfaction climbing 3.7 percentage points to 90% and our end-to-end lead times reducing by 25%.

- We have improved customer satisfaction by 3.7 percentage points to 89.8% and this continues to improve. In the second half of the period and into 2024 we have delivered consistent scores above 91%.
- We have also delivered a significant step forward in the time to quote, with a 51% improvement for LVSSAs, and a 54% improvement for LVSSBs.
- We continue to deliver improvements in time to deliver, particularly for LVSSA which reduced by 24% year-on-year. LVSSB has only reduced 4%, this is largely because delivery timescales for this work depend upon the customer's ability to accept the connection and it is often not in the best interest of the customer to accelerate the work.
- These improvements have been driven by a programme of people, process and technology changes to better support our customers, particularly those seeking to connect low carbon technologies (LCTs) to their homes.
- Improvements in this area include; an increase in customer focused resources to support increased the uptake of LCTs, new quality assurance officers who ensure that all customers receive a consistent service, implementation of self-service online quotations, and implementation of a streamlined process for customers requiring fuse upgrades.
- This is further supported by our web-based self-service design tool, AutoDesign, that continues to facilitate a smooth process for customers to generate their own budget estimates for low voltage connections. During the year, 3,160 estimates were created in the system.

***Figure 3.10** Time-to-quote performance*

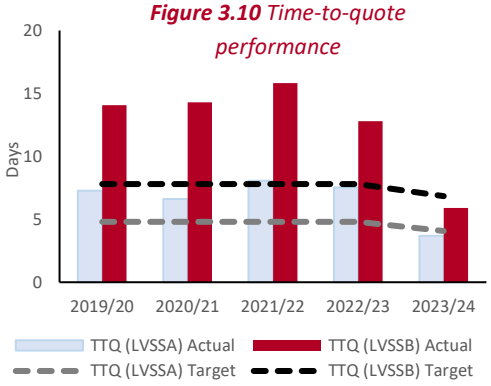
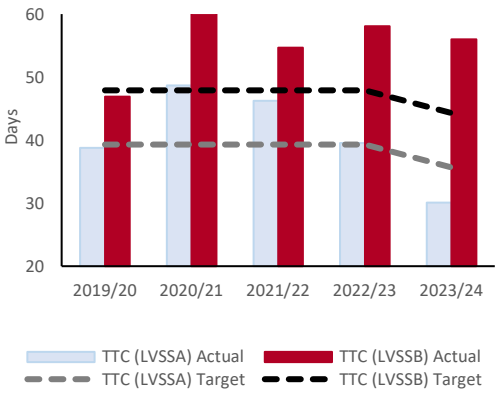


***Figure 3.11** Time-to-connect performance*



1. Ofgem targets unless otherwise stated
2. Excluding ECGS11 (Quotation Accuracy Scheme) and ECGS12 (failure to make payment), which is on the same basis as the 2% Ofgem target
3. Northern Powergrid target

f. Customer satisfaction

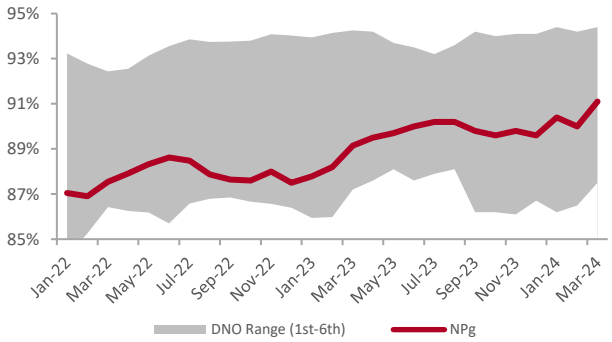
Measure	DNO	2023/24			Comments
		Target[1]	Actual	RAG	
Overall survey	**NPg**	**9.12**	**9.01**	🟡	1.8 percentage point improvement year-on-year
	Northeast	9.12	8.96	🟡	
	Yorkshire	9.12	9.05	🟡	
Interruptions survey	**NPg**	**9.12**	**8.81**	🔴	In line with previous year
	Northeast	9.12	8.84	🔴	
	Yorkshire	9.12	8.79	🔴	
Connections survey	**NPg**	**9.12**	**8.98**	🟡	3.7 percentage point improvement year-on-year
	Northeast	9.12	8.86	🔴	
	Yorkshire	9.12	90.8	🟡	
General enquiries survey	**NPg**	**9.12**	**9.37**	🟢	2.5 percentage points above target.
	Northeast	9.12	9.40	🟢	
	Yorkshire	9.12	9.34	🟢	
Complaints metric	**NPg**	**2.80**	**5.58**	🔴	Development of complaints outcome coding and reporting process has led to notable improvements in 2024 to date.
	Northeast	2.80	5.20	🔴	
	Yorkshire	2.80	5.84	🔴	

Figure 3.12 *Northern Powergrid customer satisfaction performance*

We have delivered a 1.8 percentage point[2] year-on-year improvement in overall customer satisfaction to 90% and continue to improve in 2024.

- In 2023/24 we achieved an overall customer satisfaction score of 90.1%. This is a significant step forward on the performance from 2022/23 with the biggest improvement coming in connections, where our scores grew by 3.7 percentage points, as a result of the system and people improvements we have made in that area.
- We have continued our upward trajectory in 2024-to-date. Satisfaction in Quarter 1 of 2024 was 91.1% and year-to-date we stand at 91.4%, having achieved four of our five best-ever monthly scores.
- Our aim is to rank amongst the leaders in the industry customer satisfaction. Our performance ranked 4th in the year compared to all DNOs, meaning we climbed one position compared to 2022/23. Our further improved performance in 2024 has seen us climb to 0.7pp behind third place in the most recent rankings.

Figure 3.13 *Overall Customer satisfaction (Rolling quarter)*



- We continue to improve the range of communication tools to provide customers choice and convenience in how they interact with Northern Powergrid. In 2023/24 we added WhatsApp and reply text messaging to our communication suite. We continue to utilise our 'preferred agent' system, launched in 2022/23, which allows return callers to speak to the agent who dealt with their call previously.
- Improving service to our customers during interruptions remains a focus and saw us introduce a team dedicated to providing on-site customer facing support during longer duration faults. This team went into full deployment in 2023/24 and aims to support customers on site at any fault that exceeds six hours. The responders have been able to support 93.7% of these customers and we are building upon this success by extending our commitment to support more customers at the 4-hour mark. We have also equipped the team with battery generators to enhance immediate support to our most vulnerable customers.
- Our complaint handling performance in 2023/24 was disappointing with a complaint metric score of 5.58. 88.8% of complaints were resolved within 31 days and 77.7% by the end of the next working day. We received no repeat complaints or adverse ombudsman decisions in the year. Improving our complaint handling is a key priority, and in Q1 2024 we introduced enhancements that get complaints into the right hands quicker and more quickly address common themes. This increased focus is already paying off. In the latest quarter our Day+31 resolution performance has grown to 96.3%, which has helped to reduce our complaint metric score by 45% to 3.05.

1. Ofgem targets unless otherwise stated
2. Based on score out of 100% compared to ED1

g. Innovation

	Expenditure to date in ED2 (£m)[1]	Number of projects[2]	Brief description of projects
Network Innovation Allowance (NIA)	£2.2m	19	Northern Powergrid has participated in 19 NIA projects, thirteen as lead DNO and six collaborative projects with at least one other GB electricity distribution network operator (DNO) or gas distribution network (GDN) operator.
Network Innovation Competition (NIC)	£0.8m	1	The Community DSO project aims to facilitate more community based local energy schemes to provide customers with cheaper connections, lower bills, and more embedded resilience.
Carry-over Network Innovation Allowance (CNIA)	£1.3m	7	Seven NIA projects were brought to completion during 2023/24, fully utilising the carry-over ED1 allowance.
Strategic Innovation Fund (SIF)	£1.9m	7	Four Discovery projects (£0.6m) and three Alpha projects (£1.3m) were completed with two of the Alpha projects submitted for a further £5.8m in Beta project funding.

