



# RP7 - NIE Networks Price Control 2025-2031

Draft Determination Annex D  
Modelled and Non-Modelled Costs  
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

The RP7 price control is due to be effective from 1 April 2025 to 31 March 2031. The purpose of this document is to inform stakeholders of our draft determination for certain modelled and non-modelled costs in RP7.

The benchmarked expenditure includes costs covering inspections, maintenance, faults, tree-cutting and indirect staff (IMFT&I). Other expenditure such as severe weather, rates and licence fees have been reviewed on an individual basis. Our analysis and decisions with respect to these cost and income lines are set out in detail in this annex.

We are seeking feedback on our decisions from consumers and statutory bodies prior to our publication of our final determination in October 2024.

## Audience

This document is likely to be of interest to the licence holder affected, consumers and consumer groups, other regulated companies in the energy industry, government and other statutory bodies.

## Consumer impact

These costs form a significant portion of the overall capital (capex) and operational (opex) allowances requested from NIE Networks (added together to form totex). This being the case, decisions around IMFT&I allowances and other costs will have a material impact on customer bills in RP7.



# Contents

<b>Executive Summary</b> .....	<b>1</b>
<b>1. Introduction</b> .....	<b>2</b>
<b>2. IMFT and Indirect Costs</b> .....	<b>3</b>
RP6 modelling approach .....	3
NIE Networks RP7 business plan request .....	4
UR top-down analysis.....	8
UR bottom-up analysis .....	14
IMFT&I conclusions .....	26
<b>3. Unmodelled Costs</b> .....	<b>28</b>
Introduction.....	28
Severe weather .....	28
Business rates .....	31
Licence fees .....	31
Income lines .....	31
Staffing levels .....	32



## Executive Summary

The purpose of this annex is to set out our conclusions regarding modelled and unmodelled costs. Benchmarked costs cover inspections, maintenance, faults and tree cutting (IMFT) activity as well as indirect costs (IMFT&I). Unmodelled costs cover activities such as severe weather spend, business rates, licence fees and income lines.

The outworking of our analysis on IMFT&I is that NIE Networks is considered to be at least as efficient as the upper quartile companies in GB. As a consequence, no catch-up efficiency target is proposed.

Whilst we support a material uplift to these costs for new activities and the increased size of the capital programme, our allowances are significantly below the NIE Networks business plan request.

Our expectation is that NIE Networks will provide further submissions to justify the increases being sought. We would also anticipate detail being provided on both the improvement in the RP6 efficiency performance and the approach taken to the allocation of indirect costs to different work areas.

For unmodelled costs we are generally content with the cost treatment and amounts being requested by NIE Networks. The only exception is severe weather costs which we consider should be still part of the cost sharing mechanism. It is also our view that these costs should be somewhat lower than the amount requested by the company.

Full justification for our draft position is set out in the following chapters.

# 1. Introduction

- 1.1 This annex assesses NIE Networks' inspections, maintenance, faults and tree cutting (IMFT) activity as well as indirect costs (IMFT&I). NIE Networks has requested £688m<sup>1</sup> as part of their RP7 business plan to cover their IMFT&I costs for the six-year period. This equates to around 27% of the £2,551m<sup>2</sup> business plan totex request.
- 1.2 IMFT may be described as investment made to maintain the day-to-day operation of the network. Indirect costs relate to functions that support direct activities, including the categories of closely associated indirect costs (CAI) and business support costs (BSC).
- 1.3 Indirect costs also cover other expenses such as property, some network IT related activity, provisions etc. CAI represents resource that support direct activities, such as network design and engineering, project management, engineering management, control centre, stores, training and vehicles.
- 1.4 BSC encompass 'overhead' type costs such as network policy, HR, finance and regulation, CEO office, IT and telecoms and property management. IMFT&I include both costs that are capitalised and those that are not. As a result, our econometric benchmarking analysis, which we use to assess an efficient allowance, cuts across both capex and opex.
- 1.5 In setting an allowance for RP7, the costs are split between opex and capex based on the proportion of IMFT&I costs that were capitalised by NIE Networks. However, for the purposes of our benchmarking analysis we take these values together to review the total expenditure or totex amount.
- 1.6 A proportion of indirect costs are allocated to connections for both NIE Networks and GB DNOs. As a result, we have conducted benchmarking on a pre and post-allocation of indirect costs to connections basis.
- 1.7 This annex also assesses other cost lines separately, such as expenditure for severe weather events, business rates, income and licence fees. As these costs are subject to individual assessment and not benchmarking, we refer to them as non-modelled expenditure.
- 1.8 Whilst we do not decide on staffing levels, this annex also provides our views on the submission regarding the levels of staff requested as part of the Workforce Resilience Strategy. Our consultants have provided advice in this area after consideration of changes being proposed in GB.

---

<sup>1</sup> All financial figures in this annex are stated in 2021-22 (Oct 2021) prices, unless otherwise stated.

<sup>2</sup> N.B. This figure includes D5 transmission projects which are not decided as part of the price control but via individual uncertainty mechanism project cost applications.

## 2. IMFT and Indirect Costs

### RP6 modelling approach

- 2.1 At RP6, we employed six regression models to assess NIE Network’s efficiency for certain modelled costs. These focused on the network operating costs (NOCs) and indirect spend. The NOCs covers inspections, maintenance, faults and tree cutting (IMFT) activities.
- 2.2 Three of the six models assessed efficiency for total IMFT&I expenditure. The other three models separately assessed NOCs, CAI and BSC. The combination of the NOCs, CAI and BSC models was known as our disaggregated ‘middle-up’ approach.
- 2.3 We ran all models on both a pre and post connection cost allocation basis. We also made a regional wage adjustment (RWA) to account for different local labour costs by region. The historic RP6 efficiency models are set out in Table 2.1 below:

Model Number	Modelled Cost	Cost Drivers
1	Indirects and IMFT	<ul style="list-style-type: none"> <li>• Network length</li> <li>• Network density</li> <li>• Percentage of overhead lines (OHL)</li> </ul>
2	Indirects and IMFT	<ul style="list-style-type: none"> <li>• Composite scale variable (CSV)</li> <li>• Time dummies</li> <li>• Percentage of overhead lines (OHL)</li> </ul>
3	Indirects and IMFT	<ul style="list-style-type: none"> <li>• Length divided by customer numbers</li> <li>• Time dummies</li> <li>• Percentage of overhead lines (OHL)</li> </ul>
4	NOCs	<ul style="list-style-type: none"> <li>• Network length</li> <li>• Network density</li> <li>• Percentage of overhead lines (OHL)</li> </ul>
5	CAI	<ul style="list-style-type: none"> <li>• CSV</li> <li>• Percentage of overhead lines (OHL)</li> </ul>
6	BSC	<ul style="list-style-type: none"> <li>• CSV</li> </ul>

**Table 2.1: RP6 efficiency models**

- 2.4 Our RP6 conclusion was that a triangulated efficiency gap of 2.31% existed. However, no catch-up target was applied. We stated:

“the Utility Regulator has decided not to apply this efficiency discount to NIE Networks’ base costs for 2015-16. This provides NIE Networks with significant headroom during the six and a half years of RP6.”<sup>3</sup>

2.5 Our conclusion was that NIE Networks would be able to use this headroom to address challenges as they arise in a more incisive and efficient manner.

### **NIE Networks RP7 business plan request**

2.6 For RP7, NIE Networks has employed NERA to conduct their relative efficiency benchmarking. They have replicated the RP6 analysis in large part. They have also developed their own bespoke models. Key decisions when conducting their analysis include the following:

- a) Have included 10 years of NIE Networks data in the models to compare with GB DNO’s. However, the efficiency score is based on comparisons for the financial years 2018/19 to 2021/22.
- b) Have run all models for distribution benchmarking, both including and excluding the 110kV assets (as these reflect distribution assets in GB but transmission assets in NI).
- c) Consider that a post-allocation approach would be most appropriate for assessing efficiency as NIE Networks connections related indirect costs are disproportionately high compared to the GB DNOs.
- d) Used ASHE (Annual Survey of Hours and Earnings) survey data to calculate the regional wage adjustment (RWA).
- e) Applied a RWA but only to a proportion of labour costs. This accounts for the fact that not all labour has to be co-located with the network activities i.e. call centre could be located anywhere. This approach reflects the methodology adopted by Ofgem.
- f) Used an upper quartile (UQ) efficiency benchmark to assess efficient costs, as is common in past regulatory price reviews.

2.7 NERA results when re-running the RP6 models are in Table 2.2 as follows:

---

<sup>3</sup> See RP6 final [determination](#), para 5.301, p128.



