



Regulatory Financial Performance Reporting (RFPR) Commentary

Electricity North West Limited

31 March 2019

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1. Executive summary

1.1. Board Introduction

The Board are pleased to present the Regulatory Financial Performance Report (RFPR) for Electricity North West Limited (ENWL) covering the first four years of performance in RII0-ED1 and the outlook for the remainder of ED1. Whilst we are pleased with the improvements delivered for our customers, we continue to set the challenge to deliver further improvements, recognising that challenge drives innovation and a better outcome for all stakeholders.

Our stakeholder engagement process has confirmed that our stakeholders' key priorities are clearly focussed on delivering the green agenda, helping those customers that need help, providing a reliable and affordable service and delivering an efficient connections service.

The move to a low carbon economy continues to gather momentum, with wide social and political support. The UK is on a transformative journey to decarbonise which is central to achieving the UK's carbon reduction target and is a fundamental element of our strategic plans as we recognise our critical role as the North West's network operator in this journey.

We are well placed to respond to the evolving regulatory framework and are focused on developing our network to support the transition to a low carbon economy. The significant investment in next generation network management systems will enable rapid automated control of our network and position the business for transition to a Distribution System Operator (DSO).

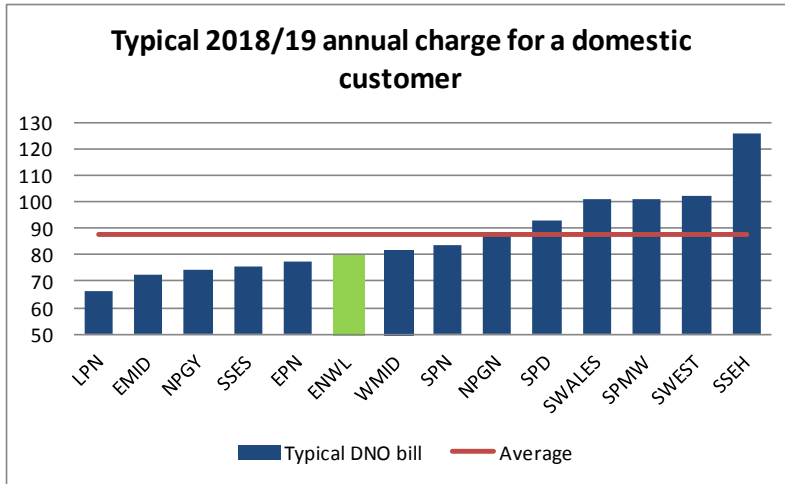
With our new Network Management System (NMS) in its final stages of implementation, and due to go live in 2019/20, work on scoping out Active Network Management (ANM) well underway, and Customer Load Active System Services (CLASS) now active in the Fast Reserve market, we are well advanced in our transition to the future of electricity distribution. The CLASS project will create network capacity, reducing the need for traditional reinforcement and will reduce UK carbon emissions by avoiding the need for additional fossil fuelled generation at times of peak demand.

We are pleased to report that we have continued to make progress in our operational performance, including significantly improving our customer satisfaction performance whilst maintaining the upper quartile reliability of the network. The continued focus on the safety culture has resulted in a further reduction in total recordable injury rates and sustained low lost time injuries. Driven by clear and strong stakeholder feedback stating their priorities, we are continuing to drive improvements in customer service, delivering new connections, providing enhanced reliability and making significant progress on strategic projects to deliver the low carbon agenda as we look towards ED2.

Key projects to provide further improvements to the reliability and provision of connections are well advanced with the additional investment to improve Quality of Supply (QoS 2) completing in 2019/20 and on-line connections services in the final stages of testing. We are continuing to work hard to support vulnerable customers through our work with Priority Service Register (PSR) customers, providing additional support in outages and through collaboration with other utilities in our region.

We are striving to deliver a highly reliable network (upper quartile), efficient connections provision and high quality customer service at the lowest possible cost. Alongside this we are delivering clear carbon reductions and enabling the low carbon transition.

Last year the typical domestic customer in our region paid £80 from their total electricity bill for the services we provided compared to a UK average of £87.



The legitimacy of the returns made in the energy networks sector continues to be an area of focus and we continue to promote transparency of performance and returns. As such we welcome the progress and transparency provided through reporting Return on Regulated Equity (RoRE) at a post financing and tax level and continue to support improvement in the methodologies of calculating these returns to ensure consistency across networks.

After debt and tax costs the Company has made a real return for the first four years of the price control of 7.4% (post financing and tax actual equity basis calculated on the latest methodology), which recognises the improved performance of the business in generating incentive revenues, offset by debt allowances lower than our actual costs. Further details on the financial performance are shown within section 2 of this document. Forecast RoRE for the whole ED1 period is 8.1% on an actual equity post financing and tax basis.

In addition we consider that the RoRE position in this latest submission format is potentially overstated due to an inconsistency in calculating real 'net' financing costs using gross rather than net debt. The effect of using net debt would be to reduce the 'cumulative to 2019' RoRE position from 7.4% to 7.0% and the ED1 position from 8.1% to 7.4%, on an 'actual gearing' basis.

<i>RoRE based on Actual Gearing</i>	Cumulative to 2019 £m	RIIO-1 period £m
<i>Allowed Equity Return</i>	5.4%	5.4%
Totex outperformance	1.1%	1.6%
IQI Reward	0.3%	0.2%
Output Incentives	1.9%	2.2%
Other	-0.1%	-0.1%
<i>RoRE - Operational performance</i>	8.6%	9.4%
Debt performance - at actual gearing	-1.0%	-1.0%
Tax performance - at actual gearing	-0.2%	-0.3%
RoRE - including financing and tax	7.4%	8.1%

The Board is actively monitoring the environment of political and economic uncertainty including the threat of nationalisation. The Board are also conscious of the economic uncertainty from Brexit, which is expected to have a modest direct impact aside from a modest increase in stock levels to manage supply chain risk.

The composition of the Board has been strengthened through three new appointments during the year which serve to strengthen the diversity of the Board as well as bringing additional expertise in regulation and cyber security.

This document should be read in conjunction with the ENWL Annual Report and Consolidated Financial Statements for the year ended 31 March 2019:

<https://www.enwl.co.uk/globalassets/investor-relations/documents/financial-reports/enw-limited/electricity-north-west-limited-annual-report-and-financial-statements-31-march-2019.pdf>

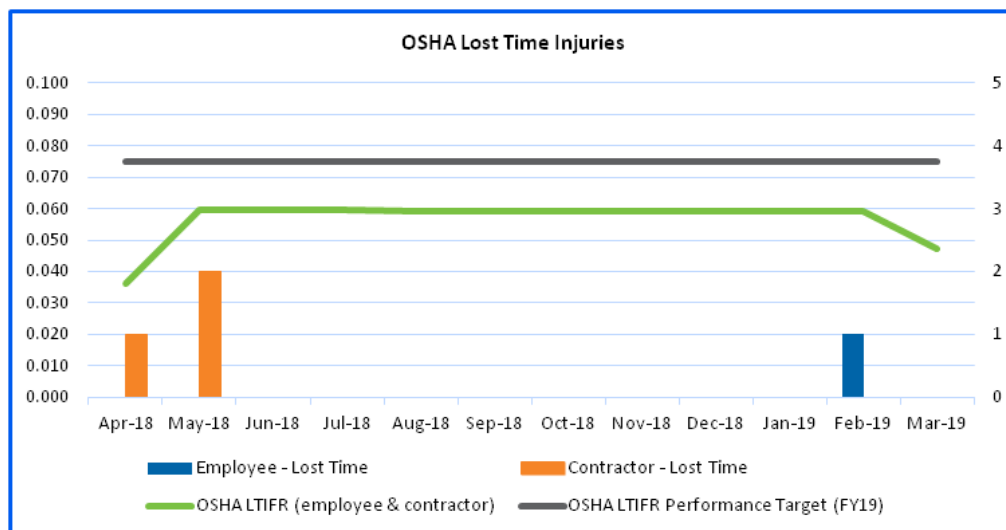
1.2. Company performance

In 2018 we launched our new 'Purpose and Principles' which sets out what we do and how we do it. Our Purpose promises that 'Together we have the energy to transform our communities'.

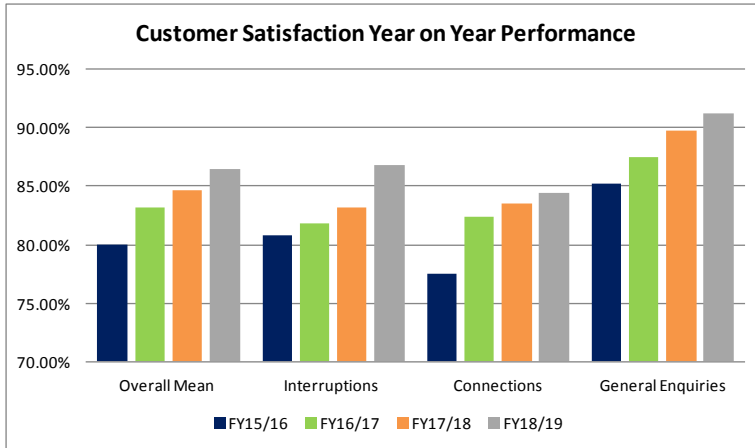
These are now well understood and embedded within the business and are helping us to create a culture of continuous improvement across all areas.

