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RIIO-2 Electricity Distribution Summary Annual Report: 2023-24

Foreword

The energy sector stands at a pivotal juncture, with the transition to a low-carbon system and delivery against the Government's Net Zero target by 2050, presenting both significant challenges and opportunities for the energy sector.

Delivering the electricity networks at both transmission and distribution levels, which will underpin the transition to net zero, necessitates a substantial increase in investment in clean electricity generation and network infrastructure.

The drive towards Net Zero is also creating an unprecedented demand for investment in the electricity distribution network, primarily driven by the electrification of transport and heating.

To facilitate this complex transition at pace, the current round of price controls (RIIO-2[1]) has established a comprehensive investment and incentive package. We[2] designed the package to enable network companies to deliver a lowest cost, decarbonised energy system, while maintaining world-class levels of system reliability and customer service.

The scale of consumers' investments is substantial. Collectively, the electricity distribution businesses expect that expenditure over the five-year price control period will reach £22.5 billion.

Consumer protection

In a rapidly evolving landscape, actions must effectively combat climate change, and returns must align with the level of risks undertaken by investors.

The RIIO-2 framework, being outcome-focused, is designed to assist companies in clearly coordinating the system consumers need in advance, minimising investor uncertainty, and ensuring that new infrastructure is built quickly and at a reasonable cost.

Monitoring

As the sector progresses through the RIIO-2 period[3], we continuously monitor that companies are advancing as expected in delivering their agreed plans and outputs.

Consumers are funding the network investments, and it is essential that these networks continue to provide reliable service and meet the diverse needs of network users.

Looking ahead, we will use performance data to collaborate closely with stakeholders, learn lessons from RIIO-2, and ensure companies remain accountable.

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[1] This is the second electricity distribution price control using the Revenue = Incentives + Innovation + Outputs (RIIO) model.
[2] The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.
[3] New price controls for gas and electricity transmission and gas distribution will be implemented from April 2026.

Executive Summary

This report presents a summary of the Electricity Distribution Network Operators' (DNOs) output delivery and financial performance for the first year of the RIIO-ED2 price control. The summary will look at:

1. Delivery against output targets in 2023-24;
2. Overview of expenditure in relation to innovation incentives; and
3. Expenditure in cost categories, the key drivers of any under/overspend against allowances and forecast spend across the RIIO-ED2 price control.

Key messages

Annual outputs: DNO groups have delivered mixed performance against their output targets, resulting in a net penalty of approximately £0.8m. While companies did not meet the expected standards on the Interruptions Incentive Scheme (£29.7m net penalty), they performed well on the Distribution System Operator incentive (£18.5m net reward).

RIIO-ED2 performance: In the first year of RIIO-ED2, all of the six DNO groups underspent against their annual allowance. However, three DNO groups expect to meet or exceed their allowance over the whole of RIIO-ED2.

Structure of this report

- **Chapter One** provides brief summary information on the DNO businesses and the annual reporting process.
- **Chapter Two** explains how the DNOs have performed against their output incentive commitments over the first year of the RIIO-ED2 period. It also indicates the incentive payments earned.
- **Chapter Three** presents an overview of expenditure in relation to the innovation incentives.
- **Chapter Four** provides a brief summary of the total cost (totex) and adjusted allowance position across all DNO businesses.

All financial values in the report are in 2020-21 price base unless stated otherwise. If you require additional performance data, please refer to the supplementary datafile which is published along with this report.[4]

Information on our current assessment of the Return on Regulated Equity[5] was separately published in February 2025.

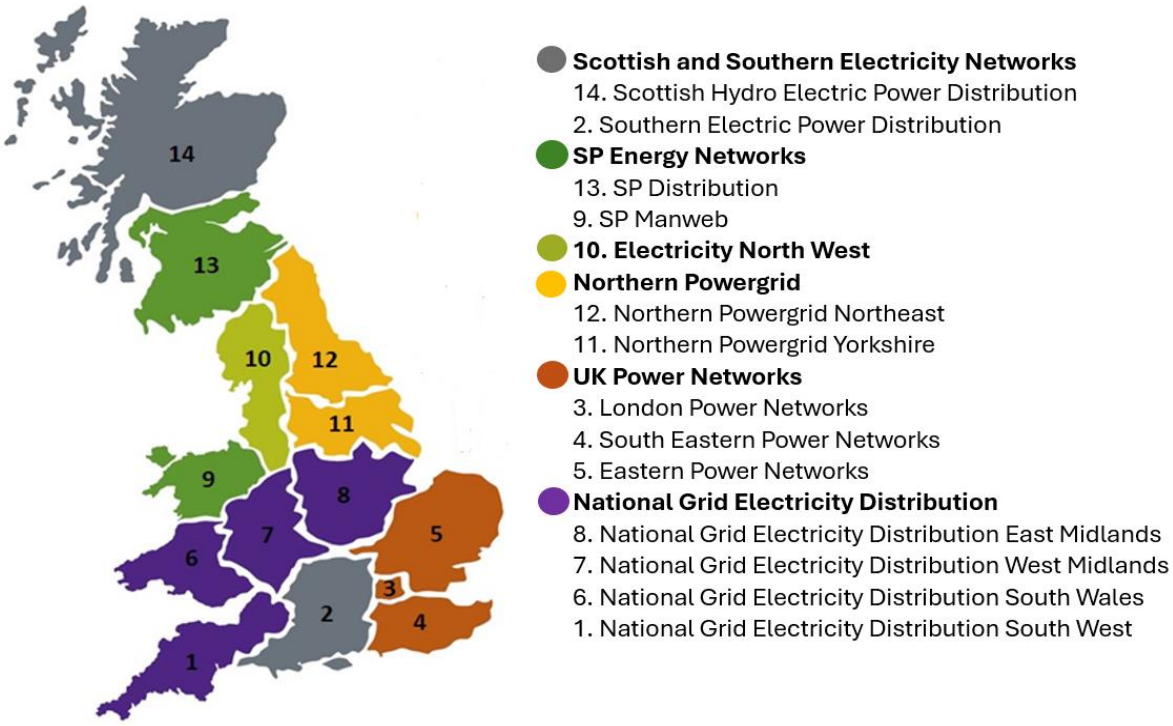
[4] This report does not provide any information on the Network Asset Risk Methodology outputs which is provided through a separate regulatory submission.
[5] The financial return achieved by shareholders in a licensee during a price control period from its outturn performance.

