Regulatory Financial Performance Reporting

2022-23

July 2023

Electricity Distribution

nationalgrid

Contents

Executive summary

We present the 2022/23 RFPR templates and commentary for National Grid Electricity Distribution (NGED). This document contains information for the four Distribution Network Operators (DNOs) owned by NGED; NGED West Midlands (WMID), NGED East Midlands (EMID), NGED South Wales (SWALES) and NGED South West (SWEST).

NGED continues to promote transparency of performance and returns as a way of demonstrating the legitimacy of energy network returns. We hope this report provides clear and transparent reporting on NGED's financial and operational performance, including NGED's performance against incentives under the RIIO price control arrangements.

As a business that distributes energy, we face exciting challenges as the UK works towards a net zero carbon future. We deliver an essential public service and our focus on customer service has ensured that we have continued to drive great results for customers whilst adapting to the changing environment within which we operate.

Our 2022/23 performance highlights include:

- Continuing to outperform the Customer Satisfaction Survey targets, with a range of scores from 8.86 – 9.21 out of 10;
- Delivering excellent network performance, beating targets for Customer Interruptions and Customer Minutes Lost across all NGED licence areas;
- Contracting 572MW of flexibility services, deferring expenditure on reinforcement;
- Achieving a Business Carbon Footprint which is 44% lower than our RIIO-ED1 baseline performance in 2014/15;
- Engaging with over 18,800 connection stakeholders in order to identify and deliver improvements in the service that we provide;
- Achieving 99.995% network availability;
- Supporting 24,463 fuel poor customers to save £15.2m through our fuel poverty partnerships; and
- Earning a RoRE of 10.5% for the RIIO-ED1 period;

…all in costing less than 28 pence per day to the NGED average domestic customer. At the close of 2022/23 our expenditure is around 2.0% below our Totex allowances for RIIO-ED1, before taking account of Enduring Value adjustments.

We have already started on the challenges of RIIO-ED2, where we will be providing the network capacity for future demand requirements, maintaining network reliability and delivering excellent customer service. National Grid will continue to be at the heart of a clean, fair and affordable energy future.

Who we are and what we do

1.1. National Grid Electricity Distribution (NGED) is a Distribution Network Operator (DNO) and distributes electricity to 8 million customers across the Midlands, South Wales and the South West. We operate four of the fourteen DNO licence areas within the UK. National Grid, through a separate company outside of NGED, owns and operates the high-voltage electricity transmission network in England and Wales.

1.2. The NGED Group was acquired by National Grid in June 2021. As part of the integration into the National Grid Group, on 20 September 2022 the names of the companies were changed from Western Power Distribution (West Midlands) plc, Western Power Distribution (East Midlands) plc, Western Power Distribution (South Wales) plc and Western Power Distribution (South West) plc to National Grid Electricity Distribution (West Midlands) plc, National Grid Electricity Distribution (East Midlands) plc, National Grid Electricity Distribution (South Wales) plc and National Grid Electricity Distribution (South West) plc.

1.3. NGED's network is the largest in the UK, operating from the Lincolnshire coast, across the Midlands, South Wales and the South West to the Isles of Scilly.

1.4. NGED is regulated by Ofgem which sets our revenues through a process known as a price control. The price control covering the period 2015/16-2022/23 is known as RIIO-ED1; the following price control which runs from 2023/24 until 2027/28 is RIIO-ED2.

1.5. Our role is to:

- operate our network assets to 'keep the lights on';
- maintain our assets so that they are in a condition to remain reliable;
- fix our assets if they get damaged or if they are faulty; and
- upgrade the existing networks or build new ones to provide additional electricity supplies or capacity to existing and new customers.

Purpose of this report

1.6. Ofgem introduced Regulatory Financial Performance Reporting (RFPR) in October 2018 and published licensees' completed 2017/18 RFPR templates for the first time in March 2019. NGED has published its RFPR annually since then. The purpose of the RFPR is to provide a framework to allow Ofgem to collect accurate and consistent information from licensed network operators.

1.7. The RFPR is submitted to Ofgem, and published on NGED's website, by 31 July each regulatory year. Unless otherwise stated, historical values for regulatory years up to and including 2021/22 are those included in the RFPR templates published in July 2022; formats may vary where Ofgem has updated the reporting template. Forecast values are likely to evolve over time and, similarly, 2022/23 values which were forecast in the templates published in July 2022 have now been replaced with actual values. Note that 2022/23 values are submitted to Ofgem by 31 July 2023 and are therefore still subject to review by Ofgem.

1.8. The values in this document are in nominal prices and in £millions unless otherwise stated. Regulatory years run from 1 April until 31 March, for example regulatory year 2015/16 runs from 1 April 2015 until 31 March 2016, and is labelled 2016 in charts. There may be minor rounding differences in summary tables and charts between totals and the sum of components. Historical values reconcile to the audited statutory accounts for WMID, EMID, SWALES and SWEST.

Key Financial Performance Measures

Bill impact

1.9. Based on a consumption of 3,100kwh NGED's costs accounted for around £97 of our customers' yearly domestic electricity bills in 2022/23, charged by suppliers. This is the equivalent of less than 28 pence per day[1].

Revenue

Regulated Revenue

1.10. NGED's Regulated Revenue for the regulatory year to 31 March 2023 was £1,944.0m. Table 1 below shows how this revenue breaks down.

Table 1: 2022/23 Regulated Revenue, nominal prices, £m

	WMID	EMID	SWALES	SWEST	NGED Total
Base Demand Revenue	508.1	513.5	240.7	345.8	**1,608.0**
Under/(Over) recovery and K factor	18.1	28.9	6.1	14.6	**67.6**
SoLR adjustment	83.0	89.0	38.0	54.0	**263.9**
Pass through costs true up	-20.9	-37.1	-8.2	-7.5	**-73.8**
Performance incentives (2020/21 - 2 year lag), LCNF and NIA	32.2	28.9	10.8	6.3	**78.1**
Regulated Distribution Network Revenue	**620.5**	**623.1**	**287.3**	**413.1**	**1,944.0**

Base Demand Revenue is the largest element of NGED's Regulated Revenue, and is calculated in Ofgem's RIIO-ED1 Price Control Financial Model (PCFM).

1.11. Tariffs are set 15 months in advance, based on forecast volumes of units distributed, and provided to energy suppliers for inclusion in customer bills. Any actual amounts under or over recovered are adjusted through future years' revenues. This is the Under/(Over) recovery, and K factor is the true up of this previous under/(over) recovery.

1.12. Supplier of Last Resort (SoLR) adjustments of £263.9m for 2022/23 are also included within Regulated Revenue. These amounts relate to electricity suppliers' unrecoverable SoLR costs, and totalled £0.1m for the preceding RIIO-ED1 years 2015/16 – 2021/22.

1.13. Specified costs that are predominantly outside DNOs' control may be passed through to consumers and a forecast for these is included in Base Demand Revenue, which is trued up via an adjustment on a 2 year lag basis once actual costs are known. Pass through costs include Ofgem's licence fee, business rates and Transmission Connection Point charges.

1.14. Performance incentives make up around 4% of NGED's 2022/23 Regulated Revenue. These are penalties or rewards received under the various regulatory incentive schemes, plus the element of the Low Carbon Network Fund and the Network Innovation Allowance flowing through Regulated Revenue. The main RIIO-ED1 incentives are: Broad Measure

