RP7 - NIE Networks Price Control 2025-2031

Draft Determination Annex O

Metering

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 annex provides the Utility Regulator's detailed assessment of NIE Networks' metering expenditure for the RP7 price control period.

Audience

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

Consumer impact

The overall consumer impact of RP7 is set out in the main draft determination report. The estimates of metering expenditure in this annex contribute to the determination of tariffs for RP7.

Contents

Executive Summary

Overview

Metering constitutes a range of activities including meter reading, meter installations/changes, meter recertifications and others that support NIE Networks' market operations functions.

In Great Britain, distribution network operators (DNOs) do not perform these activities. As a result, we exclude NIE Networks' direct costs and indirect costs associated with performing its metering functions from our top-down benchmarking and conduct a bottom-up cost analysis. NIE Networks' current metering activities are well established, and we have multiple years of outturn costs which we consider provide a good benchmark for the future costs to guide our assessments.

NIE Networks' proposals for the market services element of its market operations functions are assessed in the Information Technology sections of the draft determination. Market services includes the operation of IT systems and provision of data, including metering data, that supports retail and wholesale electricity markets.

NIE Networks set out its proposals for RP7 metering related expenditure, and overhead costs allocated to metering, within its market operations submission document. Table 1 below details its proposals and the allowances included in the draft determination following our assessment.

Metering £m 2021/22 prices	NIE Networks' Proposal	Draft Determination	Change +/-	Change %
Meter Reading	25.56	23.99	-1.56	-6.1%
Metering Services	50.09	38.03	-12.06	-24.1%
Other Metering Costs	4.12	2.53	-1.60	-38.8%
Fault and Overhead Costs	47.81	41.31	-6.50	-13.6%
Total Metering	**127.58**	**105.86**	**-21.72**	**-17.0%**

Note 1. Figures may not sum due to rounding.

Table 1: NIE Networks' metering proposals versus draft determination

As requested in the Utility Regulator's published RP7 business plan requirements, NIE Networks' submission was based on existing metering arrangements and obligations. Following both the RP7 business plan requirements publication and NIE Networks' subsequent submission, the Department for the Economy announced[1] on 28 June 2023 that it will develop a plan for the implementation of electricity smart meters and systems. However, smart metering proposals and developments have been excluded from our assessment of metering for RP7 and will be dealt with under

[1] https://www.economy-ni.gov.uk/articles/smart-meters-update

a reopener mechanism when required.

Meter Reading

NIE Networks collect and process meter reading data for all its c.930,000 customer premises throughout Northern Ireland. While data can be obtained remotely via telecommunication links from meters at c.13,000 commercial and industrial premises, the vast proportion of meters are read manually by its meter reading staff. NIE Networks aims to read each meter on a quarterly basis, which involves over 3.6 million visits to customer premises per annum.

NIE Networks proposed c£4.26m annual average meter reading expenditure over RP7, with a flat annual expenditure profile, despite a projected 1% annual increase in its customer base. It anticipates continued development and exploration of more efficient meter reading methods via various digital channels, as well as increased cooperation with suppliers will enable it to keep expenditure consistent.

In our RP7 assessment we reviewed NIE Networks' historic outturn costs for meter reading and found its proposed annual average to be a 6.5% increase over the RP6 annual average. For the RP6 determination an incrementally increasing allowance was set to reflect the forecast increase in customers, but outturn costs have not trended with customer growth, and have remained flat through RP6.

Given the historical trends, and the company's stated intention to continually develop more efficient meter reading methods, we see no reason to increase meter reading expenditure for RP7. We have therefore set our draft determination allowance using the RP6 annual average to March 2023, £3.99m. Our draft determination compared to NIE Networks' submission is set out in Table 2 below.

Meter Reading Expenditure £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks Proposal	4.27	4.27	4.26	4.26	4.25	4.25	25.56
Draft Determination	3.99	3.99	3.99	3.99	3.99	3.99	23.99
Change +/-	-0.27	-0.27	-0.26	-0.26	-0.25	-0.25	-1.56

Note 1. Figures may not sum due to rounding.

Table 2: Meter reading draft determination

Metering Services

Metering services consists of two metering capital expenditure programmes:

- Meter installs/changes - primarily fulfilment of requests from customers and suppliers to install, exchange and alter electricity meters.
- Meter recertification and replacement - fulfilment of obligations to ensure metering assets are within their certified period or recommended lifespan.

Both programmes consist of a direct costs element and indirect costs element. Direct costs include the cost for the meter and/or onsite direct labour for completing an individual metering services task, and only the unit cost determined for allowance purposes, which gets multiplied by the actual volume of activity. Indirect costs are primarily incurred through the employment of staff who manage and administer the metering services programmes and meter stock, and the full allowance is determined.

For direct costs, NIE Networks' proposed unit costs included estimated increases to account for changes in material costs. It is currently in the process of procuring meters and anticipates that material costs will be higher than in the past due to recent industry electronic component cost increases and the reduced availability of non-smart meter suppliers. NIE Networks also requested a mechanism be made available to review determined unit costs within the RP7 period due to these issues.

We excluded NIE Networks' proposed uplifts. We are not convinced that potential material cost increases would fall outside the scope of frontier shift adjustments, and we have not been provided with evidence and detailed costs beyond NIE Networks' estimations and commentary.

NIE Networks also proposed three new metering categories, to capture low carbon technology (LCT) related metering specifications, such as multi-rate and multi element meters. We are not minded to include the new LCT meter categories. Additional unit cost categories, and cost rate, for these specialised configurations may be prove necessary when we complete our review[2] of the connection charging methodology or as smart metering is implemented. However, pending the outcome of that work, we do not intend to make any specific provision for these changes in the RP7 price Control. The existing licence already makes provision for additional meter categories and unit cost rates to be added as the need arises through a decision by UR.

For the high-volume direct cost metering services activities, we set our draft determination unit rate at the RP6 average outturn, excluding the 2021 reporting year (April 2020 to March 2021). We found the 2021-year outturn costs to be an outlier, and NIE Networks had stated that Covid-19 restrictions had severely disrupted the efficient delivery of this metering work programme. For the lower volume activities, such as the bespoke metering at power stations and high voltage customers, we accepted NIE Networks proposed unit costs as they were largely in line with or lower than RP6 outturn.

