Utility Regulator
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RP7 - NIE Networks Price Control 2025-2031

Final Determination Annex D
Modelled and Non-Modelled Costs
30 October 2024

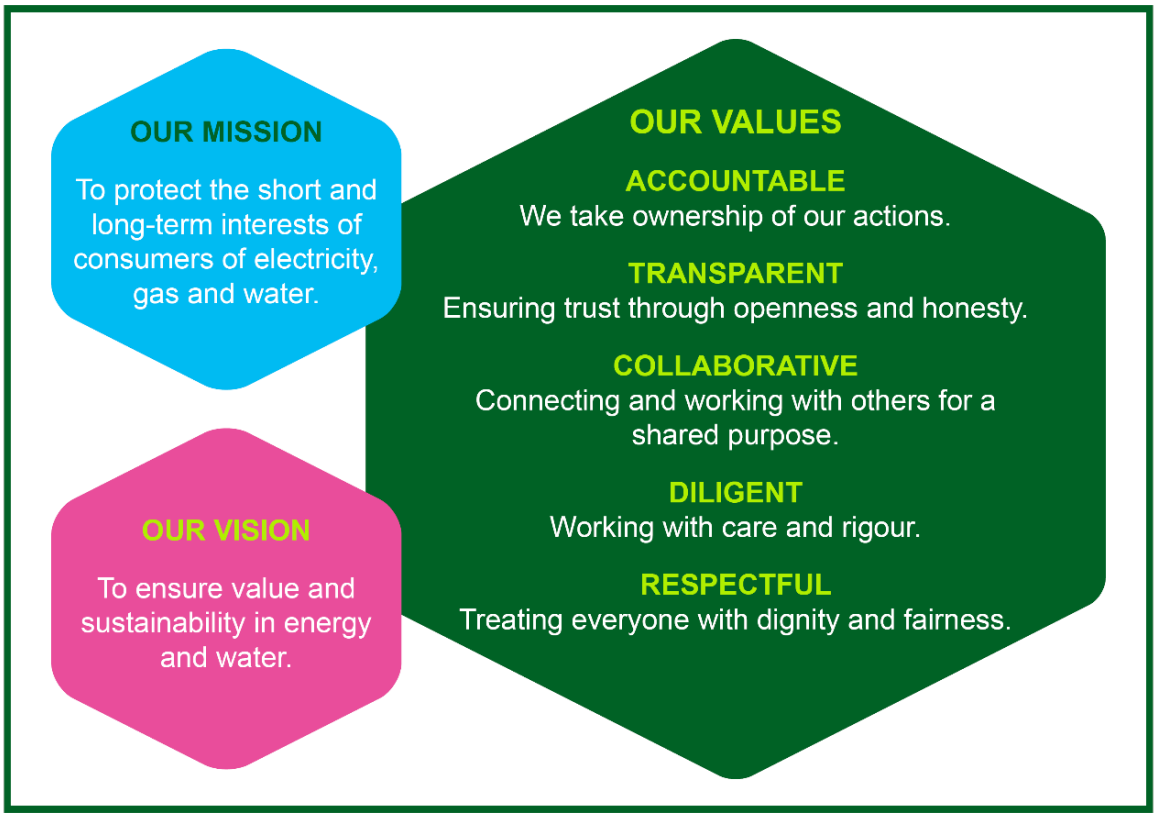
About the Utility Regulator

The Utility Regulator is the independent non-ministerial government department responsible for regulating Northern Ireland's electricity, gas, water and sewerage industries, to promote the short and long-term interests of consumers.

We are not a policy-making department of government, but we 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 through financial and annual reporting obligations.

We are based at Queens House in the centre of 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. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.



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 final 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 final decisions with respect to these cost and income lines are set out in detail in this annex.

Audience

NIE Networks, consumers, consumer representatives, consumer groups, other regulated companies in the energy industry, government, and other bodies with an interest in the energy industry.

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.

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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. Consequently, 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 below the NIE Networks business plan (BP) request. This follows an extensive review of both the top-down modelling and the bottom-up analysis. Allowances do however represent a substantial uplift from current rates of spend.

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.

Full justification for our final 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[1] 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[2] 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 both 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, the draft determination stated our view on these plans. This detail has not been repeated in the final analysis.

[1] All financial figures in this annex are stated in 2021-22 (Oct 2021) prices, unless otherwise stated. Figures in tables may not sum due to rounding.
[2] 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. Stakeholder Feedback

Background

2.1 The draft determination methodology used to set modelled and unmodelled cost allowances is fully set out in Annex D[3] of the RP7 draft determination. The purpose of this chapter is to detail stakeholder feedback on key issues and our corresponding response.

2.2 This chapter also contains a section on the changes to the methodology as a result of consultation feedback. Further detail on our deliberations is also provided in the remaining chapters of the annex.

Response to consultation feedback

2.3 Some material concerns were raised by NIE Networks and other stakeholders with respect to the IMFT&I draft determination. Summary comments and our responses are detailed in the tables below.

2.4 The most material response was received by NIE Networks and their consultant in this area (NERA). Their views and our responses are set out in Table 2.1 below. References mostly relate to the NIE Networks response as this repeats many of the arguments found in the NERA submission.

	Consultation Response	UR Views & Action
1	UR has been unable to provide the company and NERA with access to CEPA's RP7 modelling suite. NERA was therefore unable to conduct a comprehensive assessment of the cost benchmarking results and conclusions. As such, its assessment of UR's approach is based entirely on the descriptions provided in UR's draft determination. **[NIEN Response, para 2.17, p18]**	This point is accepted. Like NIE Networks, we were unable to secure the permission of all the GB DNOs to share the raw data. In the absence of such detail, we have endeavoured to be as transparent as possible. This includes presenting to the company on methodology and pre-modelling adjustments, publishing efficiency results, coefficients and sensitivity analysis.

[3] See RP7 Draft Determination, Annex D: https://www.uregni.gov.uk/files/uregni/documents/2023-11/Annex%20D%20-%20Modelled%20%26%20Non-Modelled%20Costs.pdf

2	NIE Networks faces proportionately higher connections costs compared with the GB DNOs. NIE Networks considers that placing 50% weight on pre-allocation I&IMFT models is erroneous as it fails to address the different scope of connection activities between GB DNOs and NIE Networks. **[NIEN Response, paras 2.19 – 2.23, p18-19]**	Whilst we agree that the company has higher connection costs, we do not think it is an error to rely on pre-allocation IMFT&I models. This is due to the following factors: 1) There is a wide range of market shares across GB DNOs, yet Ofgem did not exclude connection costs from its benchmarking. 2) The difference in market share does not seem to fully explain the much larger connection costs reported by NIE Networks. 3) Even if the company has followed regulatory reporting guidance, we cannot have certainty that the cost allocation methodology is the same as GB DNOs. See the CEPA addendum report to Annex B for a fuller discussion of this issue.
3	The use of pre-allocation models causes UR to understate the efficiency of NIE Networks' indirect costs. **[NIEN Response, para 2.24, p19]**	Given our concerns around connection cost allocation differences, we think it correct to continue to rely on pre and post connection cost models.
4	At RP5, the Competition Commission ("**CC**") tested both post-allocation models and pre-allocation models, but ultimately decided to rely solely on models that exclude all indirect costs allocated to connections (i.e., post-allocation models). **[NIEN Response, para 2.25, p19]**	Whilst this point is accepted, CC also stated the following, *"there are also drawbacks from the exclusion of connection costs, because the analysis will be vulnerable to any inconsistencies between DNOs in the sample in cost allocation methods for connections. Given the size of the adjustment to exclude connection costs…such inconsistencies could have a significant impact on the results."*[4] This issue remains a concern at RP7. We further note that both models were used at the RP6 final determination, which was ultimately accepted by NIE Networks.
5	CEPA and UR ignores the principal economic case for using post-allocation models as identified by the CC, namely that the post allocation approach ensures that comparative efficiency modelling is not distorted by the fact NIE Networks undertakes more connections work than GB DNOs. **[NIEN Response, para 2.28, p20]**	See response to point 2.

[4] See Competition Commission RP5 final determination, para 8.88, p8-17.

6	Analysis has also failed to show any evidence to support concern with post-allocation modelling. **[NIEN Response, para 2.31, p20]**	We disagree with this statement. Modelling of the Network Operating Costs (NOCs), which are largely unimpacted by cost allocations, shows a material difference in efficiency performance compared to the post allocation results. Despite this only being a subset of costs, it is not clear why the company would be so much more efficient for indirect overheads than for IMFT activity. This provides evidence to support our concern around sole reliance on post allocation modelling.
7	UR's approach in its draft determination, which places a 50% weight on such models, understates NIE Networks' overall efficiency uplift factor by 4%. NIE Networks requests that in its final determination, UR places a 100% weight on post-allocation models **[NIEN Response, para 2.33 – 2.34, p21]**	Given the concerns, we have retained the draft determination approach of reliance on both pre and post connection cost models. This has the advantage of reducing the risk of distortions in the modelling and does not create any perverse incentive to inefficiently allocate indirect costs to connections.
8	In applying the RWA [Regional Wage Adjustment] to DNOs' entire labour share, CEPA unfairly penalises those DNOs operating in relatively low wage areas of the country (which appear less than efficient than they are in reality). Conversely, DNOs in high wage areas appear more efficient than they really are. **[NIEN Response, para 2.46, p22-23]**	For the final determination we have adopted the approach of applying Ofgem's local labour adjustment to all cost categories for GB companies but assumed 100% of NIE Networks labour is sourced locally. CEPA has investigated the issue and concluded that both this and the NIE Networks approach is reasonable. Theoretically GB and NIE Networks has access to common labour markets. However, we do not have good evidence that the companies incur similar labour costs across the areas that Ofgem applied the local labour adjustment to. Ultimately, we do not consider that the Ofgem local labour proportions should be applied to NIE Networks due to the following: 1) Northern Ireland is the lowest cost region in the UK (so no incentive to use other labour). 2) We have not seen any evidence that GB DNOs incur labour outside of GB. See CEPA addendum report for a fuller discussion of this issue.

9	Despite locating its staff in NI, NIE Networks hires professional advisors from GB and globally including legal advisors, economic advisors and IT providers. The company also has arrangements in place to draw on GB-based resources in urgent cases. **[NIEN Response, para 2.48, p23]**	NIE Networks provided anecdotal evidence that they procure some services in GB. However, they were not able to advise of the materiality and we assume this proportion would be low. The company also confirmed that the share of labour costs which cannot be incurred locally is theoretically 'zero'.
10	Not applying a local labour adjustment will create bias in the efficiency assessment of DNOs to NIE Networks' detriment. NIE Networks requests that in its final determination UR should either: • rely on Ofgem's local labour adjustment factor and apply it to all models that form part of its 'triangulation'; or • perform its own independent assessment to compute a local labour adjustment factor and apply it to all models that form part of its 'triangulation'. **[NIEN Response, para 2.53, p24]**	We have updated the analysis to take account of Ofgem's local labour adjustment. However, we have not applied this adjustment to NIE Networks cost base. This is due to the reasons specified above. Ultimately this change makes a limited impact on the efficiency assessment. We accept that adoption of the Ofgem local labour adjustment to NIE Network costs would make a material difference. Were we to give equal reliance on both approaches this would increase the efficiency gap estimate from 16.0% to 17.9%. We do not think sole reliance on the NIE Networks preferred models would be correct. This would overstate their efficiency outperformance as the company has limited labour costs contracted from GB.
11	NIE Networks highlighted that the undertaking of new and/or additional activities in the RP7 period would contribute to the increase in its cost base, citing examples such as: • development of the company's Distributor System Operator ("DSO") capabilities. • updates to the NI Guaranteed Standards of Service ("GSS"). • programme to address Electricity, Safety, Quality and Continuity Regulations ("ESQCR") requirements, which currently lags GB DNOs. **[NIEN Response, para 3.3, p25]**	We have taken these scope differences into account where relevant evidence has been provided. This is covered in further detail in the bottom-up review. However, we would note that NIE Networks has provided little detail on GSS and ESQCR differences.