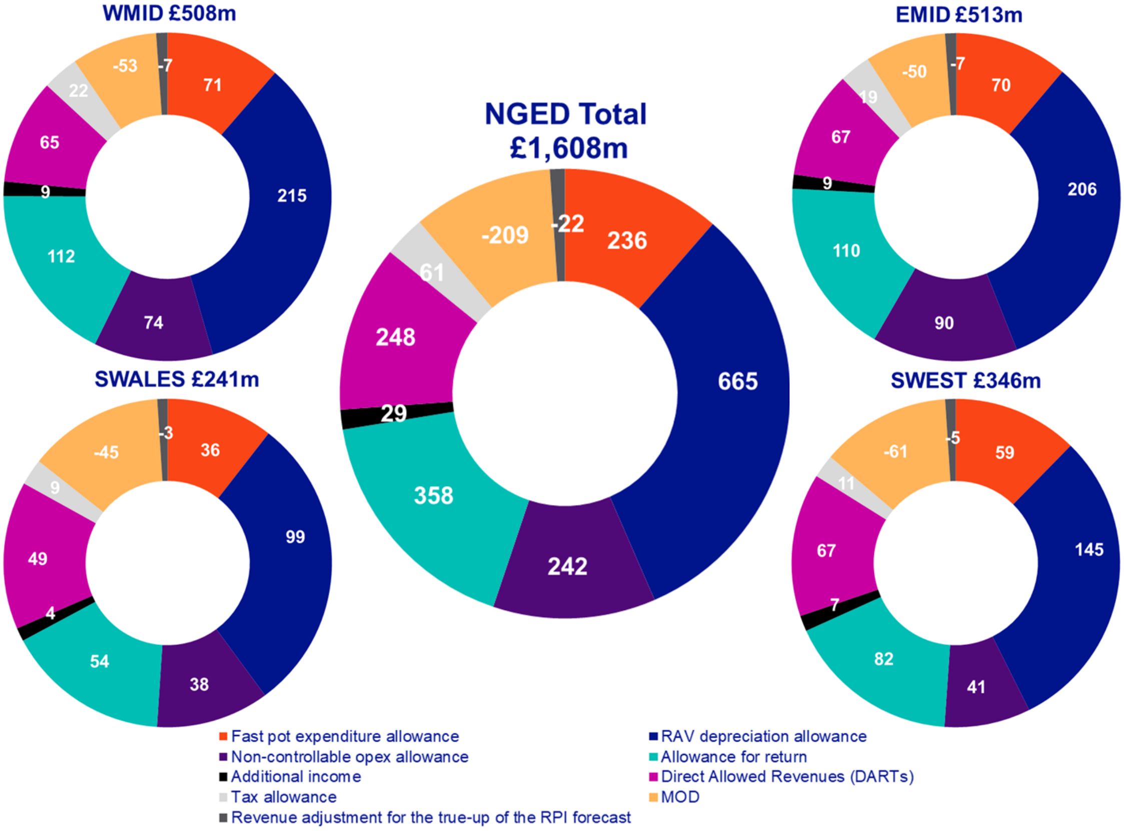
[1] . Including the impact of the recovery of Supplier of Last Resort (SoLR) costs on behalf of suppliers increases NGED's costs to around £131 of our customers' yearly domestic electricity bills in 2022/23, or around 36p per day, again based on a consumption of 3,100kwh.

of Customer Service (BMCS), Connections incentives, and the Interruptions Incentive Scheme (IIS).

Base Demand Revenue

1.15. This is the largest element of NGED's Regulated Revenue. NGED's 2022/23 Base Demand Revenue was £1,608.0m. The charts below show the breakdown of this:

Figure 1: NGED 2022/23 Base demand revenue breakdown, £m



1.16. Under the RIIO-ED1 framework, NGED receives a Totex allowance, 20% of which is received in the year incurred; this is the Fast pot expenditure allowance. The remaining 80% is added to the Regulatory Asset Value (RAV) and funded over time through the RAV depreciation allowance.

1.17. Non controllable opex allowances relate to costs recovered on a 'pass through' basis; these include Ofgem licence fees, business rates and Transmission Connection Point charges.

1.18. Allowance for return is calculated using the cost of capital and comprises an indexed allowance for the cost of debt and an allowance for the cost of equity as set at the start of the RIIO-ED1 price control period.

1.19. Additional income is NGED's Fast Track reward. This equates to 2.5% of Totex over the RIIO-ED1 price control, and accounts for 2% of NGED's Base Demand Revenue.

1.20. Direct Allowed Revenues (DARTs) includes allowances for pension deficit repair payments, revenue profiling adjustments and prior price control revenue to be recovered over RIIO-ED1.

1.21. The Tax Allowance allows network operators to recover the current regulated tax charge, calculated by Ofgem's methodology.

1.22. MOD is an annual adjustment to Base Demand Revenue, to reflect updates to costs shared with customers and adjustments for uncertainty mechanisms.

1.23. RPI true up relates to an adjustment to previous years' revenues inflated using forecast RPI, once the actual RPI is known.

Key Operational Performance Measures

1.24. During RIIO-ED1 NGED committed to delivering 76 outputs for its customers. During 2022/23, the eighth and final year of the price control period, NGED has maintained high levels of service in all key areas. The performance summary below demonstrates where outputs are directly related to financial outturn. These are outputs where a reward or penalty can be applied by the regulator as a result of over or under delivery.

1.25. A detailed review of operational performance over the year will be published in October 2023 in NGED's Business Plan Commitments Report 2022/23.

Table 2: Operational performance KPIs

	WMID		EMID		SWALES		SWEST		NGED TOTAL***	
	Actual 22-23	Target	Actual 22-23	Target	Actual 22-23	Target	Actual 22-23	Target	Actual 22-23	Target
Customer interruptions per 100 customers (excluding exceptions)*	46.4	77.3	32.6	49.8	44.0	51.5	49.5	57.1	**42.0**	60.3
Customer minutes lost (excluding exceptions)*	30.7	50.3	21.9	34.9	25.8	32.0	39.3	42.1	**28.8**	40.8
Network Availability	99.994%	99.990%	99.996%	99.993%	99.995%	99.994%	99.993%	99.992%	99.995%	99.992%
Guaranteed Standards of Performance failures **	13	-	10	-	18	-	29	-	**70**	-
Guaranteed Standards of Performance failures (Connections)	7	-	15	-	1	-	7	-	**30**	-
Guaranteed Standards of Performance failures (Number of 12 hour failure payments made)**	126	4064	615	2694	26	218	490	1623	**1257**	8599
Overall Broad measure of customer satisfaction (Scores out of 10)	8.86	8.20	9.04	8.20	9.21	8.20	8.91	8.20	n/a	n/a
Stakeholder Engagement & Customer Vulnerability (Scores out of 10)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	TBC	n/a
Connections time to connect incentive days:										
Time to quote LVSSA	1.74	4.84	1.81	4.84	2.03	4.84	3.41	4.84	n/a	n/a
Time to quote LVSSB	3.56	7.84	4.20	7.84	4.48	7.84	4.65	7.84	n/a	n/a
Time to connect LVSSA	35.55	39.28	30.06	39.28	33.73	39.28	45.66	39.28	n/a	n/a
Time to connect LVSSB	35.55	47.94	36.41	47.94	48.17	47.94	52.99	47.94	n/a	n/a
Connections incentive on customer engagement	TBC	n/a	TBC	n/a	TBC	n/a	TBC	n/a	TBC	n/a
Losses discretionary reward scheme £m	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*The values shown are based on planned and unplanned events and are calculated before exceptional events are finalised by Ofgem in October 2023.
** NGED Internal target. Note Guaranteed Standards of Performance Failures do not include 12 hour failures – these are now only shown separately under Guaranteed Standards of Performance Failures (Number of 12 hour failure payments made).
*** Ofgem does not specify an overall NGED target for CIs and CMLs; NGED has derived overall target values by weighting the individual targets by the customer numbers in each licence area.
KEY: Green = Better then target / Red = Worse than target

1.26. For RIIO-ED1, Ofgem placed an obligation upon all DNOs to work together to produce a common methodology for the way in which asset health, criticality and risk are assessed. This is referred to as the Common Network Asset Indices Methodology (CNAIM). The targets are overall RIIO-ED1 targets and have been established by considering the risk reduction that will be delivered by specific RIIO-ED1 asset replacement and refurbishment programmes.

1.27. Table 3 shows our delivery during 2022/23 and our performance towards the overall targets for RIIO-ED1.

Table 3: Network asset indices performance

	WMID	EMID	SWALES	SWEST	NGED Total
2022-23 percentage of target achieved	61%	104%	83%	74%	**57%**
Percentage of RIIO-ED1 target achieved to date	122%	126%	125%	108%	**114%**

Overview of Regulatory Performance

Return on Regulatory Equity (RoRE)

1.28. Ofgem assesses overall financial performance of network operators against the price control settlement using a measure called Return on Regulatory Equity (RoRE).

1.29. RoRE performance is compared to the cost of equity allowed at the start of the price control. It is a key financial and regulatory performance measure.

1.30. Table 4 presents total RoRE for the eight RIIO-ED1 regulatory years up to and including 2022/23, using 65% notional gearing.

Table 4: RoRE for the RIIO-ED1 period; notional gearing

	WMID	EMID	SWALES	SWEST	NGED TOTAL
Allowed Equity Return	6.4%	6.4%	6.4%	6.4%	**6.4%**
Totex outperformance	0.1%	0.3%	1.1%	1.1%	**0.5%**
IQI Reward	0.7%	0.7%	0.9%	0.9%	**0.8%**
Broad measure of customer service	0.5%	0.6%	0.6%	0.6%	**0.6%**
Interruptions-related quality of service	1.9%	1.8%	1.0%	0.5%	**1.5%**
Incentive on connections engagement	0.0%	0.0%	0.0%	0.0%	**0.0%**
Time to Connect Incentive	0.2%	0.2%	0.2%	0.2%	**0.2%**
Losses discretionary reward scheme	0.0%	0.0%	0.0%	0.0%	**0.0%**
Network Innovation	0.0%	0.0%	0.0%	0.0%	**0.0%**
Penalties and fines	0.0%	0.0%	-0.1%	-0.1%	**-0.1%**
RoRE - Operational performance	**9.8%**	**9.9%**	**10.1%**	**9.6%**	**9.8%**
Debt performance - at notional gearing	0.3%	0.7%	0.3%	1.0%	**0.6%**
Tax performance - at notional gearing	-0.2%	-0.1%	0.8%	0.1%	**0.0%**
RoRE - including financing and tax	**10.0%**	**10.6%**	**11.2%**	**10.7%**	**10.5%**
Regulatory Equity £m, 12/13 prices	**722**	**719**	**326**	**489**	**2,256**
Weighting	**32.0%**	**31.8%**	**14.5%**	**21.7%**	**100.0%**

1.31. At the close of 2022/23 NGED's Total expenditure is approximately 2.0% below our Totex allowances for RIIO-ED1, before taking account of Enduring Value adjustments. The RoRE analysis above shows Totex outperformance after Enduring Value adjustments. For further details on Enduring Value adjustments, see Appendix 2.