**Table 4.1: Summary of NIE's Performance Across UR RP6 Models**

Model no.	Combined I&IMFT			NOCs	CAI	Business Support
	1	2	3	4	5	6
Post-allocation efficiency score	77%	77%	74%	69%	78%	69%
Post-allocation ranking	1	1	3	1	1	1

*Source: NERA Analysis.*

**Table 2.2: NERA results when re-running RP6 models<sup>4</sup>**

- 2.8 Whilst showing that NIE Networks are very efficient<sup>5</sup>, NERA has noted some problems with these models. For instance, some models fail statistical tests while some variables appear ineffective at explaining the relationship between cost and drivers. In particular, the percentage of OHL (Overhead Line) variable to address sparsity is often statistically insignificant.
- 2.9 As an alternative, NERA has developed their own models considering other explanatory variables such as peak demand and population density. Results of their alternative models are in Table 2.3 as follows:

**Table 4.15: Summary of NIE's Performance Across Alternative Models**

Model no.	1	2	3	4
Efficiency score	86%	75%	72%	87%
Ranking	1	1	1	1

*Source: NERA Analysis.*

**Table 2.3: NERA alternative model models<sup>6</sup>**

- 2.10 NERA have placed equal weight on all of their models to assess an overall efficiency score for NIE Networks and the 14 British DNOs. The overall efficiency score for NIE Networks is determined as 78%.
- 2.11 Their conclusion is that, "NIE could have spent 24 per cent more in RP6 on I&IMFT, and still have been 'upper quartile'." The scale of efficiency outperformance is not quite as high if 110kV costs are included.
- 2.12 NERA did perform some separate high-level comparisons for transmission spend. They noted the difficulties in undertaking dedicated benchmarking for transmission activity.

<sup>4</sup> Source: NERA, *Comparative Benchmarking to Support the Preparation of NIE Networks' RP7 Business Plan* paper, Table 4.1, p34.

<sup>5</sup> A score of less than 100% indicates efficiency. Scores above 100% represent an inefficient cost level. A ranking of 1 represents the best performing distribution network operator (DNO) in GB.

<sup>6</sup> Source: NERA paper, Table 4.15, p52.

2.13 Their recommended approach for RP7 was to adopt the same approach as RP6 i.e. include 110kV network in the distribution modelling and apply the resulting efficiency factor to the remaining 275kV network.

### **Business plan application**

2.14 The typical use of efficiency analysis is to determine whether a catch-up target should be imposed on future costs. NIE Networks summarise their understanding of the UR process as follows:

- Stage 1 - UR will benchmark historic costs to determine an “efficiency gap” (being the difference between actual costs and the expected expenditure for a company operating at the upper quartile).
- Stage 2 - UR will apply the determined efficiency gap to base year expenditure. This gives a starting point for allowances.
- Stage 3 - UR will consider if any additional allowances are appropriate, for example if there are new activities to be carried out in future that do not feature in the base year.
- Stage 4 - UR will roll forward the allowances determined at Stage 3 year-on-year, applying adjustments for real price effects (RPEs) and productivity improvements.

2.15 This is a reasonable summation of our approach. Given the efficiency ranking, the company has obviously not proposed any efficiency challenge. However, NIE Networks has used the findings of the NERA analysis to support an uplift to indirect and IMFT costs. The uplift consists of two parts:

- a) There is a negative efficiency gap of up to 24% to the upper quartile. NIE Networks has assumed this is not efficiency but due to scope differences. Applying a 24% uplift to actual IMFT&I baseline costs in 2021/22 of £76m<sup>7</sup> results in a new baseline of £94m per annum (i.e. £76m x 1.24).
- b) NIE Networks suggest that a 10% increase in direct capex will lead to a 1.5% increase in indirect costs. During RP7, capex is forecast by the company to increase by £545m. This suggests gross indirect and IMFT costs will increase by £82m over the six years of RP7, or £14m per annum.

---

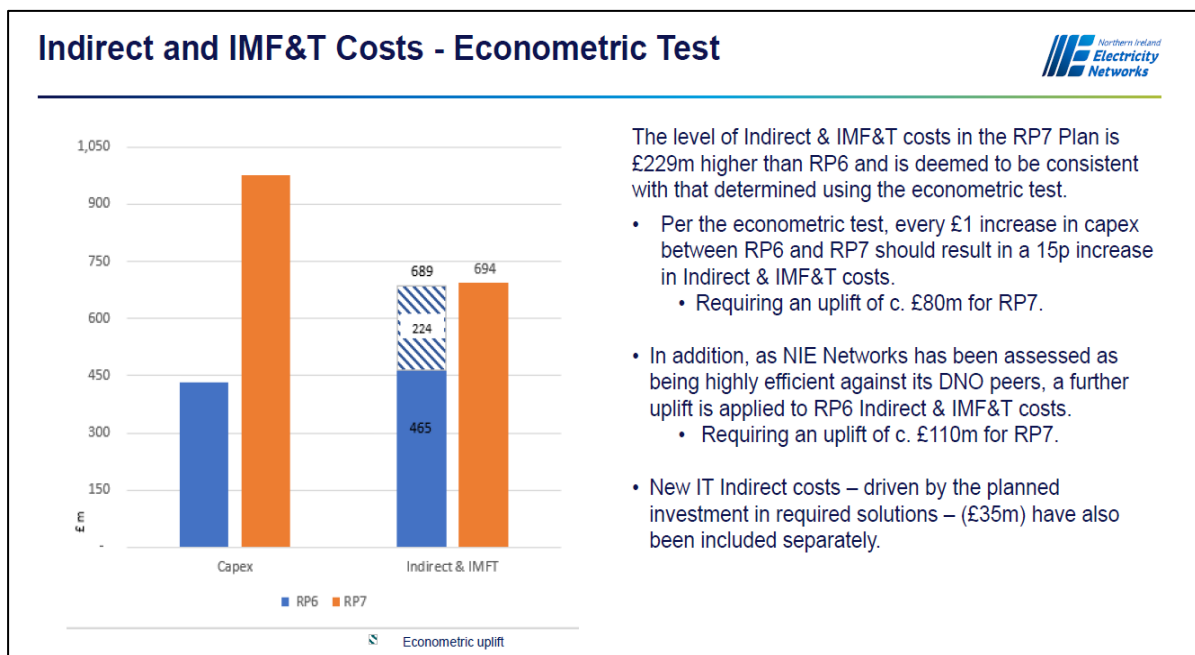
<sup>7</sup> For the purposes of the draft determination, the baseline figure of £76m has been accepted. However, this particular year includes certain costs (such as provisions or non-cost RIGS) which are forecast to be lower or zero in RP7. If considering an automatic uplift these atypical costs should be removed from the baseline resulting in a figure around £75m/a.

2.16 Adding the £14m to the £94m gives a total “top-down” assessment for indirect and IMFT costs of £108m per annum. NIE Networks consider this to be in-line with their bottom-up assessment of £110m per annum.

2.17 They have justified the 24% uplift to base costs for scope differences due to the following factors:

- New DSO<sup>8</sup> functionality which GB is already more advanced in.
- Enhanced guaranteed standards of service (GSS).
- ESQCR<sup>9</sup> expenditure which current lags that of the GB DNOs.
- Increasing cost pressures from contractors.
- IT provider has reduced charges to reflect historic challenges in meeting contractual commitments. This reduction is expected to end.

2.18 Their approach is summarised in Figure 2.1 below:



**Figure 2.1: NIE Networks top down IMFT&I assessment<sup>10</sup>**

2.19 NIE Networks has also pointed to the use of an indirect ‘scalar’ by Ofgem when considering the impact of a larger capital programme on support staff and costs. The scalar reflects the view that indirect support staff costs are likely to grow alongside any increase in the capital programme.

<sup>8</sup> DSO = Distribution System Operator.

<sup>9</sup> ESQCR = Electricity Safety, Quality and Continuity Regulations.

<sup>10</sup> Source: NIE Networks presentation slide pack of 04 April 2023 for UR site visit meeting.

- 2.20 The overall conclusion is that there has been a substantial improvement in efficiency between the price control periods. However, some of this improvement is not considered to be efficiency but rather scope difference. The result is a material uplift to the IMFT&I cost request on the assumption that NIE Networks will reduce these scope differences in the next period.
- 2.21 NIE Networks has provided a top-down justification for an uplift from £76m per annum in 2021-22 to £108m in the RP7 years. This is set out in the following Table 2.4:

	RP7 IMFT&I Request
NIE Networks 2021-22 baseline	£76.2m
NERA efficiency gap percentage uplift to UQ	24.0%
100% scope difference assumption	24.0% (24% * 1)
New baseline	£94.5m (£76.2m * 24%)
Base year indirect costs (gross)	£63.9m
Direct capex increase	147%
Indirect scalar	0.150
Indirect adjustment factor	22.0% (147% * 0.150)
Indirects uplift	£14.1m (£63.9m * 22%)
Total IMFT&I RP7 Request	£108.6m (£94.5m + £14.1m)

**Table 2.4: NIE Networks RP7 request for IMFT and indirect costs**

- 2.22 Upon review it would appear that the actual business plan request for comparable costs is somewhat higher. Our analysis suggests the request is closer to £115m per annum for these costs. This difference is not explained.

### UR top-down analysis

- 2.23 We have engaged CEPA to undertake the efficiency modelling for RP7. They were tasked with assessing NIE Networks efficiency and advising on target setting. They have opted to re-run the RP6 models with updated data. They have also considered model revisions and some totex assessment.
- 2.24 Full details of their efficiency modelling can be found in Annex B of the RP7 draft determination. However this annex provides a summary of the relevant findings and their subsequent application.

