RP7 - NIE Networks Price Control 2025-2031

Draft Determination Annex A

Overview of NIE Networks RP6 Performance

November 2023

About the Utility Regulator

The Utility Regulator is the economic regulator for electricity, gas and water in Northern Ireland. We are the only multi-sectoral economic regulator in the UK covering both energy and water.

We are an independent non-ministerial government department and our main duty is to promote and protect the short- and long-term interests of consumers.

Our role is to make sure that the energy and water utility industries in Northern Ireland are regulated, and developed within ministerial policy, as set out in our statutory duties.

We are governed by a Board of Directors and are accountable to the Northern Ireland Assembly.

We are based at Queens House in Belfast. The Chief Executive and two Executive Directors lead teams in each of the main functional areas in the organisation: CEO Office; Price Controls, Networks and Energy Futures; and Markets and Consumer Protection.

Our mission

To protect the short- and long-term interests of consumers of electricity, gas and water.

Our vision

To ensure value and sustainability in energy and water.

Our values

- Be a best practice regulator: transparent, consistent, proportionate, accountable and targeted.
- Be professional – listening, explaining and acting with integrity.
- Be a collaborative, co-operative and learning team.
- Be motivated and empowered to make a difference.

Abstract

This report reviews the performance of NIE Networks, against the previous price control targets that are set, subject to updating for the Uncertainty Mechanism and any additional projects that have been agreed during the price control for the period 1 October 2017 - 31 March 2025 (7 1/2 years). It provides a summary of costs and performance for the first 5 1/2 years of RP6.

Audience

Likely to be of interest to regulated companies, consumers, other regulatory bodies, government and other statutory bodies.

Consumer impact

This analysis provides information on cost and performance to date within RP6 and establishes a base line and context for reviewing the RP7 Business Plan submission as presented by NIE Networks.

Contents

Executive Summary

This Annex provides an overview of the performance NIE Networks in RP6 up to and including the year to 31 March 2023. RP6 allowances, targets and projections for a number of key areas are compared with out-turns values. Performance to date in RP6 provides information on how NIE Networks have performed recently which informs our decisions for RP7.

Some of the cost allowances and targets included in the RP6 Final Determination (FD) are adjusted through an Uncertainty Mechanism to account for actual delivery (for example, undereaves). The Uncertainty Mechanism also takes account of other adjustments to the RP7 price control such as additional investment to facilitate low carbon technologies (LCT's) which were approved after the final determination. This Annex compares outturn values with the adjusted allowances, targets and projections after the application of the Uncertainty Mechanism.

OPEX performance

The company has out-performed its cumulative OPEX allowance by 9.6% to 2022/23 and will retain half of this out-performance. A small element of the operating allowances in the RP6 price control is subject to a pass-through mechanism which allows NIE Networks to recover the costs incurred. But for the remainder (and majority) of OPEX, expenditure is subject to a cost risk sharing mechanism whereby the company retains 50% of any outperformance, and bears 50% of any cost overrun.

CAPEX performance

In relation to the period up to the 2022-23 year capex expenditure (and outputs) was lower than expected. NIE Networks have explained that its delivery was impacted by COVID 19 both in terms of restrictions in availability of resource / material and also because it had focussed our efforts on essential customer services. NIE Networks had anticipated increasing their outputs after the impact of COVID 19 to make up any shortfall arising.

However, NIE Networks is currently anticipating that there will be a level of carryover to complete its outputs in the 24 months following March 2025 and that it will continue to strive to do all that it can to achieve the outputs within the original timeframe and to minimise the level of carryover. NIE Networks have also noted that it expects costs to exceed allowances over the remaining years of RP6 due to significant and above inflation cost pressures driven by contractor rates and material prices, which will impact particularly in the delivery of the remainder of the RP6 Direct Capex programme.

Network Performance

NIE Networks has made significant improvements in performance in RP6 as measured by both planned and unplanned Customer Minutes Lost (CML). Performance in relation to supply interruptions also improved over the RP6 period.

Electricity Units Distributed

There has been a decline in electricity units distributed in the RP6 period. NIE Networks have highlighted that in the first few years of RP6, the annual variations in electricity consumption by domestic and business customers were minimal, with monthly fluctuations generally attributed to weather conditions and public holidays. NIE Networks consider that from 2020 social and economic factors played a more significant role in influencing the amount of electricity used by each market sector.

NIE Networks have forecast an increase in units of electricity supply in the RP7 period based on their best view of low carbon technology (LCT) uptake in the period for example a forecast of 300,000 EV's and 120,000 heat pumps installed in NI homes by 2031. We intend to monitor the level of LCT uptake during RP7 as well as the quantum of electricity units.