1.32. NGED was allowed a 6.4% cost of equity as part of its fast-track settlement. Drivers of RoRE include performance under the Totex Incentive Mechanism and performance against output incentives. Totex underspends and incentive rewards increase network operators' returns, while overspends and incentive penalties decrease returns. RoRE is further impacted by the difference between DNOs' actual cost of debt and the cost of debt included in allowances, and DNOs' regulated tax liabilities compared to regulatory tax allowances.

1.33. Note that the NGED Total values have been calculated using weightings based on each NGED DNO's average Regulatory Equity for the period, as shown above.

1.34. NGED's Total RIIO-ED1 RoRE, including financing and tax, in the 2022/23 RFPR is 10.5%, as shown above. Differences from the NGED ED1 Total RoRE included in the 2021/22 RFPR (9.4%) largely comprise:

- A 0.3% increase in the forecast RoRE impact of Totex outperformance over the RIIO-ED1 period, from 0.3% in the 2021/22 submission, to 0.5% in the 2022/23 submission. This movement relates to NGED's actual expenditure in 2022/23; NGED has underspent Totex allowances by 2.0% in ED1 overall, before taking account of Enduring Value adjustments, which has increased from 0.8% forecast in NGED's 2021/22 RFPR submission;
- A change in the corporation tax rates applied to incentive revenue for 2021/22 and 2022/23; the corporation tax rate increased from 19% to 25% from April 2023, meaning that incentive revenue relating to 2021/22 and 2022/23 recovered on a 2-year lag basis in 2023/24 and 2024/25 will be taxed at 25%. This has been reflected in post-tax incentive revenues included in RoRE in the 2022/23 RFPR submission, resulting in a -0.04% reduction to the RoRE impact of incentives;
- A movement in debt performance from -0.1% to 0.6%. This is largely driven by the impact of inflation in 2022/23 in the RFPR calculation of actual real debt costs – for further detail see paragraphs 1.61 and 1.62; and
- A movement from the -0.1% Tax underperformance in the 2021/22 RFPR, to a 0.0% Tax underperformance in the 2022/23 RFPR. This is also impacted by inflation in 2022/23 as the calculated tax impact of debt performance is removed from the tax performance calculation and shown within the RoRE impact of debt performance.

1.35. Note that the RoRE values in the RFPR include Enduring Value adjustments – see appendix 2 for further details.

RoRE for the Regulatory year 2022/23

1.36. In previous RFPR commentary documents, we have included RoRE for RIIO-ED1 to date, and RoRE for the full RIIO-ED1 period. Given that 2022/23 is the final year of the RIIO-ED2 price control, the RIIO-ED1 to date view is the same as that for the full RIIO-ED1 period. To further explain our financial performance, we set out below the RoRE for 2022/23:

Table 5: RoRE for the 2022/23 regulatory year; notional gearing

	WMID	EMID	SWALES	SWEST	NGED Total
Allowed Equity Return	6.4%	6.4%	6.4%	6.4%	**6.4%**
Totex outperformance	1.2%	0.3%	0.5%	1.6%	**0.9%**
IQI Reward	0.7%	0.7%	0.8%	0.8%	**0.7%**
Broad measure of customer service	0.4%	0.4%	0.4%	0.4%	**0.4%**
Interruptions-related quality of service	1.7%	1.7%	0.7%	0.3%	**1.2%**
Incentive on connections engagement	0.0%	0.0%	0.0%	0.0%	**0.0%**
Time to Connect Incentive	0.1%	0.1%	0.1%	0.1%	**0.1%**
Losses discretionary reward scheme	0.0%	0.0%	0.0%	0.0%	**0.0%**
Network Innovation	0.0%	0.0%	0.0%	0.0%	**0.0%**
Penalties and fines	0.0%	0.0%	0.0%	0.0%	**0.0%**
RoRE - Operational performance	**10.6%**	**9.6%**	**8.9%**	**9.6%**	**9.8%**
Debt performance - at notional gearing	11.0%	9.6%	12.0%	7.1%	**9.8%**
Tax performance - at notional gearing	1.3%	1.6%	1.0%	1.2%	**1.3%**
RoRE - including financing and tax	**22.9%**	**20.9%**	**21.9%**	**18.0%**	**21.0%**
Regulatory Equity £m, 12/13 prices	**766**	**766**	**363**	**553**	**2,447**
Weighting	**31.3%**	**31.3%**	**14.8%**	**22.6%**	**100.0%**

1.37. Areas where NGED's RoRE performance for the 2022/23 regulatory year differs from NGED's RoRE performance in RIIO-ED1 as a whole include:

- Totex outperformance 0.9% for 2022/23 compared to 0.5% for the RIIO-ED1 period as a result of greater Totex underspend in 2022/23;
- IQI Reward 0.7% for 2022/23 compared to 0.8% for the RIIO-ED1 period; Broad measure of customer service 0.4% for 2022/23 compared to 0.6% for the RIIO-ED1 period (noting the SECV amounts included within the 2019/20 and 2020/21 BMCS reward have been forecast based on the 2021/22 SECV outcome); and Interruptions-related quality of service 1.2% for 2022/23 compared to 1.5% for the RIIO-ED1 period. These differences partly relate to regulatory equity, the denominator in the RoRE calculation, being highest in 2022/23, plus, for incentives on a 2 year lag, revenue relating to 2021/22 and 2022/23 recovered on a 2-year lag basis being taxed at 25%; and
- Penalties and fines 0.0% for 2022/23 compared to -0.1% for the RIIO-ED1 period. There have been no penalties or fines in 2022/23.

The aggregate impact of the above movements is that the 2022/23 operational RoRE for NGED Total is 9.8%, the same as for the RIIO-ED1 period. Further movements are:

- Debt performance at notional gearing is 9.8% for 2022/23 compared to 0.6% for the RIIO-ED1 period, largely driven by the impact of inflation in 2022/23 in the RFPR calculation of actual real debt costs. Note Debt performance at actual gearing is 5.8% for 2022/23; and
- Tax performance at notional gearing is 1.3% for 2022/23 compared to 0.0% for the RIIO-ED1 period; this is also impacted by inflation in 2022/23.

Revenue

1.38. A summary of Regulated Revenue for the regulatory year 2022/23 is presented under Financial Performance above.

Totex performance

1.39. Under RIIO-ED1, NGED's costs are assessed on a Total Expenditure (Totex) basis for its regulated business activities which includes both capital and operating expenditure.

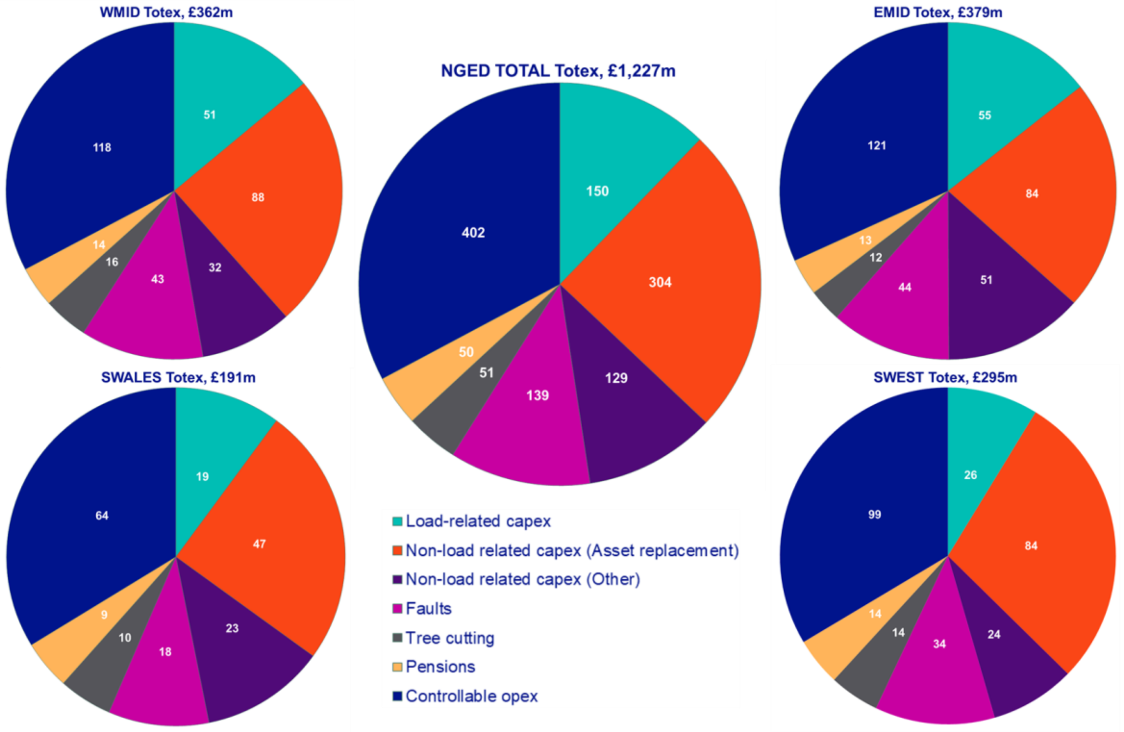
1.40. Totex is a key feature in the business plan submission to Ofgem, as part of the price control review process, as it underpins the Regulated Revenue set by Ofgem.