We reallocated the forecast volumes of the new LCT metering categories to the existing metering categories based on outturn data provided[3], and applied our draft determination unit rates across all the existing metering category volume forecasts.

[2] https://www.uregni.gov.uk/consultations/call-evidence-electricity-connection-policy-framework-review
[3] Data provided in response to query UR-0425

Our draft determination compared to NIE Networks' submission, for metering services direct costs, is set out in Table 3 below.

Direct Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks Proposal	6.41	5.05	5.15	5.34	5.26	6.17	33.38
Draft Determination	5.13	4.01	4.09	4.24	4.15	4.88	26.49
Change +/-	-1.28	-1.05	-1.06	-1.11	-1.11	-1.29	-6.90

Note 1. Figures may not sum due to rounding.

Table 3: Metering services direct costs draft determination

For metering services indirect costs, NIE Networks' proposals were a significant increase over current expenditure, going from an annual average of £1.47m in RP6 to date, to a proposed annual average of £2.8m in RP7, an 89% increase. It stated that forecast increases in the volume and complexity of the direct activities would require increased indirect support.

We assessed RP6 outturn indirect costs and the volume of direct activity and found the RP7 forecast to be only a 22% rise, and therefore did not justify the level of increase. To set an allowance to account for the 22% rise, we calculated the RP6 average outturn indirect cost per job and multiplied by NIE Networks RP7 forecast direct activity.

Our draft determination compared to NIE Networks' submission, for metering services indirect costs, is set out in Table 4 below.

Indirect Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks' Proposal	2.77	2.82	2.72	2.68	2.86	2.85	16.70
Draft Determination	2.11	1.85	1.81	1.83	1.86	2.08	11.55
Change +/-	-0.66	-0.98	-0.91	-0.84	-0.99	-0.77	-5.16

Note 1. Figures may not sum due to rounding.

Table 4: Metering services indirect costs draft determination

Other Operating Costs

For other market operations costs and overheads we have largely adopted the RP6 run rate as increases have not been explained. The exception to this is IT spend which has been allowed almost in its entirety.

Other metering costs consist of keypad meters, revenue protection services and transactional charges/income. For the purposes of the draft determination we have simply applied the RP6 average run rates (to date) to forecast RP7 costs. The results are detailed in Table 5 below.

Other Metering Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks' Proposal	0.69	0.69	0.68	0.69	0.68	0.69	4.12
Draft Determination	0.42	0.42	0.42	0.42	0.42	0.42	2.53
Change +/-	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-1.60

Note 1. Figures may not sum due to rounding.

Table 5: Other metering costs draft determination

Faults, business support, and other overheads, make up the remainder of the market operations request. The activities can be summarised as follows:

- Faults and emergency costs – the direct cost of repairing metering faults which present a risk to safety or result in a supply interruption.
- Control centre and customer contact centre – market operations allocation of these activity costs to reflect their role in the management of metering faults.
- Other overheads – market operations allocation of costs associated with general overheads such as HR, finance, stores, training etc.

The request with respect to these activities sum to £47.8m over RP7. For other general overhead cost lines, we have adopted the current RP6 run rate. However, to this we have added almost the full £13.7m allowance for additional IT spend. This provides a total allowance of £41.3m.

The draft position represents a £6.5m reduction on the business plan request. The majority of this disallowance is focused on the metering overheads which are unexplained and are forecast to be materially above current levels.

As with other reductions, NIE Networks would be expected to justify cost increases if we are to reconsider our position for these expenses.

1. Meter Reading

1.1 NIE Networks collect and process meter reading data for all its c.930,000 customer premises throughout Northern Ireland. While data can be obtained remotely via telecommunication links from meters at c.13,000 commercial and industrial premises, the vast proportion of meters are read manually by its meter reading staff.

1.2 Under NIE Networks' Overall Standards, it is required to obtain a meter reading from 99.5% of customers once per year. To achieve this, NIE Networks aims to read each meter on a quarterly basis, which involves over 3.6 million visits to customer premises per annum.

1.3 In addition to obtaining meter reads, NIE Networks' meter readers also perform visual inspections of the metering equipment at the customers property and report back any potential hazards. This contributes to its legal obligations under the Electricity Safety, Quality and Continuity Regulations (Northern Ireland).

NIE Networks' RP7 Proposal

1.4 NIE Networks set out its proposal for RP7 meter reading expenditure within its market operations submission document, as per Table 1.1 below. The proposal was based on a continuation of the existing overall meter reading strategy.

Meter Reading Expenditure £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks Proposal	4.27	4.27	4.26	4.26	4.25	4.25	25.56

Note 1. Figures may not sum due to rounding.

Table 1.1: NIE Networks' meter reading proposal

1.5 Despite a projected 1% annual increase in the number of connected customers and thus meter reads, NIE Networks proposed a flat annual expenditure profile throughout RP7. It anticipates continued development and exploration of more efficient meter reading methods via various digital channels, as well as increased cooperation with suppliers, will enable it to keep expenditure consistent.

Draft Determination

1.6 It is not possible to assess NIE Networks' metering reading costs against other distribution network operators in GB, as electricity suppliers provide this service, and smart metering rollout is also progressing there. However, we consider that the actual outturn costs reported in the annual Regulatory

Instructions and Guidance submission (RIGs) and in the business plan submission, provide a good benchmark for the future costs.

1.7 At RP6, the determined allowance was based on NIE Networks' outturn costs, increasing annually by 0.8% to align with the forecasted growth in its customer base.

1.8 NIE Networks has proposed c£4.26m annual average expenditure over RP7, this is a 6.5% increase over the RP6 annual average to March 2023, £3.99m.

1.9 Over RP6 to date we have not observed any growth in expenditure, even though customer base has grown in line with the RP6 forecast 0.8% annually.