Cost and Performance Report

RP6 ends 31 March 2025 and the costs and performance report, along with the Uncertainty Mechanism, will be updated when actual results are available for the period 1 April 2023 and 31 March 2025.

1. Introduction

1.1 The RP6 price control covers the period 1 October 2017 to 31 March 2025. To enable a better understanding of delivery, we compare the allowances set against actual performance.

1.2 Reflection on company performance against previous allowances informs our view going forward and can highlight important or emerging issues for consumers in RP7.

1.3 In this annex we examine the performance of the electricity system performance in RP6, as well as an analysis of differences between cost allowances and actual costs. By its nature this analysis is high level as RP6 is incomplete. We intend to update this analysis for the RP7 final determination to take account of information for the 2023-24 year.

1.4 We will provide a full review of NIE Networks performance for the RP6 period in our cost reporting framework once we have received full cost and performance information for the period. We expect this will be in the 2025-26 financial year.

2. OPEX performance in RP6

2.1 The term 'Opex Costs' is used to distinguish the ongoing running costs of NIE Networks electricity system. For example, Opex Costs include: some maintenance costs, business rates, as well as some IT and staff costs.

2.2 Additional approved OPEX allowances are included: IA (injurious affection), Ap Levy (Apprenticeship Levy) and IT service costs for the period up to and including 2022-23. The 2023/24 and 2024/25 allowances are indicative only as not all allowances have been approved for this period.

2.3 A small element of the operating allowances in the RP6 price control is subject to a pass-through mechanism which allows NIE Networks to recover the costs incurred. But for the remainder (and majority) of OPEX, expenditure is subject to a cost risk sharing mechanism whereby the company retains 50% of any outperformance, and bears 50% of any cost overrun. This cost risk sharing mechanism incentivises the company to out-performance its OPEX allowance, and reveals new levels of performance which become the baseline for its RP7 Business Plan.

2.4 A comparison of RP6 OPEX allowances and expenditure to date is shown in Figure 2.1 below. The company has out-performed its cumulative OPEX allowance by 9.6% to 2022/23 and will retain half of this out-performance.

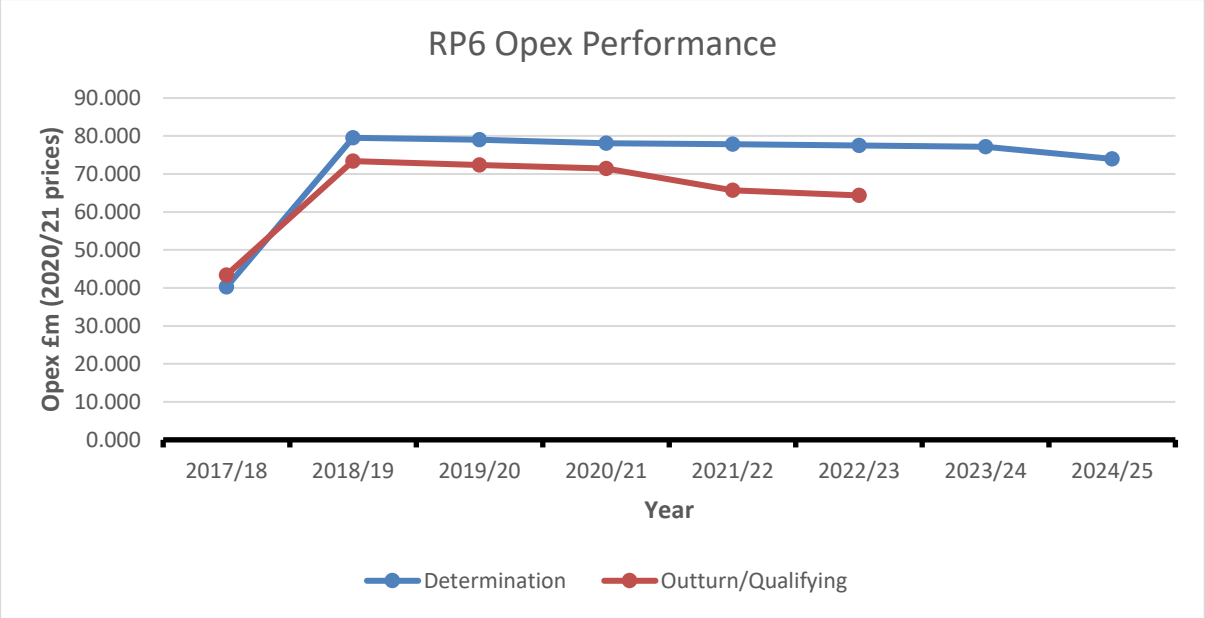


Figure 2.1 - RP6 OPEX performance

3. CAPEX performance in RP6

3.1 The term 'Capex Costs' is used to refer to new assets installed on NIE Networks electricity system. For example, Capex Costs include: the purchase and installation of new assets; replacing old assets; and connecting customers to the electricity network.