1.41. 20% of NGED licensees' Totex allowance is received in the year incurred; this is the Fast pot expenditure allowance. The remaining 80% is added to the Regulatory Asset Value (RAV) and funded over time through the RAV depreciation allowance.

1.42. During 2022/23 NGED's Totex spend was £1,226.6m, compared to an allowance of £1,258.6m, before Enduring Value adjustments.

1.43. The charts below represent NGED's 2022/23 actual costs broken down into the seven key reporting activities within Totex:

Figure 2: NGED 2022/23Totex breakdown, £m



1.44. In RIIO-ED1, network operators are incentivised to spend efficiently through the Totex Incentive Mechanism (TIM). Under the TIM, NGED retains/(bears) 70% of any under/(over) spend on Totex, whilst the remaining 30% is returned/(funded) through adjusted allowances.

1.45. NGED Totex underspend was £32.0m for 2022/23. Of this, £22.4m (70%) will be retained by NGED and £9.6m (30%) will be returned to customers. Deducting the £9.6m returned to customers from the original allowance of £1,258.6m gives the 'post-TIM Totex' NGED allowance of £1,249.0m. Note that these values are before the application of Enduring Value adjustments.

Output incentive performance

1.46. The Key Operational Performance Measures discussed in paragraphs 1.24 – 1.27 demonstrate where outputs are directly related to financial outturn. These are outputs where a reward or penalty can be applied by the regulator as a result of over or under delivery.

1.47. Table 6 below sets out the financial impact of the key output incentives, and the percentage of the maximum reward available.

Table 6: 2022/23 Incentive Revenue; in year performance – pre-tax, nominal prices

	WMID		EMID		SWALES		SWEST		NGED Total	
	£m	% of max reward	£m	% of max reward	£m	% of max reward	£m	% of max reward	£m	% of max reward
Interruptions Incentive Scheme	25.4	100%	24.5	100%	4.8	41%	3.6	20%	**58.3**	74%
Broad Measure of Customer Service	5.6	65%	6.5	75%	3.1	77%	4.3	71%	**19.4**	71%
Time to Connect Incentive	2.1	91%	2.1	90%	0.7	62%	0.9	50%	**5.7**	77%
Incentive on Connections Engagement	-	N/A	-	N/A	-	N/A	-	N/A	**-**	N/A
Losses Discretionary Reward	-	N/A	-	N/A	-	N/A	-	N/A	**-**	N/A
Total incentive payments	**33.1**		**33.1**		**8.6**		**8.7**		**83.4**	

1.48. In relation to the Broad Measure of Customer Service (BMCS), Ofgem has delayed assessment of NGED's 2019/20 and 2020/21 Stakeholder Engagement and Consumer Vulnerability Incentive (SECV) and therefore the SECV amounts included within the 2019/20 and 2020/21 BMCS reward above have been forecast based on the 2021/22 SECV outcome. The 2021/22 actuals have been updated from the 2021/22 RFPR submission following final Ofgem approval of incentive values.

Innovation

1.49. There are two regulatory sources of funding for innovation projects under RIIO-ED1: the Network Innovation Allowance (NIA) provides funding for smaller projects and the Network Innovation Competition (NIC) is a competitive tendering process where selected projects win funding.

1.50. Under the Low Carbon Network Fund, Network Innovation Competition and Network Innovation Allowance, 90% of project costs are funded through these mechanisms and the remaining 10% of costs incurred on these projects is funded by the licensee (known as the Compulsory Contribution).

1.51. For projects that were approved up to and including 2016/17, the additional 10% of LCNF and NIC costs may be returned to the licensee via a Successful Delivery Reward. For projects approved from 2017/18 onwards, there is no Successful Delivery Reward.

1.52. The RoRE analysis in the RFPR tables includes the 10% compulsory contribution for NIC and NIA costs and any NIA expenditure deemed unrecoverable, offset by any Successful Delivery Rewards. Note that, from 2018/19, NIC Bid preparation costs are not included in row 9 of RFPR table R6 as these are included within Totex from 1 April 2018.

1.53. The table below shows further outcomes that have been developed from our programme of NIA projects during RIIO-ED1.

Table 7: Outcomes from NIA projects

NIA Project	Innovation rollout	Business as usual outcomes
Automatic Location of Faults through Remote Monitoring (ALARM)	Optimised Assets and Practices	Significant increase in the technology readiness of distance to pre fault technology and contribution to the operational readiness to be able to use distance to pre-fault technology.
Take Charge	Charging Instruction Connections	Coordinating with MSA operators to discuss sites for new CCS installations and are using the output from our site selection and system capacity optimisation reports to help

		identify the sites where capacity is required, and where it could be easily deployed.
Common Information Model	DSO Data Access and Sharing	This project has developed tools for improved management of data and led to the rollout of the Integrated Network Model (INM) that enables consistent data across different data sources.
Multi Asset Demand Execution (MADE)	Low Carbon Technologies and Flexibility	This project has allowed significant learning on how using a combination of Low Carbon technologies can provide benefits to domestic customers and the distribution network. As part of this, a review of the G100 standards for Customer Export Limiting Schemes, and connection policies was also conducted.
Wildlife Protection	Wildlife Protection methods	The project has provided learning on which methodologies and devices can be used to effectively protect wildlife. Our overhead line policies and standard techniques have been updated and changes are being made to the way we build, replace and refurbish our overhead structures.
Low Carbon Hub / FALCON	Flexible Connections	This project resulted in the introduction of a suite of alternative flexible connection agreements for new customers.
LV Templates / FALCON / Electric Nation	LV Monitoring	The introduction of additional LV monitoring is supporting the implementation of our visibility strategy.
FALCON / Entire	Demand Side Response	These projects led to the launch and continual development of our Flexible Power programme
LV Templates	Voltage Reduction	The introduction of voltage reduction contributes to energy saving for customers, lower losses and increases in small scale electricity generation hosting capacity.
Equilibrium	Voltage optimisation	This project led to the replacement of legacy Automatic Voltage Control systems in targeted locations to increased DG and demand hosting capacity.
Electric nation / Freedom / SOLA Bristol	Load Profiles	The projects led to the monitoring of real life consumption of EVs, storage and heat pumps, enabling us to update our planning assumptions and modelling.
All projects with data collection	Connected Data Portal	The establishment of the connected data portal has enabled publication of datasets for further research purposes
Losses Project	Losses reduction	The project led to the review of policy and standards for cables, overhead lines and transformers.
Community Energy Action / Sola Bristol / Freedom	Community engagement	These projects contributed to the establishment of a dedicated community energy team to provide support and education.

FALCON / EPIC / Smart Systems & Heat	DFES	The introduction of DFES enabled the development of statistical and stakeholder engagement processes for our ongoing scenario planning activities.
FALCON / Equilibrium	Real Time Systems / OT	These projects enabled the enhancement and scaling of Automated Network Management and other smart grid functionality within National Grid's core Network Management System.
Airborne assessment	Vegetation Management	This project led to the testing of LiDAR for vegetation management, introducing sensing and automated image identification has led to the upgrade of NGED's helicopter unit fleet.

Financing and Net Debt position

1.54. NGED's Well Justified Business Plan (WJBP) for RIIO-ED1 set out expenditure requirements which required NGED to raise £1.74bn of new debt as well as re-financing £850m debt as it falls due for repayment over RIIO-ED1. In addition, the WJBP stated that shareholders would re-invest £874m to maintain gearing in NGED's four licensed entities close to 65%.

1.55. NGED's 2022/23 gearing, calculated in the RFPR as Average net debt/average RAV, ranges from 49% in WMID, to 52% in EMID, 54% in SWALES and 55% in SWEST. Ofgem's notional gearing assumption for RIIO-ED2 has reduced to 60%, from 65% in RIIO-ED1.