1.10 Reviewing further back beyond RP6, annual meter reading expenditure has not trended with growth in customer base, as demonstrated in Figure 1.1 below. Meter reading expenditure in 2023 was 10% (£0.46m) lower than in 2013, when adjusted for inflation, despite a 10% (86k) increase in customer base.

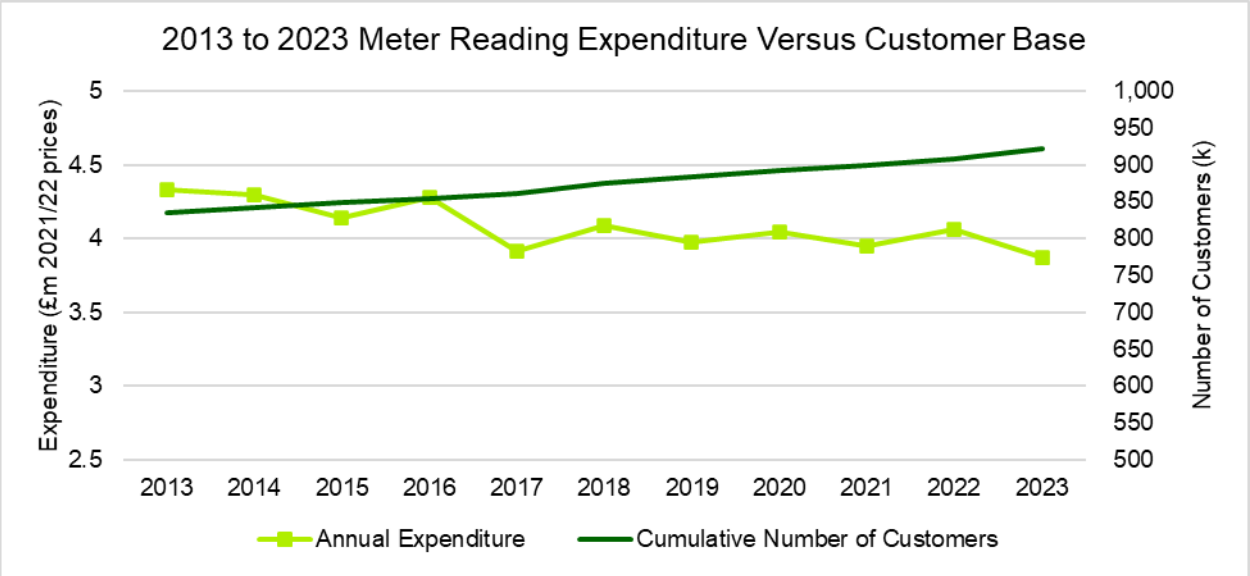


Figure 1.1: 2013 to 2023 meter reading expenditure versus customer base

1.11 NIE Networks expects to add an additional 9.1k customers per year on average through the rest of RP6 and to the end of RP7. However, given the historical trends, and the company's stated intention to continually develop more efficient meter reading methods, we see no reason to increase meter reading expenditure for RP7. We have therefore set our draft determination allowance using the RP6 annual average to March 2023, £3.99m.

1.12 Our draft determination for meter reading expenditure during RP7 is set out in Table 1.2 below.

Meter Reading Expenditure £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks Proposal	4.27	4.27	4.26	4.26	4.25	4.25	25.56
Draft Determination	3.99	3.99	3.99	3.99	3.99	3.99	23.99
Change +/-	-0.27	-0.27	-0.26	-0.26	-0.25	-0.25	-1.56

Note 1. Figures may not sum due to rounding.

Table 1.2: Meter reading draft determination

2. Metering Services

2.1 Metering services consists of two metering capital expenditure programmes, meter installs/changes and meter recertification and replacement.

2.2 Both programmes consist of a direct costs element, which includes the cost for the meter and/or onsite direct labour for completing an individual metering services task. Direct costs are subject to a volume driver, meaning a determined unit rate for each metering services task is set, then the actual volume completed during the price control providing the adjusted allowance. This approach is a result of NIE Networks' limited control over work volumes in most cases, and it provides greater protection to it and consumers if forecasts prove inaccurate.

2.3 Both programmes also consist of indirect costs element. These are the costs that are incurred primarily in employment of staff who manage and administer the metering services programmes and meter stock. Other indirect costs include vehicles, tools and equipment used to support the programmes. As these costs are less directly affected by the volume of work undertaken, an ex-ante allowance is determined.

Meter Installs/Changes Direct Costs

2.4 NIE Networks provide a range of standard metering services such as the installation, exchange and alteration of electricity meters at the request of both customers and electricity suppliers. This includes metering across the full range of electricity consumers and generators, including domestic, commercial and industrial properties.

NIE Networks' RP7 Proposal

2.5 NIE Networks set out its proposal for RP7 meter installs/changes direct costs expenditure within its market operations submission document, as per Table 2.1 below. In addition to the three existing credit, keypad and commercial metering categories, three new unit cost categories have been proposed for RP7 to capture low carbon technology (LCT) related metering specifications.

Meter Type	Unit Cost (£)	Forecast Volume	RP7 Total (£m)
Credit Meters	30.59	182,981	5.59
Keypad	84.73	106,366	9.01
Commercial	238.57	11,950	2.85
LCT (Basic)	41.57	89,893	3.74
LCT (Higher)	73.60	10,576	0.78
LCT (Advanced)	198.44	5,288	1.05
Total		407,053	23.03

Note 1. Figures may not sum due to rounding.

Table 2.1: NIE Networks meter installs/changes direct costs proposal

2.6 NIE Networks based its proposed unit costs for the three existing categories on historical outturn costs. It then adjusted the labour element to take account of changes within the forecast job mix in each category and added an estimated increase to the material costs. It anticipates material cost increases due to inflation, increasing costs of electronic components used in electricity meters and other supply chain cost increases in recent years.

2.7 NIE Networks is currently undergoing a meter procurement process which will establish actual material costs. After its business plan submission, NIE Networks made the Utility Regulator aware that based upon findings from its ongoing procurement process it now considers that there would be reduced availability of non-smart meter suppliers which may mean higher unit costs.