- 2.25 In terms of the analysis, various pre-modelling adjustments are required to be made in order to ensure comparability. Results will be impacted by what decisions are taken on the appropriate costs to be reviewed. For instance, adjustments and decisions include the following:
- a) Allocation of costs and volumes from NIE Networks transmission business for 110kV assets to the distribution side of the business.
  - b) GB DNOs do not undertake metering activities. Need to exclude metering costs and indirect costs associated with metering.
  - c) NERA argues that wayleaves costs are not comparable between GB and NIE Networks due to the higher share of overhead lines in NI.
  - d) Whether to include or exclude connection costs from the efficiency modelling due to differences in the competitive connection market.
  - e) Reallocation of vehicle and property costs from non-op capex to indirects due to differences between renting/leasing and purchasing.
  - f) Application of the RWA to only a proportion or all labour costs.<sup>11</sup>
- 2.26 As per RP6, the focus of the efficiency analysis is on the indirect and IMFT spend. Bottom-up assessment has been relied upon for the capital programme and this is considered the most appropriate approach.
- 2.27 For the RP6 re-run models, CEPA also found some statistical problems and the fact that some of the explanatory variables did not work well. The exclusion of connection costs has a material impact, but the analysis indicates a good level of efficiency compared to the upper quartile (UQ).
- 2.28 CEPA also ran alternative models to address some of the statistical problems. The results of the IMFT&I and NOCs only alternative models are as follows in Table 2.5:

---

<sup>11</sup> Full methodology discussion and the CEPA approach to pre-modelling adjustments is set out in Annex B, Section 2.2.

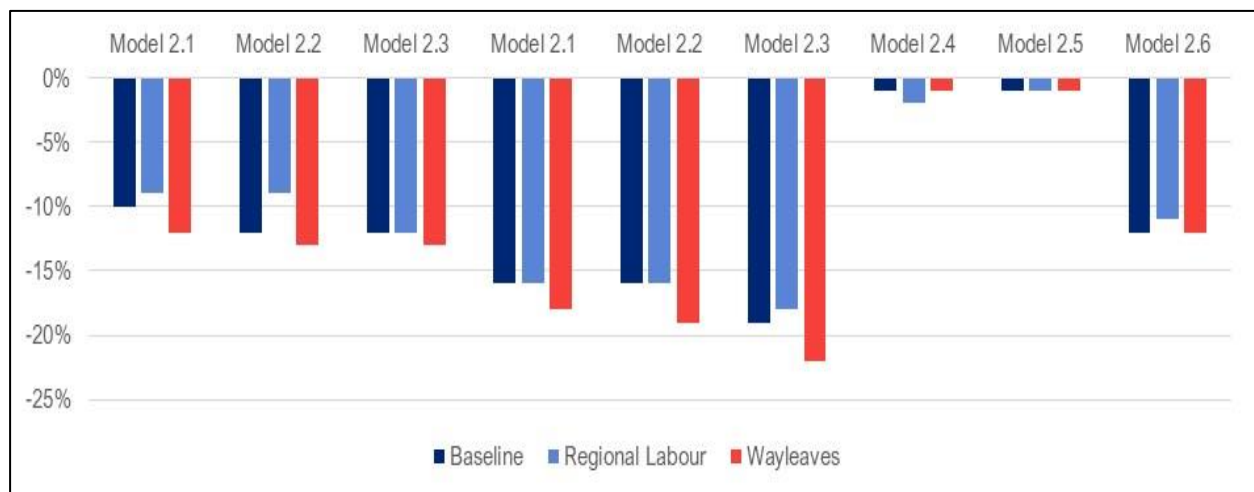
	IMFT & Indirects (inc connection costs)			IMFT & Indirects (exc connection costs)			NOCs		
	Model 2.1	Model 2.2	Model 2.3	Model 2.1	Model 2.2	Model 2.3	Model 2.4	Model 2.5	Model 2.6
Log of network length	0.821*** {0.000}		0.810*** {0.000}	0.839*** {0.000}		0.823*** {0.000}	1.031*** {0.000}		1.006*** {0.000}
Log of middle-up CSV		0.834*** {0.000}			0.851*** {0.000}			1.041*** {0.000}	
Log of customers per network length	0.739*** {0.000}	0.339** {0.035}	0.437*** {0.000}	0.904*** {0.001}	0.495** {0.026}	0.460*** {0.002}	1.389*** {0.000}	0.888*** {0.000}	0.679*** {0.001}
Length of overhead lines as a % of network length	0.703** {0.013}	0.768*** {0.010}		1.030*** {0.006}	1.096*** {0.005}		1.648*** {0.003}	1.728*** {0.003}	
Constant	-6.742*** {0.000}	-5.996*** {0.000}	-5.300*** {0.000}	-7.751*** {0.000}	-6.983*** {0.000}	-5.639*** {0.000}	-12.759*** {0.000}	-11.756*** {0.000}	-9.380*** {0.000}
<b>Model robustness tests</b>									
Adjusted R2	0.874	0.873	0.845	0.843	0.842	0.788	0.817	0.811	0.741
RESET test	0.001	0.000	0.287	0.000	0.000	0.256	0.000	0.000	0.110
Normality of model residuals	0.047	0.004	0.821	0.068	0.125	0.422	0.220	0.256	0.052
Heteroskedasticity	0.025	0.111	0.120	0.003	0.013	0.006	0.720	0.635	0.909
Chow test	0.995	0.493	0.976	0.872	0.362	0.962	0.549	0.801	0.572
NIE Networks efficiency score	0.865	0.881	0.820	0.814	0.830	0.754	0.875	0.896	0.773
UQ	0.970	0.998	0.942	0.974	0.992	0.949	0.889	0.906	0.889
Catch-up challenge	-10%	-12%	-12%	-16%	-16%	-19%	-1%	-1%	-12%

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Middle-up CSV = a 50% weight to network length, a 25% weight to customer numbers, and a 25% weight to units distributed (or energy throughput).

**Table 2.5: CEPA alternative IMFT&I model results<sup>12</sup>**

2.29 Results on the efficiency gap for each of the models are set out in Figure 2.2 below.



**Figure 2.2: Analysis of the efficiency gap<sup>13</sup>**

2.30 Under these models NIE Networks continue to be considered more efficient than the UQ. This result is in line with the NERA analysis, though the scale of the efficiency outperformance is generally not as great. This is particularly true for the NOCs models, which show NIE Networks performance generally in line with the UQ.

<sup>12</sup> Source: CEPA Analysis, Annex B, Table 4.3, p28.

<sup>13</sup> Source: CEPA Analysis, Annex B, Figure 4.2, p29.

- 2.31 For the purposes of assessing the efficiency gap, it would seem reasonable to maintain a dependence on both pre and post connection allocation models.
- 2.32 This is because the pre-allocation approach reduces the risk of distortions in the modelling from different DNO practices regarding indirect cost allocation. The post-allocation findings are also important given the difference in the connections operating environment.
- 2.33 For the alternative CEPA models, there is some improvement in statistical performance while the results do not diverge significantly from the previous RP6 models. We have concluded that we should rely on these models for the draft determination.
- 2.34 The efficiency scores and the potential uplift to get to UQ spend (as per the NIE Networks approach) is set out in Table 2.6 below.

Model Number	NIE Efficiency Score	Upper Quartile Score	% Uplift to UQ
2.1 = IMFT&I (inc. connection costs)	0.865	0.970	12.1%
2.2 = IMFT&I (inc. connection costs)	0.881	0.998	13.3%
2.3 = IMFT&I (inc. connection costs)	0.820	0.942	14.9%
2.1 = IMFT&I (excl. connection costs)	0.814	0.974	19.7%
2.2 = IMFT&I (excl. connection costs)	0.830	0.992	19.5%
2.3 = IMFT&I (excl. connection costs)	0.754	0.949	25.9%
2.4 = NOCs	0.875	0.889	1.6%
2.5 = NOCs	0.896	0.906	1.1%
2.6 = NOCs	0.773	0.889	15.0%
Totals			13.7%

**Table 2.6: CEPA alternative model efficiency scores**

- 2.35 The results suggest that no catch-up efficiency target is appropriate. However, they also indicate that the NIE Networks 24% base uplift is not supported by the top-down analysis.
- 2.36 If we accept the premise of the NIE Networks approach, the equivalent uplift would be a 13.7% base uplift from an average of all nine alternative models. However, this would assume all the difference is due to scope, which we do not have any certainty of.

2.37 For the purposes of our top-down assessment we have assumed 50% of the outperformance can be attributed to scope differences. This results in a 6.8% or £5.2m p.a. increase.

### **Indirect scalar**

2.38 In terms of the indirect scalar uplift to account for the changing capital programme, some addition seems justified. However, whilst we agree with the principle, there are material differences in the calculation of the impact. These differences are focused on three areas:

- a) We have assessed a lower level of direct capital increases as being required in the draft determination. This restricts the proportional increase required for indirect spend.
- b) Whereas NIE Networks has used a scalar of 0.15, Ofgem has adopted a comparable value of 0.108. We have accepted the Ofgem position as no justification has been provided for the higher figure.
- c) NIE Networks has applied the uplift to gross indirects. In contrast, Ofgem has determined that it should only apply to CAI and not business support costs.

2.39 In terms of the application issue Ofgem state:

“In setting the value of the Indirects Scaler we have used the coefficient from the NERA regression which models Closely Associated Indirect costs only (ie 0.108). This is because we do not consider there to be a sufficiently strong relationship between BSC (such as Finance, HR, CEO costs etc.) and LRE [load-related expenditure].”<sup>14</sup>

2.40 It would seem appropriate to adopt a similar position. We intend to apply the scalar to additional direct capex excluding D5 projects. We include an allowance for additional CAI in the determination of D5 projects and there is no need to make provision for this in the ex-ante determined costs.