3.2 The capital expenditure allowances shown below in Figure 3.1 include the allowances determined in the RP6 final determination mechanisms and further allowances determined during RP6 under the D5[1], Change of Law and Low Carbon Technology (LCT[2]) re-opener mechanisms. This includes work on the “Green Recovery” initiative which will begin to provide the capacity necessary to deliver the Energy Strategy. It is possible that the allowances for the 2023-24 and 2024-25 years could in change if approvals are provided for further D5 projects in those years. D5 projects can carry material costs and therefore can significantly impact allowances.

3.3 In relation to the period up to the 2022-23 year expenditure (and outputs) was lower than expected. NIE Networks have explained that its delivery was impacted by COVID 19, both in terms of restrictions in availability of resource / material and also because it had focussed our efforts on essential customer services. NIE Networks had anticipated increasing our outputs after the impact of COVID 19 to make up any shortfall arising.

3.4 NIE Networks has also explained that as a result of factors such as global supply chain issues, which it considers has been exacerbated by a significant increase in demand from the industry as DNOs in the UK and Europe are embarking on much larger investment programmes to facilitate anticipated growth in Low Carbon Technologies, it is increasingly unlikely that it will be able to fully recover the shortfall in its delivery in the period to March 2025 (the extended RP6 period).

3.5 Therefore, NIE Networks is currently anticipating that there will be a level of carryover to complete its outputs in the 24 months following March 2025 and that it will continue to strive to do all that it can to achieve the outputs within the original timeframe and to minimise the level of carryover.

3.6 NIE Networks have also noted that it expects costs to exceed allowances over the remaining years of RP6 due to significant and above inflation cost pressures driven by contractor rates and material prices, which will impact

[1] The D5 mechanisms allows investment projects to increase transmission system capacity to be determined as the scope and timing is confirmed by SONI.
[2] The LCT (Low Carbon Technology) allowed the price control to be adjusted as the impact of LCT such as electrical vehicle and heat pump uptake developed.

particularly in the delivery of the remainder of the RP6 Direct Capex programme.

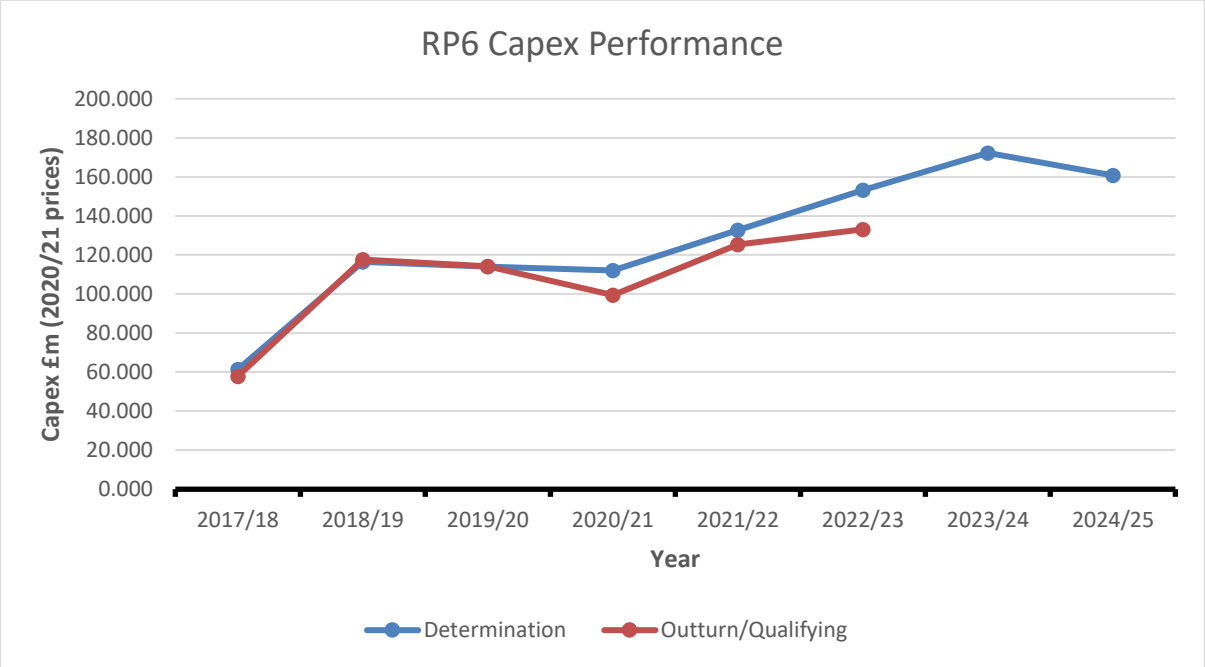


Figure 3.1: RP6 CAPEX performance

4. RP6 Network Performance

4.1 It is important to consider how the electricity system is performing, in order to give a more meaningful picture of efficient investment.