1.56. NGED does not undertake transactions in financial derivative instruments for speculative purposes. During 2022/23, EMID raised 1Bn of Euro denominated new debt. In relation to currency risk exposure, where long-term debt is denominated in a currency which is not sterling, NGED's policy is to swap 100% of the foreign currency denominated principal and interest cash flows into sterling through the use of Cross-currency interest rate swaps. Under a currency swap, the Company agrees with another party to exchange the principal amount of the two currencies, together with interest amounts in the two currencies agreed by reference to a specific interest rate basis and principal amount. The principal of these instruments reflects the extent of the Company's involvement in the instruments but does not represent its exposure to credit risk, which is assessed by reference to the fair value.

1.57. EMID has entered into cross-currency interest rate swaps designated as cash flow hedges in order to hedge the currency cash flow risks associated with the future interest and principal payments on the Company's Euro borrowings arising from fluctuations in currency rates. The Cross-currency interest rate swaps have two fixed interest rate legs that match the interest payment, currency, notional amount and maturity date of the relate debt. Furthermore, the swaps also provide for a final exchange of currency on maturity of debts, thereby also eliminating any currency risk related to the principal repayment. EMID has entered into cross-currency interest rate swaps designated as fair value hedges in order to hedge the fair value risks associated with the Euro borrowings arising from fluctuations in interest rates.

1.58. At 31 March 2020, SWALES had entered into forward starting interest rate swap agreements to minimise the exposure to cash flow interest rate risk for a future forecasted issuance of debt. The forward starting interest rate swaps entered into in 2020 were cashed out in the year when the SWALES issued a £250m loan note. The forward starting interest rate swaps entered into by EMID in 2019 were cashed out in the year when the Company issued a £250m loan note. These swaps were taken out to manage exposure to fluctuations in interest rate for anticipated debt issuances and then unwound when the debt was issued.

1.59. Where a derivative was held at a previous regulatory year end, the fair value has been reported in the R8a debt input table, to align with the balance sheet treatment. Gains or losses relating to the effective portion of forward interest rate swaps terminated prior to previous debt issuances, which are held in the hedging reserve, are recycled to the profit and loss account over the term of the associated bond, which can be seen in table R7a.

1.60. SWEST holds a $53.0m investment of US dollar denominated debt issued by another NGED Group company.

1.61. The RFPR requires RoRE debt performance to be presented against 'Notional' and 'Actual' Equity RAV. As debt is reported on an actual/forecast basis in the RFPR an adjustment is calculated within the RFPR to present debt performance on a notional level.

1.62. In RIIO-ED1, NGED's real cost of debt is calculated on a 10 year trailing average basis. In the calculation of debt performance to be included in the RoRE analysis in the RFPR, Ofgem's approach in RFPR table R7 is to take companies' actual net interest costs for the year, per the regulatory definition, and make an adjustment to this to remove the inflation element included, to derive a real interest cost which can be compared to Ofgem's real cost of debt allowance. The inflation element removed is calculated as inflation * average net debt for the year. Given the level of inflation in 2022/23, for all NGED DNOs, this has resulted in an adjustment to remove an inflation element from interest cost that is significantly greater than the interest cost itself, resulting in a real interest 'income' being compared to the 10 year trailing average regulatory allowance for the cost of debt, and resulting in a cost of debt outperformance being presented in the RFPR for 2022/23. This cost of debt outperformance is then pro-rated upwards to convert from an actual to notional gearing basis. Given that all four NGED DNOs are below the RIIO-ED1 notional level of 65% gearing, this adjustment also has a significant impact.

1.63. The tax element of the cost of debt performance calculated above is presented within the tax performance row of the RFPR RoRE analysis.

Taxation

1.64. The RFPR Regulatory Instructions and Guidance (RIGs) state that the purpose of RFPR table R10 – Tax is to reconcile CT600 actual corporation tax liability with the adjusted/forecast regulated tax liability. The adjusted/forecast regulated tax liability with timing differences is then compared to the forecast regulatory tax allowances and differences flow into RoRE.

1.65. Calculations for non-regulated tax liability have been based on non-distribution segments calculated using the same approach taken to prepare the segmental analysis in the NGED licensees' Regulatory Accounts in previous years. An adjustment is then made to remove the tax charge relating to incentive revenue, as the post-tax incentive revenues are shown for each incentive in the RoRE analysis. Adjustments have then been made for timing differences, items relating to previous price controls and Enduring Value adjustments.

1.66. Given the complexity of tax computations for HMRC, the impact of costs borne by licensees under the TIM, divergences between notional and actual capital allowance pools and also considering the operation of the tax trigger deadband, the tax allowance would not be expected to be exactly equal to the Adjusted/forecast regulated tax liability with timing differences calculated in table R10.

1.67. It is unclear how any pensions adjustments in rows 25 and 26 should be calculated and the RFPR RIGs do not contain guidance on this.

1.68. It should be noted that a pensions spreading adjustment was included in the NGED DNOs' tax computations to smooth the impact of the 2016/17 pensions prepayment on the Corporation Tax charge over 4 years. However, given that we have already included an Enduring Value adjustment in the RFPR for the ongoing and incremental deficit elements of the pensions prepayment, which has the effect of smoothing the impact over approximately two years, and the tax impact of this Enduring Value adjustment is included on row 34 of table R10 Tax, these two adjustments will overlap and inclusion of both adjustments does not seem appropriate. Further, it is unclear whether, how or where any adjustment should be included for the non-regulated element of pension deficit repair costs, which would be a reconciling item between the statutory tax charge and the tax allowance.

1.69. Similarly, the RFPR RIGs do not contain guidance on how to calculate timing differences for the other items listed. For the Collected revenue adjustment ('k'), the RPI true-up adjustment and Adjustments for Allowed Pass-Through items, we have removed the amount included in Allowed Revenues in the reporting year which relates to 2 years prior, and included the adjustment in-year (inclusive of time value of money adjustments), which will be received on a 2 year lag basis.

1.70. We will seek to clarify the RFPR RIGs guidance on these adjustments as part of the RIIO-ED2 changes to RFPR reporting.

1.71. Note that when there is a tax loss calculated in the RIIO-ED1 PCFM, the tax allowance is set to zero for that year and the loss is carried forward to reduce the tax allowance for the following year. This same approach has been taken in the calculation of the forecast tax allowance for SWEST for 2022/23.

1.72. The RFPR RIGs commentary also requires us to detail our methodology for calculating the 'Tax on financing performance at actual gearing' in row 86. NGED has calculated this amount as:

Pre-Tax Cost of Debt out(under)performance at actual gearing (row 86 of table R7 – Financing)*Corporation tax rate (from Data worksheet)*RPI uplift to nominal prices (row 40 of table R10 - Tax).

1.73. Similarly, NGED has calculated the 'Tax impact of financing performance (at notional gearing)' in row 88 as:

Pre-Tax Cost of Debt out(under)performance at notional gearing (row 88 of table R7 - Financing)*Corporation tax rate (from Data worksheet)*RPI uplift to nominal prices (row 40 of table R10).

1.74. Note that there have been some minor movements in values in the R10 - Tax table as a result of changes elsewhere in the RFPR tables, and changes to reflect the inclusion of data from the most recent CT600 submissions, and the tax allowance per the latest PCFM, as required by Ofgem – see the 'Change log' worksheet in the RFPR templates for details.

RAV

1.75. Under the RIIO framework, NGED receives a Totex allowance, 20% of which is received in the year incurred; this is the Fast pot expenditure allowance. The remaining 80% is added to the Regulatory Asset Value (RAV) and funded over time through the RAV depreciation allowance.

1.76. The table below shows the adjusted closing RAV uplifted to year-end prices, for each NGED DNO, plus NGED total. This view of RAV includes the impact of Enduring Value adjustments on RAV additions. More detail is shown in table R9 - RAV in the RFPR:

Table 8: Adjusted Closing RAV, nominal prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023
WMID	2,144.3	2,261.6	2,364.4	2,451.5	2,528.7	2,620.9	2,949.3	3,382.2
EMID	2,126.2	2,256.9	2,351.5	2,438.0	2,516.8	2,607.1	2,942.5	3,385.9
SWALES	929.2	993.6	1,038.3	1,103.9	1,159.4	1,225.1	1,388.7	1,609.4
SWEST	1,351.2	1,465.5	1,566.2	1,665.6	1,757.5	1,851.1	2,111.1	2,466.1
NGED Total	**6,550.9**	**6,977.7**	**7,320.4**	**7,659.0**	**7,962.4**	**8,304.3**	**9,391.6**	**10,843.6**

Dividend paid and current policy

1.77. The table below summarises the dividend payments for historical years, as presented in table R11 – Dividends in the RFPR:

Table 9: Dividend paid per Statutory Accounts, nominal prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023
WMID	-	90.8	165.0	10.0	90.0	-	67.0	-
EMID	52.4	130.0	113.4	30.0	64.7	40.3	74.3	100.0
SWALES	43.4	-	46.9	19.4	9.3	40.0	42.8	75.0
SWEST	125.2	24.4	94.9	38.6	25.0	-	-	50.0
NGED Total	**221.0**	**245.2**	**420.2**	**98.0**	**189.0**	**80.3**	**184.1**	**225.0**

1.78. The NGED Group is structured such that a proportion of the NGED Group's debt is issued by group companies other than WMID, EMID, SWALES and SWEST. Interest payments on this debt, together with other items, are funded primarily through dividend payments from WMID, EMID, SWALES and SWEST.