2.8 NIE Networks were not in position to provide actual quotations for the meter costs, but requested a mechanism be made available to review determined unit costs within the RP7 period. It should also be noted that NIE Networks propose that procuring and installing smart meters, even prior to smart systems availability, should be considered as that project progresses. It proposes that this is a low regrets option in comparison to continuing to procure and install traditional meters, which would subsequently be replaced by a smart meter.

2.9 NIE Networks provided the following examples of LCT metering configurations that will be assigned to its proposed new metering categories:

- LCT Basic – Typically a domestic or small-scale commercial customer who require the installation of a basic two rate meter to facilitate a standard time of use (Day/Night) tariff.

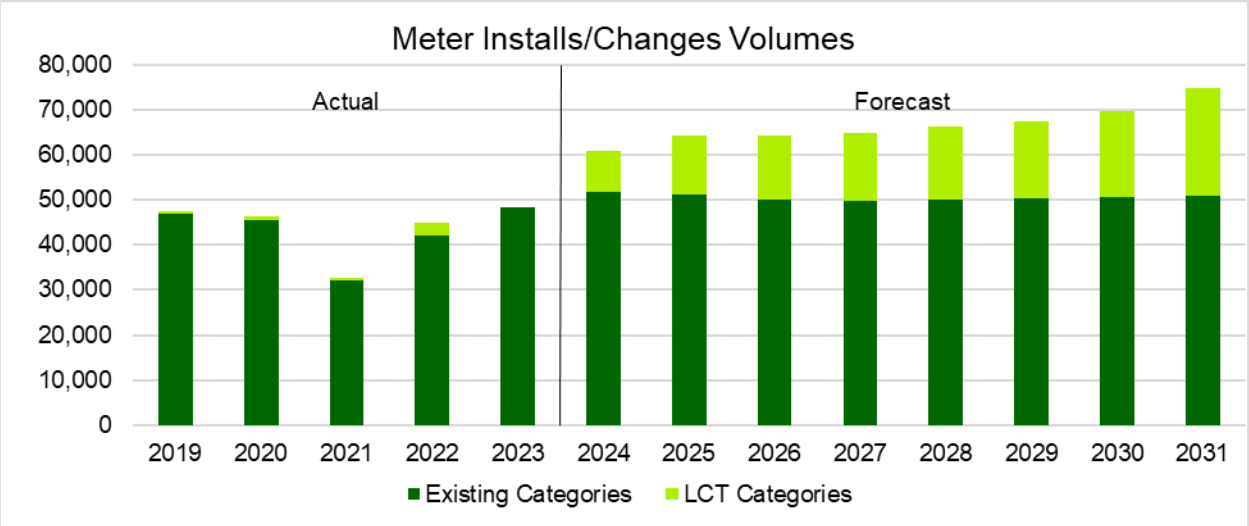
- LCT Higher - Typically a domestic/small-scale commercial customer who requires a more specialised metering configuration, for example, a multi-element meter to facilitate more 'specialised' tariffs which include heat functionality (i.e. Economy 7) or a three-phase meter to accommodate increased loads from LCTs.

- LCT Advanced - Typically a larger scale commercial customer who requires more specialised metering to facilitate larger scale LCT integrated technologies and advanced tariff configurations.

2.10 In order to generate a proposed unit cost for the three new LCT metering categories, NIE Networks retrospectively analysed jobs of that type, carried out in the 2022 calendar year. Like the existing metering categories, an estimated uplift was applied to outturn materials costs.

2.11 In RP6, NIE Networks assigned LCT related meter jobs and costs to the appropriate existing metering category. However, LCT requests have increased in volume, and it expects a continuing increase in proportion to the existing metering categories through RP7, as demonstrated in Figure 2.1 below. As a result, NIE Networks believes that continuing to absorb these higher cost jobs into the existing RP6 categories is inappropriate.

2.12 NIE Networks have forecast that volumes for existing categories will remain stable through RP7, with the LCT jobs in addition to existing run rates. Aside from a reduction in 2021 reporting year due to Covid restrictions, existing volumes have been relatively stable in RP6. NIE Networks have stated that customer/supplier requests to change meters to Bluetooth enabled keypad+ meters are contributing to maintaining this level of activity.



Note 1. NIE Networks did not provide 2023 data split, all works reported under existing.

Figure 2.1: Actual and forecast meter installs/changes

Draft Determination

2.13 We are not minded to include the three new LCT meter categories. Additional unit cost categories, and cost rate, for these specialised configurations may be prove necessary when we complete our review[4] of the connection charging methodology or as smart metering is implemented. However, pending the outcome of that work, we do not intend to make any specific provision for these changes in the RP7 price Control. The existing licence already makes provision for additional meter categories and unit cost rates to be added as the need arises through a decision by UR.

2.14 For the existing metering categories, we assessed NIE Networks proposed unit costs against the historical outturn unit costs. When comparing to the RP6 average to March 2023, we found NIE Networks' proposals to be higher by 7% for credit, 22% for keypad and 37% for commercial.

2.15 NIE Networks included an estimated increase on its unit costs due to estimated material costs increases. At present we have not been provided with evidence and detailed costs beyond NIE Networks' estimations and commentary. We are also not convinced that any potential cost increases would fall outside the scope of our frontier shift adjustments. As a result, when determining unit rates, we did not account for NIE Networks' estimated material cost increases.

2.16 NIE Networks also cited the forecast job mix within each category as justification for an uplift in its proposed unit costs. We expect variation in job mix would be accounted for in the existing outturn costs which span multiple years, therefore we do not consider the job mix as a reason not to rely on the outturn data.

2.17 In further analysis of the RP6 data we found the average outturn costs for the 2021 reporting year to be an outlier from the other reporting years. Compared to average for the other RP6 years to March 2023, unit costs for the 2021 year were higher by 25% for credit, 14% for keypad and 34% for commercial. NIE Networks provided commentary along with its 2021 Regulatory Instructions and Guidance submission (RIGs) on the increased average unit cost, stating that it was mainly as a result of Covid-19 restrictions which had severely disrupted the efficient delivery of this metering work programme. We have therefore excluded costs and volumes for the 2021 reporting year from our benchmark analysis.