12	UR is wrong to attach equal weight to each of CEPA's nine models (i.e. three pre-allocation I&IMFT models, three post-allocation I&IMFT models, and three NOCs models) in order to assess NIE Networks' overall efficiency. NOCs models only compare a subset of I&IFMT costs and should therefore be assigned a lower weight than the I&IMFT models. **[NIEN Response, para 3.11, p26]**	We accept that triangulating between IMFT&I and NOCs model outputs using equal weights creates the risk of a biased estimate. For the final determination we have placed no reliance on the NOCs models. It should however be recognised that this could be considered a conservative approach as NERA advised that a lower weight could apply. CEPA further advised that we may wish to consider the evidence from standalone NOCs models in the round when setting future cost allowances, rather than directly triangulating the results from these models with those from IMFT&I models. See CEPA addendum for a fuller discussion of this issue.
13	In its draft determination, UR rejects NIE Networks' evidence and rationale for expecting an increase in I&IMFT costs for RP7, and instead sets the allowance at the mid-point between the upper quartile and the company's historical 2021/22 expenditure. **[NIEN Response, para 3.18, p27]**	As detailed in the draft determination, choice of the mid-point reflected uncertainty as to whether NIE Networks performance was due to scope differences or efficiency. Whilst we accept that the 50% was arbitrary, assuming 100% uplift due to scope differences without evidence would be more problematic. Without verification, such an approach would result in an outcome that systematically overstates NIE Networks required costs.
14	UR's current approach implies asymmetry of incentives for NIE. If CEPA's modelling had identified an efficiency gap to the upper quartile, it would likely have seen its allowances set at a level below historical cost. By contrast, given CEPA's modelling shows NIE to be more efficient than the upper quartile, NIE's allowances are being set no higher than its historical costs, save for the additional costs UR expects NIE will incur due to changes in its scope of activities. **[NERA Response, p30]**	We disagree with this statement. In the first instance, RP6 did find reason for efficiency challenge but did not apply this to base costs. The RP6 final determination states, *"we have ascertained a triangulated estimated efficiency gap figure of 2.31%. However, the Utility Regulator has decided not to apply this efficiency discount to NIE Networks' base costs for 2015-16."*[5] For RP7 allowances, it is reasonable to provide uplifts for scope differences or new activities (as NIE Networks has argued for). However, we do not see good reason to impose additional cost on consumers simply if the company is performing better than the upper quartile.

[5] See RP6 final determination, para 5.301, p128.

15	UR's approach blunts NIE's incentives to minimise its costs if the company expects it will continue to have costs beyond the upper quartile level of expenditure. **[NERA Response, p30]**	We do not consider that this approach blunts the financial incentive. The 50:50 cost sharing mechanism encourages the DNO to continue to reduce costs given retention of outperformance.
16	As part of its response, NIE Networks has provided at Annex A3.2 additional evidence to support its case that new and/or additional activities identified by the company should be taken into account by UR. **[NIEN Response, para 3.20, p27]**	We have taken this evidence into account when setting allowances. This is covered in further detail in the bottom-up review.
17	As set out in NERA's DD Report, Ofgem and Ofwat regulatory precedent demonstrates that a determination of overall allowances above modelled efficient costs is common for the most efficient companies. **[NIEN Response, para 3.23, p28]**	We do not think the regulatory precedent quoted exactly supports the position espoused in the business plan (see points below). As NERA notes, the Ofgem ratchet ensures that allowed costs are based on the lower of either submitted business plan or modelled costs. This is contrary to the NIE Networks proposal.
18	Ofgem's Business Plan Incentive (BPI) mechanism of reward/penalty encourages network operators to submit ambitious business plans. **[NERA Response, p32]**	This point is not disputed. However, this framework incentive does not exist for NIE Networks. Neither would we expect the Ofgem BPI to outstrip the ratchet impact. This suggests that GB DNOs are sharing efficiency performance with consumers. NIE Networks proposals to undertake a 100% uplift ensures that consumers receive no future benefit from better than upper quartile (UQ) performance if they are genuinely more efficient.
19	Ofgem's cost assessment compared companies' cost forecasts at RIIO-ED2 and GD2, setting forward-looking allowances based on the upper quartile of companies cost forecasts, not historical costs. Hence, if all companies' cost forecasts show increases, as we would expect for electricity network companies developing new capabilities to support net zero, all companies could receive an allowance that exceeds their historical costs. **[NERA Response, p32]**	NIE Networks IMFT&I cost allowances are increasing substantially in RP7 for new activities. We are not expecting costs to be maintained at the base year level. This criticism does therefore not seem appropriate.

20	At PR19, for instance, Ofwat granted Portsmouth Water, the company with the best efficiency score in wholesale water, an allowance 10 per cent above its business plan cost forecast. While Ofwat capped this allowance at 10 per cent over the business plan costs (i.e. its assessment of efficient costs was 16 per cent higher than the amount the company's business plan), Ofwat argued that the reward struck an appropriate balance between protecting customer interests while also retaining the incentive for the company to submit stretching business plans in the future. **[NERA Response, p33]**	Our final determination has adopted a similar approach in terms of the top-down review. We have adjusted the scope uplift from 50% to 100% on the basis that scope differences have been proven from a bottom-up basis. It should however be noted that the capping of the uplift by Ofwat would suggest that automatic elevation to the upper quartile should not be automatic and may not be appropriate in all circumstances.
21	UR's approach to setting allowances at RP7 does not reflect the trend of increasing costs faced by electricity network companies in the UK, due to rising input costs and an expanding scope of activities linked to renewable energy integration, building DSO capability, and electrifying load. **[NIEN Response, para 3.24, p28]**	The expanding scope of activities has been fully considered in the bottom-up analysis. The frontier shift also considers the issue of real price effects. We consider this to be a robust approach to setting future allowances for the RP7 period. We would however note that it is for NIE Networks to fully justify why costs are increasing. We do not think this has been done conclusively in terms of the business plan request.
22	It is unrealistic to assume that DNOs will be able to keep their costs to those incurred in a historical base year. **[NIEN Response, para 3.24, p28]**	We have not made such an assumption, either in the draft or the final determination.
23	UR's approach to setting allowances at RP7 does not provide a mechanism for funding the trend of increasing I&IMFT costs faced by electricity network companies in the UK, due to rising input costs and an expanding scope of activities linked to renewable energy integration, building DSO capability, and electrifying load. This is illustrated by NIE having underperformed against its RP6 I&IMFT allowances, which were set using a similar method to UR's RP7 proposals, despite NERA and CEPA's modelling showing NIE to be amongst the most efficient DNOs. **[NERA Response, p34]**	As noted above, we have considered the rising costs of new activity in the final determination where NIE Networks has provided the evidence. Whilst we accept that the company has overspent against RP6 allowances, we would further note that levels of spend in 2023-24 are significantly (c. £7m) below what the company predicted in its business plan. This might suggest that the forecast increases for RP7 are somewhat over estimated.

24	In its draft determination, UR assessed that NIE Networks' direct capex (excluding D5 projects) will increase by 128% on average across RP7. UR applied Ofgem's indirect scalar of 0.108 to the direct capex increase in percentage terms. NIE Networks considers that this approach is a misapplication of Ofgem's indirect scalar that understates the additional allowance required. The approach adopted by Ofgem meant that the indirect scalar used a linear relationship between CAI and capex, not a proportional relationship as adopted by UR in its draft determination. Applying a linear relationship between CAI and capex in line with Ofgem's approach, would result in NIE Networks being granted an additional allowance of £50.5 million across RP7 or £8.4 million per annum. **[NIEN Response, para 4.6-4.9, p29-30]**	We accept that the draft determination position is incorrect. As a result we have adopted the Ofgem coefficient for setting indirect costs. Given the updated capital programme allowances we estimate that this will result in an indirect uplift of £9.4m/a. This is higher than the revised position of £8.4m/a as detailed in the NIE Networks consultation response. We would however note that it is lower than the £14m/a as detailed in the business plan request, but which we did not consider to be fully justified.
25	NIE Networks considers that additional explicit indirects allowances are required if or when D5 projects are approved during RP7, or there are other significant capex allowances granted through other reopeners, and that this would be better facilitated by way of a mechanism that is specific for this purpose. **[NIEN Response, para 4.15, p31]**	We do not believe that a separate licence mechanism is required in this instance. Full allowance for indirect costs can be provided as part of the D5 reviews.
26	UR has incorrectly understated BAU IT-related indirect costs through its benchmarking exercise, as it has made no adjustments to reflect its bottom-up assessment of, and the allowance granted for, all IT-related costs. **[NIEN Response, para 5.7, p33]**	We disagree with this statement. For the purpose of the draft and final determination we have set IT allowances using a bottom-up assessment of costs. This ensures that the correct IT provision is made.

27	For “new” IT-related indirect costs, NIE Networks acknowledges that UR has taken into account a proportion of such costs in its top-down allowance for I&IMFT. However, this amount falls significantly short of the amount requested by NIE Networks and provisionally granted by UR through its bottom-up assessment of overall IT-related costs. NIE Networks considers that this misalignment is erroneous. **[NIEN Response, para 5.7, p33]**	We do not consider an error to have been made. At the draft determination the specific IT uplift ensured that the IT review costs were given appropriate provision. For the final determination we have provided the full top-down scope uplift so have not made any specific extra IT provision. Ultimately however, the allowance is based on the bottom-up analysis which includes the vast majority of additional IT spend. We are however of the view that the NIE Networks top-down approach is flawed. During engagement the company indicated that they have chosen to uplift all costs by the 24% scope difference. They have then added new IT costs on top of this. This has the effect of potentially pushing costs above the UQ level, which we would consider to be inappropriate. The company has since argued that NERA has carried out an efficiency assessment that strips out IT in its entirety. The results are that the efficiency gap is reduced but only marginally, so any costs requested for activities not carried out in 2021/22 (i.e. new IT-related activities), could be added on and still see the resultant costs sitting no higher than the UQ level. We have several issues with this position including the following: • We have not undertaken such benchmarking so cannot verify the NERA results. Neither was this part of the company business plan. • If correct, remaining IMFT&I base costs should only be uplifted by the lower efficiency percentage, otherwise there will be a double count. • Such an adjustment would only be appropriate if we had certainty that GB companies were not already doing the additional IT activity planned by NIE Networks (which cannot be known). • The scale of the IT and Telecoms uplift for business support costs is much larger for NIE Networks than for GB DNOs, suggesting that much of the differential is provided by the scope uplift. Given these issues we do not think the separate IT uplift is appropriate from a top-down basis.

28	NIE Networks notes that network access and commissioning costs were determined in its RP7 Business Plan as part of its capex assessment, as a category within the company's network investment programme. However, the allowance that UR should include in respect of IMF&T is for an entirely separate activity. NIE Networks therefore requests that UR grants allowances for network access and commissioning in respect of IMF&T activities, based on the results from the benchmarking exercise. **[NIEN Response, para 5.13-5.15, p34]**	We accept this point. These allowances have now been set based on the outcome of the benchmarking results.

Table 2.1: NIE Networks and NERA issues and UR response

2.5 A variety of other stakeholders made responses to the IMFT&I framework. The main comments are listed in Table 2.2 below.

	Consultation Response	UR Views & Action
1	Kelvatek does not support the Utility Regulator's decision to reduce the settlement for IMFT&I allowances in the draft determination, as this poses a significant risk to the successful delivery of NIE Networks' capital investment program. **[Kelvatek Response, p8]**	We have provided a significant uplift for IMFT&I costs from the draft to the final determination by virtue of the change to the indirect scalar and other modelling / bottom-up amendments. We would further note that the indirect scalar has been properly applied in the final determination. This should ensure that NIE Networks has the entire funding available to complete all the increased capital programmes and outputs.
2	Concerned about the significant reduction in IMFT and indirect costs (IMFT&I) in the draft determination. It is vital that the increased workload associated with ambitious capital investment plans are properly reflected in IMFT&I allowances. **[Prospect Response, p2]**	This issue is fully addressed by the change to the indirect scalar approach.

3	The regulator's assumption that half (50%) of the gap between its analysis and NIE Networks' analysis is due to scope differences between Northern Ireland and GB appears arbitrary. **[Prospect Response, p2]**	Whilst we accept that the 50% was arbitrary, assuming 100% uplift due to scope differences without evidence would be more problematic. Without verification, such an approach would result in an outcome that systematically overstates NIE Networks required costs. We have moved to 100% uplift following detailed justification having been provided.
4	SONI considers that it is important that the datasets being used are comparable and that adjustments are considered where there are differences between the network in Northern Ireland and GB. **[SONI Response, p4]**	Annex B of the draft determination sets out the pre-modelling adjustments that were undertaken by CEPA to ensure like-for-like comparisons.
5	SONI is somewhat surprised at the reduction on IMFT&I related costs. It is important that the overall asset base is adequately inspected and maintained to ensure that customers continue to benefit from past investments. **[SONI Response, p4]**	The final position has changed significantly from the draft determination. However, whilst this is a reduction on the amount being requested, it is important to note that this represents a c. 33% increase from base year spend. This represents a material uplift in this cost category.
6	There is a substantial difference in the proportion of planned CAPEX which has been agreed under RP7 and the proportion of planned OPEX. This poses a genuine concern that there is 'money for new kit' but not the 'money to install that kit'. **[Unite Response, para 3.5, p4]**	This differential would be expected. As per the Ofgem approach, an increase to the capital programme will affect closely associated indirect roles. It should have either no or limited impact on business support costs, office costs or IMFT expenditure. This is the reason for the difference in proportional changes.
7	Distribution IMFT costs have been capped at £102.8 million – which amounts to £17.1 million a year on average which is less than the average distribution IMFT for RP6 which was £17.6 million. It is hard to reconcile how distribution IMFT OPEX will fall if distribution CAPEX increases by 72%. **[Unite Response, para 4.2, p5]**	It is not clear how these figures have been derived. However, the distribution IMFT allowances are increasing in the final analysis. As noted above, IMFT and business support costs are mostly unimpacted by the increased capital replacement and reinforcement programme. We have however allowed for material increases to the CAI costs to accommodate the larger capital investment programme.