Reflecting on operational performance during the first four years of RIIO-ED1, we have delivered significant improvements in:

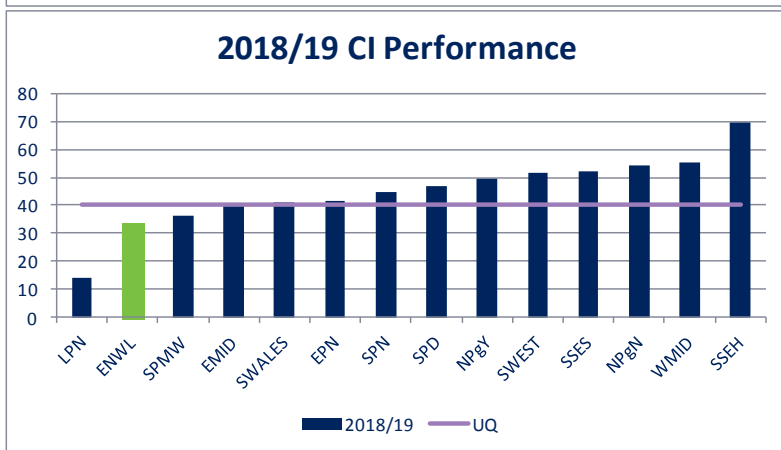
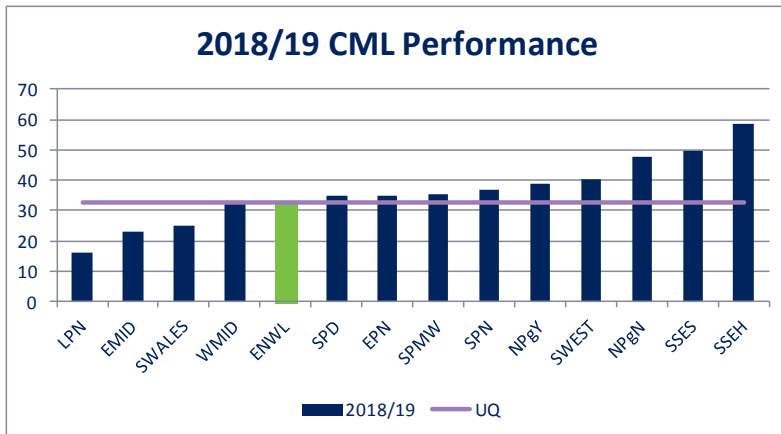
- **Safety performance** - total recordable injury rate for 2018/19 (0.13) is a new record for the Company, and our lost time injury (LTI) frequency rate remains low, demonstrating that we have delivered a step change in our safety culture and sustained it for a 2-year period. We have sustained our lost time injury rate (0.047) with rigorous reporting under the Occupational Safety and Health (OSHA) standard. We continue to work on our contractors' safe systems of work. The graph below shows the reportable LTIs throughout 2018/19 for both employees and contractors.



- **Customer service levels** - significant progress has been made in 2018/19 to improve our performance. The graph below shows our CSAT journey throughout RIIO-ED1 showing continued improvement demonstrated in all areas. The total number of complaints received has reduced by 19% compared to the prior year. We continue to focus on our Priority Service Register (PSR) customers, providing targeted services to higher risk customers and developing links with other utilities in our region to support and engage with those customers.



- Network reliability** – we are delivering some of the lowest levels of Customer Interruptions (CIs) across the industry, with an upper quartile level of CIs across the DNO companies. This performance reflects the level of investment made in network automation in recent years. Reliability remains a priority for our stakeholders so we will continue to invest in improving performance through our Quality of Supply programme during ED1 and by improving field practices and risk management.



- Resilience** – continued significant flood defence work at key sites, notably Lancaster and Rochdale, and targeted tree cutting programmes, from which we have seen benefits in storm conditions. For example this March, Storm Gareth failed to hit the exceptional event criteria despite 70 miles per hour winds.

1.3. Future Outlook - Leading the transition to the zero carbon economy and innovation

Our leadership role in the region's transition to zero carbon continues to strengthen. Our regional stakeholders are setting ambitious targets and in response we have created our 'Leading the North West to Zero Carbon' plan articulating how we will lead and encourage businesses, our customers and our colleagues on the decarbonisation journey. Greater Manchester's Mayor, Andy Burnham, has publicly stated that the region will be a pioneer and accelerate efforts to reduce carbon emissions to near-zero by 2038. We are committed to becoming one of the leading organisations helping the whole of the North West to achieve this goal, not just Greater Manchester.

<https://www.enwl.co.uk/globalassets/innovation/zero-carbon-documents/leading-the-north-west-to-zero-carbon.pdf>

Our ongoing development of DSO capability and services is an essential part of this transition. We continue to take an active role in the Open Networks project, which is the national coordination of the electricity networks' DSO transition, and have developed and offered flexibility services and capacity trading services to customers. We have published our first 'Distribution Future Energy Scenarios and Regional Insights' document and have committed to invest in strategic infrastructure to support Manchester's low carbon growth. We are implementing our new Network Management System (NMS) in 2019/20 which will provide us with new and innovative ways to better manage our network and further enhance our service to our customers.

<https://www.enwl.co.uk/globalassets/get-connected/network-information/dfes/dfes-webinar-28-march-2019.pdf>

We are also utilising our innovative Customer Load Active System Services (CLASS) and are successfully bidding into National Grid's balancing services markets – known as the Fast Reserve Market. This technology is meeting the need, identified by Ofgem and the Department for Business, Environment and Industrial Strategy (BEIS), to solve peak demand problems on distribution and transmission networks, doing so in a low carbon way by reducing requirements for power generation using fossil fuels. At present we are the only network business in the UK to provide this service.

Our leading national and regional role in delivering decarbonisation, our strong business performance and our recognised leadership in innovation provide a strong platform for securing the best outcome for our RIIO-ED2 plan. We also value the independent oversight and challenge our plans that our stakeholder and customer engagement activity provides.

Our Purpose commits that 'Together we have the energy to transform our communities' and the service to the communities we serve defines our approach. We are making good progress and are working closely with our customers and stakeholders to ensure that we are successfully meeting their needs for today and their expectations for tomorrow.

2. Key Financial Performance measures

£m 12/13	Cumulative to 2019	RIIO-1 period
<i>Customer share of Totex performance</i>	19.4	56.6
<i>NWO share of Totex performance</i>	26.9	78.5
Totex out(under)performance, after EV adjustment	46.3	135.0
Output incentives	44.2	105.7
Cost of Debt out(under)performance at actual gearing (pre tax)	(30.6)	(65.4)
Regulated tax out(under) performance at actual gearing (not adjusted for financing)	2.0	3.0
	Average to 2019	Average RIIO-1 period
Equity RAV	587.2	600.9
Average Net Debt (per Regulatory Definition)	930.8	948.4
Adjusted RAV - including (EV) adjustments	1,518.0	1,549.3
RoRE based on actual gearing	7.4%	8.1%

In the first four years of the RIIO ED1 period we delivered £46.3m totex outperformance post enduring value adjustments, £19.4m of which is shared with our customers. We are forecasting to share over £56.6m of outperformance with our customers over the full RIIO ED1 period.

We have committed significant investment in a number of projects in ED1 to enhance the customer experience. This investment has contributed to improved performance in the areas of customer satisfaction and the reliability of our network. As a result we have earned £44.3m of output incentive revenue for the first four years and this good performance is expected to continue for the remainder of ED1.

We believe that when evaluating and understanding our returns against allowance, the cost of debt and taxation are important components. Our cost of debt is higher than our allowance - we expect to underperform our cost of debt allowance by £65.4m for ED1 (on a pre-tax adjustment basis). The debt and hedging instruments were set up with interest rates competitively negotiated at the time.

The key financial performance measures discussed are in more detail in section 4.

3. Key operational performance measures

		2016	2017	2018	2019
Safety	Lost time incident frequency rate	0.06	0.10	0.04	0.05
Reliability and availability	Customer Interruptions (CI)	36.7	32.9	32.8	33.7
	Customer Minutes Lost (CML)	32.5	33.7	34.4	33.0
Environment	Business carbon footprint, excl. losses (BCF) (tCO2e)	23,133	21,012	20,599	20,417
Connections	Time to Quote (LVSSA)	4.00 days	2.96 days	3.7 days	3.7 days
	Time to Quote (LVSSB)	7.43 days	7.92 days	8.25 days	6.8 days
	Time to Connect (LVSSA)	30.36 days	31.91 days	31.72 days	32.9 days
	Time to Connect (LVSSB)	36.88 days	31.67 days	34.28 days	35.7 days
Customer satisfaction	Customer Satisfaction Survey Overall	80.0%	83.2%	84.7%	86.5%
	Complaints metric	7.65	3.45	2.29	2.06
	Complaints resolved in 24 hours	51%	77%	82%	82%
Social obligations	Stakeholder Engagement and Consumer Vulnerability Score	6.9	6.4	5.75	4.54

3.1. Safety

This is an industry that operates with hazards, and therefore the attention to safety needs to be top of the agenda. Central to our risk mitigation activities are operational safety, asset safety and environmental performance. During the year we have continued to invest in our safety management system and behaviours for employees and contractors. We have also further reduced our asset safety risk.

Operational safety

We ensure that all people are well trained and able to operate safely, backed by policy-driven procedures and compliance assurance, alongside a behavioural approach that seeks to ensure that all staff and contractors approach any task with a strong behavioural attitude to safety.