2.41 Accounting for these differences, our top-down analysis gives a somewhat different outcome as detailed in Table 2.7 below.

---

<sup>14</sup> Source: RIIO-ED2 Final Determinations Core Methodology [Document](#), para 7.527, p335.



	IMFT&I Top-Down Allowance
NIE Networks 2021-22 baseline	£76.2m
CEPA efficiency gap percentage uplift to UQ	13.7%
50% scope difference assumption	6.8% (13.7% * 0.5)
New baseline	£81.4m (£76.2m * 6.8%)
Base year indirect costs (CAI only)	£32.6m
Direct capex increase	128%
Indirect scalar	0.108
Indirect adjustment factor	13.8% (128% * 0.108)
Indirects uplift	£4.5m (£32.6m * 13.8%)
Network access and IT uplifts	£2.9m
Total IMFT&I RP7 Request	£88.8m (£81.4m + £4.5m + £2.9m)

**Table 2.7: UR top-down allowance for IMFT and indirect costs**

- 2.42 A top-down allowance gives a value of £85.9m for IMFT&I costs. However, we have made separate provision for network access and IT expenses where full allowance has been provided. The final top-down position is therefore £88.8m per annum.
- 2.43 The top-down position does however depend upon acceptance of the premise that an automatic uplift should apply where the company is found to be more efficient than the upper quartile.
- 2.44 In the workings of the RIIO-ED2 models, at the end of the process, there was a 'ratchet' applied that set allowed costs based on the lower of submitted and modelled costs.<sup>15</sup> As a consequence, a company would never receive more than its submitted costs.
- 2.45 This precedent suggests that automatic upward adjustments should not apply. Whilst it is accepted that scope differences exist in areas like guaranteed standards, it is also our view that any cost increase needs to be fully justified. For this reason, we have conducted a bottom-up cost analysis of these costs.

<sup>15</sup> Source: RIIO-ED2 Final Determinations Core Methodology [Document](#), footnote 111, p221.

## UR bottom-up analysis

- 2.46 NIE Networks has relied principally on benchmarking to construct their IMFT&I request. However, they have provided some engineering judgement papers (EJPs) in support of uplifts in certain areas. This includes IMFT activity and property costs.
- 2.47 Other areas where they have identified scope differences such as Guaranteed Standards of Service (GSS) or DSO activity have not been subject to separate request or scrutiny. We have agreed with NIE Networks that further detail on these areas should be provided in early 2024 so as to be considered in the final determination.

### IMFT analysis

- 2.48 For IMFT expenditure, NIE Networks did provide some bottom-up justification to support part of their scope uplift as follows in Table 2.8:

Area	RP6 £m	RP7 £m	RP6 £m/a	RP7 £m/a	Increase £m/a
Inspections	16.6	35.4	2.6	5.9	3.3
Maintenance	30.1	38.8	4.6	6.5	1.8
Tree Cutting	27.6	37.2	4.2	6.2	2.0
Faults	61.1	58.8	9.4	9.8	0.4
T&D Total	£135.4m	£170.2m	£20.8m/a	£28.4m/a	£7.5m/a

**Table 2.8: EJP cost increases in IMFT expenditure across controls<sup>16</sup>**

- 2.49 Of the c. £18m/a scope uplift, NIE Networks attributes around £7.5m/a to IMFT related activities. Our analysis of the various requests is detailed in the tables below.

Cost Category	Inspections
Issue	Survey and wayleave work
<b>Uplift Amount Requested in RP7</b>	<b>£12.1m</b>

<sup>16</sup> It is worth noting that the RP6 total usually refers to a 6.5-year period excluding the extension year.

## Synopsis

- NIE Networks has asked for an additional £12.1m for the amount of 11kV and 6.6kV network that needs survey and wayleave work due to The Green Recovery Scheme.
- NIE Networks states that, “The full survey and wayleaves costs for the rebuild programme will be allocated to inspections in RP7.”
- They further state that this level of inspections will be required for the full 15 years of the green recovery project.
- The change in costs and volumes is highlighted in the table extract below.

Area	RP6 Volume	RP6 Cost	RP7 Volume	RP7 Cost
Survey and wayleaves	30,818	£5,489,709	28,080	£17,543,489

## Issues / Summary

- There does appear to be a rationale for an increase to costs.
- However, it is unclear why the scale of the green recovery allowance should effectively triple the survey and wayleave expenditure.
- From the volume information provided in the EJP, there does not appear to be an increase in activity which would support such an uplift.
- Unit costs for this activity are proposed to rise by c. 250%.
- By way of justification, NIE Networks state in query response UR-0450 that, “The biggest change arising from the application of the rebuild specification is the upgrading of conductor on spur lines.....spur lines would have previously been inspected under the Re-engineering and Refurbishment specifications, detailed survey work would not have been undertaken as spurs were only subject to light refurbishment. Therefore, whilst the kilometres of overhead line subject to inspection have decreased the level of work required for each kilometre of line has substantially increased.”
- From the cost and volume (C&V) submission which provides a further breakdown, one line which would support such a material uplift across the price controls would be the *HV OHL Inspections – Foot Patrol* activity.
- This is showing a 74% increase in the volume of activity. However, it also incorporates a 53% increase in the real unit rate of such activity.
- The volume information for this line is however of a much larger magnitude than that captured in the EJP.

## Recommendation

- We are content that the Green Recovery would facilitate a substantial rise in the difficulty of activity.
- Consequently, some uplift allowance could be considered reasonable.
- However, such large increases in unit rates would not be expected and do not appear justified, particularly given the potential for scale economies.
- A partial allowance would seem reasonable in this instance.
- Rather than the +250% unit cost increase, we have assumed a 50% uplift.
- This is in line with the +53% unit cost increase for OHL foot patrol costs in the C&V reporting.

<ul style="list-style-type: none"> <li>The decrease in overall volumes means that the cost impact is limited to the lower RP7 volume expected.</li> </ul>	
<b>DD Recommendation</b>	<b>£2.0m</b>
<b>DD Actions</b> <ul style="list-style-type: none"> <li>In order to consider further allowance, NIE Networks would need to demonstrate the basis for the justification in the unit cost increase.</li> <li>We would expect to see a breakdown of current typical spend and that proposed under the more extensive survey work.</li> <li>Estimates of time and activity should also be provided.</li> </ul>	

**Table 2.9: Review of survey and wayleave inspection costs**

Cost Category	Inspections
<b>Issue</b>	<b>LiDAR Survey<sup>17</sup></b>
<b>Uplift Amount Requested in RP7</b>	<b>£4.0m</b>
<b>Synopsis</b> <ul style="list-style-type: none"> <li>NIE Networks proposes to align with the GB DNO strategy and complete one full network LiDAR survey in RP7 at a cost of £4.0m.</li> <li>The survey is anticipated to drive efficiencies and improve overall accuracy of OHL conductor clearances, pole and tower positions.</li> <li>It is expected to assist in applying a risk-based approach for focus on high and very high-risk sites and should allow for effective prioritisation.</li> <li>NIE Networks has also stated that, "It may also benefit large D5 refurbishment projects where LiDAR surveys are currently carried out on an individual basis."</li> </ul>	
<b>Issues / Summary</b> <ul style="list-style-type: none"> <li>This has not been done before but would appear that some GB DNOs have undertaken similar activity.</li> <li>No basis has been provided for the £4.0m cost.</li> <li>If funded, this would presumably result in inspection savings elsewhere, particularly given that NIE Networks has listed efficiency as a key output.</li> </ul>	
<b>Recommendation</b> <ul style="list-style-type: none"> <li>This seems like a useful project but it is unclear if it needs to be funded given uplifts to inspection, maintenance and tree-cutting activities.</li> <li>The activity may also be self-funding if it drives efficiency elsewhere.</li> <li>We are also concerned that the survey results would have a limited life-span and individual work would still be required for D5 projects.</li> <li>We do not recommend an allowance for the draft determination</li> </ul>	

<sup>17</sup> LiDAR survey = Light detection and ranging survey.