8	Harsh limits imposed on OPEX on Inspections, Maintenance, Faults and Tree Cutting and on indirect OPEX runs not just contrary to the evidenced case made by NIEN but even by arguments by UR in its own Annex D. NIEN requested an uplift of only £9.7 million on tree cutting costs over the period of RP7. This amounted to an extra £1.6 million a year. The justification for this was increased temperatures and growth rates of trees, a transition to a 2-year cutting cycle instead of 3-year due to identified live zone infringements, additional LV tree cutting in the period and dealing with commercial plantations **[Unite Response, para 5.1 – 5.4, p6]**	We did not find the arguments for increasing the tree-cutting activity to be compelling or in line with other companies' approach. This issue is discussed further in the bottom-up cost review section below.
9	There are clear health and safety concerns for such unjustified constraints on the budget for tree-cutting. **[Unite Response, para 5.7, p7]**	Not approving additional activity should have no impact on health and safety concerns. As a reasonable and prudent operator, it is of course for NIE Networks to ensure that existing activity is conducted to the appropriate safety standards.
10	The benchmark applied to all providers is that they deliver on the efficiencies of the upper quartile of providers. However, NIEN already achieve this with a relative and consistent overperformance against the upper quartile of GB distribution network operators – up to 25.9% in some delivery models. The company has made the case for this relative success to be factored in fully into the limits to expenditure set. Unfortunately, this was not adopted by UR who has instead sought to recalculate the company's efficiencies (which is tantamount to moving the goalposts). **[Unite Response, para 6.2, p7]**	We do not consider our approach to be 'moving the goalposts'. As noted by the regulatory precedent, uplifting costs to the UQ is not automatically guaranteed. We have considered the scope differences as set out by NIE Networks in their consultation submission and do not consider that the uplift requested is fully justified by the new activity.
11	In their recalculation of the efficiency factor, UR applied an apparently arbitrary 50% is due to scope differences in provision. There is no explanation of where this figure came from **[Unite Response, para 6.4, p8]**	See previous response to point 3.

12	UR choose to use the substantially lower scalar used by OFGEM to calculate IMFT&I rather than that determined by NIEN and based on the specifics of the situation in Northern Ireland. **[Unite Response, para 6.4, p8]**	This issue has been fully addressed in the final determination and our final position (£9.4m/a) is actually in excess of NIE Networks revised request (£8.4m/a) following the draft determination consultation response.
13	It appears clear that OPEX has been viewed as an area where total expenditure can be limited – resulting in lower operating costs. There are detailed arguments presented in the draft determination to justify this approach but in the main these argue for a bottom-up approach which seeks to avoid expenditure unless evidence suggesting its necessity has been presented. This approach fails to recognise the specificities and contingencies which often contribute to disproportionate operating costs. **[Unite Response, para 7.1, p8]**	The purpose of the bottom-up approach is to recognise the local particularities and issues affecting NIE Networks. We consider that adopting both a top-down and bottom-up assessment ensures that specific local issues are addressed appropriately.
14	In addition to such concerns for health and safety and workforce well-being – the lack of INDIRECTS allowed will impact the ability of NIEN to bring forward plans for a significant increase to staffing levels to deliver IMFT and indirect activities. **[Unite Response, para 7.3, p9]**	See previous response to point 1.

Table 2.2: Other stakeholder feedback issues and UR response

Changes in methodology

2.6 Upon consideration of stakeholder feedback, we are minded to retain at a high level the proposed methodology to set IMFT&I allowances. This includes consideration of both a top-down and bottom-up review. However, we have adopted various changes which impact on the final allowances.

2.7 The changes can be summarised as follows:

1) Retained pre and post connection allocation efficiency models but adopted the Ofgem proportional labour adjustment for GB DNOs only.

2) Have removed NOCs models from the final efficiency point triangulation assessment.

3) Amended the efficiency scope uplift from 50% to 100% given additional bottom-up justification provided by NIE Networks.

4) Revised the position on the indirect scalar based on a levels regression, use of the Ofgem coefficient and updating for the final capital allowance.

5) Considered changes to the bottom-up assessment based on responses to draft determination challenges i.e. inspection, IT and property costs.

6) Considered changes to the bottom-up assessment based on new evidence i.e. DSO costs.

2.8 These issues are set out in more detail in the next chapter.

3. IMFT and Indirect Costs

RP6 modelling approach

3.1 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.

3.2 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.

3.3 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 3.1 below.

Model Number	Modelled Cost	Cost Drivers
1	Indirects and IMFT	• Network length • Network density • Percentage of overhead lines (OHL)
2	Indirects and IMFT	• Composite scale variable (CSV) • Time dummies • Percentage of overhead lines (OHL)
3	Indirects and IMFT	• Length divided by customer numbers • Time dummies • Percentage of overhead lines (OHL)
4	NOCs	• Network length • Network density • Percentage of overhead lines (OHL)
5	CAI	• CSV • Percentage of overhead lines (OHL)
6	BSC	• CSV

Table 3.1: RP6 efficiency models

3.4 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."[6]

[6] See RP6 final determination, para 5.301, p128.

3.5 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

3.6 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 disproportionally 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.

3.7 NERA results when re-running the RP6 models are shown in Table 3.2.

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

	Combined I&IMFT			NOCs	CAI	Business Support
Model no.	**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 3.2: NERA results when re-running RP6 models[7]

[7] Source: NERA, *Comparative Benchmarking* paper, Table 4.1, p34.

3.8 Whilst showing that NIE Networks are very efficient[8], 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.

3.9 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 shown in Table 3.3.

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 3.3: NERA alternative model models[9]

3.10 NERA has 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%.

3.11 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.

3.12 NERA did perform some separate high-level comparisons for transmission spend. They noted the difficulties in undertaking dedicated benchmarking for transmission activity.

3.13 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

3.14 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 our process as follows:

- Stage 1 - We will benchmark historic costs to determine an "efficiency gap" (being the difference between actual costs and the expected

[8] 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.
[9] Source: NERA paper, Table 4.15, p52.

expenditure for a company operating at the upper quartile).

- Stage 2 - We will apply the determined efficiency gap to base year expenditure. This gives a starting point for allowances.
- Stage 3 - We 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 - We will roll forward the allowances determined at Stage 3 year-on-year, applying adjustments for real price effects (RPEs) and productivity improvements.

3.15 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[10] results in a new baseline of £94m per annum (i.e. £76m x 1.24).

b) NIE Networks suggest that a £1 increase in direct capex will lead to a £0.15 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.

3.16 Adding the £14m to the £94m gives a total "top-down" assessment for indirect and IMFT costs of £108m per annum. NIE Networks considered this to be in-line with their bottom-up assessment of £110m per annum. They have then added on additional IT spend to request an allowance of around £114m per year.

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

- New DSO[11] functionality which GB is already more advanced in.

[10] 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.
[11] DSO = Distribution System Operator.

- Enhanced guaranteed standards of service (GSS).
- ESQCR[12] 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.

3.18 Their approach is summarised in Figure 3.1 below:

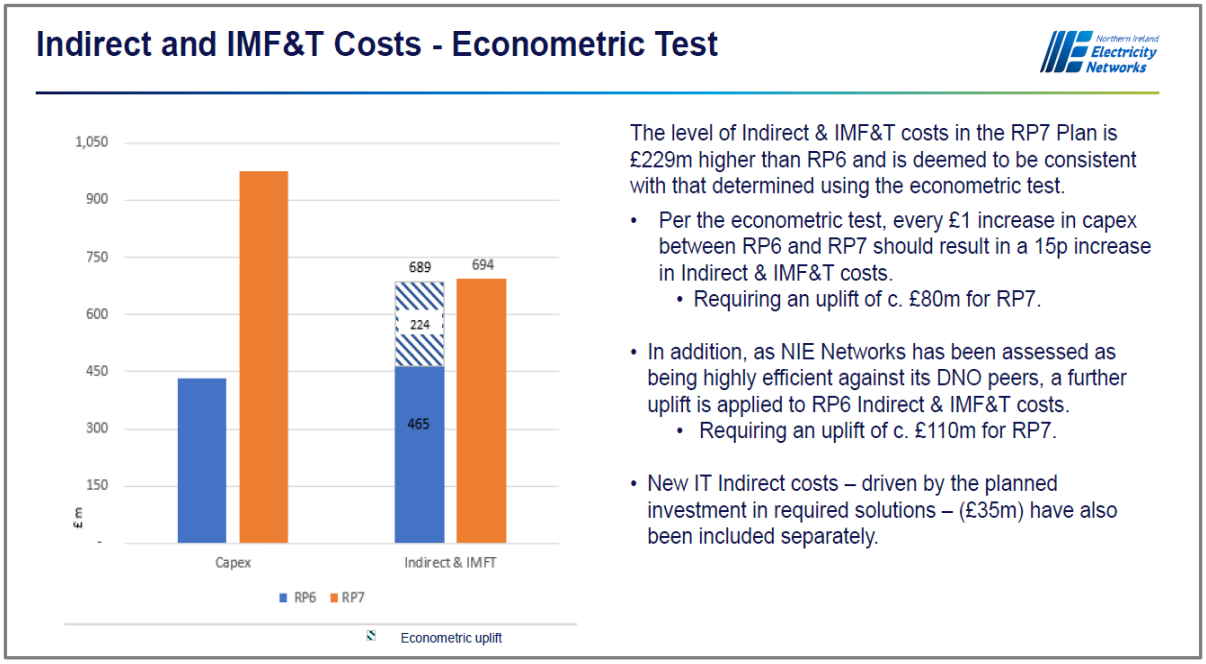

Figure 3.1: NIE Networks top down IMFT&I assessment[13]

3.19 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.

3.20 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.

3.21 NIE Networks has provided a top-down justification for an uplift from £76m per annum in 2021-22 to £114m/a in the RP7 years. This is set out in Table 3.4.

[12] ESQCR = Electricity Safety, Quality and Continuity Regulations.
[13] Source: NIE Networks presentation slide pack of 04 April 2023 for UR site visit meeting.

	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%)
Direct capex increase	£545m
Indirect scalar	0.150
Indirect uplift	£13.6m ((£545m * 0.15) / 6)
IT Uplift	£5.9m
Top-Down IMFT&I RP7 Request	**£114.0m (£94.5m + £13.6m + £5.9m)**

Table 3.4: NIE Networks RP7 request for IMFT and indirect costs

3.22 Upon review the actual business plan request for comparable costs is actually a little higher at £114.7m per annum.

UR top-down analysis at draft determination

3.23 We engaged CEPA to undertake the efficiency modelling for RP7. They were tasked with assessing NIE Networks efficiency. They opted to re-run the RP6 models with updated data. They have also considered model revisions and a totex assessment.

3.24 Full details of their efficiency modelling can be found in Annex B of the RP7 draft determination and the Annex B addendum report. However, this annex provides a summary of the relevant findings and their subsequent application following consultation responses to the draft determination.

3.25 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) Whether to include or exclude connection costs from the efficiency modelling due to differences in the competitive connection market.

d) Reallocation of vehicle and property costs from non-op capex to indirects due to differences between renting/leasing and purchasing.

e) Application of the RWA to only a proportion or all labour costs.[14]

3.26 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 at this stage.

3.27 In the draft determination modelling CEPA also found some statistical problems with the re-run RP6 models as some of the explanatory variables did not work well. The exclusion of connection costs had a material impact, but the analysis indicated that the company is more efficient compared to the GB upper quartile (UQ).