Figure 3.14: *Innovation performance*

Our vision remains to be at the forefront of innovative technology, solutions and thinking in the energy sector; using our innovation activity to provide our customers with world-class, affordable services.

Innovation is vital to respond to external changes and new demands, improve services for our customers and respond to emerging risks. Our innovation programme is increasingly focusing on solutions that facilitate a "just transition" towards net zero. Underpinning our objectives, our strategy focuses on:

- **charting the best course to net zero;**
- **achieving next-level energy system dependability;**
- **collaboratively unlocking the value of open data and an increasingly digitalised network; and**
- **ensuring all customers benefit.**

Our innovation plans focus six areas where transformational capabilities are required:

- Identifying opportunities to accelerate the benefits of flexibility
- Developing sophisticated data management and analytics to inform energy system forecasting, planning and real time decision making
- Enhancing the connections process to facilitate higher volumes and different types of connection
- Maintaining dependability of the energy system as seen by the customer during the energy system transition to decarbonisation
- Removing barriers preventing access to the energy system including access to energy data, particularly for those not currently engaged or informed, vulnerable or less-advantaged
- Creating capabilities to deliver a next generation local energy network that links up whole system energy sources and vectors, balancing in real time

We have continued to invest in developing our innovation partnerships to keep us at the forefront on innovative thinking. We have strong relationships with respected academic research institutions, such as Newcastle University, Strathclyde University, Bristol University and Imperial College; with businesses, such as our reliability orientated work with Turntide Technologies and connections automation with EA Technology; and with customer interest groups such as National Energy Action. We also leverage being part of the Berkshire Hathaway Energy group to share ideas, collaborate to develop innovative solutions, and access international best practice.

1. Innovation expenditure is quoted in nominal prices
2. Funded projects in ED2

Innovation investment

In 2023/24 we invested £2.2m of our ED2 Network Innovation Allowance (NIA) across our innovation portfolio consisting of 19 live NIA projects, thirteen of which we are lead DNO for. The ED1 carry-over allowance was fully utilised across seven remaining ED1 projects, with expenditure in the year totalling £1.3m.

Our flagship £14.6m Network Innovation Competition (NIC) Community DSO for Smart Local Energy Schemes project kicked off in April 2023 and to date has spent £0.8m (5.6%) of its funding. The project, which will span the full five years of RIIO-ED2, will help us unlock the use of LV flexibility and enable communities to make best use of locally produced energy. Trial 1 will go live in Q4 2024, at which point expenditure will rapidly increase.

During the year we were advised of our success in the new Strategic Innovation Fund competition. Four out of five project proposals submitted in this round 2 competition were successful in gaining funding of over £0.6m, with the discovery phase projects beginning in April 2023 and completing in June 2023. Each of these projects; Inform, Artificial Forecasting, Diversified Flexible Queue Management and Resilient Customer Response directly supports one of our six transformational innovation needs and the delivery of our 2023-28 business plan commitments.

Three projects (Inform, Artificial Forecasting and Diversified Flexible Queue Management) were taken forward for alpha project submissions and successfully secured a total of £1.3m in alpha project funding. The three projects were completed between October 2023 and March 2024. The fourth project, Resilient Customer Response, was not suited to an alpha SIF project submission due to the customer engagement aspects of the project being more suited to the flexible timescale of a NIA project.

We also self-fund a range of innovation activities in our business, for example projects to reduce network losses and rolling-out Artificial Intelligence.

In the 2015-23 period, our innovative solutions have delivered benefits to customers in excess of £38.5m and our plans for 2023-28 forecast further benefits upwards of £250m.

Innovation Activity in Primary Output areas

The benefits of innovation can be seen across the output areas of our business. Some of our key projects are set out below:

Safety

- **Overhead line collision avoidance** is looking at solutions to reduce the incidence of vulnerable lone workers in rural locations coming into contact with our network and the consequent risk of death or serious injury. A prototype smartphone application, which allows for an indication/alert when the user is in close proximity to an overhead line asset/infrastructure, is in its trial phase.
- **Vehicle Telematics** continues to prove to be a useful tool in improving fleet driver safety in normal driving. We are now seeking solutions to assist in low-speed manoeuvring, site environments and parking to further improve our performance. Extended reality training and simulation has shown promise in this area, and we are planning to use it for some aspects of training whilst we continue exploring further opportunities with AI.

Reliability and Availability

- In addition to our network automation programmes of APRS[1] and LV smart fuses, our **Foresight fault prediction** project (NIA funded, £4m total project investment) represents a revolution in LV cable fault management. So far, the project has made hundreds of thousands of pre-fault identifications prior to them becoming permanent faults. We are learning more about how to use this equipment and our understanding of cable behaviour is improving. This project has now transferred to business-as-usual operations and the aim is to use the technology to target network repairs before faults occur.
- We are using unmanned aircraft systems (UAS), more commonly known as drones, to carry out inspections of our overhead line assets to drive cost efficiencies and we are investigating the use of near-real-time satellite imagery to improve our capability, particularly at times when UAS systems cannot fly.
- In line with our allowances allowed by Ofgem through two re-openers submitted in 2023, we plan to invest £72m by 2028 in Cyber Security, this includes £6m of funding to fund development of an AI enabled Cyber

1. Automated Power Restoration System

testing and training range. This is in partnership with the FIGURE group of universities that specifically setup by Ofgem to drive cyber security innovation in the industry.

- Our **MicroResilience** project (NIA funded, £3.7m total project investment) will allow us to keep customers on supply even after faults have taken out higher voltage circuits. Installation and commissioning is expected to be complete by the end of Q2 2024 and data collection will commence thereafter. Learning from the project has been leveraged to support a SIF round 2 BETA phase project submission.
- **Storm Triage** (NIA funded, £0.5m total investment) has developed a digital application which will allow field staff to take photos of network damage as they survey the network and then for machine learning to classify the fault type. The enabling of an appropriately trained and experienced field engineer on site to take over the restoration co-ordinator role, rather than leave it to someone working remotely, would enable faster, more dynamic and accurate ground level assessment of network damage during a storm and in turn reduce response time, thus reducing the number of customers becoming vulnerable. Trials of the prototype have been ongoing and have shown good potential.
- **Polesight** aims to improve our understanding of indicative pre-fault behaviour relating to pole mounted substations, their outgoing circuits and the development of management options for LV Overhead Line networks.
- **Step Up Transformer** is exploring an alternative operational approach to connecting generators to overhead lines under emergency outage conditions. The ability to shorten times to restore the maximum number of customers will improve the observed resilience of the system from the customer's perspective and help to provide confidence in moving to an increasingly electric future.
- Design work and customer engagement on our **Resilient Homes** project, a key initiative for vulnerable customers, is now complete and installation of circa 30 units has been completed. The project utilises a domestic battery solution for ensuring that medically electrically dependent customers remain on supply if a fault occurs on the network. A successful outcome may have positive implications more widely for vulnerable and electrically dependent customers, associated commercial offerings that a third party might develop from our work. Initial results have been positive with users not experiencing disruption of supply and informed they're in outage conditions due to receiving the application notification.
- **Resilient Customer Response** (SIF discovery £0.1m) seeks to improve overall resilience by making use of the increasing number of behind the meter (BTM) energy assets in consumers' homes, (e.g. batteries, Electric Vehicles (EVs), photovoltaic (PV) systems, low power systems) and prioritising those without such assets for restoration during outages. This project will be further developed using NIA funding.