[4] https://www.uregni.gov.uk/consultations/call-evidence-electricity-connection-policy-framework-review

2.18 We have set the unit rates for the three existing metering categories at the outturn average for RP6 to March 2023, excluding the 2021 reporting year data.

2.19 In response to our query[5], NIE Networks provided detail on the number and type of existing metering category jobs it carried out in RP6, that would be considered LCT metering jobs. We have used this data to allocate the forecast LCT volumes to the existing metering categories, as shown in Table 2.2 below.

	Credit	Keypad	Commercial
LCT Basic	95%	5%	0%
LCT Higher	95%	5%	0%
LCT Advanced	34%	2%	64%

Table 2.2: Allocation of LCT meter categories' volumes

2.20 Following reallocation of the LCT metering volumes, our draft determination for meter installs/changes unit costs, and subsequent forecast total RP7 expenditure, is set out in Table 2.3 below.

Meter Type	Unit Cost £		Amended Volumes	RP7 Total (£m)			
	NIE Networks Proposal	UR DD		NIE Networks Proposal	UR DD	Change +/-	Change %
Credit Meters	30.59	27.77	280,210	5.59	7.78	2.18	39.0%
Keypad	84.73	68.16	111,494	9.01	7.60	-1.41	-15.7%
Commercial	238.57	165.46	15,349	2.85	2.54	-0.31	-10.9%
LCT (Basic)	41.57	N/A	0	3.74	0	-3.74	-100%
LCT (Higher)	73.60	N/A	0	0.78	0	-0.78	-100%
LCT(Advanced)	198.44	N/A	0	1.05	0	-1.05	-100%
Total			407,053	23.03	17.92	-5.10	-22.2%

Note 1. Figures may not sum due to rounding.

Table 2.3: Meter installs/changes direct costs draft determination

2.21 We will apply the existing volume driver uncertainty mechanism to all categories. However, we do not agree with the proposal for a review of unit rates during the price control as this reduces the incentive for NIE Networks to control and reveal lower costs which would benefit consumers in the future.

[5] UR-0425

2.22 We note NIE Networks' revised submission regarding potential increases in unit costs for credit meters as manufacturers focus on the provision of smart metering and the market of existing types of meters diminishes. Our initial view is that it is NIE Networks' responsibility to maintain a reliable source of meters from the market.

Meter Recertification and Replacement Direct Costs

2.23 Meter recertification and replacement relates to NIE Networks' statutory obligations to use meters that remain within their certified period. As such, it is required to replace a meter when it reaches the end of its prescribed certification life.

2.24 This programme also includes other metering asset replacement works not listed in the statutory obligations, but carried out in line with good industry practice to ensure these assets are functioning correctly. These other assets include meters at generators, bulk supply points and high voltage customers.

2.25 Finally, also included within this area is NIE Networks' meter replacement for theft programme. This is a project specifically devised to replace a certain type of keypad meter, that was susceptible to tampering.

NIE Networks' RP7 Proposal

2.26 NIE Networks set out its proposal for RP7 meter recertification and replacement direct costs expenditure within its market operations submission document, as per Table 2.4 below.

Recertification	Unit Cost (£)	Forecast Volume						RP7 Total (£m)
		2026	2027	2028	2029	2030	2031	
Credit Meters	36.23	23,596	21,348	16,319	15,980	14,687	11,534	3.75
Keypad	90.33	12,373	2,796	4,403	4,080	6,392	15,269	4.09
Commercial	192.36	2,666	1,022	1,139	1,965	1,164	852	1.70
Other Asset Replacement								
110/33Kv BSP & Substation Metering	1,771.02	8	6	27	48	0	2	0.16
Power Stations > 100 MW	6,089.78	2	1	1	1	1	1	0.04
Generator Metering <100MW and >1MW	848.29	6	2	1	2	1	2	0.01
HV Demand Metering >1MW	429.56	33	4	2	3	3	2	0.02
HV Demand Metering <1MW	353.98	20	3	2	2	1	2	0.01
Meter Replacement for Theft								
Keypad Replacement	153.65	1000	1000	1000	731	0	0	0.57
Total Meter Recertification and Replacement								
Total Direct Programme		39,706	26,182	22,894	22,813	22,249	27,663	10.36

Note 1. Figures may not sum due to rounding.

Table 2.4: NIE Networks' meter recertification and replacement direct costs proposal

2.27 NIE Networks based its proposed unit costs on historical outturn costs. It then adjusted the labour element to take account of changes within the forecast job mix in each category and added an estimated increase to the material costs. It anticipates material cost increases due to inflation, increasing costs of electronic components used in electricity meters and other supply chain cost increases in recent years.

2.28 NIE Networks is currently undergoing a meter procurement process which will establish actual material costs. After its business plan submission, NIE Networks made the Utility Regulator aware that based upon findings from its ongoing procurement process it now considers that there would be reduced availability of non-smart meter suppliers which may mean higher unit costs.

2.29 NIE Networks were not in position to provide actual quotations for the meter costs, but requested a mechanism be made available to review determined unit costs within the RP7 period. It should also be noted that NIE Networks propose that procuring and installing smart meters, even prior to smart systems availability, should be considered as that project progresses. It

proposes that this is a low regrets option in comparison to continuing to procure and install traditional meters, which would subsequently be replaced by a smart meter.

2.30 Recertification volumes are calculated using NIE Networks' forecasted number of meters in service that will have reached the end of their prescribed certification life during RP7. NIE Networks forecast RP7 annual average volume of c.25k is lower than RP6, c.30k, due to the age profile of its meter population. However, it will not replace the number it anticipated in RP6, as Covid impacted this programme, and therefore will carry some RP6 volume forward to the start of RP7.

2.31 The other metering assets replacement volumes are based on the number identified by NIE Networks as reaching the end of their recommended lifecycle during RP7.