3.28 CEPA also ran alternative models to address some of the statistical problems. The results of the IMFT&I and NOCs only alternative models which we relied upon at the draft determination were as follows:

	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}
Model robustness tests									
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 3.5: CEPA alternative IMFT&I model results[15]

[14] Full methodology discussion and the CEPA approach to pre-modelling adjustments is set out in Annex B, Section 2.2 and the Annex B addendum.
[15] Source: CEPA Analysis, Draft Determination, Annex B, Table 4.3, p28.

3.29 Under these models NIE Networks continued 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.

3.30 For the purposes of assessing the efficiency gap, we maintained a dependence on both pre and post connection allocation models. 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.

3.31 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 concluded that we should rely on these models for the draft determination.

3.32 The efficiency scores and the potential uplift to get to UQ spend (as per the NIE Networks approach) is set out in Table 3.6 below.

Model Number	NIEN 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 3.6: CEPA alternative model efficiency scores

3.33 The results suggested that no catch-up efficiency target was appropriate. However, they also indicated that the NIE Networks 24% base uplift was not supported by the top-down analysis.

3.34 If we accepted the premise of the NIE Networks approach, the equivalent uplift would be a 13.7% base uplift based on an average of all nine alternative models. However, in the absence of justification of additional costs, we did not have any certainty of the scope differences.

3.35 For the purposes of our draft determination top-down assessment we assumed 50% of the outperformance could be attributed to scope differences.

3.36 Whilst recognising that this figure was arbitrary, we considered it preferable to assuming a 100% uplift which had the potential to systematically overstate NIE Networks required costs. The result at draft determination was a 6.8% or £5.2m p.a. increase.

UR top-down analysis at final determination

3.37 In terms of the modelling, the three key issues raised by NIE Networks and NERA include the following:

1) Treatment of connection costs.

2) Regional wage adjustment application.

3) Weighting placed on more disaggregated models covering some opex activities (NOCs).

3.38 These issues are fully discussed in the CEPA Annex B addendum report. In summary however, we have investigated the issues and have made certain changes where we consider appropriate.

3.39 In terms of connection costs we are minded to retain reliance on both pre and post allocation models. As at RP6, it is our view that this strikes the right balance between concerns over allocations and accounting for the different level of connection activity.

3.40 Whilst NIE Networks has raised some fair points, the decision is due to the fact that:

- There is a wide range of market shares across GB DNOs, yet Ofgem did not exclude connection costs from its benchmarking.
- The difference in market share does not seem to fully explain the much larger connection costs reported by NIE Networks. Neither did the company provide any other compelling arguments to explain the differential.
- Even if the company has followed reporting guidance, we cannot have certainty that the cost allocation methodology is the same as the GB DNOs approach.

- The concerns raised by the CC during the RP5 referral about the disadvantages of excluding connection costs are still applicable.[16]

3.41 In terms of the RWA and application of local labour proportions, we have accepted the company argument to an extent. However, we have not applied the local labour adjustment to NIE Networks costs. This is because they already operate in the lowest cost region of the UK, so have limited incentive to procure services elsewhere. Neither is there evidence that GB companies incur much labour cost outside of GB.

3.42 Furthermore, whilst there is some anecdotal evidence of the company procuring GB labour, the materiality of this has not been established. It is our expectation that this would be low, particularly as the company has recognised that they can procure all the referenced services locally.

3.43 CEPA has recognised that there are some drawbacks to not applying these adjustments to NIE Networks. However, on balance we consider our approach to be reasonable given the different operating environment and the unlikely nature of NIE Networks procuring significant labour from GB.

3.44 Finally, we have taken on board the feedback with respect to the NOCs models. These have been excluded from the final triangulation of efficiency performance. This removes any potential bias.

3.45 It should however be recognised that this could be considered a conservative approach as NERA advised that a lower weight could apply. CEPA further advised that we may wish to consider the evidence from standalone NOCs models in the round when setting future cost allowances, rather than directly triangulating the results from these models with those from IMFT&I models.

3.46 The models which have ultimately been relied upon are set out below.

[16] See Competition Commission RP5 final determination, para 8.88, p8-17.

Locally incurred labour factors applied to GB DNOs only						
	IMFT&I including connection costs			IMFT&I excluding connection costs		
	Model 2.1	Model 2.2	Model 2.3	Model 2.1	Model 2.2	Model 2.3
Log of network length	0.814***		0.807***	0.833***		0.820***
Log of middle-up CSV		0.829***			0.847***	
Log of network density	0.679***	0.281*	0.460***	0.846***	0.439**	0.483***
Length of overhead lines as a % of network length	0.508*	0.573**		0.844**	0.910**	
Constant	-6.391***	-5.666***	-5.349***	-7.419***	-6.670***	-5.689***
Model robustness tests						
Adjusted R2	0.879	0.881	0.865	0.854	0.855	0.817
RESET test	0.003	0.000	0.345	0.000	0.000	0.352
Normality of model residuals	0.037	0.009	0.850	0.008	0.025	0.54
Heteroskedasticity	0.008	0.032	0.096	0.000	0.002	0.005
Chow test	0.997	0.536	0.984	0.696	0.147	0.929
NIEN efficiency score	**0.871**	**0.888**	**0.839**	**0.820**	**0.836**	**0.770**
UQ	**0.961**	**0.974**	**0.957**	**0.982**	**1.000**	**0.945**
Catch-up challenge	**-10%**	**-10%**	**-14%**	**-20%**	**-20%**	**-23%**

* p < 0.1, ** p < 0.05, *** p<0.001

NB: We have expressed the catch-up efficiency challenge as a percentage uplift, as opposed to our approach at DD of showing them as percentage-point differences between efficiency scores. This is to align with the UR's approach in presenting efficiency challenge, as a percentage uplift of the efficiency score.

Table 3.7: CEPA alternative IMFT&I model results[17]

3.47 The efficiency scores and the potential uplift to get to UQ spend is set out in Table 3.8 below.

Model Number	NIEN Efficiency Score	Upper Quartile Score	% Uplift to UQ
2.1 = IMFT&I (inc. connection costs)	0.871	0.961	10.3%
2.2 = IMFT&I (inc. connection costs)	0.888	0.974	9.7%
2.3 = IMFT&I (inc. connection costs)	0.839	0.957	14.1%
2.1 = IMFT&I (excl. connection costs)	0.820	0.982	19.8%
2.2 = IMFT&I (excl. connection costs)	0.836	1.000	19.6%
2.3 = IMFT&I (excl. connection costs)	0.770	0.945	22.7%
Totals			**16.0%**

Table 3.8: CEPA alternative model efficiency scores

3.48 As at the draft determination, 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.

3.49 Adopting the draft position of a 50% scope uplift would result in an 8% increase on the baseline. However, various stakeholders have concerns about this being arbitrary.

[17] Source: CEPA Analysis, Annex B Addendum, p22.

3.50 For the purposes of our top-down assessment we have ultimately assumed a 100% uplift (16% increase) for the outperformance. This follows a detailed bottom-up assessment of the areas which are impacting on cost increases. If we were also to give equal weight to an additional six models with the local labour adjustment applied to NIE Networks, this would increase the outperformance to 17.9%.

Indirect scalar

3.51 In terms of the indirect scalar uplift to account for the changing capital programme, some addition seems justified. We have had significant engagement on this issue by way of feedback and query responses.

3.52 It is accepted that our draft determination position was incorrect. NERA has pointed out that,

"The functional form of the regression was in levels, so the coefficient on CAI captures the change in CAI (in monetary terms) resulting from a change in capex. The coefficient for capex represented the increase in indirect expenditure (i.e. in pounds) associated with a unit (i.e. £1) increase in capex, holding MEAV fixed. Hence, the coefficient of 0.108 implied that a £1 increase in capex would increase a DNO's CAI by £0.108."[18]

3.53 NIE Networks has also revised their request with respect to this uplift. In response to a query log question they consider that £8.4m represents an appropriate CAI uplift rather than the £14m set out in the business plan. This change is due to the willingness to accept the Ofgem chosen coefficient.

3.54 For the final determination we have accepted the company proposal and updated the scalar for the final determination capex allowances. We estimate that the capital programme for non-load related and reinforcement expenditure in RP7 will increase by £525m. Applying the 0.108 coefficient results in an uplift of £56.6m in total or £9.4m/a.

3.55 The scalar has been applied 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.

3.56 Accounting for these differences, our top-down analysis gives a somewhat different outcome as detailed in Table 3.9 below.

[18] Source: Annex A3.1, NERA Response to UR RP7 Draft Determinations, p37.

	IMFT&I Top-Down Allowance
NIE Networks 2021-22 baseline	£76.2m
CEPA efficiency gap percentage uplift to UQ	16.0%
100% scope difference assumption	16.0% (16.0% * 1)
New baseline	£88.4m (£76.2m * 16.0%)
Direct capex increase	£524.5m
Indirect scalar	0.108
Indirect adjustment factor	£56.6m (£524.5m * 0.108)
Indirects uplift	£9.4m (£56.6m / 6 years)
IT uplift	£0.0m
Total IMFT&I Top-Down Allowance	**£97.9m (£88.4m + £9.4m + £0.0m)**

Table 3.9: UR top-down allowance for IMFT and indirect costs

3.57 The top-down allowance gives a value of £98m for IMFT&I costs. Given that we have accepted the full scope uplift and revised indirect scalar, we would have concerns about provision of additional IT costs. In this scenario the separate IT uplift would not be required as the UQ position would be fully represented.

3.58 In subsequent engagement NIE Networks has argued that NERA has carried out an efficiency assessment that strips out IT entirely. The results are that the efficiency gap is reduced but only marginally, so any costs requested for activities not carried out in 2021/22 (i.e. new IT-related activities), could be added on and still see the resultant costs sitting no higher than the UQ level.

3.59 We have not undertaken such benchmarking so cannot verify the NERA results. Neither was this part of the company business plan. However, we would still have concerns on the basis that:

1) If correct, remaining IMFT&I base costs should only be uplifted by the lower efficiency percentage, otherwise there will be a double count.

2) Such an adjustment would only be appropriate if we had certainty that GB companies were not already doing the additional IT activity planned by NIE Networks, which we cannot know.

3) The scale of the IT and Telecoms uplift for business support costs is much larger for NIE Networks than for GB DNOs, suggesting that much of the differential is provided by the scope uplift.

3.60 Ultimately, we have made no further adjustment from a top-down perspective. The result is an allowance of £98m per annum with a maximum of £99.3m should the NIE Networks preferred approach to local labour also be part of the efficiency triangulation.

UR bottom-up analysis

3.61 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.

3.62 Other areas where they have identified scope differences such as Guaranteed Standards of Service (GSS) or DSO activity were not subject to separate scrutiny at the draft determination. NIE Networks has however provided further detail on indirect costs in their consultation response.

IMFT analysis

3.63 For IMFT expenditure, NIE Networks did provide some bottom-up justification to support part of their scope uplift as shown in Table 3.10.

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 3.10: EJP cost increases in IMFT expenditure across controls[19]

3.64 Of the c. £18m/a scope uplift requested, NIE Networks attributes around £7.5m/a to IMFT related activities. Our analysis of the various requests is detailed in Table 3.11 to Table 3.15 below.

3.65 For the purpose of context, we have provided the detail as set out in the draft determination. We have then documented the company response and our final deliberations for the final determination bottom-up position.

[19] It is worth noting that the RP6 total usually refers to a 6.5-year period excluding the extension year.

Cost Category	Inspections
Issue	**Survey and wayleave work**
Uplift Amount Requested in RP7	**£12.1m**

Synopsis

- NIE Networks has asked for an additional £12.1m to account 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

Draft Determination Issues / Summary

- There did appear to be a rationale for an increase to costs.
- However, it was 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 did 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.

Draft Determination Recommendation

- We were content that the Green Recovery would facilitate a rise in the difficulty of activity.
- Consequently, some uplift allowance was considered reasonable.
- However, such large increases in unit rates were not expected and did not appear justified, particularly given the potential for scale economies.
- A partial allowance seemed reasonable in this instance.
- Rather than the +250% unit cost increase, we assumed a 50% uplift.
- This is in line with the +53% unit cost increase for OHL foot patrol costs in the C&V reporting.
- The decrease in overall volumes means that the cost impact was limited to the lower RP7 volume expected.