Environment

- Use of **Perfluorocarbon tracer (Pft)** additives has sped up cable oil leak detection, contributing to a 61% reduction in oil/fluid loss compared to our ED1 business plan baseline.
- **Self-healing cable additive** that solidifies leaking cable fluid, reducing leakage even further, has completed its NIA funded development (a series of collaborative Innovation Funding Incentive (IFI) and NIA funded projects, circa £0.8m total project investment) and is now undergoing live field trials.
- In collaboration with other DNOs, we explored a new alternative to traditional wood poles which is not creosote reliant and of a consistent size and strength, allowing multiple poles to be made from one tree, reducing environmental impact.
- **SilentPower**, our battery-based restoration unit that replaces mobile diesel generators, has been used circa 450 times, saving around £0.3m in two years of operation relative to diesel. This is in addition to the CO2, NOx, particulate and noise reductions and functionality that allows customers to continue to use their solar generation, where they have it, during a fault.
- **Pollywood II** aimed to build on the success of the first phase of the project completed in 2020. This project aims to more fully develop the concept and provide full-sized samples of poles for mechanical and other acceptance testing. A prototype machine was developed, powerful and capable enough to complete the work required to produce the 10m poles and use adhesive in the process.
- **Readi** aimed to develop a common framework that is intended to facilitate analysis and application of appropriate climate data among all stakeholders to enhance the planning, design, and operation of the power

sector. There have been a number of datasets and publications issued throughout the project which can be accessed via EPRI Climate Readi.

- **Artificial Forecasting** (SIF funded, £0.7m total investment across discovery and alpha phases) is investigating the use of machine learning/AI to provide fast, accurate load forecasting for DSO. It will predict on short timescales - daily/hourly perhaps - and down to the high voltage/low voltage interface. The project will develop innovative AI-based approaches to augment load forecasting capability. In turn, flexibility will become more realistic as a reinforcement option, and the available capacity in the network for new low-carbon loads will expand, increasing the speed, and lower the cost, of decarbonisation. The project will pursue further SIF funding for a beta phase.
- **Rural Electrification 2.0** will enable distribution networks to develop a robust insight into how rural and agricultural decarbonisation will impact network operations and how a faster decarbonisation can be supported. This will identify changes to policies, procedures and regulation that ensure a lower overall society cost. The challenges of decarbonisation across agriculture are expected to be experienced by distribution networks throughout the country and this innovation project will demonstrate the potential for a standardised approach that can be adopted elsewhere.

Connections

- Voltage reductions enabled by learnings from our **Customer Led Network Revolution** (CLNR) project[1] have released over 4.6GW of capacity for multiple small-scale generators to connect to our local network.
- Our **AutoDesign** project (NIA funded, £1.1m total project investment) has created a web-based, self-service design tool that is live for our customers, providing those looking to connect EV chargers access to high-quality designs, in real-time, at a lower cost. This initiation was enabled by our previous investment in integrated vectorised network and asset records and is enabling us to service increasing LCT connection requests, with over 7,000 automated quotes provided thus far.
- **Inform** (SIF funded, £0.6m total investment across discovery and alpha phases) aims to develop Autodesign for large public sites such as hospitals, council and military facilities. This would also present decarbonisation options as part of the enhanced process. Allowing high voltage (HV) connections customers to self- serve enables more focussed allocation of our engineering resources. The project will pursue further SIF funding for a beta phase.
- **Diversified Flexible Queue** (SIF funded, £0.5m total investment across discovery and alpha phases) explores re-applying domestic level learning on diversity to large scale energy resources seeking to give customers faster and more efficient connection to the network through considering resources' natural diversity and the dispatchable flexibility services they may provide.

Customer satisfaction

- Our **Estimated Time to Restoration (ETR)** project is combining historical power cut data with weather, traffic, time, location and resourcing information via a machine-learning tool to forecast more accurate ETRs for customers. Consideration is being given as to whether contextual data (e.g. traffic reports or weather reports) could be worked into the next generation of this tool to further refine the ETRs.
- Our **Customer Relationship Management (CRM)** system is transforming our customer interactions from reactive, inbound contacts to largely proactive and outbound contacts across a range of integrated communication channels.
- Our expanded range of web-based services such as SafeDig (access to online network records), is allowing our customers to self-serve, accessing more information whilst saving time and cost.

1. Completed in 2014

h. Whole systems progress

The energy system is rapidly changing – network connections, flexibility, digitalisation, open data sharing and regional collaborative planning are our key whole system priorities.

Whole energy system solutions have the potential to deliver significant value for our customers. 2023/24 has been a particularly active year at our transmission system interface: developing lowest cost and technically appropriate solutions that meet our customers' evolving needs. In conjunction with other network and system operators we have been developing co-ordinated solutions to the long lead-times and communicating with our customers on how we are implementing new flexible connections to address the transmission system constraints impacting their projects.

We continued to engage in developing the cross-industry framework through the ENA Open Networks project to enhance whole system benefits with emphasis on a greater uptake of flexibility. Specifically, we are exploring primacy and service conflicts that we expect to increase as the number of providers and users of system flexibility increase.

Our Digitalisation Strategy and Action Plan is a platform for whole system dialogue with a range of other parties. We continued our work with the Electricity System Operator (ESO), other DNO/IDNOs and GDNs via the Data and Digitalisation Steering Group to develop proposals for common GB approaches to energy system open data. The implementation of our open data sharing platform has been a key output this year and provides us with a scalable route to share more in the future.

Engagement and co-development of action plans for regional decarbonisation have increased in the year. In particular, the input and support for local authorities producing Local Area Energy Plans (LAEPs) and for mass installers of low carbon technologies with heat pumps and electric vehicle charging infrastructure. The two-way sharing of data has underpinned this activity. Our Regional Insights team has been active with external parties involved in regional decarbonisation to help them access the network information they need and ensure that intelligence on their plans feeds our own scenario and network planning.

Customers benefit from network operators working closely together to solve issues on their networks – doing so allows us to deliver lower cost and/or lower carbon options.

We have been engaged in the year to deliver efficient whole system planning and system development with:

Connections

- National Grid, transmission owner (TO) and the ESO through routine interfaces, on individual projects and on longer-term plans for RIIO-2. Congestion on the transmission system has been one of the most significant whole system priorities in the year with the aim of securing improved lead times for connections for generation and storage customers in particular (to date the acceleration is an average six and a half years).
- New Independent Connection Providers (ICPs) to build positive relationships to facilitate their pipeline of connections with us. This ensures the ICPs are familiar with our processes, the legal requirements from both parties and managing expectations so their relationship with their client is a positive experience.
- An Independent Network Operator (IDNO) who has requested a review of our policies and procedures following their indication to modify the electrical arrangement of contracted offers, at extra high voltage (EHV), and how they are connected to the Northern Powergrid network.
- An electric vehicle (EV) charging point operator requesting urgent assistance with their pipeline of connection requests in 2024 and beyond. This action has provided a template that can be replicated to other mass adopters of LCTs.

Flexibility and digitalisation

- Multiple cross-industry initiatives as part of the ENA Open Networks project including the ongoing standardisation of flexibility services contracts and alignment of DNO/ESO service inter-operability and procurement approaches; partner DNOs and market platforms to continue the development of shared digital interfaces to signpost, procure and operate flexibility services as well as to coordinate whole systems solutions.
- We drove the creation of the Interoperability Testing subgroup of the ENA's Common Information Model (CIM) working group to provide the opportunity for all DNOs to collaborate on a joint interoperability test for our first Long Term Development Statement CIM in line with new licence obligations.

- In addition, we are acting as all DNOs' main point of contact with DigSilent on their development of the necessary PowerFactory export and import functionality necessary to comply with the CIM LTDS requirements.