DD Recommendation	£0.0m
<p><b>DD Actions</b></p> <ul style="list-style-type: none"> <li>• In order to consider further allowance, NIE Networks would need to demonstrate the following: <ul style="list-style-type: none"> <li>a) Basis of the £4m cost.</li> <li>b) How long the survey results would be applicable.</li> <li>c) What areas would efficiency be expected and why.</li> <li>d) Whether such surveys would be required for any individual D5 projects during the RP7 period.</li> </ul> </li> </ul>	

**Table 2.10: Review of LiDAR survey inspection costs**

Cost Category	Inspections
<b>Issue</b>	<b>Underground Cables</b>
<b>Uplift Amount Requested in RP7</b>	<b>£1.5m</b>
<p><b>Synopsis</b></p> <ul style="list-style-type: none"> <li>• NIE Networks proposes additional monies in the inspections of underground cables.</li> <li>• This includes: <ol style="list-style-type: none"> <li>1) Cable sealing ends on 33kV cables where a type defect has been identified during RP6 on a specific termination kit from one manufacturer.</li> <li>2) A new programme to inspect non-metered cut-outs at a programme cost of £140k.</li> <li>3) A new programme to inspect submarine cables at a cost of £630k. Cables will reach 20 years old during RP7.</li> <li>4) A new programme to inspect fluid filled cables (FFC) at a cost of £300k in order to reduce the overall leakage rate.</li> </ol> </li> </ul>	
<p><b>Issues / Summary</b></p> <ul style="list-style-type: none"> <li>• No supporting detail has been provided for the cost requests.</li> <li>• Cable termination issue seems justified given problems detected in RP6.</li> <li>• However, it is not clear why the non-metered cut out inspections are required now and how the volume has been determined.</li> <li>• We accept the submarine cables should be inspected given the asset age.</li> <li>• The FFC inspections should already be being done, particularly since NIE Networks state their performance is high compared to other DNOs.</li> <li>• The need for this seems to be the commitment to reduce cable leakage by 10%. This is a stakeholder commitment.</li> </ul>	

**Recommendation**

- The cable termination and submarine inspection costs appear justified.
- It is not clear why the cut-outs are required now as a new activity.
- We would expect the FFC inspections to already be part of the inspection programme, so not clear why additional funding is required.
- Partial allowance seems reasonable.
- We propose allowing the increased volume in cable termination inspections but at the RP6 unit rate. We have also allowed the cut-out and submarine inspections.
- FFC inspections are accepted as reductions in leakage levels are to be actively encouraged.
- Such a position is however considered to be generous given the justification that has been provided.

**DD Recommendation**

**£1.36m**

**DD Actions**

- In order to consider further allowance, NIE Networks would need to demonstrate the following:
  - a) Why cable termination unit costs are expected to more than double.
  - b) Why the non-metered cut-out inspections are required now and how the RP7 volume has been determined.
  - c) What the current level of FFC leakage currently is and what target impact the additional inspections are expected to have.

**Table 2.11: Review of underground cable inspection costs**

<b>Cost Category</b>	<b>Tree Cutting</b>
<b>Issue</b>	<b>Tree Maintenance</b>
<b>Uplift Amount Requested in RP7</b>	<b>£9.7m</b>

## Synopsis

- NIE Networks proposes additional monies of around £9.7m across RP7 in relations to tree cutting activities.
- This is mainly justified due to increased temperatures and growth rates.
- The main drivers of the increase include:
  - 1) An additional £5m with respect to the 33kV programme where the plan is to move from a 3-year to a 2-year cutting cycle.
  - 2) An extra £4.4m on LV tree cutting.
  - 3) New spend of £1.3m on commercial plantation cutting.
- Other cost lines vary accordingly.
- The request is detailed below.

RP6 Programme	UoM	RP6 Volume	RP7 Cost
Transmission tree cutting	Km	4,742	£1.8m
33kV tree cutting	Km	6,912	£2.4m
11kV and 6.6kV tree cutting	Km	47,069	£19.1m
LV tree cutting	Km	7,621	£3.4m
Hotspot tree cutting	Sites	As required	£0.7m
Substation tree cutting	Sites	300	£0.2m
Commercial plantation cuts	Spans	n/a	n/a
<b>Totals</b>		<b>66,644</b>	<b>£27.6m</b>
<b>Total per annum</b>		<b>10,253 p.a.</b>	<b>£4.6m/a</b>

RP7 Programme	UoM	RP7 Volume	RP7 Cost
Transmission tree cutting	Km	4,380	£1.6m
33kV tree cutting	Km	9,570	£7.4m
11kV and 6.6kV tree cutting	Km	43,446	£18.3m
LV tree cutting	Km	9,066	£7.8m
Hotspot tree cutting	Sites	As required	£0.5m
Substation tree cutting	Sites	966	£0.4m
Commercial plantation cuts	Spans	1,572	£1.3m
<b>Totals</b>		<b>69,000</b>	<b>£37.3m</b>
<b>Total per annum</b>		<b>11,500 p.a.</b>	<b>£6.2m/a</b>

## Issues / Summary

- NIE Networks has identified live zone infringements and so is proposing to reduce the 33kV cycle from a 3-year to a 2-year cutting cycle.
- This will increase volumes and costs.
- If issues have been spotted, this may be sensible. However, comparison with other DNOs would suggest that this approach may be overly cautious.
- The unit cost as set out in the EJP for this activity also seems questionable i.e. RP6 = (£2.4m / 6,912 Km = £347 per km) vs RP7 = (£7.4m / 9,570 Km = £773 per km).

- This unit cost increase is not explained.
- Neither has justification been provided for the LV cutting increase.
- It is also noticeable that the LV costs are expected to rise by £4.4m (129%) yet volumes are only expected to increase by 1,445 km (19%).
- This again suggests a very large unit cost increase which is not supported.
- NIE Networks has noted that some commercial plantations are infringing on clearances with more risk as they mature.
- However, it is not clear why this has now become a new issue, unless these are new plantations which were not problematic before.
- The large unit cost increases are also not shown in the C&V dataset.

### Recommendation

- If issues are being detected the 33kV cycle change maybe reasonable.
- However, NIE Networks own benchmarking suggests that the current 3-year cycle is appropriate compared to other DNOs.
- At any rate, the unit cost increases are not justified.
- Little explanation is given for the LV spend so we are not inclined to support the unit cost increases.
- The substation cycle cuts have been accepted but it is not clear why commercial planation work is now becoming an issue.
- Most of the £9.7m uplift costs have been rejected but the forecast spend for the 6 years of RP7 is similar to that predicted for 6.5 years of RP6.
- The result is a **£0.3m/a** increase in allowances.

DD Recommendation

£0.0m

### DD Actions

- In order to consider further allowance, NIE Networks would need to demonstrate the following:
  - a) Why NI might differ when it comes to the 33kV tree cutting cycles, particularly given close comparators such as ESB Networks.
  - b) Why the significant unit rates increases are expected, especially given economies of scale with higher volumes.
  - c) Why commercial plantation cutting is now becoming an issue.
  - d) If proposing a move to a 2-year cycle, how this might impact on the capitalisation of such costs.

**Table 2.12: Review of tree cutting activity costs**

Cost Category	Maintenance
<b>Issue</b>	<b>Maintenance</b>
<b>Uplift Amount Requested in RP7</b>	<b>£8.7m</b>



## Synopsis

- NIE Networks proposes additional monies of around £8.7m across RP7 in relations to maintenance activities. This is a 29% uplift from RP6 (excl. extension year).
- The main drivers of the increase include:
  - 1) Legal requirements have increased the need to complete more leak checks and introduced the need to complete calibration of fitted gas gauges.
  - 2) Repairs to resolve oil leaks as the age profile of transformers increase.
  - 3) Static Synchronous Compensators (STATCOM) were fitted to the distribution system. While numbers are small the units require inspection and testing.
  - 4) There is a requirement to maintain newly installed generators at black start sites.
  - 5) Frequency of grounds maintenance has been increased in RP7 at transmission and primary sites from 2 to 3 visits per year to manage increased growth rates.
  - 6) NIE Networks also listed some unit cost changes.
- Other cost lines vary accordingly. The request is detailed below.

RP6 Programme	RP6 Costs	RP7 Costs
Distribution maintenance	£6.4m	£8.1m
Transmission maintenance	£5.5m	£7.8m
Technical maintenance	£2.7m	£3.3m
Fire, Safety and Security	£0.5m	£1.9m
Oil and Cable Works	£0.7m	£0.7m
Grounds maintenance	£1.1m	£5.7m
Defects	£10.8m	£10.8m
To Dos	£2.3m	£0.5m
<b>Totals</b>	<b>£30.1m</b>	<b>£38.8m</b>

## Issues / Summary

- NIE Networks has not generally identified the cost impact of the various new or additional obligations though some can be inferred from the cost table.
- The £1.4m increase in fire, safety and security seems open to question as this should be a high priority at all times.
- NIE Networks are proposing a 50% increase in grounds maintenance activity (from 2 to 3 site visits a year). This seems somewhat excessive.
- However, the main concern is that the cost of this activity is increasing by £4.6m (over 400%) which is not supported.
- Other new costs for STATCOM assets and generators seem reasonable.

### Recommendation

- Much of the request appears reasonable.
- We have reduced transmission maintenance to be in line with distribution maintenance as the difference is not explained.
- However, we are not minded to support in full the fire, safety and security uplift which is not fully warranted.
- The grounds maintenance request has also been reduced to be in line with the volume uplift (i.e. 50% increase).

DD Recommendation

£2.5m

### DD Actions

- In order to consider further allowance, NIE Networks would need to demonstrate the following:
  - a) What is driving the security cost maintenance increase.
  - b) Why transmission maintenance is expected to rise faster than distribution costs.
  - c) Why grounds maintenance site visits are expected to rise by 50%.
  - d) Why the unit cost of such maintenance is expected to increase by over 400% in real terms.

**Table 2.13: Review of maintenance costs**

2.50 Whilst the original business plan submission anticipated a £0.4m/a uplift in fault costs, no EJP was submitted to support this. As part of the query process, NIE Networks has subsequently confirmed that a mistake was made in the request for these costs.<sup>18</sup> We have accepted the revised company position with respect to fault costs.