1.79. The dividends shown in the table above reconcile to the individual NGED licensee company statutory accounts. These dividends comprise movements to other NGED group entities.

1.80. From 14 June 2021, NGED has been part of National Grid plc, which generates value for investors through a combination of dividend yield and asset growth. National Grid plc's dividend policy is to deliver annual dividend per share growth in line with the rate of CPIH inflation.

1.81. In considering capital distributions, NGED's Board is mindful of stakeholders' views and takes account of our latest financial position, and the long-term sustainability of the company, in addition to the allowed rate of return and any incentive rewards received. In its capacity of providing oversight for the operational performance of the business, the Board also takes account of the prevailing performance against customer performance targets, other RIIO-ED1 output commitments and future requirements such as DSO, to assess investment requirements.

1.82. As shown in the RFPR, we reinvest a significant portion of our profits back into the network to ensure an efficient, reliable and environmentally sustainable network. The Board ensures that it understands and takes account of shareholder views in order to preserve positive investor relations. The Board acts in the shareholder's best interests by proposing an amount of dividend in accordance with the financial parameters of our regulatory allowance whilst maintaining strong financial health metrics.

1.83. Note that the RFPR requires an adjustment to remove the element of dividends not related to the Regulatory business. NGED's apportionment methodology is set out in Appendix 3.

Pensions

1.84. NGED operates two defined benefit schemes which fall within Ofgem's price control pension principles:

- The WPD Group of the Electricity Supply Pension Scheme (WPD Group), for which SWALES and SWEST are sponsoring companies; and
- The Central Networks Group of the Electricity Supply Pension Scheme (CN Group), for which WMID and EMID are sponsoring companies.

1.85. As at 31 March 2019, the deficit on the WPD Group of the ESPS was £271.7m, and the deficit on the CN Group of the ESPS was £348.3m.

1.86. Table R12 – Pensions shows a summarised position of the pension deficit for the defined benefit schemes attributable to NGED’s DNOs. The deficit for the WPD Group of the ESPS has been reported in table R12 for both SWALES and SWEST, and similarly the deficit for the CN Group of the ESPS has been reported in table R12 for both WMID and EMID.

Data assurance statement

1.87. The data in this report has been reviewed under NGED's internal Data Assurance process.

Appendices

1. Reconciliation where licensees have a different statutory year from the Regulatory Year

1.88. This section is not applicable as NGED's DNOs have a 31 March year end.

2. Enduring Value adjustments

Ofgem's RFPR Regulatory Instructions and Guidance define Enduring Value as: "The true value of the regulated business over the course of the price control. The enduring value of the business factors in the financial impact of any decisions or future events, which have yet to be reflected in Revenue and RAV but are known at the time of estimation. The enduring value represents the establishment of sustained long term value to the regulatory network or to its operation."[2]

2015/16 Enduring Value adjustments

1.89. No Enduring Value adjustments have been included for the regulatory year 2015/16 in NGED's 2022/23 RFPR submissions.

2016/17 Enduring Value adjustments

Pensions prepayment

1.90. In March 2017, NGED made a £230m prepayment into its ESPS pension schemes. This prepayment was expected to unwind over the next two years and comprised both deficit repair payments and ongoing pension contributions.

1.91. In accordance with the RIGs, the prepayment was reported on a cash basis in the RRP in 2016/17 and the regulated element of the amount relating to ongoing pensions contributions and incremental deficit repair was included within Totex. The established deficit element of this prepayment has been reported on a cash basis in the RRP, outside of Totex.

1.92. Without any Enduring Value adjustment, the amount of the prepayment included within Totex would be calculated as an overspend and the Totex adjustment would result in a penalty of 70% of this overspend being included in RoRE for the year. An Enduring Value adjustment is therefore required.

1.93. The Enduring Value adjustment has been calculated by taking the incremental deficit repair included within Totex, plus the element of ongoing pensions costs included within Totex, as the Totex overspend.

1.94. The value of the element relating to ongoing pensions contributions for the NGED DNOs and incremental deficit repair prepayment in 2016/17 was £57m across the 4 NGED licensees. The amount of the NGED DNOs' ongoing pensions costs outside of Totex has been excluded, resulting in an adjustment of £53.4m, as shown below, for the element of the prepayment included within Totex in 2016/17. These amounts are then reversed in 2017/18 and 2018/19 – see Table A1 for further details.

[2] "RIIO Regulatory Financial Performance Reporting – Regulatory Instructions and Guidance", 30 April 2019, p.30 https://www.ofgem.gov.uk/publications-and-updates/direction-introduce-regulatory-financial-performance-reporting-rfpr

Table A1: Table A1 Pensions prepayment EV adjustment, nominal prices, £m

	2017	2018	2019	Total
WMID	14.6	-14.3	-0.3	0.0
EMID	12.8	-12.5	-0.3	0.0
SWALES	10.1	-9.6	-0.5	0.0
SWEST	15.9	-15.4	-0.5	0.0
NGED Total	**53.4**	**-51.8**	**-1.6**	**0.0**

1.95. Table A2 shows these values restated in 12/13 prices, as included in the RFPR:

Table A2: Pensions prepayment EV adjustment, 12/13 prices*, £m

	2017	2018	2019	Total
WMID	9.4	-8.9	-0.2	0.3
EMID	8.3	-7.8	-0.2	0.3
SWALES	6.5	-6.0	-0.3	0.2
SWEST	10.3	-9.6	-0.3	0.4
NGED Total	**34.5**	**-32.3**	**-1.0**	**1.3**

* Note this is 70% of the overspend relating to the prepayment as the remaining 30% is adjusted via the TIM. These values have been grossed up by 100/70 for inclusion in row 22 of table R4 – Totex, as the 70% is then applied in row 31 of the same table.

2017/18 Enduring Value adjustments

Pensions prepayment

1.96. As the pensions prepayment made in 2016/17 was expected to unwind over the next two years, there should therefore be a reversal of the Enduring Value adjustment in 2017/18 equivalent to the 2017/18 amount of ongoing and incremental pensions cost.

1.97. The adjustment above is calculated as the sum of:

– The reversal of the prepayment of incremental deficit repair costs in 2017/18; and

– The reversal of the prepayment of ongoing pension costs within the price control in 2017/18.

Rail electrification

1.98. In April 2018, NGED agreed to make a voluntary return of £77m (12/13 prices) of unspent forecast regulatory Totex allowances associated with curtailed rail electrification projects. These allowances have been returned equally in the years 2020/21, 2021/22 and 2022/23 via the PCFM, and therefore Base Revenue.

1.99. An Enduring Value adjustment is therefore required to remove the benefit under the Totex Incentive Mechanism recognised due to unspent rail electrification allowances, as this benefit will not “endure”, given that the unspent amounts are handed back in the following years.

1.100. Table A3 below shows the profile of the “hand back”.

Table A3: Rail electrification Hand back, 12/13 prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023	Total
WMID	-	-	-	-	-	-6.5	-6.5	-6.5	-19.4
EMID	-	-	-	-	-	-3.4	-3.4	-3.4	-10.2
SWALES	-	-	-	-	-	-12.7	-12.7	-12.7	-38.2
SWEST	-	-	-	-	-	-3.1	-3.1	-3.1	-9.2
NGED Total	**-**	**-**	**-**	**-**	**-**	**-25.7**	**-25.7**	**-25.7**	**-77.0**

1.101. Table A4 shows the profile of the underspend "handed back".

Table A4: Rail electrification underspend, 12/13 prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023	Total
WMID	0.5	-0.1	0.1	0.1	1.3	5.8	5.8	5.9	19.4
EMID	4.5	4.5	4.4	1.3	-4.6	0.0	0.0	0.0	10.2
SWALES	12.7	14.1	5.7	5.7	0.0	0.0	0.0	0.0	38.2
SWEST	3.7	5.9	-0.9	-3.2	-3.2	0.0	0.8	6.2	9.2
NGED Total	**21.4**	**24.5**	**9.3**	**3.9**	**-6.5**	**5.8**	**6.6**	**12.1**	**77.0**

1.102. It is therefore the benefit of the underspend from the beginning of the price control up to, and including, regulatory year 2017/18 that should be adjusted for via Enduring Value.