In 2017, we embarked on a company-wide initiative to create an enhanced safety culture, key to managing risk. In the year ended 31 March 2019, we have continued to review our safety management system and to improve safety performance in our day-to-day operations.

We finished the year ended 31 March 2019 with a lost time injury frequency rate 0.047 (2018: 0.036) having had four lost time injuries in the year (2018: 3). This contrasts with 2017 when we had seven lost time injuries and reflects the sustained improvement since we embarked on our safety initiative. The total recordable injury rate was 0.13 (2018: 0.14).

In the year to 31 March 2020 we will continue to embed the changes introduced as well as improving our arrangements for the selection and management of contractors.

There is a continued focus on the valuable learning obtained through the safety observations and near miss reports, a leading indicator of safety performance with a sustained high level of near miss

reports. As our safety journey continues we are increasingly focused on the quality of, and learning from, near miss reports, rather than pure volumes of reports. Near miss reports in the year were recorded at 12,250 (2018: 14,293).

Asset safety

The safety of our employees, contractors and the public from the inherent risks of electrical assets is assured through our ongoing asset safety investment programmes.

In the year ended 31 March 2019, we made significant progress in further reducing the risks associated with link boxes, site security and asbestos remediation. We also continued our programme of management of rising services and lateral mains in multi-occupancy buildings. All 34 of the highest risk buildings (over 15 storeys) in our region had been surveyed by the end of 2018/19 and controllable switching devices had been fitted in 28 of these. We continue to survey, refurbish and fit switching devices in the remainder of the region's multi-occupancy building portfolio, based on a risk based approach.

3.2. Reliability and availability

We know that reliability of supply remains one of our customers' top priorities. Improvement in reliability is achieved by targeted investment in the network both to limit the number of faults and also to limit the number of customers affected by those faults that do occur.

Performance is tracked using a variety of metrics including: delivery of the network investment programme outputs, delivery against Guaranteed Standards of Performance and network reliability measures including customer interruptions ('CIs') and customer minutes lost ('CMLs').

In the year ended 31 March 2019, the average number of interruptions per 100 customers (CIs) continues to be industry leading at 33.7, (2018: 32.8) outperforming the target of 47.2 set by Ofgem.

The average number of minutes for which customers were without supply (CMLs) during the year to 31 March 2019 was 33.0 (2018: 34.4), which outperformed the target of 43.0 set by Ofgem, and was the second best performance ever achieved on the network.

The reliability of the network has been sustained through proactive investment in the use of network automation and innovative solutions, and an ongoing focus on operational response when incidents do occur. Network reliability continued to be high with a network availability of 99.994%. CI and CML performance was broadly in-line with the prior year with a small increase in CIs, despite the increase in fault rates over the summer, and a reduction in CMLs, with a larger impact from planned supply interruptions which allow the capital investment programme to be delivered. We continue to focus on improving network reliability and this is an area in which we have committed additional funds to further increase the level of automation and thereby the reliability of the network.

Most customers enjoy excellent levels of reliability but we recognise that there is variability in the level of service experienced. A few customers experience a level of service significantly worse than average, usually by virtue of their location or due to localised network issues. We have continued to invest in the year in schemes to reduce the numbers of worst served customers. The number of customers in this category actually increased from 48 in 2017/18 to 135 in 2018/19 due to the increases in fault levels. However we are still confident that we remain on course to achieve our Business Plan commitment of zero by the end of ED1.

Key to delivering reliability to customers is proactive investment to improve the resilience of the network to storm and flood conditions. We continue to invest significant funds in flood defences and interconnectivity at key sites to provide protection against flooding risks.

Health Index

A major part of our reliability strategy is to intervene on higher risk assets before they fail. This is informed by a process of condition-based risk assessment in line with the Common Network Asset Indices Methodology (CNAIM). Our targets for risk reduction through this programme were published by Ofgem in February 2016 and equate to 11.5m risk points over ED1.

In 2018/19, we delivered 1.5m risk points through our programme of targeted replacement and refurbishment activities to generate a cumulative four year total of 7.1m risk points, or 61% of our RIIO-ED1 target. In the year, we saw the results from a significant programme of refurbishment activities of large transformer units and distribution switchgear modifications, together with the delivery of a number of large replacement projects including major oil-filled cable overlay schemes.

Non-connections GSoPs

Following the positive improvement in appointment management during 2017/18, the number of failures has continued to reduce significantly for 'missed appointments' (Electrical Guarantee Standard 8) and through the improved monitoring processes instigated, 'late payments' (EGS9) have also reduced significantly.

The main area of increase is in 'off supply for 12 hours or more' (EGS2). Whilst the number of customers affected by a fault has reduced by 11,000 year on year, a larger proportion of customers have made their compensation claim following proactive contact from ENWL. This is a result of our strategy to get closer to the customer and to ensure that we are providing a transparent and effective service, even when network problems do occur.

There were a total of 4,417 12 hour failures in the year. 61% of the eligible customers have claimed the payment (2018: 3,141 and 45%).

3.3. Environment

We take our responsibility for the protection of the environment affected by our activities very seriously. To this end, we are committed to achieving the highest possible standards of environmental performance. We aim to minimise emissions and spills, and we are investing to remove potentially damaging equipment, enhance the environment by undergrounding overhead cables, and supporting the UK in its move to a low carbon economy.

In terms of our own direct impact on the environment our principal performance indicator is the level of equivalent carbon dioxide emissions. This measure covers the environmental impact from the use of fossil fuels in vehicles and generators, and energy in buildings, as well as the impact of Sulphur Hexafluoride (SF₆), which is a strong greenhouse gas historically used as insulation in electrical equipment. Our policy is to continue to install modern SF₆ equipment with lower leakage rates. Over the RIIO-ED1 period we plan to reduce our leakage rate by over 20% from a rate of 0.38% (as a proportion of the mass in service) in 2013 to 0.30% by 2023. In 2018/19 a total of 38.03kg was lost from our system; this loss equates to 0.24% of the total mass in service (2018: 0.37%). If we

maintain the performance improvement seen in the last two years, we are on track to meet the ED1 target.

We made a commitment to our customers to reduce carbon emissions, measured in tonnes of CO₂ equivalent, by 10% from a 2014/15 base year by 2020. Through targeted investment in the efficiency of our buildings and other efficiency measures, the level of emissions has been reduced by 16% from 2014/15 levels (24,415 tCO₂e) to 20,417 tCO₂e in the year ended 31 March 2019 (a 1% reduction on the year ended 31 March 2018 of 20,599 tCO₂e).

7.3km of overhead line in National Parks and Areas of Outstanding Natural Beauty were replaced with underground cable in the year. The absolute cable length undergrounded in ED1 will be influenced by engagement with key stakeholders determining the individual schemes that are completed (and therefore total km length) to best meet their needs.

17.5 km of fluid filled cable was removed and replaced with modern equivalent. Overall leakage of oil from underground cables was 55,829 litres which, whilst an improvement over the previous year's performance of 65,788 litres, reflected the continued necessity to rely on leaking cables which could not be switched out without causing huge disruption to customers. We aim to reduce this further to 30,000 litres by the end of RIIO-ED1 and have increased our planned fluid filled cable replacement volumes for the next 4 years. Leakage over the 6 month period to 30 June 2019 was 15,096 litres, on track to meet the target for 2019/20, and demonstrates the improving position as these significant one off leaks are resolved.

Electricity losses are measured as the difference between energy entering the network (generation) and energy exiting the network (demand). Whilst it is impossible to eliminate these losses, we do take steps to minimise them. This is done through installing more efficient assets in our network, particularly low loss transformers and cables, and, through our revenue protection unit, addressing the issue of theft.

3.4. Connections

We have had another good year during which we exceeded the targets for Time to Quote and Time to Connect metrics in all four categories. Notwithstanding that we are at near maximum incentive levels, we are continuing to set stretching targets to continue to drive further improvement, as we recognise their importance to customers. We have also developed similar voluntary measures as part of our Incentive on Connections Engagement (ICE) commitments. Whilst for ENWL, ICE penalties can only apply to two small market segments out of the nine relevant segments (we have passed the competition tests in the other seven categories during DPCR5), stakeholder engagement is important to us.

We have continued to focus on our Guaranteed Standards of Performance for connections during the year with the number of Guaranteed Standards of Performance failures being included in our Company scorecard for the year allowing for increased visibility and focus. This helped us to achieve our best performance ever with a failure number of 22 compared to a target of 40 and a prior year number of 59. This gave us a 99.9% GSoP result, close to our Business Plan target of 100%.

3.5. Customer Satisfaction

Delivering excellent customer service is a priority for the Company. Customer satisfaction levels have improved during the year, achieving an overall score of 86.5% (2018: 84.7%), which was much closer to our Business Plan target level and a best ever performance for the Company. The improvements made during the year are reflected in the score in the last quarter of the year of 88%, our best ever performance in a quarter.

We are committed to further improve customer satisfaction levels, with clear actions in place that are monitored regularly by the Executive Leadership Team. The actions focus around simplification, compliance with the customer journey, improvement in IT systems and resourcing strategies.

We maintain a Priority Service Register (PSR) to identify those customers who are most dependent on our services. In the year ended 31 March 2019 we have continued to promote our PSR and have developed our strategy to offer more targeted services to higher risk customers, for example those who are medically dependant on electricity. Investment in staff training has also been a focus in order to help facilitate this.

In delivering for our priority customers we have managed to reach out to over 520,000 customers this year which exceeds our target. The communications were carried out through various channels including letters, email and telephony.