Open data sharing and regional collaborative planning

- Housing Associations seeking to deploy mass low carbon technologies including domestic solar panels, heat pumps, and batteries have been supported through data exchanges, a dedicated quarterly social housing decarbonisation roundtable and the Reginal Insights team providing a 'front door' role, to help them better navigate our business and track programmatic delivery.
- Local Authorities seeking urgent action on decarbonisation, including those seeking to pursue LAEPs.
    - In the year, supported by our data and expert input, Calderdale Council has produced their LAEP, West Yorkshire Combined Authority have kicked off their 15-month LAEP development process, and Hull and East Yorkshire Local Enterprise Partnership have begun procurement of their LAEP. These interactions build on the experience from the previous year with York and North Yorkshire and are providing a template for our engagement and support for other local authorities with similar objectives.
    - We are continuing to explore more ways to support LAEPs and net zero planning within Local Authorities, including developing an even closer relationship with the North East and Yorkshire Net Zero Hub.
    - We are also gathering intelligence from Local Planning departments within local authorities in order to enhance our DFES – the data gathered in this exercise is being analysed to assess potential network impact and then fed back to Local Plan and economic development teams to highlight developments that may have shorter or longer development timelines dependant on the status of the network in the region. The output of this exercise will feed our DFES, thus ensuring our network is better prepared for oncoming larger demands related to increasingly electrified new developments, both domestic and industrial.
- The community energy sector, who we have equipped with additional knowledge and expertise via a series of webinars and events, to navigate building effective relationships and establishing their important role in supporting decarbonisation. Informed by research, we are working with partners to provide seed corn funding, mentoring opportunities and network building to accelerate the scale of projects gaining traction across the region.
- Transport for the North - where we are an active steering group member offering critical insight for optimum roll-out plans. More generally, close liaison with local authorities including Transport North East and the West Yorkshire Combined Authority has explored their Local Electric Vehicle Infrastructure (LEVI) funding allocation and how to support the most efficient roll-out.
- Government (Office for Zero Emissions Vehicles) on implementation of the Rapid Charge Fund project to enable motorway service area operators to secure grid capacity through to 2050 including for heavy goods vehicle charging.
- Industrial sectors and gas distribution network operators where the focus is on decarbonisation that could involve hydrogen or electrification. Our joint engagement with the industrial clusters of Teesside and the Humber, alongside Northern Gas Networks, is exploring how the electricity network can support these significant decarbonisation projects. On the residential side, our engagement with Northern Gas Networks has focussed on priorities like the hydrogen village project where the gas and electricity system need to work in tandem.
- More widely, we have played an active role in the ENA Regional Energy Strategic Planner (RESP) group which has worked to establish a common DNO position to support Ofgem's design of the RESP role for delivering region whole system outcomes connecting national and local energy planning. Closely associated with this, Northern Powergrid has re-established and led the Open Networks Forecasting group working with all DNOs and the ESO to develop a common approach for how DNOs will create their DFES now that National Grid ESO has changed their Future Energy Scenarios to "Pathways to Net Zero".

Our engagement with the ESO and TO is delivering whole system benefits

We are actively working on several industry initiatives with National Grid ESO (including its five-point plan) and with National Grid Electricity Transmission (NGET) and other network companies on the ENA Strategic Connections Group to deliver a number of initiatives which will enable transmission system access for the customers whose generation and storage connections are currently facing long lead times. This collaboration has been developing solutions in the year to:

- reduce the connections queue – by removing stalled projects and accelerating projects that are ready to connect;
- improving connections lead times - including defining and applying delegated limits such that we can manage the queue within agreed boundaries; and
- communicate the whole system view – enabling our customers to understand the challenges and opportunities regardless of whether these are based in the distribution or transmission system.

With National Grid, whole system initiatives continue to be managed through our existing interface processes; our routine Joint Technical Planning Meetings (JTPMs) and fortnightly calls to discuss generation connections and their impacts. These forums enable us and the ESO to work together to determine transmission impacts and lowest cost solutions - associated with condition or capacity related projects. The investment decisions arising from these interactions are recorded and alternatives are considered in our options appraisal documents. For example:

- Assessing the operating voltages at grid in-feeds as we seek to optimise voltages on the distribution network to provide more headroom for generation and operational flexibility for system defence measures.
- Involvement in Pennine Area Voltage Pathfinder activities with the ESO, to support whole system planning across National Grid, Electricity North West and Northern Powergrid licence areas. This required us to assess the impact of reactive power injection at certain key points on our network, where the ESO then assessed the distribution and transmission system options to then determine the most appropriate solution.
- Modelling of impacts of the proposed Yorkshire Green NGET project on the Northern Powergrid distribution system, to determine appropriate next steps and possible solutions.
- Considering the impact on the distribution system of transmission connections via the third party works process.
- Modelling of impacts of higher rating Super Grid Transformers (SGTs) – proposed by NGET – on the distribution system, to determine appropriate next steps and possible solutions.

Results of our whole systems approaches are evident in our Whole Electricity System Coordination Register (WESCR)

We have updated the Whole Electricity System Coordination Register to include some of the key joint deliverables and whole systems actions from the past year that have arisen through engagement with other DNOs, customers and stakeholders. Notably including:

- Planning and coordination with neighbouring network licensees (distribution and transmission).
- Co-ordination of asset rebuild programmes to ensure the most cost-efficient solution is adopted.
- Engaging in the Open Networks Forecasting Group and Future Energy Scenarios Networks Forum – collaborative efforts between DNOs and TOs to agree on the different building blocks for the different forecasting scenarios to be used for network decision making.
- Participation in steering groups dedicated to Local Area Energy Plans.
- Events hosted to provide a local engagement platform for stakeholders to share their views on how Northern Powergrid could better serve the region to progress decarbonisation plans.
- Network Congestion Steering Group - bi-weekly meetings between Northern Powergrid, NGESO and NGET stakeholders to discuss any high-level topics and initiatives concerning network congestion and impacts or mitigation initiatives.

ANNEX A1(a): NORTHERN POWERGRID PERFORMANCE

NPg			Unit	2022/23 Actual	2023/24 Actual	2023/24 Target[1]	RAG	ED2 target	Trend[2]
Revenue (and key financial metrics)									
Total annual revenue			£m	£621.8m	**£625.8m**	N/A	N/A	N/A	N/A
Customer bill[3]			£	£105.11	**£81.79**	N/A	N/A	N/A	N/A
Totex	Allowance		£m	£343.8m	**£513.5m**	N/A	N/A	£2,722m[4]	N/A
	Actual		£m	£338.4m	**£412.9m**	N/A	N/A	£2,722m[4]	N/A
	Difference		£m	£-5.4m	**-£100.6m**	N/A	N/A	£0m[4]	N/A
			%	-1.6%	**-20%**	N/A	N/A	0%[4]	N/A
Incentives[5]									
IIS			£m	£4.8m	**-£9.8m**	£0.0m	N/A	N/A	▼
TTC			£m	£0.1m	**-£0.2m**	£0.0m	N/A	N/A	▼
BMCS			£m	£3.4m[6]	**-£2.8m**	£0.0m	N/A	N/A	▼
DSO			£m	N/A	**£0.7m**	£0.0m	N/A	N/A	N/A
Total			£m	£8.3m	**-£12.0m**	£0.0m	N/A	N/A	▼
Innovation[7]									
NIA Expenditure			£m	£3.4m	**£2.2m**	£2.2m	●	N/A	—
NIC Expenditure			£m	£0.0m	**£0.8m**	£4.9m	●	N/A	—
Primary Outputs									
Safety	HSE Compliance		Hit/miss	✓	✓	✓	●	✓	—
Environmental	Oil Leakage		Litres	20,618	**20,995**	26,500 [8]	●	23,200 [7]	—
	Business Carbon Footprint[9]		tC02e	14,644	**14,297**	13,720 [7]	●	11,430 [7]	▲
	SF_6 emissions		kg	129	**102**	48.7 [7]	●	42.7 [7]	▲
Customer service	Overall survey		Score	8.83	**9.01**	9.12	●	9.12	▲
	Interruptions survey		Score	8.81	**8.81**	9.12	●	9.12	—
	Connections survey		Score	8.61	**8.98**	9.12	●	91.2	▲
	General enquiries survey		Score	9.40	**9.37**	9.12	●	91.2	▼
	Complaints metric		Score	5.21	**5.58**	2.80	●	2.80	▲
Connections	Time to quote (LVSSA)		Days	7.5	**3.7**	4.1	●	4.1	▲
	Time to quote (LVSSB)		Days	12.8	**5.9**	6.8	●	6.8	▲
	Time to connect (LVSSA)		Days	39.5	**30.1**	35.7	●	35.7	▲
	Time to connect (LVSSB)		Days	58.1	**56.0**	44.3	●	44.3	▲
Reliability	Customer interruptions	Northeast	CI	46.9	**48.6**	47.7	●	N/A	▼
		Yorkshire	CI	59.3	**55.2**	47.6	●	N/A	▲
	Length of interruptions	Northeast	CML	44.0	**49.5**	42.0	●	N/A	▼
		Yorkshire	CML	52.1	**53.5**	39.7	●	N/A	▼
Baseline Network Risk Output									
NARM	**HI** Score		Points	-	**86m**	157m	●	785m	N/A
	HI % of monetary risk target		%	-	**11.0%**	18.8%	●	100%	N/A