Draft Recommendation	£2.0m

NIE Networks Response

Within their draft determination response (Annex A3.2), NIE Networks made the following points:

- RP6 specifications would address c1,400 km of 11kV overhead line each year.
- Of this 1,400 km, 466km would be subject to the re-engineering specification.
- Of the 466km, c28% of the kms is estimated to warrant conductor replacement, resulting in an estimated 130 km of 11kV overhead line per annum requiring full survey work.
- The mix of work in RP6 before the adoption of the 11kV rebuild specification was therefore 130 km subject to full survey and 1,270 km subject to inspection only.
- In RP7 1,455 km are assumed to be re-built in year. Of this, it is estimated that 70 - 80% of conductor will be replaced resulting in 1,018km - 1,164 km being subject to full survey work.
- This is between 7.8 and 8.9 times the scale of kms subject to full survey work than undertaken in the first part of RP6.
- The unit cost assumed in the RP7 submission for inspections cost is based on the costs incurred in the 2021 calendar year multiplied by seven.
- Actual survey and wayleave unit costs are as follows:

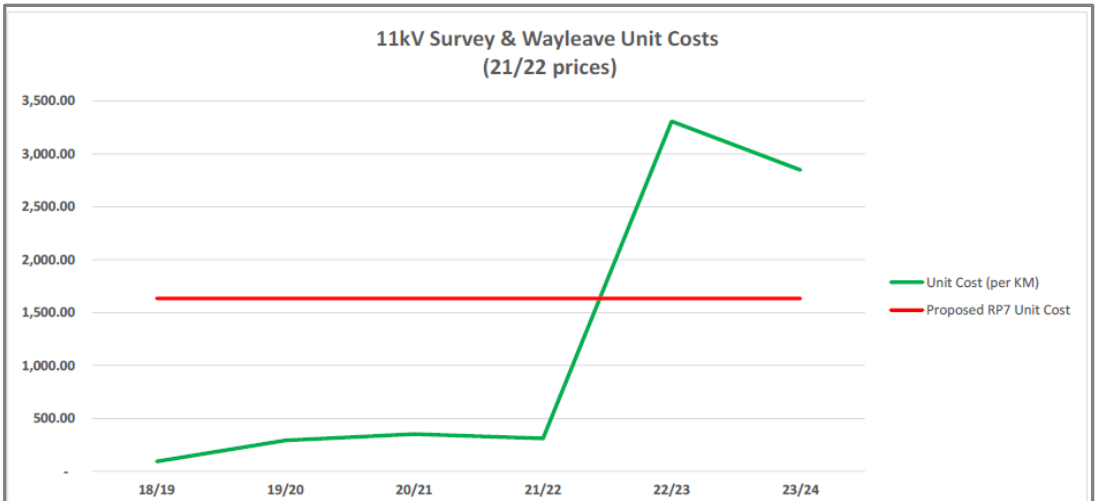

Table 21 *11kV S&W Unit costs*

- The 11kV rebuild specification was introduced during the 2022/23 year causing a significant spike in unit costs.
- Full survey of a line requires the following activities that are not required for inspections:

1) Detailed ground line profile.
2) Structures moved to accommodate different span lengths and landlocked poles.
3) Structures assessed from a risk perspective.
4) Some works carried out fall under planning consents.
5) Wayleaves and consents – there are a high volume of customer interactions to update wayleaves and obtain new ones prior to construction.

- This explains the large increase in unit costs requested.

UR Final Views

- There remain some concerns with this request. These include:
  1) NIE Networks could not provide estimates of time, or a breakdown of survey spend, despite having some (albeit limited) actual data.
  2) NIE Networks could not provide a split between inspection and survey costs.
  3) NIE Networks expects survey unit costs to further decrease as training and new staff are bedded in.
- Even though we expect additional survey costs associated with the 11kV rebuild, the justification provided for such a material increase is somewhat limited.
- There is obviously a substantial difference between the unit cost used for a full OHL survey and the unit cost for a typical inspection.
- This makes the RP6 average unit cost of limited value when predicting RP7 costs given the substantial increase in full survey work.
- Based on the response to Query URDD-0058, we were able to infer that this request is based on undereaves, 11kV and 33kV survey and inspection costs.
- We have accepted the 11kV uplift but have assumed that the other unit rates are the same as at RP6 average (based on years provided).
- This provides the majority of inspection work requested and represents a substantial uplift for inspection activity in RP7.

Final Recommendation	£10.7m

Table 3.11: Review of survey and wayleave inspection costs

Cost Category	Inspections
Issue	**LiDAR Survey[20]**
Uplift Amount Requested in RP7	**£4.0m**

Synopsis

- 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.
- The survey is anticipated to drive efficiencies and improve overall accuracy of OHL conductor clearances, pole and tower positions.
- 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.
- 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.”

[20] LiDAR survey = Light detection and ranging survey.

Draft Determination Issues / Summary

- This has not been done before but would appear that some GB DNOs have undertaken similar activity.
- No basis was provided for the £4.0m cost.
- If funded, this would presumably result in inspection savings elsewhere, particularly given that NIE Networks has listed efficiency as a key output.

Draft Determination Recommendation

- This seemed like a useful project but it was unclear if it needs to be funded given uplifts to inspection, maintenance and tree-cutting activities.
- The activity may also be self-funding if it drives efficiency elsewhere.
- We were also concerned that the survey results would have a limited life-span and individual work would still be required for D5 projects.
- We did not recommend an allowance for the draft determination.

Draft Determination Recommendation	£0.0m

NIE Networks Response

Within their draft determination response (Annex A3.2), NIE Networks made the following points:

- Costs are based on a quote which gives a much-reduced unit rate from the current contract due to efficiency in terms of mobilisation, flights and data processing.
- Like any survey data, it is only completely accurate at the time it is collected, and for maximum usage should be updated regularly.
- However, most of the network data will remain useful as a reference.
- While there are many benefits to collecting the data of, it is difficult to quantify the efficiencies or demonstrate any cost reductions in other workstreams.
- D5 projects, both asset replacement and load driven, within the RP7 period will require LiDAR surveys.
- However, depending on the time period, it should be possible to use this readily available data instead of an additional flight, making substantial cost savings.

UR Final Views

- Whilst the additional detail provided is welcome, the response provides limited assurance of the value to consumers given that LiDAR surveys will continue to be required for D5 projects.
- It remains our view that NIE Networks may wish to self-fund this activity if it is expected to drive a greater level of efficiency elsewhere for inspections, tree-cutting or maintenance.
- Final recommendation is not to fund this activity.

Final Recommendation	£0.0m

Table 3.12: Review of LiDAR survey inspection costs

Cost Category	Inspections
Issue	**Underground Cables**
Uplift Amount Requested in RP7	**£1.5m**

Synopsis

- NIE Networks proposes additional monies in the inspections of underground cables.
- This includes:

1) Cable sealing ends on 33kV cables where a type defect has been identified during RP6 on a specific termination kit from one manufacturer.
2) A new programme to inspect non-metered cut-outs at a programme cost of £140k.
3) A new programme to inspect submarine cables at a cost of £630k. Cables will reach 20 years old during RP7.
4) A new programme to inspect fluid filled cables (FFC) at a cost of £300k in order to reduce the overall leakage rate.

Draft Determination Issues / Summary

- Limited supporting detail has been provided for the cost requests.
- Cable termination issue seems justified given problems detected in RP6.
- However, it was not clear why the non-metered cut out inspections are required now and how the volume has been determined.
- We accepted that the submarine cables should be inspected given the asset age.
- The FFC inspections should already be being done, particularly since NIE Networks state their performance is high compared to other DNOs.
- The need for this seems to be the commitment to reduce cable leakage by 10%. This is a stakeholder commitment.

Draft Determination Recommendation

- The cable termination and submarine inspection costs appear justified.
- It was 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 seemed reasonable.
- We proposed allowing the increased volume in cable termination inspections but at the RP6 unit rate. We also allowed the cut-out and submarine inspections.
- FFC inspections are accepted as reductions in leakage levels are to be encouraged.
- Such a position is however considered to be generous given the justification that was provided.

Draft Determination Recommendation	£1.36m

NIE Networks Response

Within their draft determination response (Annex A3.2), NIE Networks made the following points:

- The increased unit rate for cable termination inspections includes the use of specialist test equipment which will cost in the region of £110k (plus £40k in additional time taken to carry out the inspections).
- If the cost for this is removed, the unit rate is slightly less than that experienced in RP6.
- In response to a query (URDD-0052), NIE Networks confirmed that inspectors did not have access to this specialist equipment in RP6.
- The requirement to inspect non-metered cut-outs is based on experience of RP6 where a number of ESQCR risks were identified with this type of equipment.
- The volume for inspection is based on the total volume that NIE Networks has on record - 5,455. This will result in inspecting 920 per year in RP7.
- By having more regular cable inspection programmes, we could locate leaks more quickly helping to achieve our commitment to our stakeholders.

UR Final Views

- NIE Networks has not specified the impact the FFC inspection will have. However, we are broadly supportive of the work as well as the non-metered cut-out inspections.
- We have adjusted the UCG unit rate to account for the additional time. However, the cost of specialist equipment purchases is reflected in the 'Other' indirect cost line which relates specifically to tools and equipment.
- The result is a small uplift to cable inspection costs.

Final Recommendation	£1.39m

Table 3.13: Review of underground cable inspection costs

Cost Category	Tree Cutting
Issue	**Tree Maintenance**
Uplift Amount Requested in RP7	**£9.7m**

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, some of which are reduced.
- The request is detailed below.

RP6 Programme	UoM	RP6 Volume	RP6 Cost	RP7 Volume	RP7 Cost
Transmission tree cutting	Km	4,742	£1.8m	4,380	£1.6m
33kV tree cutting	Km	6,912	£2.4m	9,570	£7.4m
11kV and 6.6kV tree	Km	47,069	£19.1m	43,446	£18.3m
LV tree cutting	Km	7,621	£3.4m	9,066	£7.8m
Hotspot tree cutting	Sites	As required	£0.7m	As required	£0.5m
Substation tree cutting	Sites	300	£0.2m	966	£0.4m
Commercial plantation	Spans	n/a	n/a	1,572	£1.3m
Totals		**66,644**	**£27.6m**	**69,000**	**£37.3m**
Total per annum		**10,253 p.a.**	**£4.6m/a**	**11,500 p.a.**	**£6.2m/a**

Draft Determination 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 was not explained.
- Neither was justification provided for the LV cutting increase.
- It was 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 was not supported.
- NIE Networks has noted that some commercial plantations are infringing on clearances with more risk as they mature.
- However, it was 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.

Draft Determination 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 were not justified.
- Little explanation was given for the LV spend so we were not inclined to support the unit cost increases.
- The substation cycle cuts were accepted but it was not clear why commercial planation work is now becoming an issue.
- Most of the £9.7m uplift costs were 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.

Draft Determination Recommendation	£0.0m

NIE Networks Response

Within their consultation response (Annex A3.2), NIE Networks made the following points:

- As part of a 3-year cycle, we are unable to keep vegetation out of the 33kV live zone.
- Historical data, shows that the transmission network, which is currently cut on a 2-year cycle, has no sites where the live zone is breached.
- Unit costs assumed are based on the work delivered during the 2021 calendar year.
- The only changes to the RP6 rates result from the 33kV resilient cut being included within the tree cutting plan (having previously been included under ESQCR investment as part of the Network Investment Plan) and the move to cutting at LV.
- Our analysis shows that shrouding will no longer effectively address the risks posed by tree growth near LV overhead lines. This increases the unit rate as the activity required increases.
- The forecast activity per km at LV is based on a number of trial circuits carried out to determine the required unit rate.
- There has always been commercial plantations that need cut but previous regulatory periods have not included an allowance and as such, we have limited interventions.
- NIE Networks is open to engaging further with UR on capitalisation. We do not believe that this is a suitable barrier to avoid the move to a 2-year cycle.

UR Final Views

- NIE Networks has provided a spreadsheet (Annex A3.3) detailing the breakdown of unit rates and tree cutting costs estimates for RP7.
- Unfortunately this is at a fixed period in time and fails to explain the unit rate increases as detailed in the Tree Cutting EJP.
- For the 33kV cycle, the company has failed to explain why it should differ in approach from close comparators including ESB who have similar climate conditions.
- We are minded to retain funding for a 3-year programme.
- It is accepted that inclusion of the ESQCR resilience cut will add volume and cost which should be accounted for.
- We have therefore updated the allowance by £1.3m (as per EJP 1.201, Table 1, p7) based on expected spend in RP6.
- Provision of another resilience cut in RP7 further mitigates the need to move to a 2-year cut cycle for 33kV lines.
- For the LV programme, NIE Networks has not explained why shrouding no longer addresses the risk. Neither has the increased activity rate assumptions been detailed.
- We are minded to retain the draft position for these costs.
- With respect to commercial plantations, the information provided appears contradictory.
- NIE Networks report no costs or activity in the EJP for RP6 but the draft determination response spreadsheet (Annex A3.3) shows spend of c. £100k addressing 117 spans (though the time period is not entirely clear).
- For the final decision, we have accepted the commercial plantation unit rate proposed but amended the volume to be in line with RP6 activity.
- The result is a £1.2m increase in overall tree-cutting allowances between price controls.