Chapter One: Introduction

There are 14 DNOs who are responsible for carrying electricity from the transmission network, and generation sources connected to their network, to network users. They are owned and operated by six DNO groups and the areas in which they operate are shown on the map in Figure 1.

Appendix one contains a list of the DNO Groups and corresponding DNOs.

Figure 1: Location and ownership of DNOs



To ensure value for money for consumers, Ofgem regulates DNOs through periodic price controls. The price controls we set determine the amount of revenue DNOs can earn and specify the levels of performance we expect DNOs to deliver.

RIIO-2

To protect consumers, we set limits on the network expenditure that can be added to bills, and what must be delivered by the network companies. Our price controls use the RIIO

(Revenue = Incentives + Innovation + Outputs) framework. The current electricity distribution price control spans a five-year period from 1 April 2023 to 31 March 2028.

Annual Reporting

DNOs are required to report on their performance in relation to their expenditure and the outputs we set under the RIIO-ED2 price control framework.[6]

We analyse this information and examine any variations in DNO performance against their annual output targets, as well as the expected under and over-spend across specific activities and cost categories.

Additionally, we engage with each DNO to discuss the technical aspects of their submissions, known as Supplementary Questions, or SQs, and participate in direct discussions via annual company visits on specific points. This process helps us gain a deeper understanding of the factors influencing the delivery of the RIIO-ED2 settlement and their perspectives on future performance.

The report covers the period up to 31 March 2024.

[6] The Regulatory Instructions and Guidance (RIGs) requires DNOs to provide information to Ofgem. We used the information provided in the RIGs in preparation of this Annual Report.

Chapter Two: Output Incentives

Annual output targets are categorised into three outcomes: meeting the needs of consumers and network users, maintaining a safe and resilient network, and delivering an environmentally sustainable network. Within these outcomes there are a range of outputs where performance is incentivised, either reputationally or a financially (rewards or penalties under certain output areas).

Table 1 presents an overview of our 'Red, Amber, Green' (RAG) rating assessment, indicating the status of each DNO[7] across applicable outputs in the first year of RIIO-ED2. Delivering an environmentally sustainable network is not included in Table 1 as it is a reputational incentive. Company rankings related to this are presented in the Environment section.

Table 1: Output delivery incentive measures of performance

Green means 'Met': performance on target / ahead of target or above score.
Orange means 'Near': partially missing target / partially behind target or below score.
Red means 'Not met': performance missing target / behind target or below score.

	Maintaining a safe and resilient network			Meeting the needs of consumers and network users				
	Safety	Reliability & Availability		Connections			Customer satisfaction	
DNO	Safety performance [8]	No. of interruption (CIs)	No. of minutes lost (CMLs)	Time to Quote and Time to Connect	Connection GSoPs	Major Connections	Complaints	Customer Satisfaction
ENWL								
NPgN								
NPgY								
WMID								
EMID								
SWALES								
SWEST								
LPN								
SPN								
EPN								
SPD								
SPMW								
SSEH								
SSES								

[7] A list of each DNO and their corresponding DNO group can be found in the Appendix of this document.

[8] The safety RAG ratings are taken from the submitted Strategic Performance Overview (SPO) documents as part of the July 2024 RRP submissions and are not calculated by Ofgem.

Summary

Electricity North West (ENWL) received a green RAG rating across all assess areas, demonstrating good overall performance and receiving a reward of £3.07m.

Northern Powergrid (NPg) delivered mixed results, receiving a combination of green, amber and red ratings. This is reflected in its total incentive payment of -£12.06m and it was one of two DNO Groups to have a net negative incentive payment. Most of this is attributable to its performance on the Interruptions Incentive Scheme (IIS) (-£9.79m), on which it received three red and one amber ratings.

National Grid Electricity Distribution (NGED) underperformed on IIS, and received two amber ratings for customer satisfaction, but achieved generally strong results elsewhere, securing a £1.44m incentive payment.

UK Power Networks (UKPN) also underperformed on IIS, as well as receiving amber ratings across all its DNOs for Time to Quote and Time to Connect but otherwise maintained green RAG ratings. UKPN achieved the highest incentive payment (£12.63m), primarily driven by good performance on the Customer Satisfaction Survey (£8.09m) and Distribution System Operation (£8.84m), but they were subject to penalty for performance on the Interruptions Incentive Scheme (IIS) of £5.90m.

Alongside ENWL, SP Energy Networks (SPEN) was the only DNO group not to receive a red RAG rating in any category. This is reflected in its total reward of £5.52m which was driven by performance on the IIS (£2.76m).

Scottish and Southern Electricity Networks (SSEN) recorded mixed performance overall, with most of its underperformance being primarily due to SSES. This is reflected in its total incentive payment of -£11.41m and it was one of two DNO Groups to have a net negative incentive payment. This was largely driven by underperformance on the IIS leading to a £10.91m penalty.

Rewards and Penalties

Table 2 summarises the cumulative revenue rewards and penalties accrued by each DNO group in the first reporting year for each financial incentive area.

Table 2: ODI mechanisms – indicative DNO group revenue rewards & penalties (2023-24) (£m, 2020-21 prices)

Mechanism	***ENWL***	***NPg***	***NGED***	***UKPN***	***SPEN***	***SSEN***	***TOTAL***
Interruptions Incentive Scheme	0.87	-9.79	-6.74	-5.90	2.76	-10.91	-29.71
Time to Connect	0.87	-0.20	2.29	1.60	0.54	0.93	6.03
Customer Satisfaction Survey	1.15	-0.09	-0.08	8.09	1.63	-2.87	7.83
Complaint Metric	0.00	-2.71	0.00	0.00	0.00	0.00	-2.71
Distribution System Operation	0.19	0.72	5.97	8.84	0.59	2.17	18.48
Major Connections Incentive	0.00	0.00	0.00	0.00	0.00	-0.74	-0.74
TOTAL	3.07	-12.06	1.44	12.63	5.52	-11.41	-0.81

Key points include:

- Most networks have not met the expected standards on the IIS, and there is a total penalty of £29.7m spread across the DNOs.
- NPg and SSEN have incurred overall penalties under the incentive framework. This is largely due to performance on the IIS.
- ENWL, NGED, UKPN and SPEN have received overall rewards under the incentive framework, reflecting strong performance against their targets.
- The Distribution System Operator mechanism is a significant source of reward for each company in the RIIO-ED2 period to date. This is the only incentive where all DNO groups received a positive reward, reflecting good performance.
- NPg was the only DNO group that did not meet the complaints metric target, while SSEN was the only group that did not meet the major connections target. Consequently, they were the only DNOs to incur penalties in these areas.
- Overall, the network companies have incurred total penalties of £0.8 million, with underperformance on the IIS counteracted by strong performance by the DSO and Customer Satisfaction Survey.