2.51 From a bottom-up perspective, the results of our deliberations are as follows in Table 2.14:

Area	RP6 £m	RP7 £m	RP6 £m/a	RP7 £m/a	Increase £m/a
Inspections	16.6	21.2	2.6	3.5	1.0
Maintenance	30.1	32.6	4.6	5.4	0.8
Tree Cutting	27.6	27.2	4.2	4.5	0.3
Faults	61.1	50.7	9.4	8.4	-1.0
T&D Total	£135.4m	£131.7m	£20.8m/a	£21.9m/a	£1.1m/a

**Table 2.14: UR bottom-up allowance of IMFT costs**

2.52 The draft position is that an uplift of £1.1m is supported by the bottom-up IMFT assessment, as opposed to the £7.5m request. NIE Networks would

<sup>18</sup> Response to UR-0371 states that as a result of errors, “the fault costs included in the RP7 business plan submission should be £8,446k per annum.”

need to provide much more detail concerning volumes and unit rates to validate their position.

### Property cost request

- 2.53 Property expenditure is captured under indirect expenses as part of non-operational capex costs. For RP7, NIE Networks is planning to spend **£33.8m** to modernise their existing property portfolio. This represents a considerable increase compared to the £10.6m of property-related investments expected to be incurred in RP6.
- 2.54 NIE Network’s Property Strategy states that the need to invest is due to the expected increase in staffing levels (as per the workforce resilience strategy) and the objective of being an “employer of choice”.
- 2.55 The expected increase in the number of employees would lead to additional office accommodation capacity being needed for c.300 staff, assuming a 75% occupancy rate from hybrid working arrangements.
- 2.56 As shown in Table 2.15 below, NIE Networks is expecting property investments in four main areas:

NIE Networks proposed property investment in RP7	£m
Office accommodation	£19.4m
Training school	£4.8m
Stores facilities	£8.7m
Sustainability property investments	£0.9m
Total property and facility investment	£33.8m

**Table 2.15: NI Networks property cost request**

- 2.57 Office investments are associated with the stated need to accommodate c. 300 additional employees, but also aims to modernise office space. Chartered surveyors supported NIE Networks to identify different investment types (new build, fit out, refurbishment) and the associated unit cost, which were taken from “market rates for projects recently completed or tendered”.
- 2.58 The training school investment reflects NIE Networks commitment to substantially increase its apprentice intake volumes during RP7 (+68 employees by 2024). NIE Networks considers this, “appropriate to develop a new purpose-built training school capable of hosting c.70 staff”.
- 2.59 Stores facilities reflect the need to increase stocking capacity by £20m per annum to reflect the RP7 investment plan. Other storage facilities are

operating at full capacity and cannot accommodate the expected increase in RP7 activity.

- 2.60 Sustainability property investments (£0.9m) reflect budgeted costs for installation of EV charging points in different locations across NI as well as the installation of solar panels.

### **UR property analysis**

- 2.61 NIE Networks property strategy seems intertwined with their workforce resilience strategy. NIE Networks states that “additional office accommodation capacity will be required for c. 300 staff” and that investments in the property portfolio are needed “to facilitate the planned increase in employee volumes”.
- 2.62 As NIE Networks is expecting to increase FTEs<sup>19</sup> by c.74% by the end of RP7, it is certainly plausible that their existing office capacity would not be enough. However, there is no discussion as to why the proposed investment is a proportionate or efficient solution to the expected need.
- 2.63 We asked NIE Networks to clarify why the proposed investments are proportionate for the stated need to locate c.300 employees. NIE Networks response did not provide evidence on the proportionality of the investment. They also suggested that the link between the expected increase in staffing levels and real estate investment is less strong than articulated in the property strategy.
- 2.64 In the query process NIE Networks stated that a significant proportion of the £19.4m investment in office buildings is not “primarily intended to address the specific need for additional capacity due to increasing in staffing levels”. Rather it is driven by the need to modernise and future proof offices that were built in the 1970’s and are now at the stage where significant refurbishment and upgrading is required.
- 2.65 NIE Networks strategy breaks down costs for each project into unit cost, build costs, fees and IT / fit out costs. Answers to our queries have also clarified that the cost estimates underpinning investments are based on rates tendered in recent projects or on independent analysis from surveyors and property consultants.
- 2.66 However, NIE Networks property strategy still lacks a comprehensive, detailed explanation of what specifically drives the need to refurbish or build new office accommodation, which accounts for 57% of the overall £33.8m request.

---

<sup>19</sup> FTEs = Full Time Equivalents.

- 2.67 The strategy mentions that refurbishment / new build needs are due to the age of office sites as well the construction method used at the time, but this is stated in a few paragraphs and little evidence is provided to back the statements. In summary, our review shows that there are still gaps in the evidence base used for the property strategy.
- 2.68 On individual review of the property submission, we are proposing an estimated allowance of £21.1m as follows in Table 2.16:

NIE Networks proposed property investment in RP7	Request (£m)	Allowance (£m)	Allowance (%)
Office accommodation	£19.4m	£11.8m	60.5%
Training school	£4.8m	£3.9m	80.0%
Stores facilities	£8.7m	£5.6m	64.0%
Sustainability property investments	£0.9m	£0.0m	3.0%
Total property and facility investment	£33.8m	£21.2m	62.7%

**Table 2.16: NI Networks property cost request**

- 2.69 This allowance is based on the following conclusions:
- a) We have accepted the need for new LICs (Local Incident Centres) on the basis that they are portacabins approaching end of life and the cost is similar to the LIC already completed.
  - b) We have allowed for one of the office refurbishments (either Omagh or Campsie) based on whichever is in most need.
  - c) We have allowed the Ballymena re-build (and temporary rental) but at a lower cost per sq ft of £144 based on alternative public data<sup>20</sup> and the fact that the unit rate should be much lower than the LIC costs which are significantly smaller buildings.
  - d) The Dargan phase 2 project has been rejected as this is solely related to accommodating additional staff which we do not consider will be necessary.
  - e) Need for the training centre has been accepted but with a 20% cost reduction as there will be offsetting off-site hire costs which will be avoided but don't seem to be accounted for.
  - f) New stores are accepted but at a lower unit rate of £71 per sq ft based on alternative public data.

<sup>20</sup> Figures for build costs taken from the following data base: <https://costmodelling.com/building-costs>.

g) Unsupported infrastructure upgrades and general maintenance has been disallowed as this should be included in base costs.

2.70 In terms of the requested funding for EV charging points at 91 substations, we do not think this would be beneficial given their limited use. We have only allowed for office locations.

2.71 It is also our view that solar panels at office locations should not be funded as NIE Networks can finance these assets themselves due to the payback received. The lack of allowance in these particular areas does not prohibit NIE Networks from undertaking such investment should it consider them appropriate.

2.72 Overall, we recommend a total property allowance of £21.2m which represents c. 63% of the amount requested. However, it is also an uplift of c. 99% from the £10.6m expected spend in RP6.

2.73 After making reductions for the proportion of costs (21%) allocated to connections, this results in an overall uplifted property allowance of £16.8m or £2.8m per annum.

### Bottom-up conclusions

2.74 Based on our bottom-up analysis, we would propose an allowance of £86.4m/a for IMFT&I cost built up as follows in Table 2.17:

	IMFT&I Bottom-Up Allowance
NIE Networks 2021-22 baseline	£76.2m
Indirects uplift	£4.5m
Network access and IT uplifts	£2.9m
IMFT uplift	£1.1m
Property cost increase	£2.8m
Total IMFT&I RP7 Request	£86.4m

**Table 2.17: UR bottom-up allowance for IMFT and indirect costs**

### IMFT&I conclusions

2.75 Results of the IMFT&I deliberations are as follows in Table 2.18:

	NIEN Request	UR Top-Down	UR Bottom-Up
Total IMFT&I	£108.6m/a	£88.8m/a	£86.4m/a

**Table 2.18: NIE Networks request and UR allowance for IMFT and indirects**

- 2.76 For the draft determination, our allowance is based on the £88.8m/a top-down calculation. In the absence of more detailed information we propose to base the draft determination on base cost plus 50% of the gap to UQ as established by CEPA.
- 2.77 We also agree on the principle of the need for an indirect uplift to account for the increased size of the capex programme. However, the scalar should be reduced in line with Ofgem decisions.
- 2.78 However, for the purposes of the final determination we do expect cost uplifts to be justified and would welcome further detail from NIE Networks in respect of scope differences. We would ask NIE Networks to provide further information on bottom-up costs to allow a more robust assessment.
- 2.79 In terms of the base uplift, NIE Networks has identified factors that will increase spend but has not provided bottom-up justification for the additional costs. We have concluded that there is further work to do on this area between draft and final determination.
- 2.80 Whilst the efficiency results are something to be welcomed, it might also point to a couple of underlying issues. For instance, NIE Networks has highlighted that its current cost base does not include activity being undertaken by GB DNOs to move to net-zero.
- 2.81 Furthermore, the improvement in efficiency between price controls has not been fully accounted for. The scale of outperformance may be due to both scope and cost allocation issues. It is noticeable that the performance gap falls when considering gross costs including connections and just assessing NOCs (where no indirect adjustments are made).
- 2.82 We are of the opinion that there would be merit in NIE Networks explaining in detail the following:
- 1) Why it considers efficiency performance has improved over RP6.
  - 2) How it undertakes allocating indirect costs to both connections and metering work.
  - 3) Approach to capitalisation as it would appear the proportion of these costs allocated to capital expenditure is set to increase in RP7.