4.2 NIE Networks Distribution and Transmission licences direct the company to provide an annual system performance report which is the source of our monitoring data. Under the requirements of Condition 19 of the Electricity Distribution Licence and Participate in Transmission Licence granted to Northern Ireland Electricity Networks Ltd, the company submits to the Utility Regulator, a System Performance Report on an annual basis. NIE Networks also publishes this report on its website[3].

4.3 We monitor a number of performance indicators across the entire network and these include:

a) Security: the frequency of planned and unplanned Customer Interruptions (CI)

b) Availability: the duration of planned and unplanned interruptions per connected customer or Customer Minutes Lost (CML)

c) Quality of Service: The percentage of distribution unplanned faults restored within:

(i) 3 hours

(ii) 24 hours

Customer (Supply) Interruptions

4.4 Customer or (Supply) Interruptions is a measure of customers, per 100 connected customers, that are interrupted on NIE Network's electricity network over the course of a year. For example, 50 customers interrupted out of a total of 100 connected customers would result in a C.I. of 0.5.

4.5 Supply Interruptions performance in the RP6 period i.e. up to 2022-23 is shown in Figure 4.1 below.

[3] https://www.nienetworks.co.uk/about-us/regulation/system-performance-reports

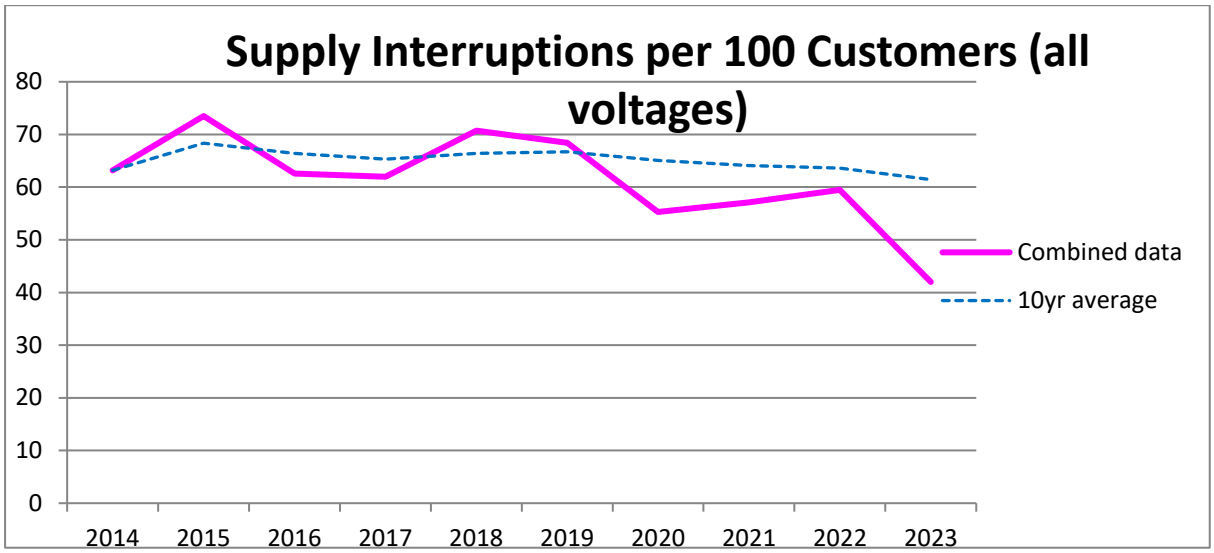


Figure 4.1: Supply Interruptions per 100 Customers (all voltages)

4.6 Faults per 100km (all voltages) performance in the RP6 period i.e. up to 2022-23 is shown in Figure 4.2 below. Faults per 100km provides a measure of the reliability of the electricity distribution network.