2.32 In early 2016 NIE Networks agreed a programme with the Utility Regulator and the suppliers to replace keypad meters that were susceptible to tampering. The number that could be replaced was originally capped at 20,000, which was then extended to 30,000 in 2019. NIE Networks has made a provision in RP7 for this programme to continue, but at a reduced annual volume, as the population of the meter type has been reduced by other replacement activities. It does not anticipate the need to utilise the full 30,000 volume allowed; at the end of the 2022 reporting year, it had replaced 20,873, with 29,569 as the final forecast.

Draft Determination

2.33 We assessed NIE Networks proposed unit costs against the outturn unit costs for each category. When comparing the three recertification programmes and the replacement for theft programme to the RP6 average through March 2023, we discovered that NIE Networks' proposals were higher by 11% for credit, 15% for keypad, 25% for commercial and 18% for theft replacements.

2.34 NIE Networks included an estimated increase on its unit costs due to estimated material costs increases. At present we have not been provided with evidence and detail beyond NIE Networks estimations and commentary. We are also not convinced that any potential cost increases would fall outside the scope of our frontier shift adjustments. As a result, when determining unit rates, we did not account for NIE Networks' estimated material cost increases.

2.35 NIE Networks also cited the forecast job mix within each category as justification for an uplift in its proposed unit costs. We expect variation in job mix would be accounted for in the existing outturn costs which span multiple

years, therefore we do not consider the job mix as a reason not to rely on the outturn data.

2.36 In further analysis of the RP6 data we found the average outturn costs for the 2021 reporting year to be an outlier from the other reporting years, for these four high volume categories. Compared to average for the other RP6 years to March 2023, unit costs for the 2021 year were higher by 75% for credit, 14% for keypad, 2% for commercial and 59% for theft replacements.

2.37 NIE Networks provided commentary along with its 2021 RIGs submission on the increased average unit cost, stating that it was mainly as a result of Covid-19 restrictions which had severely disrupted the efficient delivery of this metering work programme. We have therefore excluded costs and volumes for the 2021 reporting year from our benchmark analysis for these four high volume categories.

2.38 We have set the unit rates for the three recertification programmes and the replacement for theft programme at the outturn average for RP6 to March 2023, excluding the 2021 reporting year data.

2.39 For the other metering asset replacement programmes, we found that NIE Networks' proposed unit costs were largely in line with or lower than RP6 outturn to March 2023. The only exception to this was the Power Stations > 100 MW category, which was 18% higher than outturn. However, only three jobs of this type have been reported to date, and these installations are quite bespoke, therefore we have not relied on the outturn data.

2.40 We have set the unit costs for the other metering asset replacement programmes at NIE Networks' proposed unit rates.

2.41 Our draft determination for meter recertification and replacement unit costs, and subsequent forecast total RP7 expenditure, based on NIE Networks' forecast volumes, is set out in Table 2.5 below.

Meter Type	Unit Cost £		Volume	RP7 Total (£m)			
	NIE Networks Proposal	UR DD		NIE Networks Proposal	UR DD	Change +/-	Change %
Credit Meters	36.23	29.11	103,465	3.75	3.01	-0.74	-19.7%
Keypad	90.33	76.91	45,313	4.09	3.49	-0.61	-14.9%
Commercial	192.36	153.49	8,808	1.70	1.35	-0.34	-20.2%
110/33Kv BSP & Substation Metering	1,771.02	1,771.02	91	0.16	0.16	0	0%
Power Stations > 100 MW	6,089.78	6,089.78	7	0.04	0.04	0	0%
Generator Metering <100MW and >1MW	848.29	848.29	14	0.01	0.01	0	0%
HV Demand Metering >1MW	429.56	429.56	47	0.02	0.02	0	0%
HV Demand Metering <1MW	353.98	353.98	30	0.01	0.01	0	0%
Meter Replacement for Theft							
Keypad Replacement	153.65	126.21	3,731	0.57	0.47	-0.10	-17.9%
Total Meter Recertification and Replacement							
Total Direct Programme			161,506	10.36	8.57	-1.79	-17.3%

Note 1. Figures may not sum due to rounding.

Table 2.5: NIE Networks' meter recertification and replacement direct costs proposal

2.42 We will apply the existing volume driver uncertainty mechanism to all categories. However, we do not agree with the proposal for a review of unit rates during the price control as this reduces the incentive for NIE Networks to control and reveal lower costs which would benefit consumers in the future.

2.43 We note NIE Networks' revised submission regarding potential increases in unit costs for credit meters as manufacturers focus on the provision of smart metering and the market of existing types of meters diminishes. Our initial view is that it is NIE Networks' responsibility to maintain a reliable source of meters from the market.

Metering Services Indirect Costs

2.44 Metering services indirect costs are reported as a total figure across both the meter installs/changes and meter recertification and replacement programmes.

2.45 Indirect costs are those that are incurred primarily in employment of staff who manage and administer the metering services programmes and meter stock. Other indirect costs include vehicles, tools and equipment used to support the programmes. The full indirect costs allowance is determined because these costs are less directly affected by the volume of work performed.

NIE Networks' RP7 Proposal

2.46 NIE Networks set out its proposal for RP7 metering services indirect costs expenditure for each programme within its market operations submission document, as per Table 2.6 below.

Metering Services Indirect Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
Meter installs/changes	2.29	2.33	2.25	2.22	2.37	2.37	13.83
Meter recertification and replacement	0.48	0.49	0.47	0.46	0.49	0.49	2.87
Total	2.77	2.82	2.72	2.68	2.86	2.85	16.70

Note 1. Figures may not sum due to rounding.

Table 2.6: NIE Networks' metering services indirect costs proposal by programme

2.47 Indirect costs are split on average 83:17, meter installs/changes versus meter recertification and replacement.

2.48 NIE Networks also provided the cost types for each programme, in £m to one decimal place. For simplicity we have combined the programmes' cost types, as per Table 2.7 below.

Metering Services Indirect Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
Staff Costs	1.9	2.0	1.9	1.9	2.0	2.0	11.7
Fleet and Fuel	0.6	0.6	0.6	0.6	0.6	0.6	3.6
Other	0.2	0.2	0.2	0.2	0.2	0.2	1.4
Total	2.7	2.8	2.7	2.7	2.8	2.8	16.7

Note 1. Figures may not sum due to rounding.