## 3. Unmodelled Costs

### Introduction

- 3.1 For unmodelled costs not subject to benchmarking, we have undertaken analysis on a bottom-up basis. This chapter details our conclusion for the various cost and income lines in question.

### Severe weather

- 3.2 In NI the threshold for a severe weather event is defined in the licence as inclement weather resulting in 13 times the average daily high voltage (HV) fault rate calculated over the previous 10 years.
- 3.3 For GB companies, a severe weather ('SW') 1-in-20 year event is classified as an event where a DNO experiences 42 times its mean daily HV faults within a 24-hour period.
- 3.4 Costs associated with atypical severe weather events are somewhat outside of NIE Networks control. Consequently, these are not included in IMFT&I benchmarking but assessed independently.
- 3.5 At RP5, UR initially proposed an ex-post adjustment to provide NIE Networks with additional revenue to cover the costs of atypical storm events over £1m. At that time the Competition Commission (CC)<sup>21</sup> rejected this on the basis that wherever possible regulators should avoid cost pass-through which could expose consumers to unnecessarily high costs.
- 3.6 The Competition Commission also felt that this could create a perverse incentive to overspend the threshold. The CC final determination made allowances based on GB historic costs and taking into account the increased frequency of events in NI.

### RP6 summary

- 3.7 At RP6 we investigated various options including:
- Using GB and NI averages.
  - Using NIE Networks' historic costs only.
  - Using Ofgem's ED-1 approach.
  - Combination which adjusted for OHL length.

---

<sup>21</sup> Now known as the Competition and Markets Authority or CMA.



3.8 Ultimately, we adopted option 4 which resulted in an average allowance of £524k per annum (2021-22 prices). Over the last 6 years (from 2018 to 2023) NIE Networks has incurred costs of at an average of £647k per annum.

### **RP7 request**

3.9 Within the RP7 business plan, NIE Networks propose a severe weather pass through as opposed to an ex-ante allowance. Their rationale is as follows:

- a) Forecasting of costs associated with these events has become a redundant exercise that could result in excess funding or significant loss due to factors outside DNO control.
- b) NIE Networks has under-recovered in RP6 period to date.
- c) Pass through would be in line with Ofgem ED-2 proposals.

3.10 NIE Networks has requested that staff-related and contractor-related costs as well as the cost of supporting affected customers be treated as a pass through for qualifying events.

3.11 Despite this request for a pass-through, the company has also included a provision of £5.6m (£0.93m per annum) within the ex-ante business plan.

### **UR allowance**

3.12 Concerns with a pass-through remain the same as that set out by the Competition Commission at RP5. There is obviously a risk that consumers could be exposed to unnecessarily high costs. This is particularly true given the proposed introduction of GSS<sup>22</sup> payments for reconnections during periods of severe weather.<sup>23</sup>

3.13 The different definitions of a severe weather event also impact on the different approaches. The much higher level of severity in GB for a 1-in-20 year event means that they experience these costs much more infrequently than NIE Networks.

3.14 Ofgem's principal concern in moving away from an ex-ante allowance was that DNOs were being indirectly rewarded for events not incurring. This is much less of a risk for NI where the threshold trigger is much lower.

---

<sup>22</sup> GSS = Guaranteed Standards of Service.

<sup>23</sup> See the consultation [paper](#) on amending GSS, para 5.17 and 5.18, p22.

3.15 We reviewed historic spend for the 14 GB DNOs over the last 13 years and 11 years of NIE Networks severe weather spend. The difference in incident occurrence is marked.

	GB DNOs	NIE Networks
Total observations	182	11
Number of SW non-events <sup>24</sup>	168	3
<b>% of non-events</b>	<b>92.3%</b>	<b>27.3%</b>

**Table 3.1: Comparison of frequency of severe weather cost incidents**

3.16 Where GB DNOs are experiencing relatively few severe weather events, NIE Networks has incurred spend in over 70% of the last 11 years. Ofgem are therefore proposing a zero allowance and a pass-through of certain efficient costs when severe storm damage occurs.

3.17 For NIE Networks, this does not seem appropriate as it is fairly certain that costs will be incurred. This might be expected given the lower threshold being applied. Given the different definitions, reliance on GB data also does not seem appropriate to set allowances.

3.18 Our approach proposes to retain an ex-ante allowance with 50:50 risk sharing. This will maintain an incentive to restrain costs but will limit the impact if events are more frequent than expected.

3.19 We note that the NIE Networks request of £0.93m/a is well in excess of the RP6 run rate by some 44%. We do not consider this justified. Our proposal is to adopt the average cost run-rate of the last 11 years (from 2013 to 2023) of available data. This is £0.64m/a or £3.84m over the RP7 period.

3.20 Use of the historic run-rate also aligns with NIE Networks own proposals in RP6. It could be argued that allowance on historic rates doesn't recognise the increasing frequency of severe weather events. However, there is little discernible increase in spend to merit any uplift. For instance, the 5-year average from 2013-2017 = £630k p.a. whereas the 6-year average from 2018-2023 = £647k p.a.

3.21 For the draft determination, we have retained the company's allocation of 100% of these costs to capex. However, we would welcome explanation as to why this should be different from the 40% : 60% split between opex and capex respectively as per the historic trend.

<sup>24</sup> In this table a non-event refers to a year in which no severe weather costs were incurred.

## **Business rates**

- 3.22 NIE Networks has proposed that the rates it pays to Land and Property Services (LPS) should be recovered through revenues as a pass through of costs incurred.
- 3.23 It has suggested that UR adopts the approach commonly used in GB to allow for pass-through of business rates, subject to the company demonstrating that it has taken appropriate actions to minimise valuations.
- 3.24 Our treatment of these costs is discussed in Annex S. NIE Networks has forecast spend of £93m over RP7 across the distribution and transmission business on rates.
- 3.25 We forecast an allowance of £87m for the draft determination. This is based on the actual 2023-24 NIE Networks business rates. We may update this figure for the RP7 final determination.

## **Licence fees**

- 3.26 NIE Networks has proposed that the licence fees should continue to be recovered through revenues as a pass through of costs incurred. Their forecast annual licence fees costs for RP7 are based on actual licence fees incurred in 2021-22 of £1.8m per annum.
- 3.27 We consider it appropriate that a pass-through mechanism continues in RP7. We have however assumed a higher level of licence fees across the RP7 price control period when compared to the 2021-22 base year. This reflects the UR's expanded role in relation to energy transition arising from the DfE energy strategy.
- 3.28 The draft determination makes provision for annual licence fees of £2.5m per year in RP7.

## **Income lines**

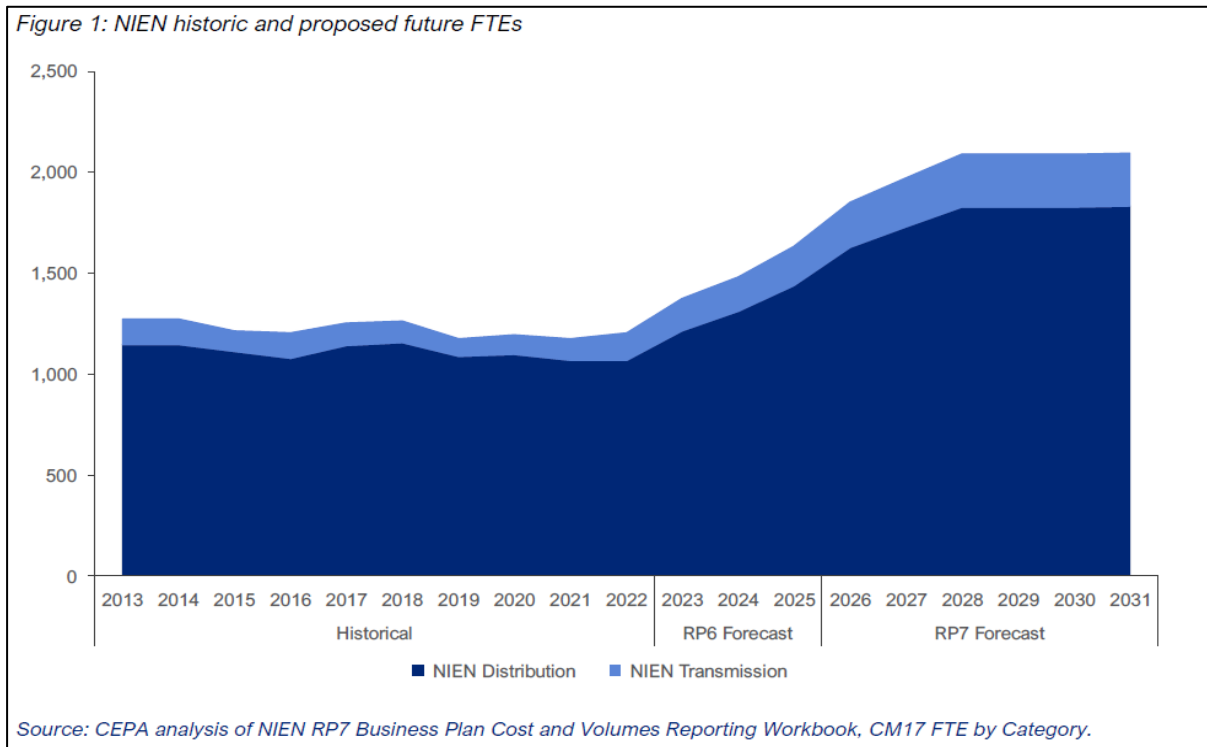
- 3.29 NIE Networks has various incomes lines relating to the following:
- Operation and maintenance (O&M) income from certain connections.
  - Rental income.
  - Landbank management charges.
  - Tort and scrap income.
  - Miscellaneous revenue.