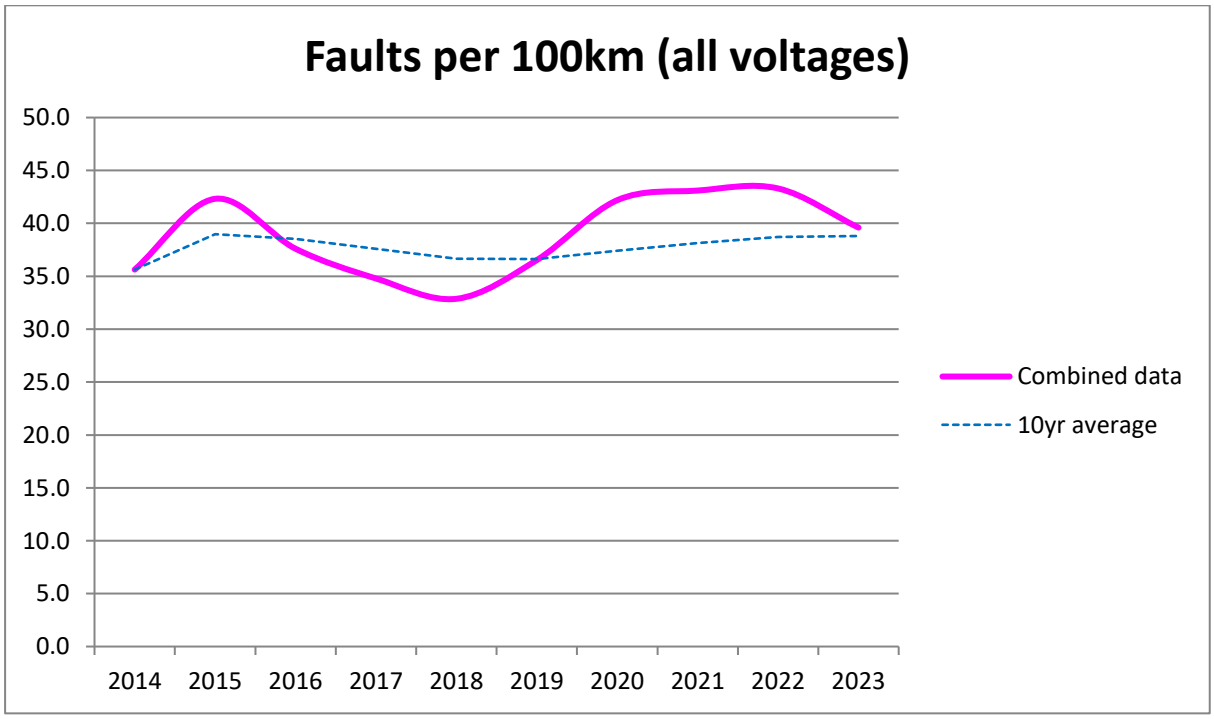


Figure 4.2: Faults per 100km (all voltages)

4.7 CI due to Planned Outages performance in the RP6 period i.e. up to 2022-23 is shown in Figure 4.3 below. This provides a measure of the impact of planned outages on the distribution network and therefore an indication of the security of supply.

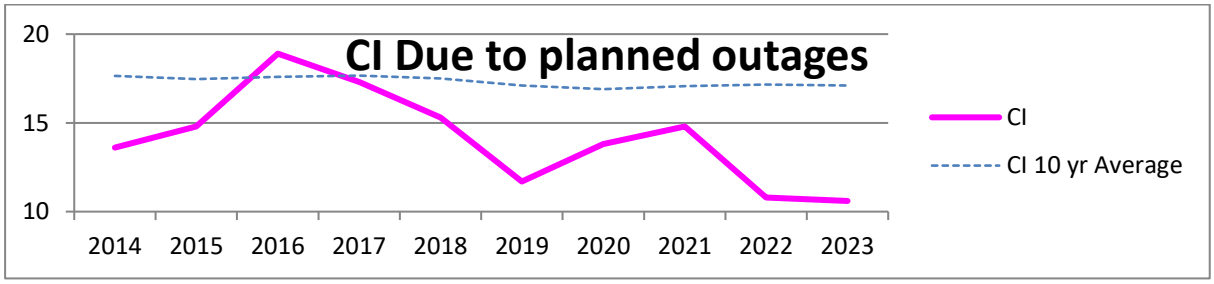


Figure 4.3: CI Due to planned outages

Customer Minutes Lost

4.8 For the RP6 Price Control the CML was the average minutes lost per customer, per year, where an interruption to electricity supply lasts for one minute or longer.

4.9 The Customer (or Supply) Minutes Lost is a measure of reliability as it considers the amount of interruptions and the length of those interruptions. A network which is inadequately maintained will degrade and, after a time, have more frequent and lengthy faults which will be reflected in CML performance.

4.10 A degrading trend should not be assumed in the short term due to annual fluctuations in fault data and therefore it would not be prudent to give weight to the CML data at this time. We will, however, monitor the CML trend annually in order to identify potential links between under-investment and degrading network performance.