DNO group performance for each output is summarised below.

Connections

The Time to Connect (TTC) incentive is a key component of RIIO-ED2, ensuring timely and efficient network access for smaller, or minor, customers (connections at the lower voltages) and driving DNO accountability for service quality and responsiveness.

In 2023-24, there was an overall improvement under the TTC Incentive compared to the 2019-23 period, which set the target performance for DNOs in RIIO-ED2. Despite this improvement, only five DNOs outperformed their annual targets in each of the four areas[9] assessed under the TTC incentive. Eight DNOs are scoring a red RAG rating in at least one of the four areas assessed under the TTC, but due to satisfactory performance on the other areas, they have an overall amber rating. The only DNO Group that is subject to a penalty due to underperformance is NPg (£0.2m), and all other DNO groups have earned a positive reward. The total reward received from the TTC this year was £6.03m.

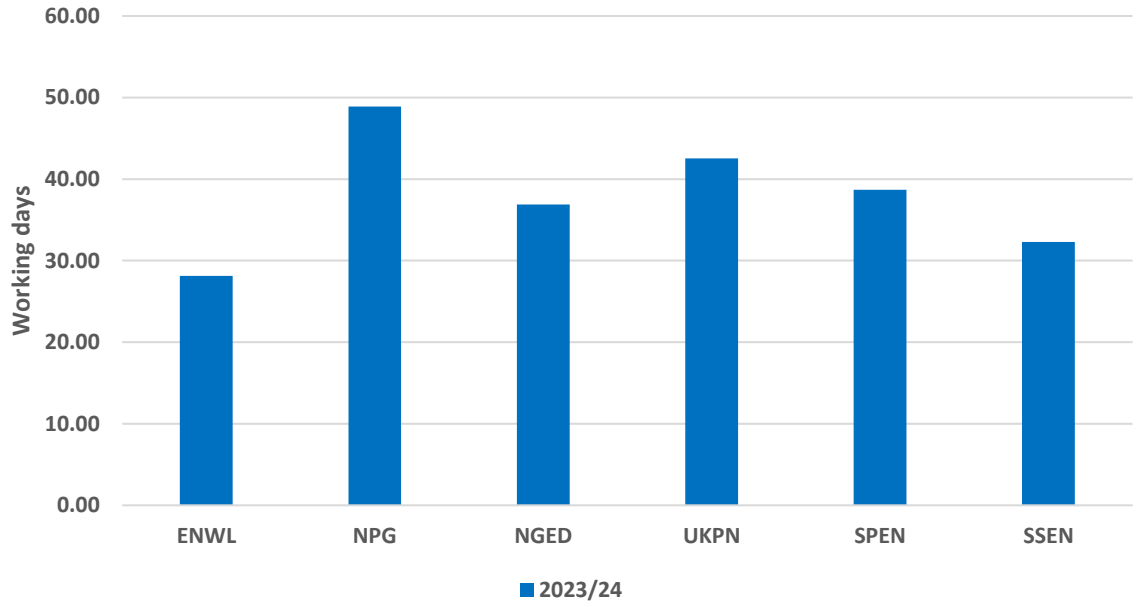
The Major Connections incentive is an important part of RIIO-ED2 as it ensures that DNOs deliver timely, efficient and customer focused services for large and complex connections.

Under the Major Connections incentive, SSEN faced a penalty due to performance being below their targets, and all of the other DNO groups performed above their targets. Most DNOs also met or exceeded the annual report target for Connections Guaranteed Standards of Performance (GSoP) and received a green RAG status, with four (NPgN, NPgY, SPD and SSES) receiving an amber RAG status. Both NPg and SPEN have reported year-on-year improvements despite maintaining an amber RAG rating. The total guaranteed standard payments paid against the Connection GSoPs amounted to £2.00m, with SSES accounting for just over 50% (£1.01m). SSES have attributed the majority of these penalties to issues related to personnel changes in specific roles and have committed to allocating resources to resolve the issue. Furthermore, SSES has indicated that a significant portion

[9] This comprises of Time to Quote and Time to Connect for two different types of LV connections.

of its resources has been directed toward responding to severe weather events, resulting in limited capacity for other operational activities.

Figure 2: Average Time to Quote & Connect



Social Obligations and Customer Service

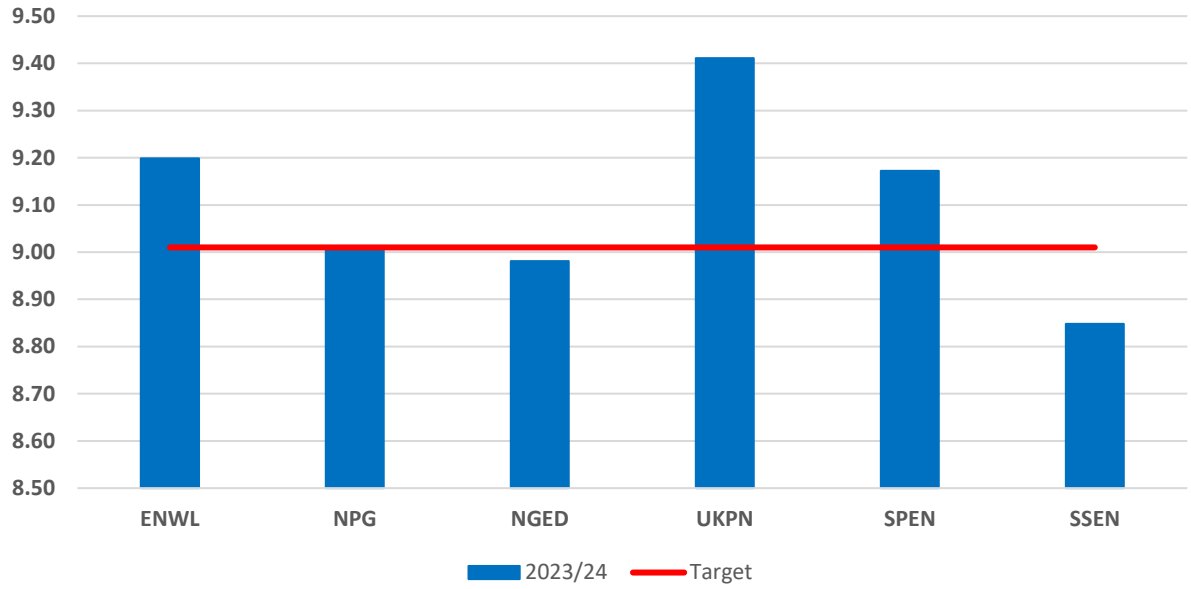
The Broad Measure of Customer Service (BMCS) incentive is a vital part of RIIO-ED2, ensuring that DNOs prioritise customer experience, drive service improvements and maintain high standards of engagement, accountability and responsiveness across all customer interactions. This is made up of the Customer Satisfaction Survey (CSS) and the Complaints Metric (CM).