Figure A1(a): *Northern Powergrid performance overview*

1. Ofgem targets unless otherwise stated
2. Based on 2023/24 performance compared to prior year. ▲Trending positively; ▼Trending Negatively; — No/negligible movement
3. 2020-21 prices. Based on average domestic consumption of 2,700kWh
4. Cumulative ED2 Period (2023-2028)
5. Year 1 Incentive targets reflect break-even point of meeting Ofgem performance targets.
6. 2022-23 BMCS incentive included SECV, which is no longer part of the incentive in ED2
7. Innovation expenditure is quoted in nominal prices
8. Northern Powergrid target
9. Business Carbon Footprint excluding contractors and losses

ANNEX A1(b): LICENSEE PERFORMANCE (NORTHEAST)

Northeast		Unit	2022/23 Actual	2023/24 Actual	2023/24 Target[1]	RAG	ED2 target	Trend[2]
Revenue (and key financial metrics)								
Total annual revenue		£m	£270.3m	**£279.9m**	N/A	N/A	N/A	**N/A**
Customer bill[3]		£	£110.52	**£89.35**	N/A	N/A	N/A	N/A
Totex	Allowance	£m	£144.8m	**£216.4m**	N/A	N/A	£1,171m [4]	N/A
	Actual	£m	£126.9m	**£164.6m**	N/A	N/A	£1,159m [4]	N/A
	Difference	£m	£-17.9m	**-£51.8m**	N/A	N/A	-£12m [4]	N/A
		%	-12.4%	**-24%**	N/A	N/A	-1% [4]	N/A
Incentives[5]								
IIS		£m	£4.7m	**-£2.5m**	£0.0m	N/A	N/A	▼
TTC		£m	£0.0m	**-£0.2m**	£0.0m	N/A	N/A	▼
BMCS[6]		£m	£1.5m	**-£1.0m**	£0.0m	N/A	N/A	▼
DSO		£m	N/A	**£0.3m**	£0.0m	N/A	N/A	N/A
Total		£m	£6.2m	**-£3.5m**	£0.0m	N/A	N/A	▼
Innovation[7]								
NIA Expenditure		£m	£1.5m	**£0.9m**	£0.9m	●	N/A	—
NIC Expenditure		£m	£0.0m	**£0.8m**	£4.9m	●	N/A	—
Primary Outputs								
Safety	HSE Compliance	Hit/miss	✓	✓	✓	●	N/A	—
Environmental	Oil Leakage	Litres	9,864	**8,447**	10,073[8]	●	9,100	▲
	Business Carbon Footprint[9]	tC02e	5,983	**5,858**	5,962[6]	●	4,965	▲
	SF_6 emissions	kg	21.9	**8.7**	11.8[6]	●	10.7	▲
Customer service	Overall survey	Score	8.85	**8.96**	9.12	●	9.12	▲
	Interruptions survey	Score	8.85	**8.84**	9.12	●	9.12	—
	Connections survey	Score	8.60	**8.86**	9.12	●	9.12	▲
	General enquiries survey	Score	9.46	**9.40**	9.12	●	9.12	▼
	Complaints metric	Score	5.15	**5.20**	2.80	●	2.80	▲
Connections	Time to quote (LVSSA)	Days	8.4	**4.1**	4.1	●	4.1	▲
	Time to quote (LVSSB)	Days	13.1	**6.0**	6.8	●	6.8	▲
	Time to connect (LVSSA)	Days	44.9	**31.1**	35.7	●	35.7	▲
	Time to connect (LVSSB)	Days	71.1	**64.2**	44.3	●	44.3	▲
Reliability	Customer Interruptions	CI	46.9	**48.6**	47.7	●	N/A	▼
	Length of Interruptions	CML	44.0	**49.5**	42.0	●	N/A	▼
Baseline Network Risk Output								
NARM	**HI** Score	Points	-	**22.7m**	78.3m	●	391.6m	**N/A**
	HI % of monetary risk target	%	-	**6.9%**	17.0%	●	100%	N/A

Figure A1(b): *Northern Powergrid (Northeast) performance overview*

1. Ofgem targets unless otherwise stated
2. Based on 2022/23 performance compared to prior year. ▲Trending positively; ▼Trending Negatively; — No/negligible movement
3. 2020/21 prices. Based on average domestic consumption of 2,700kWh
4. Cumulative ED2 Period (2023-2028)
5. Year 1 Incentive targets reflect break-even point of meeting Ofgem performance targets.
6. In 2022/23 BMCS incentive included SECV, which is no longer part of the incentive in ED2
7. Innovation expenditure is quoted in nominal prices
8. Northern Powergrid target
9. Business Carbon Footprint excluding contractors and losses

ANNEX A1(c): LICENSEE PERFORMANCE (YORKSHIRE)

Yorkshire		Unit	2022/23 Actual	2023/24 Actual	2023/24 Target[1]	RAG	ED2 Target	Trend [2]
Revenue (and key financial metrics)								
Total annual revenue		£m	£351.5m	**£345.9m**	N/A	N/A	N/A	N/A
Customer bill[3]		£	£101.27	**£76.42**	N/A	N/A	N/A	N/A
Totex	Allowance	£m	£199.0m	**£297.1m**	N/A	N/A	£1,550m [4]	N/A
	Actual	£m	£211.5m	**£248.3m**	N/A	N/A	£1,562m [4]	N/A
	Difference	£m	£12.5m	**-£48.8m**	N/A	N/A	£12m [4]	N/A
		%	6.3%	**-16%**	N/A	N/A	1% [4]	N/A
Incentives[5]								
IIS		£m	£0.1m	**-£7.2m**	£0.0m	N/A	N/A	▼
TTC		£m	£0.1m	**£0.0m**	£0.0m	N/A	N/A	▲
BMCS[6]		£m	£1.9m	**-£1.8m**	£0.0m	N/A	N/A	▼
DSO		£m	N/A	**£0.4m**	£0.0m	N/A	N/A	N/A
Total		£m	£2.1m	**-£8.6m**	£0.0m	N/A	N/A	▼
Innovation[7]								
NIA Expenditure		£m	£2.0m	**£1.2m**	£1.2m	●	N/A	—
NIC Expenditure		£m	£0.0m	**£0.0m**	£0.0m	N/A	N/A	—
Primary Outputs								
Safety	HSE Compliance	Hit/miss	✓	✓	✓	●	✓	—
Environmental	Oil Leakage	Litres	10,754	**12,508**	15,627[8]	●	14,100	▲
	Business Carbon Footprint[9]	tC02e	8,661	**8,440**	7,758[6]	●	6,465	▲
	SF_6 emissions	kg	107.2	**95.1**	35.4[6]	●	32.0	▲
Customer service	Overall survey	Score	8.81	**9.05**	9.12	●	9.12	▲
	Interruptions survey	Score	8.78	**8.79**	9.12	●	9.12	▲
	Connections survey	Score	8.62	**9.08**	9.12	●	9.12	▲
	General enquiries survey	Score	9.34	**9.34**	9.12	●	9.12	—
	Complaints metric	Score	5.16	**5.84**	2.80	●	2.80	▼
Connections	Time to quote (LVSSA)	Days	6.9	**3.4**	4.1	●	4.1	▲
	Time to quote (LVSSB)	Days	12.6	**5.9**	6.8	●	6.8	▲
	Time to connect (LVSSA)	Days	35.7	**29.3**	35.7	●	35.7	▲
	Time to connect (LVSSB)	Days	49.2	**51.5**	44.3	●	44.3	▼
Reliability	Customer Interruptions	CI	59.3	**55.2**	47.6	●	N/A	▲
	Length of Interruptions	CML	52.1	**53.5**	39.7	●	N/A	▼
Baseline Network Risk Output								
NARM	**HI** Score	Points	-	**59.0m**	78.7m	●	393.5m	**N/A**
	HI % of monetary risk target	%	-	**15.0%**	20.7%	●	100%	N/A