4.11 The Reliability Incentive model in RP6 set targets for unplanned and planned customer minutes lost (CML) and provided a symmetrical incentive for performance against target, subject to a cap and collar where an estimated 1.5% of annual distribution revenue is exposed to the incentive. Detailed information on the current Reliability Incentive Model was published as Annex M of the RP6 final determination.[4]

[4] Annex M - Reliability Incentive.pdf (uregni.gov.uk)

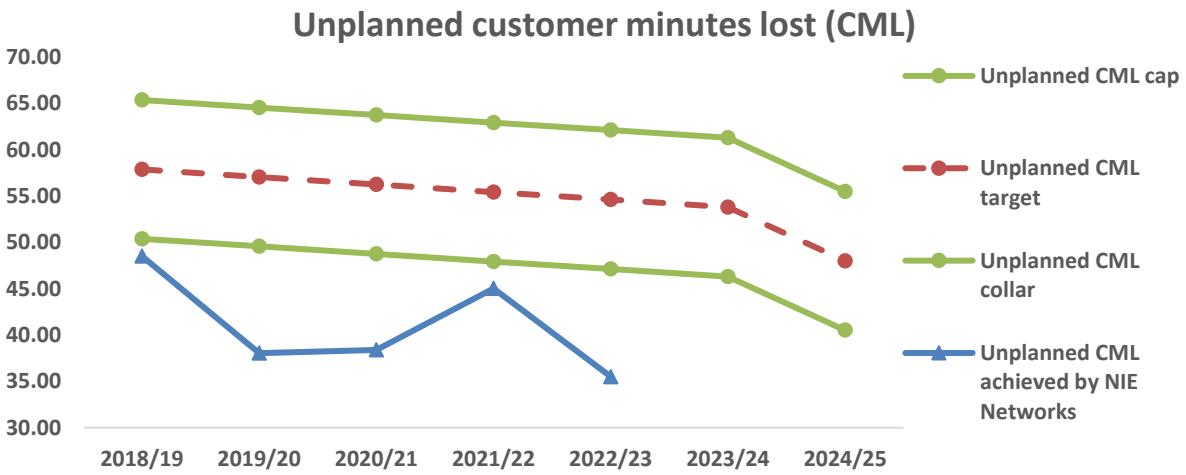
4.12 The company has made significant improvements in performance in RP6 as measured by both planned and unplanned CML. It has consistently out-performed the 'collar' for each measure.

4.13 In the RP6 Extension Decision Paper[5] no changes to the structure or the key parameters of the model were made other than to amend the central target for Unplanned CML.

4.14 We revised the Unplanned CML target for the RP6 extension year to 48 CML which represent a reduction of circa 6 CML from the 2023/24 target to recognise the out-performance achieved by the company to date.

4.15 We did not change the existing RP6 Planned CML target as we recognised the increasing profile of planned work on the network over the period to March 2024, which will further ramp up in the RP6 extension year taking account of Green Recovery and LCT related investments. This could result in an increase in planned CML compared with performance in RP6 to date.