Three DNO groups (ENWL, UKPN and SPEN) met or exceeded the CSS targets in 2023-24 and received a reward. The remaining three DNO groups (NPG, NGED and SSEN) did not meet the CSS targets and received a penalty.

The industry average score for the first year of RIIO-ED2 is 9.1, which exceeds the target of 9.01. A total of ten DNOs (ENWL, NPgY, EMID, SWALES, LPN, SPN, EPN, SPD, SPMW and SSEH) met or exceeded this target.

The combined reward received by DNO groups under both components of the Broad Measure of Customer Satisfaction (CSS and CM) this year was £5.13m.

Figure 3: Annual Customer Satisfaction Score by DNO group



Under the Complaints Metric (CM), NPg was the only DNO group to incur a penalty (-£2.71m), as all other DNO groups met the target and avoided penalties.

Please note that the Consumer Vulnerability Incentive (CVI) is a new addition for RIIO-ED2 and will be reported only in years two and five of the price control period.

Reliability and Availability

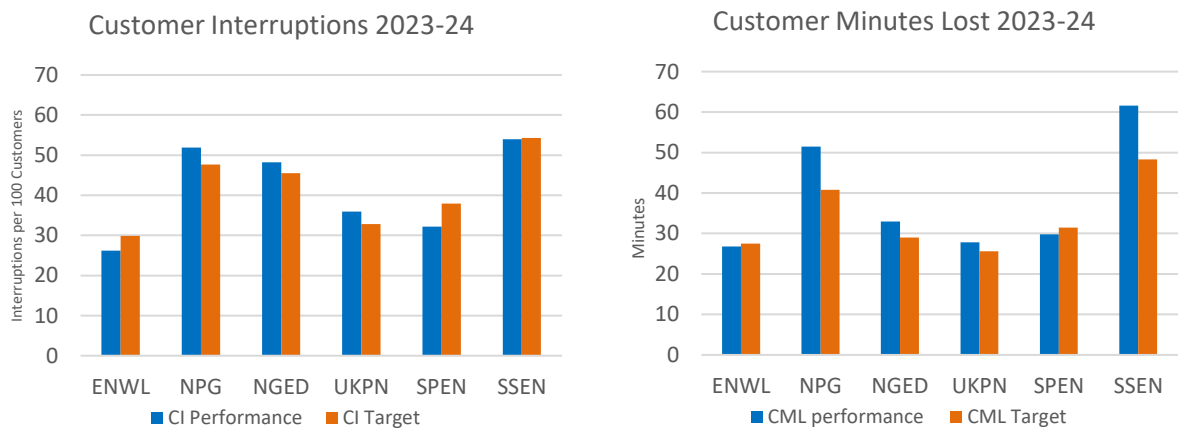
The Interruptions Incentive Scheme (IIS) is a critical part of RIIO-ED2, driving DNOs to minimise customer interruptions and restore power quickly, thereby improving network reliability, enhancing customer satisfaction and supporting the overall goal of delivering a resilient and efficient electricity distribution network. IIS incentivises performance by offering rewards for exceeding targets, and imposing penalties for failure to meet targets. These targets relate to the average number of interruptions (Customer Interruptions) and the average duration of interruptions (Customer Minutes Lost). IIS applies to both unplanned power cuts and planned outages, with distinct target-setting mechanisms for each.

Overall, DNO groups did not perform well against IIS in 2023-24, incurring a total penalty of £29.7m. This contrasts with our last published annual report in 2021/22, when they exceeded their CI and CML targets and received a combined reward of £174m.

IIS performance for both planned and unplanned CIs and CMLs (as per Figure 4) show NPg, NGED and UKPN have underperformed against both targets. In addition, SSEN have underperformed against their CML target. All four DNO groups received a penalty under IIS, with the highest penalty incurred by SSEN (£10.91m). ENWL and SPEN outperformed their targets and received a reward of £0.87m and £2.76m, respectively.

Improvements are anticipated during RIIO-ED2 as DNOs continue investing in network resilience and performance enhancements.

Figure 4: Average IIS performance by DNO group (Planned and Unplanned)



To further improve reliability and availability, in 2023-24 DNO groups:

- Spent £131.1m on resilience[10]; and
- Spent £3.1m improving service provision for the worst-served customers.

[10] Resilience expenditure and allowance consists of Electricity System Restoration, Flood Mitigation, Physical Security and Tree Cutting.