1.103. Additional Enduring Value adjustments are required in years 18/19 onwards, to:

- further increase the Enduring Value balance adjustment accrual by removing any further benefit from unspent rail electrification allowances; and then
- to unwind the Enduring Value balance in years 20/21, 21/22 and 22/23 as the adjustments are made to Base Revenue.

1.104. As the Rail Electrification hand back was agreed in April 2018, NGED has entered the first adjustment in 2017/18 for the three years' underspends to date, on the basis that historical data in the RFPR, once submitted, should be static wherever possible.

1.105. Table A5 shows the Enduring Value adjustments included in the RFPR for Rail Electrification.

Table A5: Rail electrification Enduring value adjustment*, 12/13 prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023	Total
			Accruing				Unwinding		
WMID			-0.4	-0.1	-0.9	0.5	0.5	0.4	0.0
EMID			-9.4	-0.9	3.2	2.4	2.4	2.4	0.0
SWALES			-22.7	-4.0	0.0	8.9	8.9	8.9	0.0
SWEST			-6.1	2.3	2.3	2.2	1.6	-2.2	0.0
NGED Total	**-**	**-**	**-38.6**	**-2.7**	**4.6**	**13.9**	**13.4**	**9.5**	**0.0**

*Note this is 70% of the underspend as the remaining 30% is returned to customers via the TIM. These values have been grossed up by 100/70 for inclusion in row 23 of table R4 – Totex, as the 70% is then applied in row 31 of the same table.

2018/19 Enduring Value adjustments

Pensions prepayment

1.106. As the pensions prepayment made in 2016/17 was expected to unwind over the following two years, there should therefore be a reversal of the remaining amount of Enduring

Value adjustment in 2018/19 to ensure the prepayment has a nil effect over the total ED1 period. These amounts are shown in table A2 above.

Rail electrification

1.107. See above for details.

RAV/Non-RAV split of Enduring Value adjustments

1.108. The pensions prepayment Enduring Value adjustment is all included as a Non-RAV Enduring Value adjustment, on the basis that there had been no overstatement of the RAV; the pensions cash payment occurred and 80% of the cash pensions costs reported in the RRP was added to the RAV and would not be clawed back.

1.109. The Rail Electrification Enduring Value adjustment is, however, split 80% RAV, 20% Non-RAV, on the basis that there is currently 80% of the benefit from the Totex underspend included in the RAV which will be handed back in the following years.

2019/20 Enduring Value adjustments

Rail electrification

1.110. See above for details.

2020/21 Enduring Value adjustments

Rail electrification

1.111. See above for details.

2021/22 Enduring Value adjustments

Rail electrification

1.112. See above for details.

2022/23 Enduring Value adjustments

Rail electrification

1.113. See above for details.

TIM neutral and Smart Meter allowances

1.114. The RIIO-ED1 price control includes two ‘TIM neutral’ mechanisms for Visual Amenity and Worst Served Customer Projects. These operate on a ‘use it or lose it’ basis, whereby opening allowances were set at zero and are then subject to revision on a 2 year lag based on actual expenditure up to a total allowed amount. Similarly, opening levels of allowed Totex expenditure for Smart Meter Roll-out Costs were set on a provisional basis and are revised on a 2 year lag basis based on the actual number of Smart Meter Interventions.

1.115. As row 13 of the R4-Totex worksheet takes the Totex allowance from the latest published PCFM, this does not include final adjustments for the above items for 2022/23, yet the corresponding costs would be included in actual 2022/23 Totex. An Enduring Value adjustment is therefore required for 2022/23 for the amount of Totex allowance anticipated, which has been reported in table M17 of NGED’s Regulatory Reporting Pack. The adjustments included are set out below.

Table A6: TIM neutral and Smart meter adjustments, 12/13 prices, £m

	2020	2021	2022	2023
WMID	-	-	-	-1.4
EMID	-	-	-	-0.6
SWALES	-	-	-	-0.9
SWEST	-	-	-	-0.8
NGED Total	**-**	**-**	**-**	**-3.7**

1.116. Note that these Enduring Value adjustments have also been split out of RAV additions in row 19 and RAV depreciation in row 22 and presented within RAV additions Enduring Value adjustments in row 20 and RAV depreciation Enduring Value adjustments in row 23 of table R9 – RAV; RAV additions for 202122 onwards have been based on forecast values of post-TIM Totex, which will already reflect the forecast updates to allowances so this is simply a presentational change

Summary of Enduring Value adjustments to Totex

1.117. Table A7 below summarises the Enduring Value adjustments included within table R4 – Totex. Note these are the values included in rows 22-24 of table R4, rather than 70% of these amounts included in the tables above and which flow through to the RoRE calculation.

Table A7: Enduring Value Totex Summary, 12/13 prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023	Total
Pensions prepayment	0.0	13.5	-12.7	-0.2	0.0	0.0	0.0	0.0	**0.5**
Rail electrification	0.0	0.0	-0.5	-0.1	-1.3	0.7	0.7	0.6	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	**-1.4**
WMID Total	**0.0**	**13.5**	**-13.3**	**-0.4**	**-1.3**	**0.7**	**0.7**	**-0.8**	**-0.9**
Pensions prepayment	0.0	11.8	-11.1	-0.3	0.0	0.0	0.0	0.0	**0.4**
Rail electrification	0.0	0.0	-13.4	-1.3	4.6	3.4	3.4	3.4	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	**-0.6**
EMID Total	**0.0**	**11.8**	**-24.5**	**-1.6**	**4.6**	**3.4**	**3.4**	**2.8**	**-0.1**
Pensions prepayment	0.0	9.3	-8.6	-0.4	0.0	0.0	0.0	0.0	**0.4**
Rail electrification	0.0	0.0	-32.5	-5.7	0.0	12.7	12.7	12.7	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	**-0.9**
SWALES Total	**0.0**	**9.3**	**-41.0**	**-6.1**	**0.0**	**12.7**	**12.7**	**11.9**	**-0.5**
Pensions prepayment	0.0	14.7	-13.7	-0.5	0.0	0.0	0.0	0.0	**0.5**
Rail electrification	0.0	0.0	-8.8	3.2	3.2	3.1	2.3	-3.1	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	**-0.8**
SWEST Total	**0.0**	**14.7**	**-22.5**	**2.8**	**3.2**	**3.1**	**2.3**	**-3.9**	**-0.3**
Pensions prepayment	0.0	49.3	-46.1	-1.4	0.0	0.0	0.0	0.0	**1.8**
Rail electrification	0.0	0.0	-55.2	-3.9	6.5	19.9	19.1	13.6	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.7	**-3.7**
NGED Total	**0.0**	**49.3**	**-101.3**	**-5.3**	**6.5**	**19.9**	**19.1**	**9.9**	**-1.8**

Summary of Enduring Value adjustments to RAV additions

1.118. Table A8 below sets out the breakdown of the Enduring Value adjustments to RAV additions, as shown in row 20 of RFPR table R9- RAV.

Table A8: Enduring Value Summary RAV additions adjustments, 12/13 prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023	Total
Rail electrification	0.0	0.0	-0.3	-0.1	-0.7	0.4	0.4	0.3	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	**-0.8**
WMID Total	**0.0**	**0.0**	**-0.3**	**-0.1**	**-0.7**	**0.4**	**0.4**	**-0.5**	**-0.8**
Rail electrification	0.0	0.0	-7.5	-0.7	2.5	1.9	1.9	1.9	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	**-0.3**
EMID Total	**0.0**	**0.0**	**-7.5**	**-0.7**	**2.5**	**1.9**	**1.9**	**1.6**	**-0.3**
Rail electrification	0.0	0.0	-18.2	-3.2	0.0	7.1	7.1	7.1	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	**-0.5**
SWALES Total	**0.0**	**0.0**	**-18.2**	**-3.2**	**0.0**	**7.1**	**7.1**	**6.6**	**-0.5**
Rail electrification	0.0	0.0	-4.9	1.8	1.8	1.7	1.3	-1.7	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	**-0.5**
SWEST Total	**0.0**	**0.0**	**-4.9**	**1.8**	**1.8**	**1.7**	**1.3**	**-2.2**	**-0.5**
Rail electrification	0.0	0.0	-30.9	-2.2	3.7	11.1	10.7	7.6	**0.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	**-2.0**
NGED Total	**0.0**	**0.0**	**-30.9**	**-2.2**	**3.7**	**11.1**	**10.7**	**5.6**	**-2.0**

1.119. Table A9 below sets out the breakdown of the depreciation impact of Enduring Value adjustments to RAV additions, as shown in row 23 of RFPR table R9- RAV.