Figure A1(c): *Northern Powergrid (Yorkshire) performance overview*

1. Ofgem targets unless otherwise stated
2. Based on 2022/23 performance compared to prior year. ▲Trending positively; ▼Trending Negatively; — No/negligible movement
3. 2020/21 prices. Based on average domestic consumption of 2,700kWh
4. Cumulative ED2 Period (2023-2028)
5. Year 1 Incentive targets reflect break-even point of meeting Ofgem performance targets.
6. In 2022/23 BMCS incentive included SECV, which is no longer part of the incentive in ED2
7. Innovation expenditure is quoted in nominal prices
8. Northern Powergrid target
9. Business Carbon Footprint excluding contractors and losses

ANNEX A2: OUTPUT PERFORMANCE ASSESSMENT

Approach to target setting and forecasting for outputs

We seek to achieve continuous improvement through our target setting, moving the performance of the business forward to best-ever levels.

The 2023/24 targets set out in this report include a combination of:

- Ofgem incentive targets where stipulated in RIGs guidance and/or RAG rating guidance; and
- Northern Powergrid targets where Ofgem has not indicated the basis for targets.

We have included footnotes on the outputs tables throughout the document to identify the basis of the targets applied for each measure.

4. OVERVIEW OF REGULATORY PERFORMANCE

We are required by Ofgem's Regulatory Instructions and Guidance to include narrative on a table-by-table basis. Much of this requirement is covered by our narrative in sections 2, 3 and data within Annex A of this report; therefore, we have cross-referenced wherever possible but include further detail in some areas. We have also referenced the relevant table in the RFPR template (published alongside this report) where supporting values can be found.

RoRE (Table R1): see sections 2a-2c

Reconciliation to revenue and profit (Table R2)

The under-recovery of revenues in 2023-24 shown in the revenue reconciliation for both Northeast and Yorkshire has arisen mainly from increases in allowed revenue, compared with the estimate used in setting charges for the year. This was combined with lower recovered revenue, predominantly due to the cost of living crisis which drove down electricity demand. The increase in allowed revenue is mainly due to a significant increase in inflation compared with the prescribed forecast used for setting charges in December 2021. It should also be noted that the ED2 price control settlement was not known at the time of setting charges for 2023/24.

We have made a number of formulae and formatting amendments to Ofgem's profit reconciliation template, in order to present a view of operating profit relating to within price control activities. It should be noted that the financing and interest differences presented in the profit reconciliation do not represent elements relating to outside price control activities and are more representative of differences between regulatory and statutory treatment of these items. In particular, the tax difference of £8.2m shown for Yorkshire is primarily driven by the timing difference between recovered revenue (used in the calculation of the regulatory accounts tax charge) and calculated revenue (used in the calculation of tax allowances in the price control financial model (PCFM)).

Totex (Table R3): see section 2d

We have included enduring value adjustments to incorporate the difference between our updated view of RPE forecasts and those in Ofgem's latest ED2 PCFM in the Totex Incentive Mechanism (TIM) performance calculations.

After taking into account enduring value adjustments to remove the effect of re-phasing/timing differences, the level of forecast TIM performance improves on a year-by-year basis over the period. Performance improvements in later years reflect the maturity/mobilisation of the initiatives within our ED2 cost efficiency programme.

Incentives and other revenue (Table R4): see Annex A, 1a-1c and section 3g

Although Strategic Innovation Fund (SIF) project funding is not included in Other Revenue Allowances in the PCFM, as we receive funding directly from the Electricity System Operator, its inclusion in this table allows the impact of the company contribution to these projects to be included in RoRE.

Financing (Table R5)

Northeast

The main cause of volatility in the real cost of debt during the ED2 period is the relative level of actual and forecast inflation. Actual inflation (7.26% using Ofgem's methodology) was significantly above the Bank of England target rate in 2023/24, resulting in a much higher level of outperformance against the allowance at notional gearing in this year. High inflation reduces the real cost of debt because we hold fixed nominal (rather than index-linked) debt.

Ofgem's inflation forecast remains above 2% in 2024/25 (at 2.81%) but falls below 2% in the remaining years, resulting in an insignificant overall effect.

Real Cost of Debt	2023/24	2024/25	2025/26	2026/27	2027/28
Actual/forecast[1]	(4.93)%	0.26%	1.72%	1.82%	1.74%
Allowed	3.10%	3.17%	3.23%	3.24%	3.26%
Difference	(8.03)%	(2.91)%	(1.51)%	(1.42)%	(1.52)%

Figure 4.1: *Cost of debt (Northeast)*

1. Nominal actual/forecast cost of debt is calculated by dividing the nominal interest used in the calculation of financing performance (from Table R5) by average net debt (from Table R6). This gives an implied average nominal interest rate (n) which is then converted to a real interest rate (r) using the equation r = (1+n)/(1+i)-1 where i is the average inflation for the regulatory year, consistent with Ofgem's methodology for the conversion of nominal financing costs to real financing costs in Table R5.

At notional gearing, Table R5 shows us outperforming the cost of debt allowance in all ED2 years. When expressed in nominal terms, the company's debt book outperforms the trailing average used by Ofgem in setting the allowed cost of debt; therefore, even when inflation forecasts reduce below 2% in the later years of the period, we forecast outperformance in real terms.

Ofgem's calculation of debt performance in the RFPR at notional gearing uses the notional gearing assumption of 60% but the licensee's proportion of fixed nominal and index-linked debt. This does not fully reflect the ED2 notional capital structure, which assumes 25% index-linked debt.

At actual gearing we show a marginally lower outperformance for the ED2 period against the cost of debt allowance. Our gearing (at 55% on average) is below the notional level, which results in lower nominal interest costs in absolute terms and less exposure to the impact of inflation on debt performance. High inflation in 2023/24 means that the combined effect of these two factors reported in Table R5 is a lower outperformance at actual gearing for the ED2 period overall.

In most ED2 years (2024/25 to 2026/27), Table R5 shows a higher outperformance at actual gearing. It should be noted that, because the additional element funded by equity effectively receives the lower cost of debt allowance, the overall impact on RoRE of having lower than notional gearing is negative.

Yorkshire

The main cause of volatility in the real cost of debt during the ED2 period is the relative level of actual and forecast inflation. Actual inflation (7.26% using Ofgem's methodology) was significantly above the Bank of England target rate in 2023/24, resulting in a much higher level of outperformance against the allowance at notional gearing in this year. High inflation reduces the real cost of debt because we hold fixed nominal (rather than index-linked) debt.

Ofgem's inflation forecast remains above 2% in 2024/25 (at 2.81%) but falls below 2% in the remaining years, resulting in an insignificant overall effect.