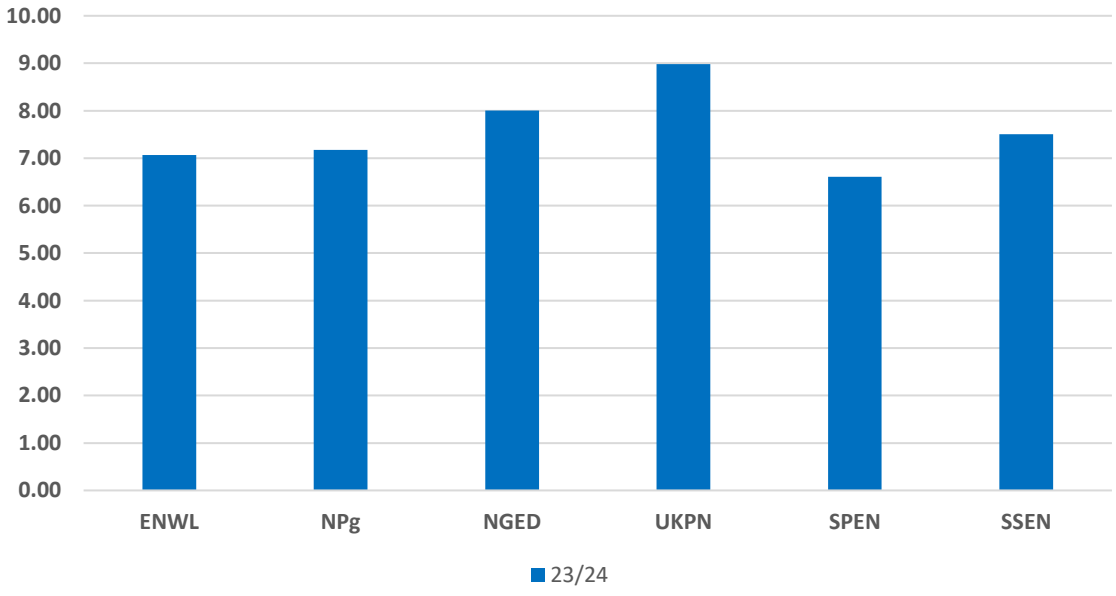
Distribution System Operator

The Distribution System Operator (DSO) incentive[11] is a new incentive introduced for RIIO-ED2. This incentive is designed to ensure that DNOs more effectively develop and use their network, considering flexible and smart alternatives to network reinforcement.

This incentive is split into two components: the Stakeholder Satisfaction Survey and the Performance Panel assessment. SSEN received a penalty (£0.1m) for the Stakeholder Satisfaction Survey, while all other DNO groups retained positive performance across both components of the DSO incentive.

In 2023-24, all companies earned an overall positive reward from the DSO incentive, totalling £18.48m. Figure 5 below summarises average DSO score by DNO Group across both elements of the DSO incentive, with a higher score indicating stronger performance.

Figure 5: Average DSO score by DNO Group



[11] For more details on the DSO incentive, see DSO Incentive Report 2023-24.

Environment

The environment reputational incentive is an important part of RIIO-ED2 as it encourages DNOs to minimise their environmental impact and enhance sustainability practices. Reporting against Business Carbon Footprint (BCF), Fluid Filled Cables (FFCs) and sulphur hexafluoride[12] (SF_6) helps to track progress on reducing emissions, managing high impact materials and mitigating environmental risks associated with network assets.

In 2023-24, the DNO's BCF (excluding losses and contractors) decreased by 12.2% compared to 2022-23. However, as this is a reputational incentive and 2023-24 marks the first year of RIIO-ED2, there are no other figures available for comparison. As a result, performance is currently assessed against 2022-23, the final year of RIIO-ED1.

This year reported levels of SF_6 emissions decreased by 14.7% compared to 2022-23. There was a decrease of 10.1% in total oil leakage from FFCs.

Table 3 offers an overview of DNOs' ranking across environmental outcomes.

Table 3: Environmental performance

Delivering an environmentally sustainable network			
DNO	BCF (excl. losses) as % of network length and customer numbers ranking	SF6 emitted as % of bank ranking	FFC leakage as a % of oil in service ranking
ENWL	5	6	9
NPgN	1	4	7
NPgY	3	11	10
WMID	7	8	5
EMID	6	7	6
SWALES	12	12	2
SWEST	10	9	4
LPN	11	1	13
SPN	9	2	11
EPN	8	5	14
SPD	2	13	3
SPMW	4	10	12
SSEH	14	3	1
SSES	13	14	8

[12] SF_6 is a gas used to insulate high-voltage circuit breakers, switchgear, and other electrical equipment. It is an inorganic, extremely potent greenhouse gas.

SSEN recorded the worst performance on BCF as a % of network length and customer numbers, with diesel consumption being a key contributing factor. This was largely driven by the need to use embedded diesel generation on islands in the north of Scotland during storms to maintain supplies to customers. To address this, SSEN is implementing plans to increase the use of fossil-fuel alternatives, as well as targeting other improvements.

While SPEN's performance on SF_6 emissions as a percentage of bank was low, the company reported year-on-year improvements and remains on track to meet its targets.

UKPN acknowledged that 2023-24 was a challenging year for FFC leakage. The DNO Group has placed a strong emphasis on improving the prioritisation, response, and repair times of cable fluid leaks to ensure that they meet their RIIO-ED2 targets.

Safety

Safety is a critical component of RIIO-ED2, ensuring that DNOs prioritise the protection of both their employees and the public, while maintaining high operational standards to minimise risks, prevent accidents, and ensure the long-term reliability and integrity of the electricity distribution network.

DNOs continue to comply with the legislation enforced and regulated by the Health and Safety Executive (HSE). Overall, DNO groups continue to perform well in this area and respond appropriately to notices issued by the HSE. However, SSEN saw an increase in incidents compared to the previous year. Their Total Recordable Incident Rate (TRIR) was 0.28, which is the highest figure reported since at least 2019-20. Safe days declined by 20 days in the last year, from 325 to 305. However, SSEN have stated that their TRIR is in line with previous years when accounting for the increase in operational activities. They are working to improve their range of PPE, staff's understanding of procedures, and sharing their learnings with SSE's Safety, Sustainability, Health and Environment Advisory Committee.

Chapter Three: Innovation

The RIIO-ED2 innovation package encourages DNOs to do more than business as usual when it comes to finding a better, more efficient, smarter or more agile way of doing things. The package includes one mechanism continued from RIIO-ED1: the Network Innovation Allowance and a new mechanism for larger schemes, the Strategic Innovation Fund.

Network Innovation Allowance (NIA)

The NIA is designed to fund smaller scale research, development and demonstration projects. Each individual DNO receives an allowance for innovation projects in line with the NIA Governance Document.

In 2023-24 DNO groups spent £11.3m, which represented 16.3% of their total RIIO-ED2 NIA allowance. If successful, innovation projects will bring a variety of financial, operational, environmental and safety benefits.

Table 4: Indicative NIA expenditure and allowances by DNO group for RIIO-ED2 (£m)

£m, 2020-21 prices	***ENWL***	***NPg***	***NGED***	***UKPN***	***SPEN***	***SSEN***	***TOTAL***
Number of projects	0	3	2	4	4	2	17
NIA Expenditure 23/24	0.6	2.7	0.2	3.4	2.0	2.3	11.3
Total NIA Allowance ED2	8.4	7.5	18.0	15.0	11.1	8.4	68.4
% of Allowance Used to Date	7.0%	36.6%	1.2%	22.6%	17.6%	27.1%	16.3%

DNO Groups spent an additional £5.6m on Carry-over NIA (CNIA). This is expenditure from the final year of RIIO-ED1 that will only be incurred in the first year of RIIO-ED2.