Table A9: Enduring Value Summary RAV depreciation adjustments, 12/13 prices, £m

	2016	2017	2018	2019	2020	2021	2022	2023	Total
Rail electrification	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**-0.1**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
WMID Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.1**
Rail electrification	0.0	0.0	0.0	-0.3	-0.3	-0.2	-0.2	-0.1	**-1.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
EMID Total	**0.0**	**0.0**	**0.0**	**-0.3**	**-0.3**	**-0.2**	**-0.2**	**-0.1**	**-1.0**
Rail electrification	0.0	0.0	0.0	-0.6	-0.7	-0.7	-0.5	-0.4	**-3.0**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
SWALES Total	**0.0**	**0.0**	**0.0**	**-0.6**	**-0.7**	**-0.7**	**-0.5**	**-0.4**	**-3.0**
Rail electrification	0.0	0.0	0.0	-0.2	-0.1	-0.1	0.0	0.0	**-0.3**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
SWEST Total	**0.0**	**0.0**	**0.0**	**-0.2**	**-0.1**	**-0.1**	**0.0**	**0.0**	**-0.3**
Rail electrification	0.0	0.0	0.0	-1.1	-1.1	-1.0	-0.7	-0.5	**-4.4**
TIM neutral & Smart meters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
NGED Total	**0.0**	**0.0**	**0.0**	**-1.1**	**-1.1**	**-1.0**	**-0.7**	**-0.5**	**-4.4**

Previous Enduring Value adjustments

1.120. Enduring Value adjustments for TIM neutral and Smart Meter roll out costs were included in the 2021/22 RFPR submission for the regulatory year 2021/22 as corresponding allowances had not been included in the latest published PCFM at the time (PCFM dated November 2021). These Enduring Value adjustments have now been removed as the corresponding allowances are included in updated Totex allowances for 2021/22 in what is now the latest 'published' PCFM (September 2022 legacy PCFM).

1.121. 2021/22 and 2022/23 actual expenditure in the 2022/23 RFPR includes the Green Recovery investment projects agreed by Ofgem in spring 2021. The Green Recovery mechanism adjusts RIIO-ED1 allowances for Green Recovery expenditure, where expenditure on projects triggers an increase in Totex overspend. In the 2020/21 RFPR we included an Enduring Value adjustment for anticipated Green Recovery allowances in EMID. 2022/23 reporting does not show a Totex overspend over the RIIO-ED1 period for EMID, and we therefore no longer anticipate receiving any additional Green Recovery allowance in RIIO-ED1. No Green Recovery Enduring Value adjustments have been included in the 2022/23 RFPR.

3. Basis of any estimates and allocations

Use of RRP data

1.122. Note that much of the data in the RFPR tables has been taken from the RRP tables which are also submitted to Ofgem in July 2023. NGED has not had confirmation from Ofgem that no changes are required to this data.

1.123. Details of areas of allocation processes and estimation methodologies used to derive RRP data are reported in the Strategic Performance Overview accompanying the RRP data submitted to Ofgem in July 2023.

Allocation processes and estimation methodologies

1.124. Guidance has not been provided by Ofgem for the following areas, therefore NGED sets out its methodologies below.

1. Allocation of dividends

1.125. The RFPR requires an adjustment to remove the element of dividends not related to the Regulatory business.

1.126. Ofgem has not prescribed a method of calculating this, therefore NGED's apportionment methodology uses RRP data in table C1 and takes:

$$\frac{\text{Total Net Costs after Non Price Control allocation outside the price control}}{\text{(Total Net Costs after Non Price Control allocation outside the price control, PLUS Total Net Costs after Non Price Control allocation inside the price control)}}$$

Calculated as a percentage for each regulatory year.

1.127. The dividend paid per the statutory accounts is then multiplied by this percentage to calculate the element paid not related to the Regulated business.

2. Tax

1.128. The RFPR requires an adjustment to remove the element of the tax charge per the CT600 not related to the Regulatory business. Notional values for the taxation charge for Metering equipment and services, Directly Remunerated Services (excluding metering) and De Minimis Business of the licensee have been calculated using the same approach taken to prepare the segmental analysis in the NGED licensees' Regulatory Accounts in previous years. This uses revenue and costs reported in the RRP tables for these categories, plus customer contributions for connections outside of RAV.

1.129. Automated adjustments are then made to reflect tax on output incentives and IQI additional income. Further adjustments for timing differences have then been input for the impact of Correction factor (K) and under/over recovery, MOD, RPI True up and Adjustments for Allowed Pass-Through items using data from RPFR table R2 – Revenue and forecast data. The impact on the tax charge of the DPCR4 losses incentive and DPCR5 legacy revenue adjustments has been removed as this does not relate to RIIO-ED1. A further adjustment has been made for Revenue profiling adjustments. Adjustments for Enduring Value are then included using data from table R4.

1.130. Note that when there is a tax loss calculated in the RIIO-ED1 PCFM, the tax allowance is set to zero for that year and the loss is carried forward to reduce the tax allowance for the following year.

3. Pensions reporting

1.131. As set out above in relation to table R12 – Pensions, information for the Central Networks Group of the ESPS is reported in table R12 for WMID and EMID, and the WPD Scheme is reported in table R12 for SWALES and SWEST. As the RIGs for table R12 require that the total pension deficit repair payment made by the licensee for its share of any defined benefit schemes is reported, the non-regulated amount of any deficit repair payments into these schemes has been apportioned to arrive at the licensee share. The basis of this allocation for 2022/23 is as follows.

1.132. Total deficit repair payment for the CN scheme has been split between pre cut-off deficit repair and post cut-off deficit repair amounts based on the pre cut-off and post cut-off proportions in the last Pensions Deficit Allocation Methodology (PDAM) submission to Ofgem. These amounts are then multiplied by the respective pre cut-off and post cut-off Regulatory Fractions for WMID and EMID from the 2020 PDAM submission to derive the Established and Incremental deficit repair amounts for WMID and EMID. This then leaves a non-regulated element of both the pre and post cut-off payments to be apportioned between WMID and EMID. This is calculated by pro-rating the pre cut-off non-regulated amount between WMID and EMID depending on their relative shares of the Established deficit repair payment for the scheme, and the post cut-off non-regulated amount based on relative shares of the Incremental deficit repair repayment for the scheme.

1.133. The same approach is followed for the apportionment of the deficit repair payments into the WPD Scheme between SWALES and SWEST.

4. Use of Legacy PCFM

1.134. The RFPR RIGs state that the latest published PCFM should be used for the following entries:

- R7 – Financing: row 79 - cost of debt allowance;
- R9 – RAV: cell D16 - opening RAV (before transfers), row 19 - Actual net additions (after disposals), row 22 Actual depreciation;
- R10 – Tax: row 60 - tax allowance per latest published PCFM;
- Table R4, Totex, row 13 also requires the entry of Totex allowance including allowed adjustments and uncertainty mechanisms, which would be in the latest published PCFM.

1.135. The latest published PCFM for RIIO-ED1 followed the Annual Iteration Process (AIP) in November 2021. No further Annual Iteration Processes have been performed as any further adjustments to RIIO-ED1 Base Revenue will be captured through the Legacy provisions in RIIO-ED2. A completed RIIO-ED1 Legacy PCFM was submitted to Ofgem in October 2022.

1.136. Using the Opening RAV, RAV additions, Average RAV and depreciation values for 2022/23 in the latest published PCFM, i.e. the 2021 AIP PCFM, would not reflect actual Totex for 2021/22, which would then differ from the approach taken for previous RFPR submissions. Similarly, the tax allowance in the 2021 AIP PCFM would not reflect actual Totex for 2021/22, or any other updates, for example to tax trigger adjustments, since November 2021.

1.137. Ofgem agreed that, where the RFPR and RRP guidance refers to values from the "latest published PCFM" or "directed PCFM variable values", DNOs should use the ED1 Legacy PCFM submitted to Ofgem in 2022 as the de-facto latest PCFM to populate the reporting templates, where required. NGED has therefore followed this approach.

4. Other relevant information

Useful links and further information

Further information on NGED’s Financial Performance can be found in NGED’s Statutory Accounts:
https://www.nationalgrid.co.uk/about-us/annual-reports-and-financial-statements

Further information on NGED’s Operational Performance can be found in NGED’s Business Plan Commitments Report – note that the 2022/23 report will be published in October 2023:
https://yourpowerfuture.nationalgrid.co.uk/performance-reporting-riio-ed1

NGED’s RIIO-ED1 Business Plan can be found at the link below:
https://yourpowerfuture.nationalgrid.co.uk/our-future-business-plan/our-riioed1-business-plan

NGED’s RIIO-ED2 Business Plan can be found at the link below:
https://yourpowerfuture.nationalgrid.co.uk/riioed2-business-plan

Ofgem’s Guide to the RIIO-ED1 Electricity Distribution Price control is intended to give stakeholders a better understanding of how RIIO-ED1 works in practice:
https://www.ofgem.gov.uk/system/files/docs/2017/01/guide_to_riioed1.pdf