Final Recommendation	£1.2m

Table 3.14: Review of tree cutting activity costs

Cost Category	Maintenance
Issue	**Maintenance**
Uplift Amount Requested in RP7	**£8.7m**

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
Totals	**£30.1m**	**£38.8m**

Draft Determination 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 seemed somewhat excessive.
- However, the main concern was 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 seemed reasonable.

Draft Determination Recommendation

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

Draft Determination Recommendation	£2.5m

NIE Networks Response

Within their draft determination response (Annex A3.2), NIE Networks made the following points:

- Underlying increases in maintenance reflect the cost of doing work in the 2021 year.
- Securing a permanent contractor to deliver ground maintenance work has been a challenge during RP6.
- This contract is currently out for tender but we expect to have unit rates by August 2024.
- Accept UR's scepticism regarding the rates included within the plan which are based on a best estimate.

UR Final Views

- Responses provided give no further update on transmission maintenance or security cost estimates. We see no reason to amend the draft determination position.
- Likewise, the grounds maintenance unit cost position has not changed. However, the 50% volume increase has been accepted as per the draft approach.
- We are minded to retain the original recommendation for the final decision.

Final Recommendation	£2.5m

Table 3.15: Review of maintenance costs

3.66 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.[21] We have accepted the revised company position with respect to fault costs.

3.67 From a bottom-up perspective, the results of our deliberations are shown in Table 3.16.

Area	RP6 £m[22]	RP7 £m	RP6 £m/a	RP7 £m/a	Increase £m/a
Inspections	16.6	29.9	2.6	5.0	2.4
Maintenance	30.1	32.6	4.6	5.4	0.8
Tree Cutting	27.6	28.8	4.2	4.8	0.5
Faults	61.1	50.7	9.4	8.4	-1.0
T&D Total	**£135.4m**	**£141.9m**	**£20.8m/a**	**£23.6m/a**	**£2.8m/a**

Table 3.16: UR bottom-up allowance of IMFT costs

3.68 The final position is that an uplift of £2.8m/a is supported by the bottom-up IMFT assessment, as opposed to the £7.5m/a request. NIE Networks has

[21] 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."*

[22] This is expected RP6 spend over the 6.5-year period, excluding the extension year. Comparisons are made on a per annum basis to ensure like-for-like changes.

failed to fully justify business plan proposals. However, the final determination position represents an uplift from the draft, largely due to increased survey and wayleave costs.

Property cost request

3.69 Property expenditure is captured under indirect expenses as part of non-operational capex costs. For the RP7 business plan, NIE Networks planned to spend £33.8m to modernise their existing property portfolio. This represents a considerable increase compared to the c. £10.6m of property-related investments expected to be incurred in RP6.

3.70 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".

3.71 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.

3.72 As shown in Table 3.17 below, NIE Networks business plan 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 3.17: NI Networks property cost request

3.73 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".

3.74 The training school investment reflects NIE Networks commitment to substantially increase its apprentice intake volumes during RP7. NIE Networks considers this, "appropriate to develop a new purpose-built training school capable of hosting c.70 staff".

3.75 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.

3.76 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 at draft determination

3.77 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".

3.78 As NIE Networks is expecting to increase FTEs[23] 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.

3.79 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.

3.80 In the business plan 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.

3.81 NIE Networks strategy breaks down costs for each project into unit cost, build costs, fees and IT / fit out costs. However, the property strategy still lacks a comprehensive, detailed explanation of what specifically drives the need to refurbish or build new office accommodation, which accounts for a significant proportion of the overall £33.8m request.

3.82 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

[23] FTEs = Full Time Equivalents.

statements. In summary, our review shows that there are still gaps in the evidence base used for the property strategy.

3.83 On individual review of the property submission at draft stage, we proposed an estimated allowance of £21.2m as summarised in Table 3.18 below.

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 3.18: NI Networks property cost request

3.84 This allowance was based on the following conclusions:

a) We 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 allowed for one of the office refurbishments (either Omagh or Campsie) based on whichever is in most need.

c) We allowed the Ballymena re-build (and temporary rental) but at a lower cost per sq ft of £144 based on alternative public data[24] 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 was rejected as this is solely related to accommodating additional staff which we do not think is necessary.

e) Need for the training centre was accepted but with a 20% cost reduction as there may be offsetting off-site hire costs which will be avoided but don't seem to be accounted for.

f) New stores were accepted but at a lower unit rate of £71 per sq ft based on alternative public data.

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

[24] Figures for build costs taken from the following data base: https://costmodelling.com/building-costs.

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

3.86 It was 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.

3.87 Overall, we recommended a total property allowance of £21.2m which represented c. 63% of the amount requested. After making reductions for the proportion of costs (21%) allocated to connections, this resulted in an overall uplifted property allowance of £16.8m or £2.8m per annum.

UR property analysis at final determination

3.88 NIE Networks made significant representations and changes to the property request following the draft determination. The company argued for a revised request of £46.8m, representing an uplift of £12.9m on their own business plan. The updated request can be seen in Table 3.19 below.

NIE Networks proposed property investment in RP7	BP Request (£m)	Revised Request (£m)	Uplift (£m)
Office accommodation	£19.4m	£29.4m	£10.0m
Training school	£4.8m	£8.1m	£3.3m
Stores facilities	£8.7m	£8.7m	£0.0m
Sustainability property investments	£0.9m	£0.5m	-£0.4m
Total property and facility investment	**£33.8m**	**£46.8m**	**£12.9m**

Table 3.19: NI Networks original and revised property cost request

3.89 Our analysis of the revised property request is detailed in Table 3.20 below.

Cost Category	Property Request
Issue	**Property**
Amount Requested in RP7	**£46.8m**
Synopsis (Post Draft Determination) The increases from the business plan are being driven by the following factors: 1) The office request is rising by £10.9m due to the Craigavon refurbishment which had been scheduled to take place in RP6 but has been delayed due to design changes i.e. inclusion of a specialist control room and increased size. 2) There is an offsetting reduction of around £1m for a lower forecast for the Ballymena office.	

3) The new training facility cost has increased from £4.8m to £8.1m due to a significant expansion of the size (from 1,400sqm to around 4,000sqm).
4) NIE Networks advised that the larger training facility was determined following a management-led review which confirmed that existing facilities were not fit-for-purpose and the risk of disruption at Craigavon and Ballymena.

In terms of the disallowances made at the draft stage and their additional costs, NIE Networks has made the following points:

- Omagh and Campsie were constructed at the same time and equally require upgrade works. There may also be economies of scale from undertaking refurbishments in RP7.
- Dargan is at full capacity and will require space for an addition 60 FTEs by 2028 as indirect staff will increase at all depots.
- Using the cost modelling website (as we did at draft stage), NIE Networks believe there is scope to increase the construction cost estimates to £190 per sq ft for Ballymena office.
- NIE Networks has provided actual Best and Final Offer (BAFO) tender data to support the Craigavon cost request.
- NIE Networks has provided detailed quantity surveyor estimates for the new forecast of the training school costs of £8.1m. This is also supported by the cost modelling data.
- The cost modelling data also supports a new stores cost estimate of £110 per sq ft which is in line with the BP request. NIE Networks believes this reduction should be reinstated.
- The infrastructure upgrade relates to increased provision of electricity supply to service the central store as there is insufficient network capacity in this area.
- Provision of EV chargers at substations should be reconsidered as NIE Networks work towards the target of 70% fleet electrification.

Draft Determination Recommendation	£21.2m

UR Final Views

When considering the issues for the final determination recommendation, we would make the following points:

Ballymena Office

- Use of the cost modelling tool supports some uplift from the draft determination.
- The key difference between ourselves and NIE Networks includes the fact that the 12% contingency has been removed as this is not appropriate in cost-sharing allowances.
- There also seems to be a difference in the deflation factor. However, the website is clear that the construction costs used are in Q3 2024 prices.
- We have used the OBR forecast RPI figure for this quarter to deflate to 2021-22 prices.
- We have determined an allowance of **£6.0m** compared to the revised **£7.3m** request.

Campsie & Omagh Offices

- No new information was provided in terms of need.
- Economies of scale are highly unlikely as each project is unique.
- The draft position was that one office should be prioritised based on need.
- We see no reason to divert from this position.
- For the final determination we have provided £3.5m to refurbish one of these office blocks.

Dargan Phase 2

- It is not clear why additional indirect staff need to be based at Dargan.

- Need is also mitigated by a couple factors including; i) NIE Networks own reduction in expected FTEs resulting from the lower indirect scalar; and ii) increase in size of Craigavon.
- We have decided not to fund this expansion, as per the draft approach.

Craigavon Office

- It is somewhat strange that the business plan did not include this project.
- NIE Networks has confirmed that their RP6 request included £9.5m (or £1.5m p.a. in 2015-16 prices) for property management and this did not include funding for Craigavon.
- We therefore accept the need to fund this project.
- Use of the cost modelling tool supports some reduction (for the same reasons as the Ballymena office).
- It is also noteworthy that the cost modelling construction unit cost for the build (£168 sq ft) is very similar to the lowest BAFO actual tender, which would presumably have been the preferred bidder. This supports use of the cost modelling methodology.
- We have determined an allowance of **£7.8m** compared to the **£10.9m** request.

Training Centre

- Justification for the substantially enhanced training centre is particularly weak.
- Very limited detail given has been provided as to why it should be 4,000sqm instead of the original 1,400sqm.
- NIE Networks did not share the review that concluded that the existing facilities were no longer fit-for-purpose. They simply advised that it was management-led.
- The problems listed in the query response (URDD-0048) could all have been reasonably foreseen at the business plan stage when developing their property strategy.
- It is not clear why the smaller bespoke facility and existing training space is no longer suitable.
- We have decide to retain the initial allowance of **£3.9m** for the smaller bespoke training centre compared to revised request of **£8.1m** for the larger scheme.
- It is noteworthy that using the cost modelling tool would also support a lower allowance than the draft determination for a centre of 1,400sqm size.
- This allowance therefore provides some headroom for a larger facility.

Central Store

- NIE Networks has argued that the reductions should be re-instated based on the cost modelling tool.
- However, we are of the opinion that there is a mistake in the NIE Networks analysis. They used a unit cost of £1,510/sqm for purposed built mixed facilities. The correct rate from the cost modelling website should be £1,150/sqm.
- The differential supports the draft position (when removing contingency and deflating by the appropriate RPI figure).
- NIE Networks has also requested £0.9m for an infrastructure upgrade to address insufficient network capacity.
- No basis is provided for these costs. We would expect the baseline property cost allowance to cover this request.
- We have retained the draft allowance of **£5.5m** for stores compared to the **£8.7m** request.

Sustainability

- NIE Networks has argued that the substation EV chargers should be re-instated.
- However, they have failed to address our principal concern that the infrastructure would be insufficiently used.
- We are also of the opinion that the investment could be undertaken via the baseline property allowance. We have provided no addition funding for these costs.

Overall we propose an allowance of **£29.5m** against the **£46.6m** request. This is an allowance of 63% and a very substantial uplift of £8.3m from the draft determination. The funding should help secure the viability of the property portfolio for the medium to long term future of the organisation.
Final Recommendation | **£29.5m**

Table 3.20: Review of property costs

3.90 Overall, we have determined a total property allowance of £29.5m which represents c. 63% of the revised amount requested. However, it also represents an £8.3m uplift from the draft determination and a marked increase from expected spend in RP6.

3.91 After making reductions for the proportion of costs (21%) allocated to connections, this results in an overall uplifted property allowance of £23.4m or £3.9m per annum.[25]

3.92 We do however expect various outputs to be delivered during RP7 as a result of this funding including:

1) Refurbishment of either Omagh or Campsie office.
2) Rebuilt Ballymena office.
3) Completed refurbishment of Craigavon office with new control room.
4) Four new local incident centres (Enniskillen, Newry, Ballynahinch and Coleraine).
5) Bespoke training facility.
6) New central store.

3.93 The funding provided should help secure the viability of the property portfolio for the medium to long term future of the organisation. However, we would not expect such elevated property spend to continue in RP8. In fact a substantial reduction would be anticipated given the forecast RP7 activity.

Indirect cost review

3.94 At the draft stage we did not have access to a bottom-up assessment of indirect cost increases. Within their response to the draft determination, the

[25] It should be noted that whilst a proportion has been removed for connection overheads, all other costs are allocated to the IMFT&I allowance. As a consequence there is no need to uplift market operation overheads for this activity.

company provided some further detail on this area. Our review is detailed in Table 3.21 below.