Strategic Innovation Fund (SIF)

The SIF funds projects that could speed up the transition to net zero at the lowest cost to the consumer as part of the RIIO-ED2 Price Controls. Projects can go through three phases: Discovery, Alpha and Beta. DNOs have several Discovery projects underway at present with the potential to progress to Alpha and Beta phases in 2024-25. In 2023-24 there were no Beta projects due to this being the early stage of the SIF.

Looking forward

The network companies are responsible for enabling innovation, which will help to drive down costs and result in new products and services for consumers. It is important that the right regulatory regimes are in place to encourage innovation and support investment in the most efficient solutions. We are continuing to consider improvements to how networks report on their innovation work.

Chapter Four: Totex Performance and Drivers

In this chapter, we provide an overview of the DNO's current view of total expenditure (totex) expectations against their allowance positions through to the end of the current price control period.

Introduction

The data included within this annual report has been taken from DNO's July 2024 Regulatory Reporting submissions which include a snapshot in time of DNO expenditure forecasts. DNOs also submit forecasts during the subsequent PCFM Dry Run process which are likely to show evolved positions from what is published in this report.

The data included in this report compares adjusted allowances to actual/forecasted expenditure. However, for SSEN, it has come to our attention that while their allowances are aligned with the data submitted through the Supplementary Question (SQ) process, certain additional allowances were not included in the relevant SQ, such as the Pentland Firth-East project under the associated HOWSUM re-opener. As a result, the DNO group states that this affects many of their 'actuals minus allowances' figures as presented in this report. This issue persists across the entirety of their RIIO-ED2 allowances and forecast expenditure.

To improve clarity, we aim to develop the RRP pack to differentiate between baseline and non-baseline allowances and to provide a view of company adjusted allowances.

This section also summarises DNO group performance against the associated sub-categories.

Totex

Performance on totex was consistent across DNO groups during 2023-24, with all companies underspending to date by between 6% to 22% (see table 5) against allowances. Across the entirety of RIIO-ED2, three DNO groups currently forecast an underspend of up to 7%, one DNO group expects expenditure to be aligned with allowances, and two DNO

groups, SPEN and SSEN, have reported figures that align to an overspend of 3% and 22%[13] respectively.

The combined value of total expenditure for the DNOs in year one of the price control period is £3.789bn which is a 14% underspend against an allowance of £4.407bn.

Table 5: Total expenditure against baseline allowance in year one (2023-24)

£m, 2020-21 prices	Allowance	Expenditure (actuals)	Difference £m	Difference %
	£m	**£m**	**£m**	**%**
ENWL	358	281	-77	-22%
NPg	518	420	-98	-19%
NGED	1,168	991	-177	-15%
UKPN	1,020	869	-150	-15%
SPEN	613	539	-75	-12%
SSEN	729	689	-40	-6%
Total	**4,407**	**3,789**	**-618**	**-14%**

All DNO groups reported costs to be below allowances across the first reporting year, with forecast underspends ranging between 6% and 22%. The primary drivers of the totex underspend were activities associated with load, non-load and non-op capex.

In terms of each DNO group, the key drivers of the underspend position were as follows:

- ENWL reported a 22% underspend primarily driven by phasing of allowances in Final Determination, mobilisation delays, allowances being based on estimated impacts of Access Significant Code Review and back-end loaded nature of Smart Street investment.

[13] SSEN's SPO comments that they anticipate a 2% underspend across RIIO-ED2, however the underlying data has not been presented to Ofgem.

- NPg declared a 19% underspend in the first year. This was driven by mobilisation, cost re-engineering post Final Determinations and connections being lower than expected due to transmission bottlenecks.
- NGED reported total costs as 15% below allowance, primarily driven by re-scoping and re-prioritisation post Final Determination. They reported an efficiency of £32.6m of avoided reinforcement due to the procurement of flexibility in 2023-24.
- UKPN reported a 15% underspend, primarily driven by mobilisation, re-phasing of work, and efficiency improvements. They reported that a pole pinning solution has generated £5.87m in efficiency savings in EPN and £4.42m in SPN. A further £12.9m efficiency savings were identified during the design of the West London Growth Enabling project.
- SPEN reported that total cost reached £539m, which is £75m (12%) below allowance in the same period. This underspend was driven by mobilisation and cost re-engineering post Final Determination.
- SSEN recorded a 6% underspend in 2023-24, driven in some areas by a reforecasting exercise to align with price control deliverables.

Despite these underspends in year 1, two DNOs are expected to overspend across the full five-year RIIO-ED2 period. Below we set out the views of each DNO group on their five-year totex performance (i.e. includes DNO's expectations of forecast expenditure and allowance between 2024-25 and 2027-28, as per their 2024 RRP submissions and responses to our SQ process).

Total forecast expenditure across the full price control period is currently expected to reach £22.496bn, which is an overspend of 2% against allowances for the RIIO-ED2 period. (See table 6).

Table 6: DNO group totex performance (five-year expenditure vs baseline allowance)

£m, 202-21 prices	Allowance	Expenditure (actual and forecast)	Difference £m	Difference %
	£m	**£m**	**£m**	**%**
ENWL	1,927	1,908	-19	-1%
NPg	2,782	2,780	-2	0%
NGED	5,813	5,674	-139	-2%
UKPN	4,900	4,560	-340	-7%
SPEN	3,153	3,262	110	3%
SSEN	3,538	4,311	773	22%
Total	**22,112**	**22,496**	**384**	**2%**

The key drivers of performance are briefly summarised below.