4.16 Unplanned customer minutes lost (CML) performance in the RP6 period up to 2022-23 is shown in Figure 4.4 below.

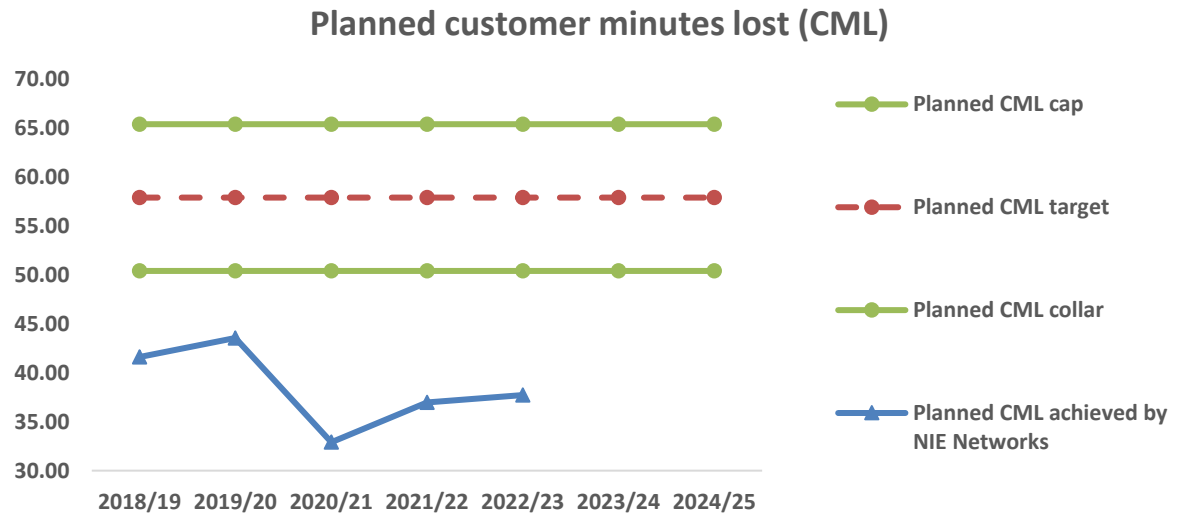


Note 1: measured as an average, per customer, per year

Figure 4.4: Unplanned Customer Minutes Lost (CML) 2019 to 2023

4.17 Planned Customer Minutes Lost (CML) performance in the RP6 period i.e. up to 2022-23 is shown in Figure 4.5 below.

[5] https://www.uregni.gov.uk/news-centre/decision-paper-published-modifications-nie-networks-transmission-and-distribution



Note 1: measured as an average, per customer, per year

Figure 4.5: Planned Customer Minutes Lost (CML) 2019 to 2023

Quality of Service

4.18 One way to measure the quality of service received by NIE Networks customers is to measure the percentage of customers restored within 3 hour and 24 hours when unplanned faults occur.

4.19 It can be observed from the Table 4.1 below that NIE Networks performance in this area has marginally declined over the RP6 period in relation to restoration within 3 hours but remained constant for restoration with 24hours. It should be noted that the data provided in this section on customer (supply) interruptions, customer minutes lost and quality of service exclude the impact of any major storms in the RP6 period.

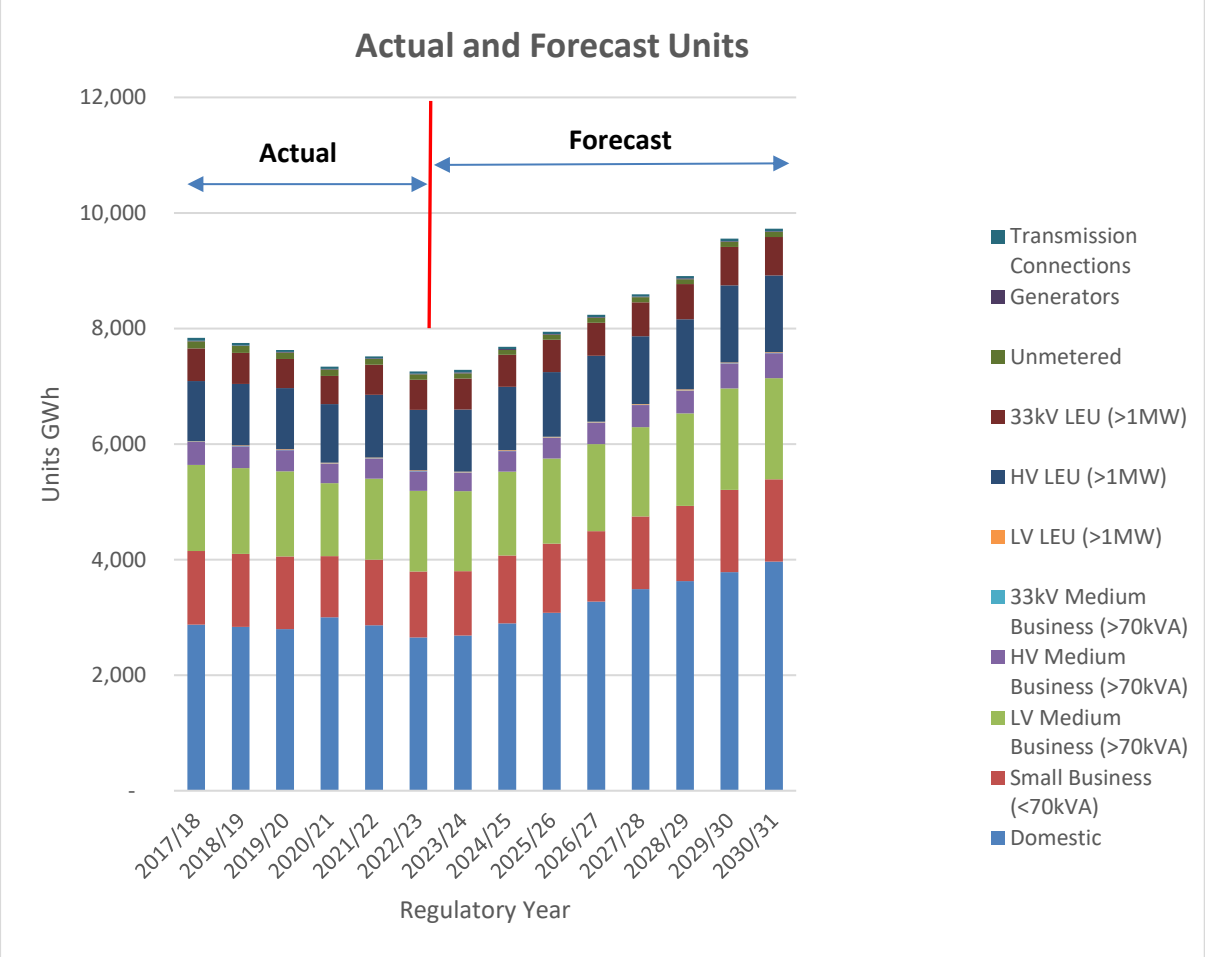
Performance Criteria (3hrs)	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
LV	66.3%	71.8%	73.2%	72.4%	69.1%	66.5%
HV	93.9%	93.8%	94.5%	94%	92.5%	94.1%
EHV	99.4%	99.4%	99%	99.7%	99.2%	98.7%
Fault Total	93.5%	93.8%	94.2%	94.3%	92.6%	92.5%
Performance Criteria (24hrs)	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
LV	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
HV	100%	100%	100%	100%	100%	100%
EHV	100%	100%	100%	100%	100%	100%
Fault Total	100%	100%	100%	100%	100%	100%