Table 2.7: NIE Networks' metering services indirect costs proposal by cost type

2.49 Indirect staff costs are for up to 27 full time meter installs/changes staff, and 5-meter recertification and replacement staff.

2.50 Fleet and fuel costs reflect the cost of vehicles and fuel for metering electricians and field support staff. Other costs include personal protective equipment and tools.

Draft Determination

2.51 NIE Networks' metering services indirect expenditure proposals are a significant increase over current expenditure in this area. Through RP6 to date the annual average expenditure has been £1.47m. NIE Networks' RP7 proposal is an annual average of £2.8m, which is an 89% increase.

2.52 NIE Networks provided the following justifications for the increase:

- Increasing requirements in relation to the nature and complexity of work, which requires increased indirect staff support.
- Indirect activities that were previously outsourced and reflected within direct costs, now being carried out internally.
- Significant increases in average job volumes between RP6 and RP7.
- Lower than anticipated out-turn costs in RP6 to date due to lower work volumes during the Covid pandemic and difficulties in recruitment for some roles.

2.53 We would expect any changing nature and complexity of the metering services activities to be reflected more in the direct costs than indirect costs. However, if increased indirect support is required, we would expect NIE Networks to have made adjustments to ensure it meets these new realised demands, and therefore additional expenditure would be revealed in the current RP6 outturn costs.

2.54 If indirect costs are increasing as a result of carrying out activities internally that were previously outsourced and captured in direct costs, we expect NIE Networks would detail a reduction in its direct costs unit rates proposals. NIE Networks did not provide this information, and as we have set direct costs based on historical outturn, these costs will be captured in our direct costs unit rates

2.55 The increase in volume of metering services works as justification for increased indirect costs does not appear accurate. When comparing historic versus forecast total volume of metering services jobs we found the forecast average annual job volume for RP7 was only 22% higher than RP6 to date.

2.56 Figure 2.2 below shows the total metering services job volume, which has averaged c.77k annually in RP6 to date, increasing to a forecast annual average of c.95k in RP7. The LCT meter installs/changes forecast of c.18k on average annually is cause of the increase.

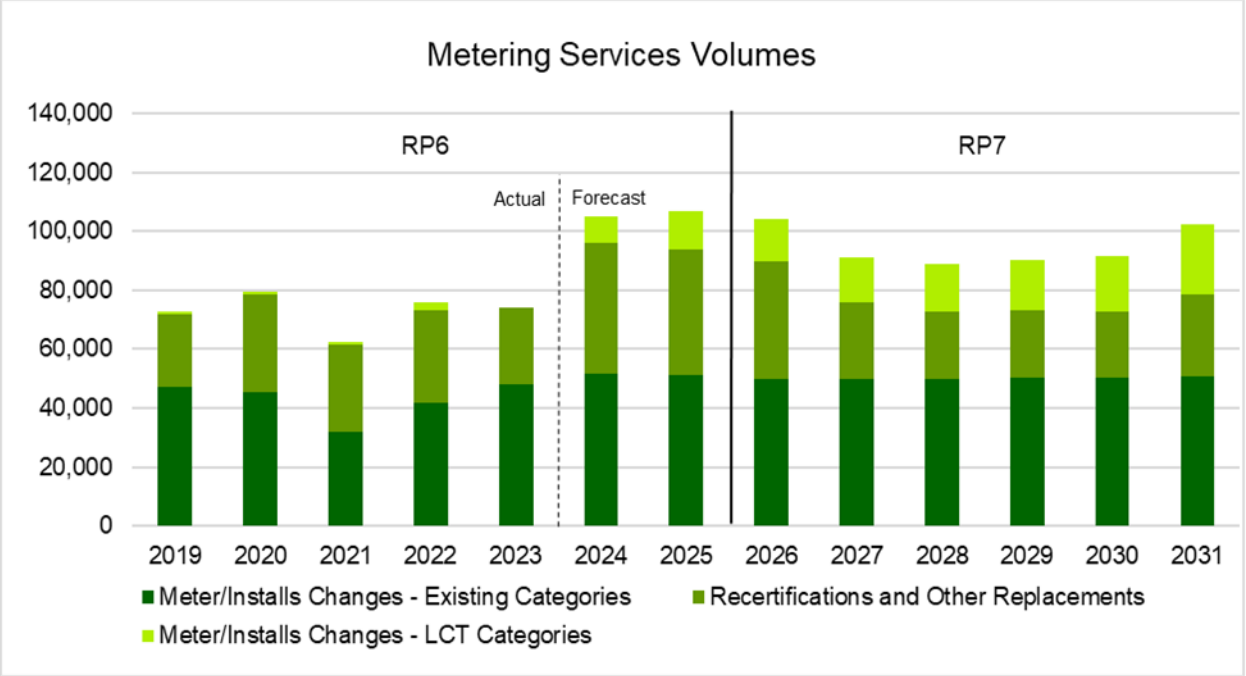


Figure 2.2: Actual and forecast metering services activity volume

2.57 In determining the metering services indirect costs allowance we have noted the forecast increase in activity, both as result a growth in LCT related metering and reduced activity during RP6 as result of Covid. Using the average RP6 expenditure would restrict NIE Networks ability to support an increase in direct activities.

2.58 We have used NIE Networks RP6 volume of activity and outturn expenditure to calculate an average indirect cost per job. We have then applied the average indirect cost per job to NIE Networks' RP7 forecast volume to determine an indirect cost allowance. We expect our methodology provides a reasonable basis to determine an efficient level of indirect expenditure to support the direct activities.

2.59 We do have concerns over NIE Networks' forecast level of activity. The 2023 reporting year volume was a forecast in the RP7 business plan submission, and we subsequently received actual data in the annual report. We have noted that the actual volume of total metering services direct activities 74,291, was 6,422 lower than forecast. We will receive the 2024 reporting year actual data prior to the final determination, and we will assess this data against NIE Networks' forecast. As a result, we may revise the volumes we have used to determine the indirect costs allowance.

2.60 Our draft determination for metering services indirect costs expenditure, is set out in Table 2.8 below. This is the total across the meter installs/changes and meter recertification and replacement programmes.