- 3.30 The business plan forecasts income rising from £5.5m per year in RP6 to an average of £5.6m in RP7. Some of the forecasts seem somewhat conservative given the outturn in 2022-23 and the forecast provided by NIE Networks for the last couple of years of RP6.
- 3.31 For the draft determination, we have accepted the business plan proposals. We would however request further detail on why income is not expected to rise in real terms for certain areas. Explanations would also be appreciated where income is expected to fall e.g. tort and scrap distribution income.
- 3.32 We would also reserve the right to increase these forecast income lines for the final determination should adequate explanation not be provided.

### **Staffing levels**

- 3.33 Whilst we do not determine staffing levels directly, NIE Networks has indicated significant expected changes during RP7. With the aid of CEPA analysis, our views on staffing are detailed below.
- 3.34 NIE Networks Workforce Resilience Strategy describes how they propose to ensure their workforce will have the right capabilities, training, experience and culture to deliver on their RP7 investment plan.
- 3.35 The strategy focuses on how they intend to enhance their value proposition to attract new talent, retain existing resources and “have a highly trained, motivated and committed workforce”.
- 3.36 The strategy document sets out three challenges affecting its workforce resilience. NIE Networks state that:
- a) Government’s plan to achieve Net Zero by 2050 has led to an ambitious Network Investment Plan for RP7 which necessitates the delivery of an unprecedented increase in workforce.
  - b) 26% of the current workforce is aged 50 or over, and almost 50% of their total workforce has less than 10 years’ service.
  - c) NIE Networks is facing a shortage of skilled candidates for roles across all levels. This is in part due to competition from outside of Northern Ireland.
- 3.37 To address these challenges, NIE Networks is expecting to substantially increase its staffing levels in the remaining years of RP6 and over the course of RP7.
- 3.38 As shown in Figure 3.1 below, NIE Network’s FTEs are expected to increase by 74% between 2022 and 2031, with virtually all the growth taking place

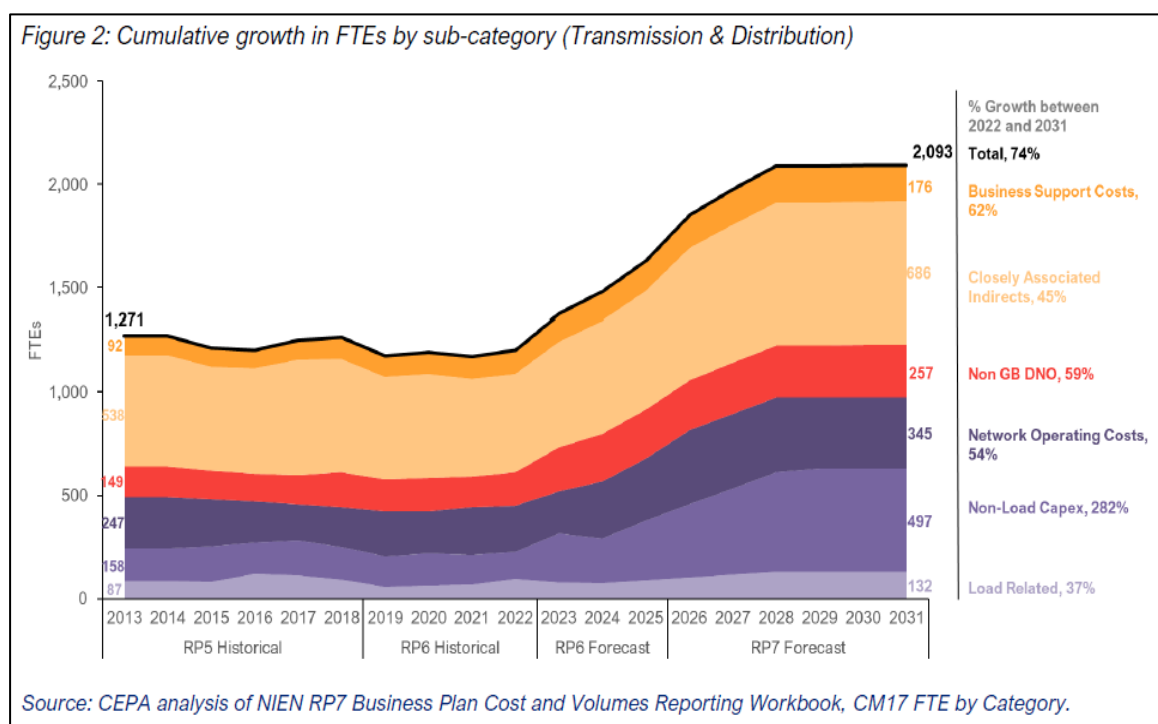
between 2023 and 2028. This follows a decade of stable FTE numbers during the 2013-2022 period.



### Figure 3.1: NIE Networks RP7 expected staff level increases

- 3.39 The workforce expansion is expected across both its transmission and distribution business. Transmission FTEs are expected to increase by 94% between 2022 and 2031. Distribution FTEs will grow by 72% over the same period.
- 3.40 In both sectors, NIE Networks is expecting to increase staffing levels substantially in the remaining years of RP6. By the end of RP6, they will already have in place almost half of the additional FTEs proposed by 2031 (49% and 45% for distribution and transmission respectively). A 14% increase in FTEs is expected in 2023 alone.
- 3.41 NIE Networks did not provide a compelling explanation of why the proposed increase in FTEs is appropriate to address the stated challenges. The presence of shortages is not quantified, so there is not a clear picture of the extent of the problem nor how many of the new FTEs will be hired to address the shortage.
- 3.42 The presence of a relatively junior workforce in conjunction with a sizable share of staff aged 50 or over suggests the need to hire, potentially at senior levels, but not by the proposed scale. Age and experience challenges alone do not dictate the need for a step change in staffing levels, simply a change in the workforce mix.

- 3.43 While it seems reasonable that the business transformation implied by net zero will require an expansion in staffing levels, there is little evidence provided as to why a 74% increase is the most efficient, effective or suitable solution to the challenge.
- 3.44 The strategy does not explicitly discuss a quantitative linkage between the number of FTEs to the size of Network Investment Plan. The statement that the delivery of the RP7 plan necessitates “the most significant increase in workforce since privatisation” is set out effectively as an underpinning assumption at the beginning of the document rather than being explained.
- 3.45 Given the lack of explanation provided by the strategy document, we looked at activity-level FTE trends. This was considered so as to investigate whether increases in specific cost areas might provide insight into the rationale for the headline increases in staff numbers.



**Figure 3.2: Expected staff level increases by work area**

- 3.46 FTE growth is expected across all cost categories in both distribution and transmission. Load related capex is the only activity in which the pattern of FTE growth is very different between transmission and distribution.
- 3.47 As activity level trends do not explain headline increases in staff numbers, we asked NIE Networks to provide a more detailed rationale behind the scale of the proposed expansion. The responses provided limited insights.
- 3.48 NIE Networks simply reiterated that staffing numbers in their submission represented “what (they) believe is necessary to deliver the proposed

investment plan for RP7” and that these numbers have been produced from bottom-up calculations.

- 3.49 NIE Networks did not specify what the bottom-up assessment consisted of nor shared any associated analysis. When asked for more detail, they acknowledged that the methodology used to obtain bottom-up estimates of FTEs at service levels had led to anomalies.
- 3.50 Looking at the high-level figures, increases in the load and non-load capex would be expected with the larger capital programme. Corresponding CAI increases would also be reasonable. However, it is not clear why areas such as NOCs, business support or market operations should have such large increases given activity levels should be fundamentally similar to RP6.
- 3.51 When comparing on a like-for-like basis, NIE Networks proposed staffing levels’ expansion is on a different scale compared to what GB DNOs proposed for RIIO-ED2.
- 3.52 All DNOs expected to increase their FTEs over RIIO-ED2 (2023-2028), with the maximum increase being 22% and the average increase being 13%. NIE Networks is expecting a 58% increase in FTEs over the same period, and a 71% increase by the end of RP7.
- 3.53 We asked clarification questions to help get a better understanding of the reasons for the striking difference in FTE expansions between NIE Networks and GB DNOs.
- 3.54 The company stated that the difference occurs because the starting position is not the same as that of GB DNOs. NIE Networks opex has been historically lower than that of GB DNOs and this amongst other things contributes to lower staffing levels.
- 3.55 When asked about what the specific differences in the starting position are and how these affected their staffing policies NIE Networks stated that they cannot “construct and catalogue a comprehensive explanation” nor can they “provide an answer that directly addresses the question”.<sup>25</sup>
- 3.56 In summary, our assessment shows that the increase in staff proposed by NIE Networks is proportionally much larger than the increase proposed by the GB DNOs over a similar period. The company has not provided detailed or compelling explanations as to why this may be the case.
- 3.57 This conclusion has been taken into account when determining the property costs allowances.

---

<sup>25</sup> Response to query UR-0339.