We recognise our role in helping to tackle fuel poverty and the particular challenges this brings in our region. During the year we have engaged with a variety of partners in order to offer extra support to the customers in our region who are impacted by fuel poverty. Through the introduction of referral partnerships, we are now helping to provide our customers with advice on issues such as energy saving and income maximisation, as well as offering installation of free energy efficiency measures and referral to other relevant services.

Total complaints received in 2018/19 were 8,837 compared to 10,897 in the prior year. The complaints metric score for the year is 2.06, a 10% improvement compared to 2017/18 (2.29). The calculation is based on the % of complaints resolved within 24 hours, and % over 31 days, along with number of repeat complaints and Ombudsman complaints found against ENWL.

At the end of the year we stood 12th out of 14 in the CSAT league table (2018: 13th). However the gap between our performance and that of the leading DNO reduced to 4.8%, with a gap of 2.1% to the average score.

3.6. Social Obligations

We are committed to ongoing stakeholder engagement and recognise that such engagement enhances our ability to achieve our aims and objectives in providing the highest level of service whilst remaining conscious of customer prices. The importance of demonstrating strong stakeholder engagement and addressing vulnerable customer needs has increased during RIIO-ED1 and the focus is expected to be even stronger for developing and operating in RIIO-ED2.

We will continue to develop and enhance our stakeholder engagement approach. We have delivered an improvement plan this year which included reviews of:

- Our stakeholder engagement and consumer vulnerability (SECV) strategy;
- Our procedures and processes to ensure we become more stakeholder focused as an organisation and are able to respond, measure and learn as they are embedded ; and
- The presentation of our activity in the SECV submission and preparation for its assessment.

This year, a third Strategic Stakeholder Advisory Panel was held in June 2018 and outputs from that session and other stakeholder and consumer insights inform our business decision-making. Our understanding of stakeholder requirements was further enhanced by hosting similar events in Lancashire and Cumbria.

Central to these events was a consultation on stakeholder priorities to inform the 'shaping' phase of our RIIO-ED2 plan development. The transition to the low carbon economy and support for vulnerable consumers are emerging priorities for our stakeholders, alongside a focus on improving reliability.

We further enhanced our approach through the creation of a Chief Executive Panel. The Board and the Executive Leadership are committed to improving the Company's stakeholder engagement approach and the Chief Executive Panel provides stakeholders with an effective and direct route for ongoing dialogue with the Board and the Executive Team. This work of the Chief Executive Panel is supported by our Sustainability and Consumer Vulnerability Advisory Panels.

To support adherence to these initiatives, for the eighth year running the Company has engaged auditors for a non-financial assurance of its SECV Submission and its commitment to AA1000APS.

Our SECV submission score of 4.54 was confirmed in July, a reduction from the prior year and below our Business Plan target of 6.6, but still generating incentive reward. At the end of July we received the company specific feedback, which will be utilised to develop an improvement plan, while remaining conscious of the impact of the cost of investment in this area on customer bills.

4. Overview of regulatory performance

4.1. RoRE

<i>RoRE based on Actual Gearing</i>	Cumulative to 2019 £m	RIIO-1 period £m
Allowed Equity Return	5.4%	5.4%
Totex outperformance	1.1%	1.6%
IQI Reward	0.3%	0.2%
Output Incentives	1.9%	2.2%
Other	-0.1%	-0.1%
RoRE - Operational performance	8.6%	9.4%
Debt performance - at actual gearing	-1.0%	-1.0%
Tax performance - at actual gearing	-0.2%	-0.3%
RoRE - including financing and tax	7.4%	8.1%

The legitimacy of the returns made in the energy networks sector is currently an area of focus. As a result we disclosed our Return on Regulated Equity ('RoRE') in our most recent Annual Report and Financial Statements. Our RoRE on average for the first four years of the ED1 is 7.4%. For the first four years our totex outperformance contributes 1.1% whereas the output incentives that we have earned add 2.2%. This is offset by the 1.2% impact of financing and tax performance, being important components in both shareholder returns and customer understanding.

Based on our current view the RoRE on average for the RIIO ED1 period is forecasted to be 8.1% compared to 6.0% in the 2018 annual report. The 2.1% year-on-year movement comprises:

- 0.8% - increased totex savings forecast for ED1 reflecting efficiencies delivered for customers through lower costs (after sharing the benefits with them) that feed into lowering their energy bills. Key to delivering totex efficiencies are the intelligent application of the Common Network Asset Indices Methodology (CNAIM), innovative ways of improving and simplifying work processes, as well as strong cost management, and productivity improvements. We focus on the use of innovation in process and technologies to deliver network outputs, enhanced resilience and public safety improvements at a lower cost.
- 0.7% - impact of the adoption of IFRS9 which impacted on our treatment of financial assets and liabilities and has been applied across ED1 including historical periods.
- 0.6% - updates to financial, inflation and tax assumptions. Assessment of tax performance and how to calculate it is still being refined with Ofgem and other DNOs to provide transparent and consistent reporting.

4.2. Allowed Revenue

<i>Nominal prices</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>
	2016	2017	2018	2019
	£m	£m	£m	£m
Nominal Base Revenue	403.6	409.4	389.9	399.0
Incentive revenue adjustment	8.4	15.8	17.2	16.7
Adjustments for Allowed Pass-Through items	-	-	(0.9)	(0.8)
Network Innovation Allowance	2.5	2.9	2.7	2.8
Low Carbon Networks Fund revenue adjustment	1.6	0.1	0.3	0.7
DPCR4 residual distribution losses incentive and Growth Term	(11.6)	(10.7)	-	-
Correction factor	-	(30.6)	11.1	4.2
Allowed Network Revenue	404.6	448.1	398.1	414.1

2019 allowed revenue at £414.1m represents a 4.0% increase in allowed revenues compared to 2018. The underlying revenue increase, i.e. prior to correction factor from prior years, can broadly be attributed to the increase in base demand revenue of £9.1m reflecting Final Determination profiling.

Including the year-on-year movement of -£6.9m for the K-factor prior year recovery term results in a total increase of £16.0m in allowed revenue.

Our incentive revenue forecast is reviewed in detail in Section 4.3.

Forecast nominal base revenue for 2020 – 2023 is predicted to increase by an average of 2.2% annually. This is broadly driven by annual RPI increases to original base revenue allowances, offset by reductions in cost of debt and totex allowances.

4.3. Output incentive performance – earned basis

<i>12/13 prices</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	Cumulative to 2019	RIIO-1 period
	2016	2017	2018	2019	2020	2021	2022	2023		
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Broad measure of customer service	(0.2)	0.5	1.5	2.0	2.7	3.2	3.2	3.2	3.9	16.2
Interruptions-related quality of service	10.3	9.6	7.8	8.2	11.3	11.3	11.3	11.3	35.9	81.1
Incentive on connections engagement	-	-	-	-	-	-	-	-	-	-
Time to Connect Incentive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.9	7.9
Losses discretionary reward scheme	-	0.6	-	-	-	-	-	-	0.6	0.6
Post-Tax Earned Incentive revenue	11.1	11.6	10.3	11.2	15.0	15.5	15.5	15.5	44.2	105.7

The output incentives are an important component of RoRE; in the first four years of the price control they contribute 1.9% of RoRE on average with the Interruptions Incentive Scheme (IIS) incentive contributing the most. The output incentives are dependent on our key operational performance metrics as discussed in the Key Operational Performance Measures section above. We forecast those incentives to contribute around 2.2% of RoRE for the full price control. Importantly the rewards we earn under these incentives have been set by Ofgem so that the rewards, reflected in our RoRE reflect the benefits delivered to customers so customers are net beneficiaries of our incentive performance. We invest both financial resources and management time to achieve these outcomes for customers.

The IIS ED1 incentive income reflects our strong performance and ongoing commitment to minimising and managing network outage for our customers. Customer interruptions and minutes lost have reduced as a result of ongoing investment in network automation and interconnection. The underlying improvement in incentive revenue earned from the customer satisfaction survey reflects another performance improvement this year to 86.5% from 84.7% in 2018. Delivering and improving excellent customer service standards remains a key area of focus for ENWL.