- ENWL anticipates a 1% underspend across RIIO-ED2, primarily driven by their ongoing Customer Load Active System Services (CLASS) revenue and innovation in their non-load capital programme leading to efficiencies.
- NPg forecast their RIIO-ED2 expenditure to be in line with allowances over the entirety of the period, with any variations primarily driven by project efficiencies.
- NGED expects a 2% underspend over the RIIO-ED2 period. This is largely attributed to the implementation of a new operating model, as well as the establishment of an efficiency change programme to deliver savings for customers.
- UKPN forecast a 7% underspend across RIIO-ED2, driven by cost efficiencies and project delivery improvements.
- SPEN forecast a 3% overspend against allowance across RIIO-ED2, driven by rising supply chain, contractor and labour costs. SPEN's market testing has reportedly shown that contractor rates have increased by 20%. SPEN are pursuing efficiencies through competitive re-tendering of global contracts and while these will improve efficiency, they are unlikely to offset the overall cost increases.
- SSEN's reported figures are the largest overspend among all DNO groups compared to RIIO-ED2 allowances, projecting an overspend of 22%. This is primarily driven by

a complete re-baseline of their load investment programme, largely in response to increased demand from large customers seeking network connections. Furthermore, SSEN report that the figures reported do not contain a complete picture of their adjusted allowances (as noted in page 17).

Totex Incentive Mechanisms (TIM)

The Totex Incentive Mechanism (TIM) is designed to encourage network companies to deliver their required outputs efficiently by providing a financial incentive for network companies to outperform their allowed totex expenditure.

Through the TIM, any underspend compared to the totex allowance is shared between the individual DNO and its customers. The efficiency sharing rate is symmetrical for any overspends: the network company is exposed to any shortfall and the remainder is passed onto customers by increasing allowances to be recovered through network charges.

Collectively, in the first reporting year, the DNOs have reported the level of spend to be £618m below the total allowance. Through the TIM the combined underspend is shared between customers and the DNOs. The average TIM sharing factor is circa 50%. Based on this, approximately 50% of the underspend of £618m is expected to return to customers, with the remainder retained by DNOs. However, this may not fully reflect the broader financial figure.

Load Related capital expenditure (LR capex)

Overall, spend in year one for LR capex is significantly under allowance (46%) across the ED sector. The main area of underspend within the LR capex category is connections. Underspend in this area was driven by a number of factors including allowances being based on estimated impacts of Access SCR[14] and cost associated changes to the cost

[14] Access and Forward-Looking Charges Significant Code Review: Decision and Direction | Ofgem. The review focused on improving how electricity network capacity is allocated and paid for, ensuring a fairer, more efficient, and more flexible energy system. The review sought to reduce barriers for new users, support decarbonisation, and make costs more reflective of network usage.

sharing principles, which have not yet significantly affected price control expenditure; lower spend as a result of transmission network constraints; and the take up of Low Carbon Technologies (LCTs) being lower than forecast.

DNOs also underspent on primary reinforcement. This was driven by the rephasing of works and project timings, with many projects still in their early design phase and planning stages. Expenditure is expected to increase in later years across the network when construction and implementation begins. There was a net overspend on secondary reinforcement which was primarily driven by Green Recovery carried over from RIIO-ED1 for UKPN, as well as the acceleration of unlooping and LV main overlay projects to mitigate broader supply chain issues for SPEN.

Across the whole of RIIO-ED2, the trend in LR capex is expected to shift, with a current forecast overspend of 6% in this category against allowances. This equates to an overall projected overspend of £181.2m against an allowance of £3.3bn. Excluding SSEN from the average, DNOs are expected to have an underspend of £200.0m (7%) relative to allowances.

Non-Load Related (NLR) Capex

Overall, spend in year one for NLR capex is £1.0bn which is £289.7m (22%) under allowance.

All DNOs Groups reported an underspend for NLR capex.

The largest area of activity in NLR capex is asset replacement and refurbishment. All DNOs have reported an underspend against asset replacement and refurbishment in the first year of RIIO-ED2. This underspend in 2023-24 has primarily been driven by rephasing the delivery of asset replacement. This rephasing is largely driven by external market conditions, supply chain disruptions, and labour market constraints. Extended lead times, particularly for EHV and 132kV assets, as well as manufacturing delays, have impacted delivery timelines. As a result, DNOs have reported that their planned spend profile is more heavily weighted towards the later years as they prepare for increased levels of delivery.

DNOs have spent approximately 3.3% of their total RIIO-ED2 Worst Served Customers (WSC) allowances. WSC is a use-it-or-lose-it allowance, and we anticipate higher levels of spend later during the price control.

Across the whole price control, spend is currently expected to shift for NLR Capex, with a forecast overspend of 2% in this category. Collectively, DNOs currently estimate that they will overspend by £164.0m against a total allowance of £7.0bn across the RIIO-ED2 period. Excluding SSEN from this forecast, this becomes an underspend of £314.8m (5%) against an allowance of £6.0bn.

Non-Operational capex

For Non-Operational capex, DNOs spent a combined total of £179.4m in year one which is £111.1m (38%) below allowance.

All DNOs report being significantly below allowances in the first reporting year, with NGED having the largest underspend of 49% and UKPN, whilst still high, having the lowest at 19%.

The main areas of underspend against baseline allowances were in the IT & Telecoms (Non-op) and Vehicles and Transport (Non-op) categories. Reasons for this underspend were reported as being due to new operating models, re-phasing of upgrades to IT systems, and re-profiling of expenditure to focus on cyber programmes.

Additionally, the expenditure in 2023-24 associated with vehicle and transport was lower than anticipated across all DNOs, primarily due to supply chain challenges that delayed the delivery of new vehicles.

Across the whole price control, spend is currently forecast to move more in line with allowance, however, DNOs anticipate that they will collectively underspend by £107.7m (9%) against a total allowance of £1.3bn across the RIIO-ED2 period. This is largely due to an underspend in IT and Telecoms across NPg, UKPN and NGED. Excluding SSEN from this forecast, this becomes an underspend of £108.1m (10%) against an allowance of £1.1bn.

Network Operating Costs (NOCs)

DNO groups have collectively overspent on NOCs by approximately £109.8m (14%) in year one of RIIO-ED2. The largest overspends were NPg (35%), SSEN (32%), and UKPN (14%). ENWL and NGED both reported a 3% overspend, while SPEN remained in line with allowances for NOCs.

The main area of expenditure in this category are faults which DNOs are currently overspending on. This has been driven by a combination of increased rainfall affecting underground faults and the impact of thirteen named storms in 2023-24, which caused a significant rise in both HV and LV fault repairs. Additionally, a sizeable portion of this overspend is due to SSEN's expenditure on the Pentland Firth-East project under the associated HOWSUM re-opener, for which they have reported their actual costs but not the additional allowance granted from the re-opener as a final determination had not been made at time of submission of the RRPs.