Real Cost of Debt	2023/24	2024/25	2025/26	2026/27	2027/28
Actual/forecast[1]	(3.65)%	1.11%	3.18%	2.97%	3.06%
Allowed	3.10%	3.17%	3.23%	3.24%	3.26%
Difference	(6.75)%	(2.06)%	(0.05)%	(0.27)%	(0.20)%

Figure 4.2: *Cost of debt (Yorkshire)*

At notional gearing, Table R5 shows us outperforming the cost of debt allowance in all but one of the ED2 years. When expressed in nominal terms, the company's debt book outperforms the trailing average used by Ofgem in setting the allowed cost of debt. Even when inflation forecasts reduce below 2% in the later years of the period, we forecast outperformance in real terms, other than in 2025/26 which has the lowest inflation forecast (at 1.56%). This outperformance is to a lesser extent than Northeast, due to the timing of historical debt issuances. Yorkshire is also required to issue proportionally more new debt than Northeast during the period, as debt issued when market interest rates were relatively low matures, causing the average nominal debt cost to increase to a greater extent as the ED2 period progresses.

Ofgem's calculation of debt performance in the RFPR at notional gearing uses the notional gearing assumption of 60% but the licensee's proportion of fixed nominal and index-linked debt. This does not fully reflect the ED2 notional capital structure, which assumes 25% index-linked debt.

At actual gearing we show a marginally lower outperformance for the ED2 period against the cost of debt allowance. Our gearing (at 55% on average) is below the notional level, which results in lower nominal interest costs in absolute terms and less exposure to the impact of inflation on debt performance. High inflation in 2023/24 means that the combined effect of these two factors reported in Table R5 is a lower outperformance at actual gearing for the ED2 period overall.

In most ED2 years (2024/25 to 2027/28), Table R5 shows a higher outperformance at actual gearing. It should be noted that, because the additional element funded by equity effectively receives the lower cost of debt allowance, the overall impact on RoRE of having lower than notional gearing is negative.

1. Nominal actual/forecast cost of debt is calculated by dividing the nominal interest used in the calculation of financing performance (from Table R5) by average net debt (from Table R6). This gives an implied average nominal interest rate (n) which is then converted to a real interest rate (r) using the equation r = (1+n)/(1+i)-1 where i is the average inflation for the regulatory year, consistent with Ofgem's methodology for the conversion of nominal financing costs to real financing costs in Table R5.

Net Debt (Table R6)

As noted above in relation to Financing (Table R5), actual gearing is lower than the notional level on average but is forecast to rise to around the notional level by the end of the ED2 period. Northeast's gearing starts at 50%, rising to 60%, giving an average of approximately 55% over the period. Yorkshire's forecast gearing is similar – starting at 48%, rising to 60%, with an average of 55%.

Please note that £300m of loans shown in each year in row 16 of Northeast's Table R6 are with Northeast's financing company subsidiary, rather than a company in the wider Northern Powergrid group, and relate to debt issued prior to Northeast becoming a public limited company. The loans cannot strictly be defined as back-to-back and therefore we have not allocated them to row 17 which is for 'group loans from finco back to back with finco bond issue'.

RAV (Table R7)

The enduring value adjustment included in Table R7 relates to the RPE adjustment in Table R3. No adjustment is required to the RAV forecast in respect of the phasing adjustment in Table R3, as this does not represent a forecast of future changes to allowances.

Taxation (Table R8)

The forecast tax underperformance at actual gearing relates predominantly to the impact of lower forecast interest payable than the value assumed in PCFM calculations of the tax allowance. This is partially offset by the impact of utilising the tax trigger deadband in all years.

We do not agree with Ofgem's calculation methodology for the values in rows 66 to 69 of Table R8, which affects the values for the 'tax impact of financing performance relating to deviating from notional levels of gearing' reported in rows 70 and 64 and, consequentially, the forecast tax performance at notional gearing reported in row 62. This is because real financing costs are being used to calculate the tax impact, in error. Tax allowance calculations use nominal interest costs, therefore nominal actual/forecast interest costs should be compared with the nominal interest costs assumed within the PCFM tax calculations to derive the values in rows 66 to 69.

In overall RoRE terms, this error is not significant as it has no impact on RoRE at actual gearing, and only a small impact on RoRE at notional gearing (as reported in Table R1). However, it should be noted that the values in rows 66 and 67 cannot be used to infer a split of the reported forecast tax underperformance at actual gearing between financing-related and other components. This is a particular issue in 2023/24, when there is a more significant difference between nominal and real financing costs due to high inflation in that year.

Pensions and other activities (Table R10)

The values on Table R10 do not feed into the RoRE calculations within the RFPR, on the basis that differences between established deficit allowances and the equivalent element of deficit repair payments are timing differences only, and the incremental deficit is assumed to be funded as part of totex.

Thanks to the implementation of an innovative Stranded Surplus Mechanism in our defined benefit pension scheme, we were able to reduce deficit contributions to nil from 2021/22 onwards due to the improved funding position of the scheme. In order to return unused allowances to customers as quickly as possible, we have payment history allowances for 2024/25 of -£31.9m for Northeast and -£15.4m for Yorkshire.

Financial resilience and corporate governance:

- ***Financial resilience** – **provided to Ofgem separately***
- ***Corporate ownership and governance framework** – **see Annex B.1***
- ***Executive remuneration policies** – **provided to Ofgem separately***
- ***Dividend policies** – **see Annex B.2***

DATA ASSURANCE STATEMENT

We have applied Ofgem's Data Assurance Guidance (DAG) methodology. Data inputs are predominately from existing sources of information, some of which are also subject to data assurance under DAG requirements; for example, the RRP – Costs, Volumes and Revenue Reporting pack.

ANNEX B1: CORPORATE OWNERSHIP AND GOVERNANCE FRAMEWORK

This section is structured by including a response against each requirement of the RIIO-2 Regulatory Financial Performance – Regulatory Instructions and Guidance document (version 3.2), for clarity.

Licensees must provide an overview of their corporate ownership structure (by diagram or narrative means) including the following information:

i) Ownership stakes in the licensee expressed as a percentage

ii) Names (both registered and trading) of all companies in the ownership structure between the licensee and the ultimate parent

iii) All of the licensee's current board committees, and all of the board directors that serve on each one, and

iv) Whether decision-making responsibility for the following matters is reserved to a parent/group company, and if so, which company:

a) purpose, values and strategy,
b) board director nominations,
c) board director evaluation,
d) executive remuneration, and
e) dividend policy

CORPORATE OWNERSHIP STRUCTURE:

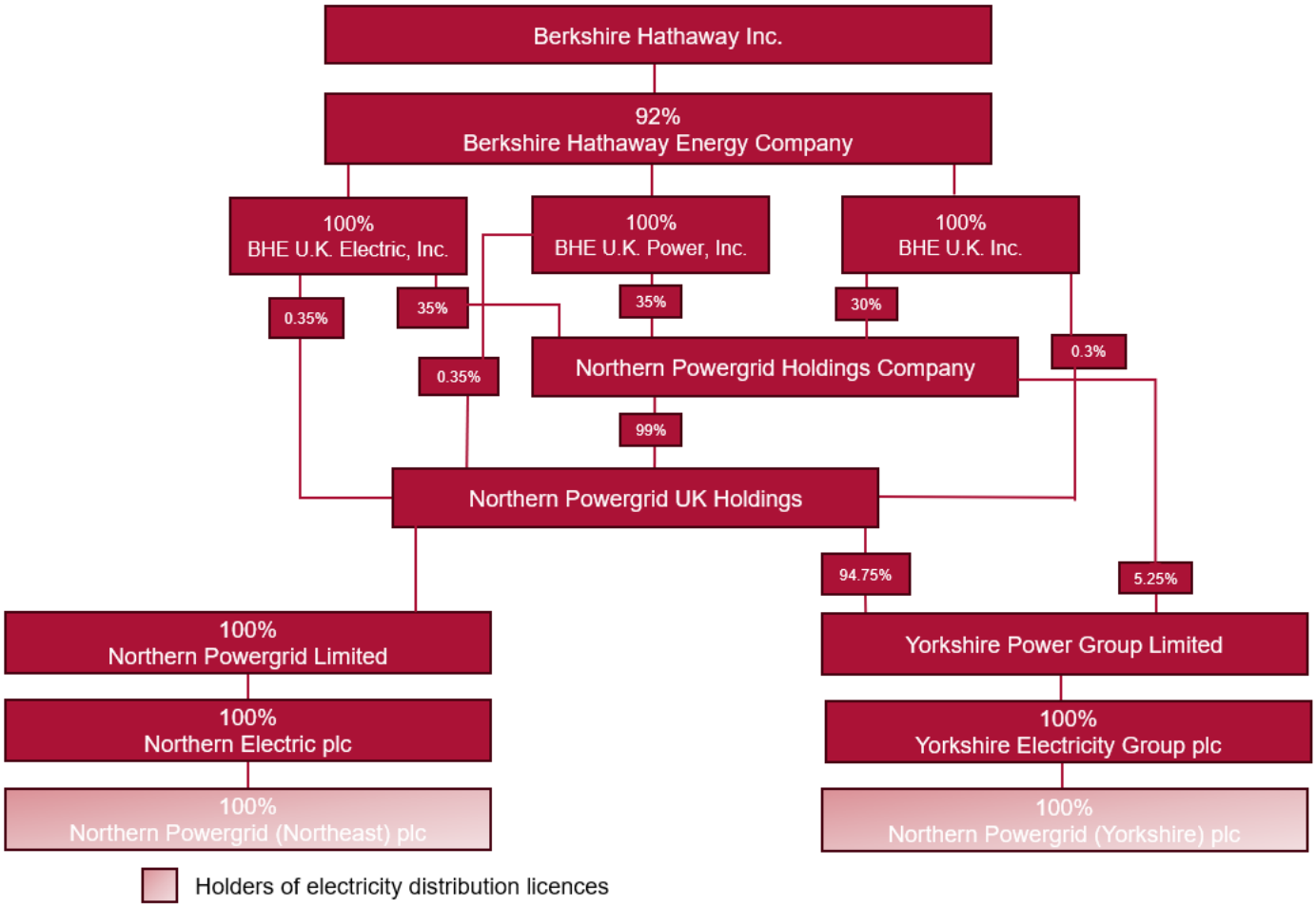


Figure B.2.1: Corporate ownership structure

i) Ownership stakes in the licensee expressed as a percentage

These are included in the above corporate ownership structure, but to confirm:

- 100% of the shareholding of Northern Powergrid (Northeast) plc is held by Northern Electric plc; and
- 100% of the shareholding of Northern Powergrid (Yorkshire) plc is held by Yorkshire Electricity Group plc.

ii) Names (both registered and trading) of all companies in the ownership structure between the licensee and the ultimate parent

As detailed in the above corporate ownership structure and as below:

Northern Powergrid (Northeast) plc

- Northern Electric plc
- Northern Powergrid Limited
- Northern Powergrid UK Holdings
- Northern Powergrid Holdings Company
- BHE U.K. Electric, Inc, BHE U.K. Power, Inc, and BHE U.K. Inc
- Berkshire Hathaway Energy Company
- Berkshire Hathaway Inc.

Northern Powergrid (Yorkshire) plc

- Yorkshire Electricity Group Plc
- Yorkshire Power Group Limited
- Northern Powergrid UK Holdings
- Northern Powergrid Holdings Company
- BHE U.K. Electric, Inc, BHE U.K. Power, Inc, and BHE U.K. Inc
- Berkshire Hathaway Energy Company
- Berkshire Hathaway Inc.

iii) Current board committees and serving board directors

	Audit Committee	Health and Safety Committee	Risk Advisory Board	Science and Technology Advisory Panel
Phil Jones	No	**Yes (chair)**	No	No
Tom France	No	**Yes**	**Yes**	No
Alex Jones	**Yes**	**Yes**	**Yes**	No
Andy Maclennan	No	**Yes**	**Yes**	**Yes**
Alison Marshall	No	**Yes**	**Yes (chair)**	No
Phil Taylor	No	No	No	**Yes (chair)**

Figure B.2.2: Board director membership of current board committees

In addition to the board directors shown above, members of the executive team and/or independent members serve on each committee. John Reynolds, non-executive director of Northern Powergrid Holdings Company, is the chair of the Audit Committee.

iv) Decision-making responsibility

Decision making for the following matters takes place at the company level (Northern Powergrid (Northeast) plc and Northern Powergrid (Yorkshire) plc):

- purpose, values and strategy,
- board director nominations,
- board director evaluation,
- executive remuneration, and
- dividend policy.

However, in relation to executive remuneration, concurring shareholder approval is also required from Berkshire Hathaway Energy Company.

Licensees must list the following information about all their board directors:

i) Full names

ii) Whether they are an executive director, a shareholder-appointed non-executive director, an independent non-executive director or a sufficiently independent director (SID)

iii) Appointment dates

Northern Powergrid (Northeast) plc and Northern Powergrid (Yorkshire) plc each have the same board composition.

- **Sufficiently independent directors (SIDs):**
  - Alison Marshall (Alison Ruth Marshall) – appointed 01/04/14
  - Phil Taylor (Philip Charles Taylor) – appointed 01/04/14

- **Executive directors:**
  - Phil Jones (Philip Antony Jones), President and Chief Executive Officer - appointed 12/11/02
  - Tom France (Thomas Hugh France), General Counsel – appointed 15/12/16
  - Alex Jones (Alexander Patrick Jones), Finance Director – appointed 14/04/22
  - Andy Maclennan (Andrew John Maclennan), Commercial Director – appointed 17/07/15

ANNEX B2: DIVIDEND POLICIES

Licensees must provide a copy of licensee's dividend or distribution policy. Ofgem's expectation is that the dividend or distribution policy would consider an array of factors including long-term financial sustainability, delivery for customers, long-term investment needs, other stakeholder obligations and (if relevant) previously deferred distributions.

The Company's dividend policy is that dividends will be paid only after having due regard to available distributable reserves, available liquid funds and the financial resources and facilities needed to enable the Company to carry on its business for at least the next year. In addition, the level of dividends is set to maintain sufficient equity in the Company so as not to jeopardise its investment grade issuer credit rating. These strict parameters align with the conditions set out in the distribution licence and are considered carefully by the board so as to ensure that the payment of any dividend does not cause the Company to breach any licence obligations in the future.

Licensees must provide an explanation of dividend policies and dividends declared and paid in the previous regulatory reporting year

During the regulatory year 2023/24, the following dividends were declared and paid:

- Northeast: Interim dividends of £31.4 million (July 2023) and £300 million (March 2024). No final dividend was paid.
- Yorkshire: Interim dividends of £42.5 million (July 2023) and £400.0 million (March 2024). No final dividend was paid.

Further information has been provided to Ofgem separately.

ANNEX C1: ENDURING VALUE METHODOLOGIES

Ofgem requires that we classify any forecast updates to allowances which are not included in the latest PCFM as enduring value adjustments. As the 'latest PCFM' is defined as being from the latest dry run of the ED2 PCFM, in which we can forecast most allowance and expenditure updates, the number of enduring value adjustments required has significantly reduced since ED1.

a) Adjustment for difference in RPE allowance

An enduring value adjustment has been made to reflect our updated forecast of RPE allowances which is not reflected in the latest PCFM from the dry run process for the 2024 annual iteration process. RPE indices are an Ofgem-provided input to the PCFM, and Ofgem does not provide any update for these until later in the dry run process.

b) Adjustment to remove impact of rephasing/timing differences

An enduring value adjustment has been made to reverse the value of any annual under or over-spend that we attribute to rephasing/timing within the ED2 period. This adjusts annual performance under the Totex Incentive Mechanism (TIM) but has no overall impact, as the adjustment sums to zero over the ED2 period. This does not represent a forecast allowance adjustment and is included only to give a more reflective view of annual TIM performance. For this reason, no related adjustment to forecast RAV is required in Table R7.

ANNEX C2: BASIS OF APPORTIONMENTS AND ALLOCATIONS

The RFPR draws on data from existing sources of information which are subject to data assurance under DAG requirements e.g., the RRP – Costs, Volumes and Revenue Reporting pack.

No further apportionments or allocations between licensees were required in the population of the RFPR.