Cost Category	Indirect Costs
Issue	**Indirect Expenditure**
Amount Requested in RP7	**£444.4m**

Synopsis

- NIE Networks business plan focused on a top-down approach to determine the IMFT&I allowances for RP7.
- Whilst they did produce engineering judgement papers (EJP) for IMFT uplifts and property cost increases, they did not give a bottom-up view on indirect costs.
- They did however state that the uplift to IMFT&I costs was justified based on the following scope differences:

  1) New DSO functionality which GB is already more advanced in.
  2) Enhanced guaranteed standards of service (GSS).
  3) ESQCR[26] expenditure which current lags that of the GB DNOs.
  4) Increasing cost pressures from contractors.
  5) IT provider has reduced charges to reflect historic challenges in meeting contractual commitments. This reduction is expected to end.

- As part of the price control engagement, we wrote to NIE Networks on 25 October 2023 asking for a separate submission on the additional bottom-up costs not subject to bottom-up review.
- In the draft determination (Annex D, p27) we also stated, "We would ask NIE Networks to provide further information on bottom-up costs to allow a more robust assessment."

Response to Draft Determination

- Within their consultation response NIE Networks provided the *RP7 Indirect and IMFT Costs Dossier of Evidence* (Annex A3.2).
- This provided a bottom-up view of the remaining costs not subject to bottom-up scrutiny.
- The split of costs is as follows:

Transmission and Distribution Indirect Costs (£m, 2021/22 prices)												
Costs excluding RPEs	Spend Profile in RP6				Spend Profile in RP7						Total RP7	Increase from 21/22 to 30/31
	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31		
Transmission & Distribution												
Staff	29.2	28.9	30.7	34.6	42.3	43.7	45.5	44.8	44.2	44.2	**264.7**	**15.0**
Fleet	2.3	2.1	2.4	2.9	4.0	4.6	5.3	6.0	6.3	6.3	**32.5**	**4.0**
Fuel	1.0	1.3	1.3	1.4	1.9	2.0	2.1	2.2	2.3	2.3	**12.8**	**1.3**
Property	1.2	1.5	7.6	3.6	3.9	3.3	4.9	4.9	4.9	4.9	**26.9**	**3.7**
Other	15.7	15.8	18.0	18.1	18.0	17.4	17.4	18.2	18.3	18.2	**107.5**	**2.5**
Total T&D Indirects (general)	**49.3**	**49.6**	**60.1**	**60.6**	**70.1**	**71.1**	**75.1**	**76.2**	**76.0**	**75.9**	**444.4**	**26.5**

Table 2 Breakdown of T&D General Indirect costs

- The figures align with the *Indirects (general)* lines as set out in the business plan detailed expenditure table.

[26] ESQCR = Electricity Safety, Quality and Continuity Regulations

- The vast majority of the increase is staff related. There are however additions for fleet, fuel, property (reviewed separately) and other costs.
- NIE Networks has advised that other costs consist of tools / equipment, personal protection equipment (PPE) and training costs being driven by increase in staffing levels.
- The Dossier of Evidence provided detail on staff numbers. However this detail is complicated by the fact that it did not identify which staff numbers are increasing due to the CAI uplift for the larger capex programme and which are new roles.
- This issue was raised with NIE Networks (in query URDD-0040) who stated,

  "The RP7 plan was developed on a bottom-up basis including a detailed assessment of the resources required to deliver the plan based on engineering and management judgment…..The top-down approach to determining efficient I&IMFT costs comprises base year costs plus (1) an efficiency uplift, and (2) a scalar uplift. This means the additional indirect roles identified through the bottom-up assessment will not solely relate, or compare directly, to the CAI uplift as a result of the indirects scalar adjustment."

- The company did (via queries URDD-0040 & 41) however identify which roles are CAI related and provided an updated staff table from base year (T&D only) as follows:

	RP6				RP7								
NIEN Request - Staff	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**RP7 Ave**		**Increase**
	Nr	**Nr**	**Nr**	**Nr**	**Nr**	**Nr**	**Nr**	**Nr**	**Nr**	**Nr**	**Nr**		**Nr**
Network Assets	162	181	201	227	268	286	293	293	293	293	**288**		131
Customer Delivery	239	246	250	266	300	329	358	358	358	358	**344**		119
Customer & Market Services	30	47	49	50	52	53	53	53	53	53	**53**		23
People & Culture	53	71	79	89	97	97	97	97	97	97	**97**		44
Finance & Regulation	50	56	56	59	60	60	60	60	60	60	**60**		10
MD & Board	7	8	8	7	7	7	7	7	7	7	**7**		0
Headcount Totals - T&D	**541**	**609**	**643**	**698**	**784**	**832**	**868**	**868**	**868**	**868**	**848**		**327**

- For fleet costs, NIE Networks has cited the following reasons for upward cost pressure:

  1) Increase in the price of small vans (31%) and 4 x 4 vehicles (20%) in nominal terms from 2021 to 2023.
  2) Expect the total number of vehicles in the fleet (both EVs and non EVs) to increase from 380 at the time of RP7 submission to over 700 by the end of RP7.
  3) Increased premium associated with EV leasing. For example, current experience of 2 van types in the fleet (i) Renault ZOE EV is c25% premium against Fiat Fiorino diesel and (ii) Fiat e-Scudo is c44% premium against Vauxhall Vivaro diesel.

- NIE Networks has advised that *"The fleet to employee ratio in 2021/22 was 0.8 vehicles per employee. This remains unaltered at 0.8 in 2024 and remains the same throughout the forecasts to the end of RP7."* (Response to URDD-0046)
- For fuel costs, increases are based on fleet increases. These costs also include the costs of charging vehicles.
- EV charging costs in the plan have been calculated at 57% of diesel fuel prices as per the current ratio (based on the cost to charge/fuel a Renault Zoe compared to a Fiat Fiorino).
- The remaining increase in indirect costs of £2.5m between 2021/22 and 2030/31, as shown in the 'Other' category in Table 2, accounts for less than 10% of the overall increase.
- These other cost increases relate to a number of indirect cost categories such as tools and equipment, PPE and training costs as required.
- Justification given is that these costs are being driven by the required increase in resourcing levels and activity.

UR Final Views

- As we are placing reliance on the indirect scalar, it would seem reasonable to strip out any costs in the bottom-up assessment which would legitimately be covered by this uplift.
- NIE Networks and NERA has confirmed that the dependent variable is total CAI cost (after allocations). CAI covers the following cost categories:

Closely Associated Indirect Costs	Cost Category
Closely Associated Indirects	Network Design and Engineering
	Project Management
	Engineering Management and Clerical Support
	System Mapping
	Control Centre
	Call Centre
	Stores
	Operational Training
	Vehicles and Transport

- When considering the issues for the final determination recommendation, the following points should be noted:

Staff

- The twin tests of 'newness' and 'exogeneity' have been employed when considering the increased staff request.
- Much of the staff change is covered by the indirect scalar uplift.
- The justification for many new staff including network operations, asset management, health and safety (H&S) etc. are all explained on the basis of business growth. These staff have been rejected as they are addressed by the indirect scalar uplift.
- Some of the staff have been identified as connection or market operations activity. These staff do not form part of this cost request.
- Some of the staff uplifts appear to be funded separately e.g. IT staff. Whilst NIE Networks suggest that they will carry out some BAU activity, most of the justification provided is for new IT projects which we consider are already fully funded.
- These staff have been rejected on the basis that they are already provided for.
- Innovation staff requests are rejected. They are subject to separate project-by-project funding.
- We did not query all staff increases but did a review of DSO, graduate intakes and health and safety (H&S) staff. Besides high-level statements, NIE Networks provided relatively limited justification for graduate and H&S increases and no definitive outputs.
- However, allowance has been provided in full for the DSO and flex services staff. This is a genuinely new activity and an area where NIE Networks currently lag GB activity.
- Whilst DSO resource is uncertain, NIE Networks point to the fact that SSEN has requested £27.1m incremental spend in their ED-2 DSO Strategy (p30) for workforce capability.
- Whilst they are a larger DSO, the NIE Networks request appears reasonable when compared to current levels of GB spend.
- Other minor provision has been made for what appears to be genuinely new activity i.e. Evaluative Performance Framework (EPF) staff and new LV model technicians.

- Business support cost (BSC) staff have largely been rejected. This follows the Ofgem approach that the larger capex programme should not have a material incremental effect on the cost requirements in this area.
- On final analysis, the additional staff increase allowed on a bottom-up basis (including the indirect scalar uplift) is as follows:

Staff Increases from baseline	FTE Numbers
Indirect scalar	110
Other new activity	32
Total	**142**
Financial impact	**£7.4m**

- This equates to a roughly £5.7m/a increase for staff costs associated with the larger capital programme and an additional £1.7m/a for new activity (mostly DSO related).

Fleet Costs

- As part of CAI costs, the fleet expenditure is covered by the indirect scalar uplift.
- No additional bottom-up analysis has been undertaken.
- However, as part of the network performance strategy (EJP 1.801), the company did include a request for £1.05m for live line lorries.
- We have opted to approve such a request with funding of £175k per annum included in the IMFT&I allowances.

Fuel Costs

- Likewise the fuel costs are covered in their entirety by the indirect scalar uplift.
- No additional bottom-up analysis has been undertaken.

Property Costs

- Property costs have been reviewed separately.

Other Costs

- Other costs such as training and equipment are covered by the indirect scalar uplift.
- No additional bottom-up analysis has been undertaken.

Conclusions

- It is notable that besides the DSO request, NIE Networks has failed to mention the other scope differences identified in the business plan i.e. ESQCR and GSS spend.
- Of the **£444m** overall RP7 request for other indirect staff, the assessment has resulted in an overall allowance of **£387m.**

	RP6				RP7						Total	
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	RP7	Base Year
Costs (excluding RPEs)	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	Increase
Staff	29.2	28.9	30.7	34.6	36.6	36.6	36.6	36.6	36.6	36.6	**219.5**	**7.4**
Fleet	2.3	2.1	2.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	**17.6**	**0.6**
Fuel	1.0	1.3	1.3	1.4	1.2	1.2	1.2	1.2	1.2	1.2	**7.2**	**0.2**
Property	1.2	1.5	7.6	3.6	5.1	5.1	5.1	5.1	5.1	5.1	**30.6**	**3.9**
Other	15.7	15.8	18.0	18.1	18.8	18.8	18.8	18.8	18.8	18.8	**112.7**	**3.1**
T&D Total	**49.4**	**49.6**	**60.0**	**60.6**	**64.6**	**64.6**	**64.6**	**64.6**	**64.6**	**64.6**	**387.5**	**15.2**

All figures in 2021-22 prices

• This represents an uplift of £15.2m/a from the baseline for other indirect staff and property. • Removing property (£3.9m/a) and the indirect scalar uplift (£9.4m/a spread across staff, fleet, fuel and other costs) gives a further uplift of **£1.8m/a** for other new activities. • This is mostly DSO / flex related activities and other additional staff expenditure such as EPF. • It also includes provision for live line lorries and LV model technicians.
Final Recommendation | **£387.5m**

Table 3.21: Review of indirect costs

Bottom-up conclusions

3.95 Based on our bottom-up analysis, we have determined an allowance of £101.1m/a for IMFT&I cost built up as shown in Table 3.22 below.

	IMFT&I Bottom-Up Allowance
NIE Networks 2021-22 baseline	£76.2m
Indirect scalar uplift	£9.4m
IT uplift	£6.9m[27]
IMFT uplift	£2.8m
Property cost increase	£3.9m
Other indirect costs	£1.8m
Total IMFT&I RP7 Allowance	**£101.1m**

Table 3.22: UR bottom-up allowance for IMFT and indirect costs

IMFT&I conclusions

3.96 Results of the IMFT&I deliberations are set out as shown in Table 3.23.

	NIEN Request	UR Top-Down	UR Bottom-Up
Total IMFT&I	£114.7m/a	£97.9m/a	£101.1m/a

Table 3.23: NIE Networks request and UR allowance for IMFT and indirect cost

[27] The IT uplift has been revised following clarification from NIE Networks on the base year spend and the differential provided by the bottom-up IT assessment (see Annex W and X).

3.97 For the final determination, our allowance is based on the £101m/a bottom-up calculation. This provides for scope differences, new activity, property costs and uplifts associated with the larger capital programme.

3.98 It also provides for close to the full IT request as established separately by the separate IT review and provision for live line lorries. We think this represents a reasonable position having considered both the top-down and bottom-up company justification.