4.4. Totex performance

12/13 prices	Actuals	Actuals	Actuals	Actuals	Forecast	Forecast	Forecast	Forecast	Cumulative to 2019 £m	RIIO-1 period £m
	2016 £m	2017 £m	2018 £m	2019 £m	2020 £m	2021 £m	2022 £m	2023 £m		
Latest Totex actuals/forecast	230.5	195.4	226.6	232.7	220.1	211.1	213.6	193.3	885.2	1,723.3
Totex allowance including forecast allowed adjustments and uncertainty mechanisms	236.3	225.8	227.6	229.8	235.2	235.4	233.1	224.9	919.5	1,848.1
Totex out(under)performance	5.8	30.5	1.0	(2.9)	15.1	24.3	19.5	31.6	34.3	124.8
Customer share of out(under) performance	2.4	12.8	0.4	(1.2)	6.3	10.2	8.2	13.2	14.4	52.3
NWO share of performance	3.4	17.7	0.6	(1.7)	8.8	14.1	11.3	18.4	20.0	72.5
Enduring Value adjustments to Totex performance									-	-
Re-phasing within ED1	(3.3)	(20.4)	1.9	28.6	(4.8)	0.2	(2.3)	0.1	6.8	(0.0)
Streetworks re-opener allowance	1.2	1.1	1.4	1.4	1.3	1.3	1.3	1.3	5.1	10.3
[Enduring Value adjustment]	-	-	-	-	-	-	-	-	-	-
[Enduring Value adjustment]	-	-	-	-	-	-	-	-	-	-
[Enduring Value adjustment]	-	-	-	-	-	-	-	-	-	-
[Enduring Value adjustment]	-	-	-	-	-	-	-	-	-	-
Total enduring value adjustments	(2.1)	(19.3)	3.3	30.0	(3.5)	1.5	(1.0)	1.4	12.0	10.3
Enduring Value: Customer share of performance	(0.9)	(8.1)	1.4	12.6	(1.5)	0.6	(0.4)	0.6	5.0	4.3
Enduring Value: NWO share of performance	(1.2)	(11.2)	1.9	17.4	(2.0)	0.9	(0.6)	0.8	7.0	6.0
Total out(under) performance (including enduring value adjustments)										
Customer share of performance	1.6	4.7	1.8	11.4	4.8	10.8	7.7	13.8	19.4	56.6
NWO share of performance	2.2	6.5	2.5	15.8	6.7	15.0	10.7	19.2	26.9	78.5
Total	3.7	11.2	4.3	27.1	11.6	25.7	18.5	33.0	46.3	135.0

Totex spend for the year ending 31 March 2019 was £232.7m compared to an Ofgem cash allowance of £229.8m in 2012/13 prices. Expenditure was higher than the previous year as the network investment programme was progressed and significant progress was made in delivery of priority projects (CLASS, QOS 2, NMS) that will deliver cost efficiencies and improved network reliability in the second half of ED1 as well as supporting the transition to DSO and the low carbon future.

In the first four years of the RIIO ED1 period we spent £885.2m on operating and managing the network; this is compared to an allowance of £919.5m, 4% lower than allowance before taking delivery of outputs into account. Making the appropriate adjustments for timing of delivery compared to the original Business Plan submitted in 2013 is therefore important to assess performance. An Enduring Value adjustment of £12.0m has been included to take into account such timing differences, generating underlying totex outperformance of £46.3m, 5%. Of these savings, £19.4m is returned to customers.

Key to delivering totex efficiencies are the intelligent application of the CNAIM, innovative ways of improving and simplifying work processes, as well as strong cost management, and productivity improvements. We focus on the use of innovation in process and technologies to deliver network outputs, enhanced resilience and public safety improvements at a lower cost, allowing benefits to be shared with our customers.

The Enduring Value methodology and adjustments are outlined in Appendix 1. The most significant elements of the calculation are the deferral of load related expenditure into the second half of ED1 offset by advanced delivery of the asset replacement network investment programme. Load related expenditure has been below allowances where in general, demand increases have not warranted the forecast level of reinforcement interventions in the first four years of RIIO-ED1. We are however in the planning stages for a number of major infrastructure investments in the Greater Manchester area which will require significant increases in capacity and we expect the load related spend to significantly increase in the second half of ED1.

Through intelligent and targeted investment of our asset replacement and refurbishment programme, we have delivered 7.1m risk points of our 11.5m risk point target agreed with Ofgem in the first four years of RIIO-ED1 (61% of the ED1 target). The recognition of the acceleration of this spend against allowances is the other significant part of the enduring value adjustment.

4.5. Innovation performance

Innovation is key to the success of ENWL. We seek to innovate every day across all our business activities to ensure that we can respond to the evolving needs and expectations of our customers in an increasingly uncertain energy future. All of our innovation projects are aligned with our innovation strategy – to maximise the use of our existing network, and combine new technology and creative thinking to provide real solutions to real problems.

We do this by embracing the opportunities provided by:

- New technologies
- New business and commercial models
- Our regulatory framework and incentives.

To ensure we have a balanced portfolio of projects and achieve the best overall outcomes for our customers, we have identified six key innovation themes which relate to the challenges of the low carbon future and to our Business Plan. Each of our projects is designed to support one or more of these themes:

1. Safety and environment

We will strive to continuously improve safety and reduce the impact on the environment.

2. Network resilience

We will improve network performance and reduce risk.

3. Capacity

We will maximise the use of existing assets to increase demand and generation capacity.

4. Efficiency

We will provide our existing services at a lower cost.

5. Customer service

We will improve our customers' experience and offer new services along with more choices.

6. Commercial evolution

We will change our role from network operator to system operator.

We seek collaboration with partner organisations to work together to find innovative these solutions.

In the last financial year, we have continued to use innovative solutions within the business to reduce costs and avoid reinforcement.

Following the successful Smart Street (Network Innovation Competition - NIC) project, we applied for an adjustment to the RIIO-ED1 price control, under the Innovation Roll-out Mechanism (IRM), to facilitate the deployment of the Smart Street system. This will bring energy savings of up to 8% to customers within the deployment areas and as such have a material beneficial impact on their costs. The installation of this system will also allow for the connection of greater penetrations of low carbon technologies (LCTs) before it becomes necessary to reinforce the network. The Smart Street system should be able to save around £45k per substation in avoided reinforcement costs and is expected to lead to a reduction in CO2 of 16,700 tonnes within the RIIO-ED1 period.

The impact of innovation in the RIIO-ED1 price control is continuing to grow. The latest benefits are shown below.

CLASS

During the year, site installations have passed the half way point of planned numbers, additional integration to Nation Grid Electricity System Operator (NGESO) has been completed and multiple services, including firm fast reserve, optional fast reserve and secondary response have been and are being provided to NGESO on a regular commercial basis using the CLASS technologies. We can use CLASS internally to reduce peak demand and avoid the need for reinforcement which will also lead to environmental benefits. We are well positioned to deliver long term firm services in these markets.

Several Network Innovation Allowance (NIA) projects have completed in the last financial year. This has led to their findings being adopted in to business as usual; see below for details:

Value of Lost Load (VoLL)

This project attempts to monetise the effects of loss of electricity and is the fundamental value which underpins key regulatory metrics. Historically the Value of Lost Load (VoLL) has been set as a single figure “vanilla VoLL” and applied at a national level. DNOs use a range of decision support models in their investment decision making and Ofgem use the concept of VoLL to calibrate regulatory incentives on network performance. For example, the current single national standard figure for VoLL is used as the parameter to set the marginal rate at which consumers value the avoidance of power cuts within the RIIO-ED1 Interruptions Incentive Scheme (IIS). This rewards or penalises DNOs for deviations in power cut performance against pre-set targets. As a result it is also used in models which evaluate the potential risks and benefits to the DNO of changes in power cut performance as a consequence (either primarily or incidentally) of investment. In Ofgem’s RIIO-ED1 Cost Benefit Analysis (CBA) model it is the defined calibration of the customer performance benefit and in the CNAIM it is used as the monetised definition of the network performance risk parameter.

The VoLL project involved large scale empirical research of over 6,000 customers across Great Britain and has quantified the variables that influence VoLL. The findings show that overall VoLL has increased significantly since it was last studied in depth and the results also suggest that VoLL will increase further with the widespread uptake of low carbon technologies. The analysis also identified the extent to which VoLL estimates vary between domestic and business customers and reveals the considerable variations that exist in the sub-segments of these two main customer groups.

This divergence is not reflected in a vanilla VoLL and the results therefore suggest that the single VoLL model may no longer be appropriate. However, this empirical research can only be applied in

practice if it is integrated into the relevant regulatory mechanisms, which currently include a 'hard coded' approach to VoLL in the investment decision models, which DNOs use as an industry standard. As a result, any new VoLL approach will need to be adopted on an industry wide basis. The effect of adopting a new VoLL would be a "game changer" in the industry, and, ahead of RIIO-ED2, We will conduct further exploration to understand how decision-making approaches and incentive mechanisms should be adapted to incorporate disaggregated VoLL values, to reflect diversity.

Enhanced Voltage Control

The aim of this project was to define the technical requirements to allow a national rollout of the CLASS learning. The project also provided new automatic voltage control (AVC) settings for generator connections and investigated a technical solution to enable the offering of voltage managed connections for generators. These voltage managed connections allow more low carbon generators to connect improving low carbon targets. Following completion of the project we are now about to publish a new voltage control policy and a functional specification for voltage managed connections.

Reliable, Low Cost Earth Fault Detection for Radial OHL System Faults

This project completed in 2018. Based on the learning from the project, we are planning to modify our operations through the use of overhead line Fault Passage Indicators (FPI) devices to locate faulty 11kV circuit sections more quickly. The method is now ready to be used and implemented as part of our business as usual operations. Through scaled deployment of the devices, the overhead line FPI devices have been integrated into our new Network Management Systems. This unlocks the potential to use the devices as part of our Automatic Restoration Scheme (ARS).

ATLAS

The ATLAS project also completed in 2018 and has led to an update in our Electricity Policy Document (EPD) 289 'Annual Demand and Generation Scenarios'. Critical updates include the time-series forecasting capabilities instead of peak demand modelling, the consideration of confidence factors around accepted and quoted demand connections, the adoption of general principles of the ATLAS approach in reactive power forecasting (e.g. network modelling and inclusion of energy storage in true and latent demand definitions).

The prototype tools developed during ATLAS are now supporting demand forecasting and have become business as usual. These tools have allowed the production of half-hourly through year forecasts for demand, generation and storage that allow us to consider effects of future trends of LCTs, as well as baseline domestic, commercial and industrial demand on shifting peak demand at different times across different seasons. It defines the type of rating (i.e., continuous or cyclic) that should be used to assess available capacity. Combined with tools produced by other projects (e.g. the Real-Options CBA developed under Demand Scenarios NIA project), ATLAS has resulted in using well informed peak demand forecasts in losses assessments to make decisions on reinforcement interventions (e.g., flexible services vs. traditional reinforcements).