Inspections, Repairs and Maintenance were underspent in year one relative to allowances across all DNOs. The primary reason for this underspend was that allowances were evenly distributed across RIIO-ED2, while in reality different types of inspection and maintenance programmes follow variable policies rather than a flat phased approach. Additionally, SPEN reported that their underspend was influenced by supply chain issues, which further contributed to the overall shortfall in year one expenditure.

The total expenditure on NOCs across all DNO groups over RIIO-ED2 is currently forecast to be £4.1 billion, representing a 5% overspend across the full RIIO-ED2 period. This is largely due to a forecast overspend in faults expenditure. Excluding SSEN from this forecast, this becomes an overspend of £182m (6%) against an allowance of £3.3bn.

Closely Associated Indirects (CAIs)

For CAIs, DNOs spent a combined total of £829.9m in year one which is £24.3m (3%) below allowance.

The expenditure of four DNO groups in 2023-24 fell below the company allowances: ENWL £15.2m (22%), NPg £25.1m (25%), UKPN £11.7m (5%) and SPEN £9.4m (8%).

Companies reported delays in their capital programmes, resulting in underspends for Y1. Expenditure is anticipated to increase in future periods as companies scale their capital investment plan. Some companies also reported lower than anticipated staff costs caused by volatilities in recruitment markets.

Two DNO groups, NGED and SSEN, exceeded their year one allowances. NGED reported a £5.9m (3%) overspend which they will continue to review as part of their operational model changes and transformation programme. SSEN reported a substantial overspend £31.2m (22%) against all CAI cost categories but anticipate that ongoing business transformation activities will drive general efficiencies in CAIs in later years of the price control to offset this overspend.

DNOs currently forecast that the cost of investment in this area over the full RIIO-ED2 period will reach £4.1 billion, which is 3% below the allowance of £4.3 billion. Excluding SSEN from this forecast, this becomes an underspend of £58.0m (2%) against an allowance of £3.6bn.

Business Support Costs (BSC)

In year one, DNOs spent £454.9m on BSC, which was in line with the allowances of £456.4m.

Two DNOs overspent in this area, SPEN and SSEN. SPEN's 21% overspend was due to investment in solutions for improved disaster recovery and the implementation of new IT security tools in response to the evolving cyber-threat landscape. SSEN's 8% overspend was down to contractor costs having been allocated between BSCs and Atypicals. As we

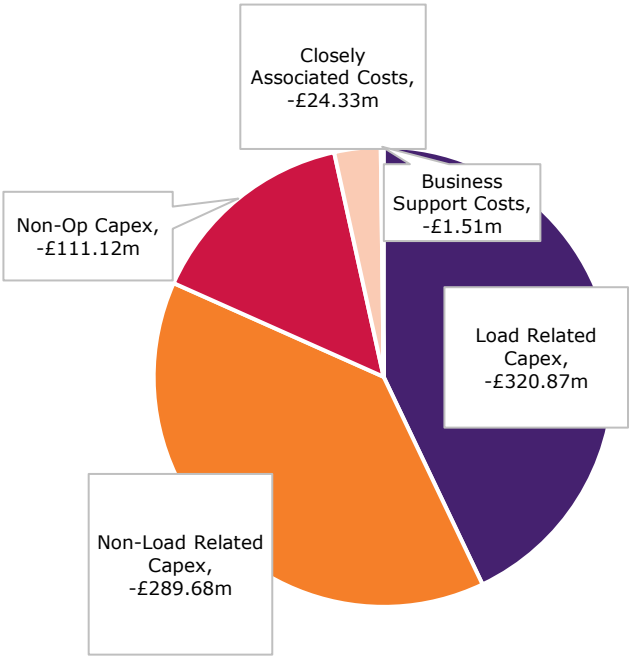
mentioned in the CAI overview, they anticipate that these activities will drive general efficiencies in CAIs in later years of the price control to offset this overspend.

ENWL, NPg, NGED and UKPN all underspent by between 4-7%.

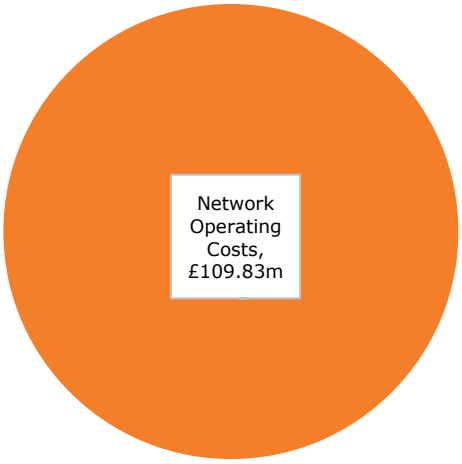
The combined spend on BSC across RIIO-ED2 is forecast to be £2.4bn, which is an overspend of £170.2m (7%). Excluding SSEN from this forecast, this becomes an overspend of £151.1m (8%) against an allowance of £1.9bn.

Figure 6: Six largest cost categories; underspend and overspend to date[15]

Underspend to date (£746m)



Overspend to date (£110m)



[15] This is the collective industry picture of spend. It does not necessarily reflect the expenditure pattern for individual DNOs.

Appendix one: List of DNO Groups and corresponding DNOs

DNO Group	DNO
Electricity North West (ENWL)	Electricity North West (ENWL)
Northern Powergrid (NPg)	Northern Powergrid Northeast (NPgN)
Northern Powergrid (NPg)	Northern Powergrid Yorkshire (NPgY)
National Grid Electricity Distribution (NGED)	National Grid Electricity Distribution East Midlands (EMID)
National Grid Electricity Distribution (NGED)	National Grid Electricity Distribution West Midlands (WMID)
National Grid Electricity Distribution (NGED)	National Grid Electricity Distribution South Wales (SWALES)
National Grid Electricity Distribution (NGED)	National Grid Electricity Distribution South West (SWEST)
UK Power Networks (UKPN)	Eastern Power Networks (EPN)
UK Power Networks (UKPN)	London Power Networks (LPN)
UK Power Networks (UKPN)	South Eastern Power Networks (SPN)
SP Energy Networks (SPEN)	SP Distribution (SPD)
SP Energy Networks (SPEN)	SP Manweb (SPMW)
Scottish and Southern Electricity Networks (SSEN)	Scottish Hydro Electric Power Distribution (SSEH)
Scottish and Southern Electricity Networks (SSEN)	Southern Electric Power Distribution (SSES)