Table 4.1: Percentage of customer restored (within 3 hours and 24 hours)

5. Electricity Units Distributed

5.1 Figure 5.1 shows the level of units consumed for each customer group. Electricity units distributed are measured in units of GWh. Actual units for each customer group are shown over the period 2017-18 to 2022-23. It should be noted that data for 2023-24 is a latest best estimate and all years thereafter are forecasts.

5.2 NIE Networks have forecast an increase in units of electricity supply in the RP7 period based on their best view of low carbon technology (LCT) uptake in the period for example a forecast of 300,000 EV's and 120,000 heat pumps installed in NI homes by 2031. We intend to monitor the level of LCT uptake during RP7 as well as the quantum of electricity units.



Note: 2023-24 units based on NIE Networks latest best estimates

Figure 5.1: Actual and Forecast Units

5.3 Table 5.1 shows the annual percentage change in total electricity units distributed in the RP6 period including latest best estimate for the 2023-24 year. Table 5.2 shows NIE Networks forecast annual percentage changes in total electricity units distributed for the last year of RP6 and for the RP7 period. NIE Networks has made the following points in relation to the reduction in units over the RP6 period:

- In the first few years of RP6, the annual variations in electricity consumption by domestic and business customers were minimal, with monthly fluctuations generally attributed to weather conditions and public holidays. From 2020 social and economic factors played a more significant role in influencing the amount of electricity used by each market sector.

- From late March 2020 variations in electricity usage became more extreme with Covid-19 Government restrictions leading to increased consumption by domestic customers (monthly increases of up to 15%) and significant electricity reductions within all business sectors (monthly reductions of up to 31%[6]). Electricity sales to small commercial businesses were most notably affected by Covid-19 restrictions, while large energy users (LEUs) generally recovered more quickly from Government imposed closures.

- Following on from Covid-19, a cost of living crisis then hit Northern Ireland households and businesses from late 2021. There has been a noted downturn in electricity sales to domestic and business sectors in 2022 and again in 2023. High energy prices may have influenced both business and domestic choice of fuel and efficiency in electricity usage. With the rising costs, electricity suppliers increased their domestic tariffs, e.g. Power NI increased their domestic tariff rates twice in 2022 and with the second increase in July 2022, domestic prices were more than 50% higher than those in the previous year.

RP5/6 2017/18	RP6 2018/19	RP6 2019/20	RP6 2020/21	RP6 2021/22	RP6 2022/23	RP6 2023/24
Actual						LBE
0.68%	-1.01%	-1.46%	-3.88%	2.54%	-3.60%	0.29%

Table 5.1: Annual Percentage Growth in Units (GWH) Actuals

[6] This is the average of monthly variations in electricity sales

RP6 2024/25	RP7 2025/26	RP7 2026/27	RP7 2027/28	RP7 2028/29	RP7 2029/30	RP7 2030/31
Forecast						
5.59%	3.42%	3.73%	4.33%	3.67%	7.30%	1.80%

Table 5.2: Annual Percentage Growth in Units (GWH) Forecast

6. Future Reporting

6.1 We expect to review the performance of NIE Networks for the entire RP6 period and produce a Cost and Performance report in the 2025/26 year. We expect that the report will review NIE Networks' performance on opex, capex and network performance for the RP6 period.

6.2 Going forward into the RP7 period we intend to review the scope of annual reporting for NIE Networks. For example, we consider it may be appropriate to develop information requirements which more fully captures the extent of NIE Networks carbon emissions.