4.6. Financing and Net Debt position

£m 12/13	Actuals	Actuals	Actuals	Actuals	Forecast	Forecast	Forecast	Forecast	Cumulative to 2019 £m	RIIO-1 period £m
	2016 £m	2017 £m	2018 £m	2019 £m	2020 £m	2021 £m	2022 £m	2023 £m		
Assumed regulatory finance cost at actual gearing	31.5	19.4	2.3	10.8	12.1	10.0	8.0	7.5	64.0	101.6
Assumed regulatory finance cost at notional gearing	33.5	20.7	2.5	11.2	12.6	10.6	8.6	8.1	67.9	107.8
Forecast revised Cost of Debt Allowance	24.9	23.8	22.6	20.8	19.5	18.6	17.8	17.1	92.2	165.2
Cost of Debt out(under)performance at actual gearing (pre tax adjustment)	(11.0)	(9.8)	(3.7)	(6.1)	(6.5)	(9.3)	(9.4)	(9.5)	(30.6)	(65.4)
Cost of Debt out(under)performance at notional gearing (pre tax adjustment)	(13.2)	(12.0)	(5.6)	(7.3)	(7.6)	(10.9)	(11.4)	(11.7)	(38.1)	(79.7)
Impact on out(under) performance relating to deviating from notional levels of gearing (pre tax adjustment)	2.2	2.2	1.8	1.2	1.1	1.6	2.0	2.1	7.4	14.3
Notional Gearing	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
Actual Gearing	61.2%	61.0%	60.8%	62.3%	62.3%	61.4%	60.6%	60.2%	61.3%	61.2%
Average Net Debt (per Regulatory Definition)	920.9	922.5	924.2	955.5	964.9	964.2	965.3	969.4	930.8	948.4
Equity RAV	583.8	590.1	596.6	578.1	584.9	606.3	626.5	641.0	587.2	600.9
Adjusted RAV - including latest forecast and Enduring Value adjustments	1,504.7	1,512.7	1,520.9	1,533.6	1,549.8	1,570.6	1,591.8	1,610.4	1,518.0	1,549.3

Our debt structure comprises of the following debt and hedging instruments:

Debt Instruments

- £450m 8.875% fixed rate bond maturing in 2026. An original bond issuance of £200m was transacted in 1995, followed by three re-taps issued at varying premia between July 2001 and February 2002. All issuances have been separately included in the RFPR tables, in-line with the guidance provided.
- £100m 1.4746% +RPI index linked bond maturing in 2046
- £75m 1.656% + RPI index linked loan from EIB maturing in 2024
- £60m 1.51% + RPI index linked loan from EIB maturing in 2024
- £50m 0.38% + RPI index linked loan from EIB maturing in 2032
- £50m 0% +RPI index linked loan from EIB maturing in 2033
- £200m 6.125% fixed rate back to back bond from ENW Finance plc maturing in 2021 (ENW Finance plc being a special purpose vehicle set up with the sole purpose of raising bond finance for ENWL)
- £75.3m of various intercompany loans at differing fixed nominal rates issued maturing in 2023. All rates were set as third party market rates at the time of issue
- £50m revolving credit facility which remained undrawn at year end

Hedging Instruments

- A set of RPI swaps totalling £200m (receive fixed to 2021, floating to 2038, Pay RPI to 2038, which cumulatively hedge the £200m fixed rate inter-company debt (ref C6) maturing in 2021. After this debt is refinanced, these swaps will continue to hedge the replacement debt until 2038, hence the maturity date of the swaps of 2038 and the change from fixed to floating interest receivable from 2021. These swaps are structured on a PAYG basis, with accretion payable at either five or seven year intervals, dependant on the swap. All interest rates were competitively negotiated at inception of each instrument.
- A set of RPI swaps totalling £100m (Receive fixed to 2026, floating to 2050, pay RPI to 2050) which have the cumulative impact of hedging £100m of the £250m fixed rate debt maturing in

2026. Similar to above, these swaps mature in 2050 and it is our intention to use them to hedge future debt. These swaps are structured on a PAYG basis, with accretion payable at ten year intervals, from 2030.

Without these hedging instruments, the proportion of nominal fixed and floating debt to index-linked debt would be 66%:34%. With these financing instruments in place, the proportion of nominal fixed and floating debt to index-linked debt is 30%:70%, in line with our treasury policy guidance for the proportion of index-linked debt held by the company, as approved by our Board.

The real interest coupon payable on index-linked financing is aligned with the real debt allowance (and RAV RPI indexation) received under the RIIO framework. Holding a high proportion of index-linked finance minimises the cash flow mismatch between the inflation expectation ‘wedge’ built into nominal fixed interest payments and the actual, variable RPI outturn.

Forecast Debt issuance summary

Date of Issue	Amount	Interest Rate Assumption	Financing Rationale
<i>ED1</i>			
2019/20	£200m	3.42% nominal	Refinance of £200m 6.125% 2021 bond
	£150m	0.45% index-linked	Raise finance for £150m incremental debt requirement. Due to minimum issuance size of £250m, this finance raise is assumed to happen in conjunction with the refinance of the £200m 2021 bond
2022/23	£300m	2.81% index-linked	£189m refinance of £135m EIB index linked debt - assumed to have accreted to £189m £111m finance raised to £111m incremental debt requirement. Due to minimum issuance size of £250m, this finance raise is assumed to happen in conjunction with the refinance of the £135m EIB index-linked debt
2022/23	£75.3m	5.97% nominal	Intercompany loans maturing March 2023 refinanced with like for like intercompany loans at an arms length, market rate basis
<i>Note: Forecast debt financing in ED2 is provided for information only below and is not included in the RFPR data tables</i>			
<i>ED2</i>			
2024/25	£450m	6.02% nominal	Refinance of £450m 8.875% 2026 bond
	£150m	2.86% index-linked	Raise finance for £150m incremental debt requirement. Due to minimum issuance size of £250m, this finance raise is assumed to happen in conjunction with the refinance of the £450m 2026 bond

Debt performance

On an actual gearing basis our cost of debt underperformance is £30.6m for the first four years of the price control and expected to be £65.4m cumulatively for RIIO-ED1. Our underperformance is due to the mechanics of the current debt allowance, which give rise to the following:

- We have large embedded debt costs (£450m bond finance raised pre 2005) which pre-date the current trailing average mechanism. As this debt matures in 2026, this represents an ED1 problem, which will only impact two and a half years of ED2.
- Due to our size as a small DNO, we are unable to raise 1/20th of our debt every year to match the current trailing average mechanism allowance, due to minimum issuance sizes in the markets.
- Debt with longer maturities of over 20 years are common within infrastructure, and help us to manage liquidity risk in particular, as well as ensuring market-backed sizes and reducing double handling.
- The pricing of smaller debt issuances is often at a premium to larger, issuances. There is no adjustment for this ‘small company premium’ within the current debt allowance.

- ENWL is an efficient, well performing company with gearing below notional level, but is rated BBB only. However, the trailing average mechanism uses a blend of iBoXX A and iBoXX BBB indices to estimate reference debt pricing.
- There is no allowance for the debt carry costs of refinancing ahead of debt maturity (“double-handling”) within the trailing average mechanism. In order to support our investment grade credit ratings, we need to refinance in advance of our maturities.
- The trailing average mechanism assumes that debt is raised at the average annual pricing level. Debt pricing can fluctuate materially within the year. Again this can create windfall gains or underperformance due to lucky timing rather than good management performance.
- The debt mechanism strips out an estimate of forward RPI from the nominal cost of bonds, at the point of issuance. The RAV is then inflated by actual RPI. In those years where RPI inflation is low, and to the extent that there is no hedging in place, debt underperformance takes place.

Overall, we consider the current cost of debt allowance methodology to favour the ‘lucky’ – those who have been lucky in their timing of refinancing and issuance, and the ‘large’ – larger, higher investment rated companies who are able to access the market more frequently with larger amounts.

4.7. Taxation

12/13 prices	Actuals	Actuals	Actuals	Actuals	Forecast	Forecast	Forecast	Forecast
	2016	2017	2018	2019	2020	2021	2022	2023
	£m	£m	£m	£m	£m	£m	£m	£m
Adjusted forecast regulated tax liability with timing differences	25.6	28.1	16.3	23.1	28.6	23.1	20.5	16.5
Revised regulated tax liability for comparison against allowance	25.2	27.8	16.3	23.0	28.4	23.0	20.4	16.3
Net forecast tax allowance	20.9	26.5	20.2	18.9	19.4	18.5	17.6	17.4
Regulated tax out(under) performance at actual gearing (pre adjustment for financing)	(3.2)	0.6	5.7	(1.1)	(4.7)	(0.4)	1.3	4.7
Regulated tax out(under) performance at notional gearing (pre adjustment for financing)	(2.8)	0.8	5.7	(1.0)	(4.6)	(0.3)	1.4	4.9
Impact on out(under) performance deviating from notional levels of gearing (pre adjustment for financing)	(0.4)	(0.3)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)

The adjusted forecast regulated tax liability with timing differences has been calculated by taking the actual tax liability (per the CT600) or the forecast tax liability (per the statutory accounts for 2018/19 and per our forecasting model for subsequent years) and adjusting for tax in relation to non-regulated activities or items excluded from the Price Control Financial Model (PCFM).