3.99 Whilst still short of the business plan request, the final position does not differ substantially from the revised position as set out by NERA in the response to the draft determination consultation.

Table 1: NIE I&IMFT Allowance NERA Recalculation

	Corrected Allowance *Calculated from CEPA/UR Materials*	**Additional Allowance Including Local Labour Adjustment** *Estimated from Public Data*
NIE I&IMFT Baseline	£76.2m	£76.2m
Efficiency Uplift Factor	21.7%	25.4%
New Baseline	£92.7m	£95.6m
Capex Increase (Annual)	£78m	£78m
Indirects Scalar	0.108	0.108
Indirects Uplift	£8.4m	£8.4m
Network Access & IT Uplift	£1.2m	£0.9m
Total I&IMFT Allowance	**£102.4m**	**£104.9m**

Source: NERA analysis.

Table 3.24: NERA recalculated allowances[28]

3.100 We are of the opinion that the allowance strikes a fair balance between uplifts for new activity and risk taken by the consumer of such material cost increases. This is particularly true in light of the fact that NIE Networks is substantially below the spend it had forecast for 2023-24 for IMFT&I spend.

[28] Source: Annex 3.1, NERA Response to UR RP7 Draft Determination, Table 1.

4. Unmodelled Costs

Introduction

4.1 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

4.2 In Norther Ireland 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.

4.3 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.

4.4 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.

4.5 At RP5, we 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)[29] rejected this on the basis that wherever possible regulators should avoid cost pass-through which could expose consumers to unnecessarily high costs.

4.6 CC also felt that this could create a perverse incentive to overspend the threshold. Their final determination made allowances based on GB historic costs and taking into account the increased frequency of events in Northern Ireland.

RP6 summary

4.7 At RP6 we investigated various options including:

- Using GB and Northern Ireland averages.
- Using NIE Networks' historic costs only.
- Using Ofgem's ED-1 approach.
- Combination which adjusted for OHL length.

[29] Now known as the Competition and Markets Authority or CMA.

4.8 Ultimately, we adopted the last option which resulted in an average allowance of £524k per annum (2021-22 prices). Over the last 7 years (from 2018 to 2024) NIE Networks has incurred costs of at an average of £804k per annum.

RP7 request

4.9 Within the RP7 business plan, NIE Networks proposed a severe weather cost pass though mechanism. The company 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.

4.10 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.

4.11 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 approach at the draft determination

4.12 Concerns with a pass-through remain the same as that set out by the CC 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[30] payments for reconnections during periods of severe weather.[31]

4.13 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.

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

4.15 We reviewed historic spend for the 14 GB DNOs over the last 13 years and 12 years of NIE Networks severe weather spend. The difference in incident occurrence is marked.

[30] GSS = Guaranteed Standards of Service.
[31] See the consultation paper on amending GSS, para 5.17 and 5.18, p22.

	GB DNOs	NIE Networks
Total observations	182	12
Number of SW non-events[32]	168	3
% of non-events	**92.3%**	**25.0%**

Table 4.1: Comparison of frequency of severe weather cost incidents

4.16 Where GB DNOs are experiencing relatively few severe weather events, NIE Networks has incurred spend in 75% of the last 12 years. Ofgem are therefore proposing a zero allowance and a pass-through of certain efficient costs when severe storm damage occurs.

4.17 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.

4.18 Our draft approach proposed 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.

4.19 We further noted that the NIE Networks request of £0.93m/a is well in excess of the RP6 run rate (to that date) by some 44%. We did not consider this justified. Our proposal was to adopt the average cost run-rate of the last 11 years (from 2013 to 2023) of available data. This was £0.64m/a or £3.84m over the RP7 period. Use of the historic run-rate also aligned with NIE Networks own proposals in RP6.

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

UR approach at the final determination

4.21 A number of responses were received on this issue from stakeholders. CCNI felt that a pass-through mechanism should be avoided, whilst others supported the approach.

4.22 Various stakeholders also felt that the disallowances should be reinstated or that we had failed to consider the increased frequency of these events going forward. The arguments and our responses are detailed in Table 4.2 below.

[32] In this table a non-event refers to a year in which no severe weather costs were incurred.

Cost Category	Severe Weather
Issue	**Severe Weather**
Amount Requested in RP7	**£5.6m**

NIE Networks Response

Within Chapter 12 (Price Control Design) of their draft determination response, NIE Networks raised various concerns with UR's position. This included the following:

- It is incorrect that the CC's concerns at RP5 are relevant, since NIE Networks' proposal for RP7 is that all qualifying severe weather events would be subject to a pass-through allowance.
- Incorrect to consider that the proposed introduction of new GSS payments for severe weather events could exacerbate unnecessarily high costs.
- Ofgem did not consider any adverse risks of such payments when deciding to allocate severe weather costs as a pass-through allowance.
- Ex-ante allowances granted for RP5 and RP6 have been inadequate.
- Due to climate change, events are predicted to occur more frequently in future such that ex-ante funding is likely to be inadequate.
- Adoption of a pass-through cost allowance for RP7 would remove the uncertainty for both NIE Networks and consumers.
- Proposal to base the proposed ex-ante allowance on the average cost run-rate of the last 11 years (from 2013 to 2023) is also inappropriate. It fails to account for increased frequency or take account of RPEs.
- Proposed ex-ante allowance could undermine the company's incentive to respond as quickly and comprehensively to severe weather events.
- The GSS consultation proposes changes to the current exemptions for severe weather events. These changes would align the definition of an event with the GB definition. NIE Networks considers that it would be inappropriate for UR not to adopt the same updated definition of a severe weather event in NIE Networks' licence conditions.
- In the event that UR implements an ex-ante allowance in its final determination, NIE Networks requests that the allowance is based on the average run-rate for the RP6 period and is increased to £6.38 million for RP7 to take account of costs incurred as a result of Storm Isha.

UR Views

In response to the various NIE Networks concerns raised, we would make the following points:

- Concerns with a pass-through remain the same as that set out by the CC at RP5.
- Whilst it is accepted that there was a particular issue with the £1m severe weather threshold at RP5, CC also stated as a general principle that, *"wherever possible we should avoid cost pass-through which could expose consumers to unnecessarily high costs".* (RP5 FD, para 10.343) This continues to apply.
- It is not clear why NIE Networks do not consider that at least conceptually the new GSS proposals do not raise a risk of exacerbating costs with a pass-through framework.
- Reference to Ofgem not considering cost pass-through as an adverse risk is flawed as this treatment only applies to 1-in-20 year events (i.e. where a DNO experiences 42 times its mean daily HV faults within a 24-hour period). A cost pass-through does not apply to most of the applicable GSS weather events in GB.
- NIE Networks cost pass through proposals would apply to a larger amount of costs and more overlap with GSS penalty payments.
- We accept that spend has outstripped allowances in RP5 and RP6. This is the rationale for adopting the historic run-rate to account for this overspend.

- Whilst it is possible that the frequency of events may rise, we would also note the following key points:

    1) In their ED-2 Core Methodology document Ofgem stated that, "Our current position is to not set a cap. This is because SW 1-in-20 costs have historically been low and, because the frequency and impact of severe weather are not expected to significantly increase over the course of RIIO-ED2." (para 6.174)
    2) Average costs for NIE Networks for the six-year period (2013 to 2018) have fallen from £0.83m/a to £0.78m/a in the most recent six-year period (2019 to 2024). This suggests an upward trend is not inevitable.
    3) NIE Networks do not seem to have factored into account the increased resilience of the network from the additional network investment which would be expected to mitigate the impact of climate change events somewhat.

- Adoption of a cost pass-through would in no way remove uncertainty for consumers. It would in fact place all the risk on the consumer and as CCNI note, would remove all incentive on NIE Networks to be cost efficient in managing these events.
- NIE Networks has highlighted a concern that the long-run average is inappropriate as it does not take account of RPEs. When considering RPEs over the 12-year period (from 2013 to 2024) it can be seen that there is a negative RPE impact compared to RPI. This suggests that the historic run-rate may in fact be overstating future allowances.
- In terms of reconnection time, we are of the view that the GSS introductions mitigates the risk of not responding quickly or comprehensively.
- Amending the definition of a severe weather event is not something which has been consulted upon at the draft determination, nor something NIE Networks suggested in their plan. We are not minded to change at this time.
- We have however included severe weather costs for 2023-24 in the long-term run-rate. This includes the Storm Isha impacts.

Other Stakeholder Responses

By way of other stakeholder responses, the following views were stated:

- (CCNI, p31) We agree with UR's proposal not to treat as a pass-through. This would have removed all incentives on NIE Networks to be cost efficient to manage the impact of these events, which are likely to increase in likelihood and magnitude.
- (Kelvatek, p9) Exclusive focus on historic spend rates, may be considered reductive as it overlooks critical factors including the increasing frequency of severe weather events.
- (Kelvatek, p10) The failure to reference Storm Arwen and its associated learnings represents a missed opportunity to adopt insights from the GB regulatory framework.
- (Kelvatek, p11) While historic spend rates offer valuable insights, they should not be the sole determinant for future investment decisions. It is imperative to adopt a comprehensive approach that considers factors such as climate resilience, enhanced forecasting capabilities, and technological advancements.
- (UFU, p5) Severe weather is entirely outside of our control and whilst it is part and parcel of farming, it is becoming more prevalent, therefore we consider it unreasonable to set this as ex-ante, with unreasonable risk for our members.
- (Unite, para 5.7) UR reduction appears to be a false economy – meaning less resilience to increasingly likely extreme weather events and also poses the likelihood that corners will be cut on health and safety.
- (Unite, para 5.7) Special / adequate provisions need to be built in for extreme weather events.

UR Views

In relation to other stakeholder feedback, we would respond as follows:

- We agree with CCNI that a cost pass-through would not be appropriate in this circumstance as it places too much risk on consumers.
- We accept that lessons learned from Storm Arwen should be considered. Whilst this decision is solely related to the severe weather cost allowance, it should not be considered as being made in isolation. For instance:

    1) RP7 is allowing for additional tree-cutting costs to increase network resilience (in line with recommendation 1 of the Storm Arwen report).
    2) RP7 is developing a variety of consumer metrics which will eventually result in targets for improving consumer experience (in line with recommendation 12 of the Storm Arwen report).
    3) RP7 is providing innovation funding for research into real time fault level monitoring and management (in line with the direction of travel of recommendation 6 of the Storm Arwen report).
    4) We are separately consulting on changes to the GSS framework (in line with recommendation 17 of the Storm Arwen report).

- It is our view that many of the lessons learned has been incorporated into RP7, though perhaps could have been made clearer.
- It is not entirely certain why the UFU consider that an ex-ante allowance would pose an unreasonable risk for their members. Our proposal actually shares the risk between DNO and consumer, whereas the company suggestion would unfairly impose all risk on the consumer.
- There is no reason to assume that this decision will have a negative impact on health and safety. This has not been the case in the past under the same framework and we would expect a reasonable and prudent operator to always place significant emphasis on safety.
- We are also of the view that the additional capital investment will aid network resilience, mitigating the impact of future events.

UR Final Views

- In conclusion, we have determined to maintain the draft position of using long-term (2013 to 2024) average costs to set RP7 allowances for severe weather.
- The only change is to include the latest year information and Storm Isha costs.
- The result is an uplift of the run-rate from **£0.64m/a** to **£0.80m/a**. This gives a total RP7 allowance of **£4.82m** for severe weather events.
- We are also proposing that these costs are split between opex and capex as per the historic percentages, rather than 100% allowance to capex as per the NIE Networks business plan.
- Within their response, NIE Networks appear to agree with this sentiment when they state that, “NIE Networks supports that this allocation should be corrected in the Final Determination to a 40%:60% split between opex and capex respectively per the historic trend.” (Main Response, p309, para 12.7)

Final Recommendation	£4.8m

Table 4.2: Review of severe weather costs

Business rates

4.23 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.

4.24 It has suggested that we adopt 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.

4.25 NIE Networks has forecast spend of £93m over RP7 across the distribution and transmission business on rates. We forecasted an allowance of £87m for the draft determination.

4.26 For the RP7 final determination we have assumed an allowance of £90m based on the latest year data.

Licence fees

4.27 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.

4.28 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 our expanded role in relation to energy transition arising from the DfE energy strategy.

4.29 The final determination makes provision for annual licence fees of £2.8m per year in RP7, though this will be adjusted for actuals throughout the period.

Income lines

4.30 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.

4.31 The business plan forecasts income rising from £5.3m per year in RP6 to an average of £5.6m in RP7. Following clarification post the draft determination we accept that the income forecasts are reasonable. For the final determination, we have accepted the business plan proposals.