Metering Services Indirect Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks' Proposal	2.77	2.82	2.72	2.68	2.86	2.85	16.70
Draft Determination	2.11	1.85	1.81	1.83	1.86	2.08	11.55
Change +/-	-0.66	-0.98	-0.91	-0.84	-0.99	-0.77	-5.16

Note 1. Figures may not sum due to rounding.

Table 2.8: Metering services indirect costs draft determination

3. Market Services (Enduring Solution)

3.1 Enduring Solution costs relate to IT systems and support and services which facilitate the Northern Ireland Retail Market. These IT systems require on-going support.

3.2 This includes costs associated with the hosting of IT infrastructure (servers and other hardware), licences and other third-party costs as well as the provision of technical services for incident resolution.

3.3 Analysis of this spend is covered separately in Annex W which relates exclusively to IT spend.

4. Other Operating Costs

Metering Costs (Other)

4.1 Other metering costs consist of four cost/income lines. These include the following:

a) Keypad operating costs – contractual arrangements for the provision of the secure encryption service to support keypad vending and staff costs associated with keypad registration.

b) Transactional services – services to suppliers in support of the competitive retail market i.e. provision of data, re-energisation etc.

c) Transactional income – income in respect of transactional services that is derived from charging the supplier.

d) Revenue protection – activities to detect and deter cases of electricity theft and to collect money owed in relation to that illegal abstraction.

4.2 The request with respect to these activities can be summarised in Table 4.1 as follows:

Other Metering Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
Keypad Operating Costs	0.32	0.32	0.31	0.32	0.31	0.32	1.89
Revenue Protection Services costs	0.34	0.34	0.34	0.34	0.34	0.34	2.05
Transactional Charges	0.45	0.45	0.45	0.45	0.45	0.45	2.70
Transactional Income	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-2.51
Totals	**0.69**	**0.69**	**0.68**	**0.69**	**0.68**	**0.69**	**4.12**

Note 1. Figures may not sum due to rounding.

Table 4.1: NIE Networks' other metering costs proposal

4.3 It is largely expected that activities will continue as a present. NIE Networks has not made a case for any significant cost uplift for RP7. However, the keypad meters are forecast to rise by £0.1m per annum above the current RP6 run rate.

4.4 It is also noticeable that the transactional income is not expected to cover the transactional charge. This is the opposite to what has been occurring in RP6. We are also of the view that as these services are for the benefit of suppliers, general electricity consumers should not be required to pay a proportion.

4.5 For the purposes of the draft determination we have simply applied the RP6 average run rates (to date) to forecast RP7 costs. The results are detailed in Table 4.2 below.

Other Metering Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
NIE Networks' Proposal	0.69	0.69	0.68	0.69	0.68	0.69	4.12
Draft Determination	0.42	0.42	0.42	0.42	0.42	0.42	2.53
Change +/-	-0.27	-0.27	-0.26	-0.27	-0.26	-0.27	-1.60

Note 1. Figures may not sum due to rounding.

Table 4.2: Other metering costs draft determination

4.6 Overall we are proposing a £1.6m reduction from the business plan request. NIE Networks would be expected to justify cost increases if we are to reconsider our position for these activities.

Fault and Overhead Costs

4.7 Faults, business support and other overheads make up the remainder of the market operations request. The activities can be summarised as follows:

a) Faults and emergency costs – the direct cost of repairing metering faults which present a risk to safety or result in a supply interruption.

b) Control centre and customer contact centre – market operations allocation of these activity costs to reflect their role in the management of metering faults.

c) Other overheads – market operations allocation of costs associated with general overheads such as HR, finance, stores, training etc.

4.8 The request with respect to these activities can be summarised as follows:

Fault and Overhead Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
Metering Overheads - Capex	1.31	1.31	1.69	1.53	1.41	1.41	8.67
Allocation of overheads - Market Opening	0.97	0.94	0.95	0.97	0.99	0.99	5.80
Allocation of overheads - Meter Reading	1.99	1.90	1.96	2.02	2.07	2.08	12.02
Metering - Faults and Emergency	0.47	0.47	0.47	0.47	0.47	0.47	2.81
Allocation of overheads - Metering	3.09	2.98	3.05	3.10	3.15	3.15	18.52
Totals	**7.83**	**7.59**	**8.12**	**8.08**	**8.08**	**8.10**	**47.81**

Note 1. Figures may not sum due to rounding.

Table 4.3: NIE Networks' fault and overhead costs proposal

4.9 We are relatively content with the cost request for faults and emergency expenses which are much aligned to the RP6 position. The capex metering overhead request is forecast to increase substantially without explanation. We are not minded to support this unjustified uplift.

4.10 For other general overhead cost lines we have adopted the current RP6 run rate. However, to this we have added almost the full £13.7m[6] allowance for additional IT spend. The result is set out in Table 4.4 below.

Fault and Overhead Costs £m	2026	2027	2028	2029	2030	2031	RP7 Total
Metering Overheads - Capex	0.32	0.32	0.32	0.32	0.32	0.32	**1.94**
Allocation of overheads - Market Opening	0.85	0.83	0.87	0.88	0.88	0.88	**5.19**
Allocation of overheads - Meter Reading	2.04	1.98	2.09	2.12	2.12	2.12	**12.47**
Metering - Faults and Emergency	0.45	0.45	0.45	0.45	0.45	0.45	**2.70**
Allocation of overheads - Metering	3.12	3.05	3.18	3.22	3.22	3.22	**19.01**
Totals	**6.79**	**6.63**	**6.91**	**6.99**	**6.99**	**7.00**	**41.31**

Note 1. Figures may not sum due to rounding.

Table 4.4: Fault and overhead costs draft determination

4.11 The draft position represents a £6.5m reduction on the business plan request. The majority of this disallowance is focused on the metering overheads which are unexplained and are forecast to be materially above current levels.

4.12 As with other reductions, NIE Networks would be expected to justify cost increases if we are to reconsider our position for these expenses.

[6] The £13.7m allowance and split is adopted from the company response to query UR-0435 as a result of the IT replan.