We have a gearing level which in any given year is circa 3 to 5% less than the gearing level used to calculate the tax allowance and, as a result, each year we report a lower tax performance at actual gearing level than at notional gearing level.

The revised regulated tax liability for comparison against allowance represents the tax liability that would have arisen had the actual gearing level been at the same level as the notional gearing.

The forecast tax allowance has been calculated using an extended PCFM, including Enduring Value adjustment.

In 2015/16, there was a tax under-performance. Actual net revenue (revenue less operating costs) was higher than the PCFM, leading to a higher actual tax charge.

In 2016/17, there was a tax out-performance. Although actual net revenue was higher than the PCFM, the collected revenue adjustment for this period resulted in a tax out-performance.

In 2017/18, there was a tax out-performance, with actual net revenue being lower than the PCFM.

In 2018/19, there was a tax under-performance, with actual net revenue being higher than the PCFM, leading to a higher actual tax charge.

The difference in the capital allowances between the PCFM and the actual CT600 will comprise two elements: being the difference between how the capital allowances are calculated between the PCFM and the CT600; and the difference between actual capital expenditure and expected capital expenditure.

For this RFP we have not split these out due to the complexity involved and the full difference has been included within the revised regulated tax liability for comparison against allowance.

4.8. RAV

<i>12/13 prices</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
	2016	2017	2018	2019	2020	2021	2022	2023
	£m	£m	£m	£m	£m	£m	£m	£m
Opening RAV (before transfers)	1,526.2	1,539.0	1,541.0	1,554.6	1,564.9	1,586.2	1,606.0	1,628.3
Opening RAV (after transfers)	1,526.2	1,539.0	1,541.0	1,554.6	1,564.9	1,586.2	1,606.0	1,628.3
Net additions (after disposals)	159.0	144.9	154.5	157.1	155.6	153.1	153.0	143.9
Net additions (after disposals) - enduring value adjustment	1.4	6.3	0.0	(7.6)	1.9	0.5	1.2	0.5
Total Net Additions	160.4	151.1	154.5	149.5	157.5	153.6	154.1	144.4
Depreciation	(147.7)	(149.1)	(140.6)	(138.9)	(136.2)	(133.7)	(131.6)	(129.8)
Total Depreciation	(147.7)	(149.1)	(140.9)	(139.2)	(136.3)	(133.8)	(131.8)	(130.0)
Adjusted Closing RAV	1,539.0	1,541.0	1,554.6	1,564.9	1,586.2	1,606.0	1,628.3	1,642.8

Regulatory asset value (RAV) effectively reflects the part of totex costs that are not immediately chargeable to the customer via allowed revenue, thereby spreading costs between current and future generations. Our adjusted closing RAV as at 31 March 2019 is £1.6bn in 12/13 prices. This number is expected to increase in comparable price base as we continue to invest in the network. RAV has also been adjusted in table R9 as a result of the adjustment to totex for Enduring value. Please see the enduring value section in Appendix 1 for further details.

4.9. Dividends

<i>Nominal prices</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>
	2016	2017	2018	2019
	£m	£m	£m	£m
Dividend paid as per Statutory Accounts	30.0	81.0	75.6	46.3

In the year ended 31 March 2019 the Company declared and paid a final dividend for the year ended 31 March 2018 of £16m, paid in June 2018, and an interim dividend of £30m that was paid in December 2018. In the year ended 31 March 2018 the Company declared a final dividend for the year ended 31 March 2017 of £12m, paid in June 2017, and an interim dividend of £63.6m that was paid in December 2017. The dividends are paid from the available cash in each financial year at semi-annual intervals, with reference to the forecast business needs, the Group's treasury policy on liquidity, financing restrictions, applicable law in any given year and the Company's licence obligations. We continue to invest in our network, aiming to deliver optimal performance for our stakeholders. We focus on delivering business performance throughout the RIIO-ED1 period that is both strong and continuously improving.

4.10. Pensions

<i>12/13 prices</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>	<i>Actuals</i>
	2016	2017	2018	2019
	£m	£m	£m	£m
Established deficit element funded via specific allowances	10.4	10.3	15.1	15.0
Established deficit (EDE) allowance as per PCFM	15.8	15.8	15.8	11.6

<i>Latest pension scheme valuation</i>	<i>31/03/2016</i>
<i>Price base</i>	<i>2015/16</i>
	£m
Total Liabilities attributable to post cut-off date notional sub fund	116.4
Total Liabilities attributable to pre cut-off date notional sub fund	1,232.6
Total Assets attributable to post cut-off date notional sub fund	113.7
Total Assets attributable to pre cut-off date notional sub fund	1,092.7
Deficit in the post Cut-Off Date Notional Sub-Fund	2.7
Deficit in the pre Cut-Off Date Notional Sub-Fund	139.9
Licensee element of established deficit	2.7
Licensee element of incremental deficit	139.9

We have reported the pension deficit payments as per the reasonableness review submission in August 2017 as part of the 2016 pension deficit valuation review which takes place every three years. The next valuation will take place as at 31 March 2019 (with reporting due August 2020).

We continue to monitor the performance of the pension funds with the funding rate at 31 December 2018 being approximately 93%.

Formal pension funding documents can be requested from the ENW Pensions Department.

5. Data assurance statement

While we have applied the principles of Ofgem's data assurance guidance we also note the element of judgement required in preparing the forecasts until the end of the RIIO-ED1 period. We have also used certain assumptions regarding the RIIO-ED1 close out methodology in arriving at the Enduring Value adjustment, thus having an impact on our RoRE forecast. The submission has been subject to expert and second person review, and signed off by the Chief Financial Officer.

6. Appendices

6.1. Appendix 1 - Enduring Value Methodology

Overview

Enduring value (EV) is an adjustment made to totex performance by licensees to reflect the true value of the performance over the course of the price control. The adjustment reflects the estimated value of the impact of decisions that impact future value. Adjustments should be made for the known or estimated value of close out mechanisms and to reflect timing differences in delivery for example, expenditure in advance or lagged from the timing of the allowance received.

For ENWL, the two most material items impacting the enduring value are:

1. The timing of load related expenditure which is profiled more heavily in the second half of ED1 in the latest approved Business Plan (CBP19).
2. Over delivery of risk points at the end of year 4, 61% of outputs delivered for less than 50% of the cost, resulting in recognition of accelerated delivery against allowances

Enduring Value Methodology

The approach to Enduring value by core category is outlined below:

Totex category	Expenditure Type	Basis of EV calculation
Non Load	Asset replacement and refurbishment	Enduring value adjustment created on basis of progress against risk point targets. If risk point delivery is on track, no adjustment is made. Adjustments are made to reflect over or under delivery of risk points using the actual and forecast unit rate.
	Expenditure related to a Business Plan commitment	Any expenditure behind planned delivery will be included in the EV calculation e.g. Delayed delivery of pinch points
	Other Network Investment (e.g. Flood mitigation, legal and safety, Rising & lateral mains etc.)	Current under / over spends vs. allowances fall into the EV calculation to the extent they unwind over ED1. Adjustments in FY19 included: timing of delivery of RLM, flooding delays due to storms Desmond / Eva
Load Related expenditure	Reinforcement expenditure (Distribution and connections) less customer contributions	Three elements of calculation: <ul style="list-style-type: none"> • Impact of higher / lower customer contributions recognised in the year they occur

Totex category	Expenditure Type	Basis of EV calculation
		<ul style="list-style-type: none"> • Proportional recognition of overall forecast ED1 efficiency i.e. 4/8 of forecast ED1 efficiency was recognised at March '19 • The balance of expenditure variance, relating to timing, falls into EV being the variance to date we expect to unwind during ED1.
Network Operating Costs	Troublecall / I&M / cut outs (non smart)	<p>Adjustments only in exceptional circumstances – out/underperformance in year taken to RoRE.</p> <p>Adjustment applied dependent on separate scrutiny of individual components in light of events affecting the network – storm-related repairs, etc.</p> <p>Separate consideration for Business Plan commitments and other internal programmes such as annual tree cutting profiles</p>
Business Support / Closely associated Indirects		<p>Adjustments only in exceptional circumstances – out/underperformance in year taken to RoRE.</p> <p>Under / over spend recognised in year with adjustments only for exceptional events. In ENWL's case, the element of the insurance claim receipt from the December 2015 storms which relates to future expenditure to improve flood defences has been treated as an enduring value adjustment in the past.</p>
Non Operational Capex	Non Operational IT / Fleet / Logistics / accommodation	<p>Adjustments only in exceptional circumstances – out/underperformance in year taken to RoRE.</p> <p>General principle is that under or overspend is recognised in the year it arises. Adjustments limited to specific large projects where acceleration or deferral has occurred.</p>
IT&T Capex	Operational IT	<p>Adjustments only in exceptional circumstances – out/underperformance in year taken to RoRE.</p> <p>General principle is that under or overspend is recognised in the year it arises. Adjustments limited to specific large projects where acceleration or deferral has occurred, in our case acceleration of an operational IT system (NMS).</p>
Uncertainty mechanisms		Adjustments made to include expected impact of close out mechanisms requires definition of close out

Totex category	Expenditure Type	Basis of EV calculation
		<p>mechanism.</p> <p>ENWL impact:</p> <p>NOMS – no adjustment as risk points delivery expected to be in line with target</p> <p>Street-works – value included in EV calculation as per submission in May 2019 – Note for SPO this is shown as an adjusted allowance and not EV so as not to distort totex outperformance assessment</p> <p>Smart meters – allowed revenue</p> <p>Load reopener/ net to gross: Innovation offset identified at the time of reporting to Ofgem is considered in assessing the impact of close out mechanisms</p> <p>No other close out or uncertainty mechanisms impact is expected</p>

Other assumptions

1. Close out mechanisms are reflected on the basis of information available at the time and clarity of close out mechanisms
2. Non-totex costs are excluded from the enduring value calculation.

Summary of position at 31 March 2019

Enduring value Summary £m	Cumulative 2019
Load Related Costs	23.7
Non Load Capex - Asset replacement	(33.2)
Other Non Load Capex (excluding Non Op C Non Op Capex	1.7
High Value Projects	-
Moorside	-
Network Operating Costs	-
Closely Associated Indirects	-
Business Support Costs	1.0
Atypicals Non Sev Weather (Totex)	-
Costs within Price Control (in Totex)	(6.8)
Streetworks reopener	(5.1)
Combined EV (including streetworks)	(11.9)

6.2. Appendix 2 - Net Debt Forecasting Assumptions

Our Net Debt forecast is based on a retained gearing position of 63% RAV, allowing for 2% headroom against the regulatory assumption of an efficient DNO.

In the nine years to 31st March 2028, ENWL has the following debt maturities requiring refinancing:

- £75.3m of various intercompany loans at differing fixed nominal rates issued maturing in 2023. £200m 6.125% fixed rate back to back bond from ENW Finance plc maturing in 2021 (ENW Finance plc being a special purpose vehicle set up with the sole purpose of raising public issued bond finance for ENWL).
- £75m 1.656% + RPI index linked loan from EIB maturing in 2024.
- £60m 1.51% + RPI index linked loan from EIB maturing in 2024.
- £450m 8.875% fixed rate bond maturing in 2026

In addition, there is capacity for incremental borrowings, which have been forecast based on business need and with reference to expected RAV growth, maintaining the 63% RAV gearing target.

The key assumptions used in modelling the debt and financing costs are as follows:

- **Refinancing rate and issuance costs.** For all refinances and forecast incremental borrowings up to 2024/25, the interest rate costs are derived from the Ofgem forecast trombone allowance. Ofgem have provided forecasts of a blend of iBoXX A and iBoXX BBB real cost of debt within their calculations, which we have then amended to assume issuance at the rate applicable to iBoXX BBB, which represents our credit rating, as opposed to the allowance mechanism of a blend of iBoXX A and iBoXX BBB. Obviously actual performance will be dependent upon the markets at the time of refinance and as the forecasts used by Ofgem are very low actual rates at the time of refinance may well be higher.

Post 2024/5 Ofgem data is not available, therefore we have derived the index-linked interest costs using an assumed rate reversion to a risk free rate of 1% plus spread to reflect a BBB rating. Nominal interest rates are then calculated using an Ofgem inflation rate assumption of 3.08% held flat.

As a working assumption only, transaction costs equal to 1% of the principal issued have been modelled. This has been modelled as a coupon uplift of 5bps on the assumed BBB spread, reflecting amortisation over a 20-year tenure. The level of transaction costs vary significantly depending on financing instrument, issuance size and market conditions. Historically, ENWL has experienced issue costs of up to 2.5% of issuance size.

- **Debt issuance timing.** All external debt is assumed to be refinanced 18 months before the existing maturity date to reflect our treasury policy and manage liquidity risk in order to maintain our investment grade rating. This inherently includes 'double-handling' costs for this period necessary to minimise our liquidity risk exposure. The 18 months is set to manage liquidity concerns against debt investors. At the time of refinance we would look to implement a forward starting debt product to mitigate these double handling costs whilst managing liquidity concerns.

The £75.3m inter-company loan has been borrowed in instalments from the parent company, North West Electricity Networks plc. This is not directly linked to external debt and, as such, is forecast to be refinanced on maturity in March 2023, without double-

handling, at the same amount. All intercompany borrowings are made on an arms' length basis, reflecting market rates at time of drawing,

- **Issuance size.** In order to access the debt markets efficiently, we base our figures on a minimum issuance size of debt of £250m. Therefore, we have aligned our incremental debt requirements with our other refinances:
 - £150m of incremental new debt is assumed to be raised with the refinance of our £200m 6.125% 2021 bond, such that we have assumed a total finance raise of £350m in 2019/20, £200m on a nominal basis and £150m on an index-linked basis.
 - Approximately £100m of incremental new debt is assumed to be raised with the refinance of our £135m RPI linked EIB debt maturing in February 2024; with a forecast indexed value of approximately £200m. In accordance with our Treasury policy, this debt is forecast to be issued 18 months ahead of maturity, in August 2022. We have assumed a total finance raise of £300m on an index-linked basis.
 - £150m of incremental new debt should be assumed to be raised with the refinance of our £450m 8.875% 2026 bonds. As this would occur during ED2, this refinancing has not been included in the RFPR data tables.
- **Nominal and index-linked debt.** Any refinancing of existing debt is assumed on a like-for-like interest mix basis – i.e. fixed rate debt is replaced by fixed rate debt. The refinancing of new external debt is all assumed to be index-linked on a RPI basis to reduce risk.

6.3. Appendix 3 - Methodology notes for completion of Net Debt and Financing tables

In completing the tables, we have made the following assumptions:

- Following the adoption of the IFRS9, the ENWL £250m bonds maturing 2026 is now held at amortised cost rather than fair value. The bonds were issued in three tranches across 2001-2002, at a premium to principal. This accounting change impacts the RFPR and the RoRE calculation in two areas.
 - Firstly, the regulatory debt has increased reflecting the unamortised premium on issuance.
 - Secondly, the annual amortisation of the remaining premium reduces ENWL financing costs.
- The reporting approach and standards are being developed over time for this new regulatory reporting pack. As a result of recent developments, the resultant financing charge is more reflective of the effective financing rate on issuance. While IFRS9 is only effective for the year ending 31st March 2019 onwards, we have chosen to include a retrospective adjustment for the first three years of ED1 to ensure performance is consistent across the regulatory reporting period. These changes have had the impact of increasing the reported return and debt performance in the RFPR.
- The Net Debt per Regulatory definition excludes debt fair value adjustments and the fair value of the derivative. It also excludes any restricted cash balances. Movements in future

fair values or restricted cash balances have not been forecast, therefore, the actual 2018/19 figures have been held flat in the forecast.

- The cash balance in ED1 is forecast to be maintained at, or above, a minimum acceptable level for working capital requirements. In some years it could be significantly higher due to liquidity requirements and maturing debt instruments being pre-funded (see above). We have made no attempt to forecast a change from RPI-linked debt to CPI(H)-linked debt – despite noting the likelihood of moving away from a full RPI framework for RIIO-ED2. The move to CPI H will introduce basis risk (i.e. the variability of the difference between RPI and CPI (H) over time).
- Table E shows trading and rechargeable balances between ENWL and other Group companies. These balances are all relatively small and have been held flat for forecasting purposes. These are reversed out on row 328 before arriving at ‘Total Net Debt Per Regulatory Definition’.
- To calculate proportions of debt which are fixed / floating / index-linked on a pre and post-hedging basis, we have excluded the retained cash balances from the Total Net Debt subtotal in order to provide a meaningful split. If these balances are included (presumably on a floating basis), then during periods of ‘double-handling’ when the cash balances are significant, the resultant proportions calculated can be negative and misleading. We therefore believe that the proportions shown are more helpful and reflective of our underlying interest rate exposures.
- Whilst we have no outstanding floating rate debt, the interest receive legs under some of our swaps are linked to 6 month LIBOR. For forecasting purposes, LIBOR has been assumed at an increasing curve starting at 2.6% in 2021/22 (the first year LIBOR has an effect) to 3% in 2022/23 and then 4.11% flat throughout ED2. This ED2 forecast has been aligned to our underlying nominal gilt assumption for consistency.

7. Glossary

BEIS	Department for Business, Energy and Industrial Strategy
CI	Customer Interruptions
CLASS	Customer Load Active System Services
CML	Customer Minutes Lost
CNAIM	Common Network Asset Indices Methodology
CSAT	Customer Satisfaction
DNO	Distribution Network Operator
DSO	Distribution System Operator
ENWL	Electricity North West Limited
EV	Enduring Value
GEMA	Gas and Electricity Markets Authority
GRESB	Global Real Estate Sustainability Benchmark
GSoP	Guaranteed Standard of Performance
IFRS	International Financial Reporting Standard
NMS	Network Management System
Ofgem	Office of Gas and Electricity Markets
PSR	Priority Services Register
PCFM	Price Control Financial Model
RAV	Regulatory Asset Value
RFPR	Regulatory Financial Performance Reporting
RIIO	Revenue using Incentives to deliver Innovation and Outputs
RIIO - ED1	Revenue using Incentives to deliver Innovation and Outputs – Electricity Distribution 1
RIIO – ED2	Revenue using Incentives to deliver Innovation and Outputs – Electricity Distribution 2
RoRE	Return on Regulated Equity
RPI	Retail Prices Index - a UK general index of retail prices (for all items) as published by the Office for National Statistics (January 1987 = 100).
SECV	Stakeholder Engagement and Customer Vulnerability
tco_{2e}	Tonnes of Carbon Dioxide Equivalent
Totex	Total expenditure